Universiteit Leiden

ICT in Business

Knowledge Valorization Process Model

The Design of a Practical Process Model
on the Subject of
Knowledge Valorization

Name: ing. Pieter Cleton
Student-no: 13 12 081

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1st supervisor: Dr. H.T. (Hans) Le Fever
2nd supervisor: Dr. R.M. (Robert) Verburg

MASTER'S THESIS

Leiden Institute of Advanced Computer Science (LIACS)
Leiden University
Niels Bohrweg 1
2333 CA Leiden
The Netherlands

Master Thesis Research Project

"Knowledge Valorization Process Model"

The Design of a Practical Process Model

on the Subject of

Knowledge Valorization

A research on:

The design of a practical Knowledge Valorization Process Model (KVPM), helping entrepreneurs to develop knowledge into successful business.

A qualitative, exploring, design study, and case learnings based, research.

Based on the actual valorization efforts in the Netherlands.
Reviewing and inspecting the knowledge and learnings from fourteen cases.
Designing a practical Knowledge Valorization Process Model.

Author: ing. P. (Pieter) Cleton (mob. +31 6 53 45 88 61, email pcl@diagram.nl).

Master: Master of Science, ICT in Business, Student ID: 13 12 081.

1st Supervisor: dr. H.T. (Hans) Le Fever, Leiden University, LIACS, NL.
2nd Supervisor: dr. R.M. (Robert) Verburg, Leiden University, LIACS and TU Delft, NL.

Reviewer: P. (Paul) Lelkes MBI BBA, Avans Hogeschool, Lectureship "Sustainable Innovation".

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The design of a practical Knowledge Valorization Process Model, helping entrepreneurs to develop knowledge or an idea into successful business.

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SUMMARY

This research paper is about the design of a practical process model on the subject of *Knowledge Valorization*.

Knowledge Valorization in this research is viewed as a process that structurally describes and facilitates the development of knowledge or idea into successful business, also referred to as doing ventures or venture management.

The goal is the design of a **practical Knowledge Valorization Process Model** (KVPM), helping entrepreneurs to be more successful with the development of knowledge or idea into successful businesses.

The assumption is that such a practical process model would:
(a) result in more successful development of knowledge or an idea into successful business.
(b) allow for creating automated process support (ICT-system).

This assumption is not verified or tested, but taken as the starting point.
The only goal of this research is to design this practical process model.

The central question of this research is:

What is a practical Knowledge Valorization Process Model?

The research is carried out as a combination of literature, explore, design and multiple case study, qualitative of nature and practice-oriented, using:

(1) a literature study on knowledge valorization as a theme and on knowledge valorization process models.

(2) an exploration and design study using the Design-by-Analogy (DbA) technique, seeking analogy between the KVPM and existing alike practitioner process models in the methods: MSP (Managing Successful Programmes), PRINCE2 (PRojects IN Controlled Environment) and ASAP P&S (Accelerated SAP Phases & Streams implementation method).

(3) a multiple case study using Cros-case synthesis technique, seeking *categories of expertises* within the fourteen cases.

The created *Knowledge Valorization Process Model* v1.0 (KVPM) is the final process model that is practical usable by entrepreneurs and ready for automation.

ing. Pieter Cleton, November 2015.

FOREWORD and READING GUIDE

Dear reader,

After four years of perseverance, it is with great pleasure that I present this master thesis as the final effort to obtain my master of science degree.

I thank everyone who helped me this four years, especially my wife Tony and my son Jeroen (now 15), who had to suffer from "…daddy again is sitting long hours behind the computer", also my friend Paul Lelkes, always available for valuable feedback.

"The Distance Between Your Dreams And Reality Is Called Action"

READING GUIDE

Chapter 1 introduces the theme and its origin.
Valorization, especially *knowledge valorization* is in the spotlight all the time and a lot of efforts are ongoing in the field and environments of R&D institutions.

Chapter 2 focuses on the problem.
It describes the context of *knowledge valorization*, summarizes the literature research, presents the research goal and conceptual model. It ends with the research question.

Chapter 3 introduces methodology and research approach.
The used methodology is underpinned and described. The research approach is explained and further detailed.

Chapter 4 focuses on the research design.
The choices on research design are underpinned, data sources are described and the chapter finishes with the data source collection process.

Chapter 5 describes the data collection and processing.
In this chapter, a first initial model based on literature research is designed. Common structure elements from best-practice methods are established and the case learnings are applied to the design of the Knowledge Valorization Process Model (KVPM).

Chapter 6 reports the results.
In this chapter author presents the results of the research, being the final version v1.0 of the KVPM itself.

Chapter 7 is about the main conclusions.
Conclusions are summarized and put into context.

Chapter 8 holds the items to be discussed.
This is the last chapter and presents suggestions for further research.

ing. Pieter Cleton, November 2015.

1. INTRODUCTION

This research paper is about the design of a practical process model on the subject of *Knowledge Valorization*.

1.1 Society trends

The Dutch government is stimulating the production of new knowledge and to commercialize this new knowledge through her so called “Topsector Policy” [author: in Dutch: “Topsectoren beleid”]. They also call for “investment in the Dutch earning capacity”, (WRR, 2013). They encourage academic research as well as innovation from the business and they also encourage people (i.e. entrepreneurs) to start businesses (start-ups) based on the new knowledge or idea’s. They call this “Knowledge Valorization”. To emphasizes importance the government, NGO’s and business sector signed a special contract called “Nederlands Kennis- en innovatiecontract 2014-2015, Bijlage bij Voortgangsrapportage Bedrijvenbeleid 2013 BEDRIJVENBELEID IN VOLLE GANG”.

However the success rate of entrepreneurs starting a business based on new knowledge is low. According to the Swiss board member Raymond Wicki MBA of the Swiss private equity firm “Invision” and board member of Fides, they receive appr. 350 candidate projects with a financing request a year (one per day), of which they select appr. 10 candidate projects, of which only two were selected. He mentioned that appr. 90% directly ended up in the dust bin because at the first glance they were considered not serious. These candidate project reports and presentations lack structure, information, proper research and clear proposal.

1.2 Personal interest

Author was in the period 2012-2014 involved in several attempts to commercialize new knowledge, called Ventures. Author was amazed by the fact that no one seemed to use or has a process model or plan which might guide them to do the correct steps at the right time and address the right topics generating the right deliverables. Everyone seemed to focus only on those deliverables actually addressing the subject matter content of the venture and scattered detail information on business, marketing and financing. Everyone had their own approach, own format and own content.

In that period author did extensive research to find a proper general used knowledge valorization process model but could not find any. Author concludes from observation (among others: the Mountain Club “Investors’ Summit Liechtenstein 2013”, Get in the ring: International Final 2014 at Rotterdam, Innovation for health 2014) that most initiatives were driven by the enthusiasm and actions of the entrepreneur himself, trying to get interest in the product or idea from everyone who wants to listen to him.

As a program- and project management professional, author speculates that the lack of a proper process model for the valorization process, might be a major reason for the large amounts of failures. In analogy of a house building process, in general it is almost impossible to end up with a proper house, if a staged work plan and process management plan is missing.

For both reasons, society trends and personal interest, author decided to dedicate this master thesis research project to the task of delivering a first Knowledge Valorization Process Model, based on theory and fourteen cases on ventures.
For this research, author assumes that a practical Knowledge Valorization Process Model (KVPM) will greatly help entrepreneurs and start-ups, in their guidance and direction to transform their knowledge or idea into successful business. And therefore helping to significantly increase the number of successful ventures. This assumption is not further verified or researched, but taken as the starting point of this research.

2. PROBLEM

This chapter defines the problem, describes the context, reviews literature, sets the conceptual model and defines the research main and sub questions.

2.1 Problem finding

2.1.1 Problem observation

Since there is no clear structure and organization on how to do Knowledge Valorization, how to 'valorize', this leads to confusion, chaotic approach and small rate of successes. The only person who feels the pain of failure, is the entrepreneur himself. They are all subject matter experts in their field of knowledge and they are not business developers, program or project managers. They do not see what author sees and therefore blame themselves on causes that are not root causes for failure e.g. behavior, bad presentation, or product specifications. They would have a much better chance if they had a practical well-defined overall plan on how to valorize, acting as a roadmap, specially designed to guide entrepreneurs and businessmen to successful business.

2.1.2 Problem details

Being involved from 2012 up till now (2015) in the "world of innovation", business development, startups, entrepreneurs, venture capital firms, legal companies, entrepreneurship education, author continuously was amazed about the complete chaos in which people were trying to do their 'things'.

Many use the term "Valorization or Knowledge Valorization", where ever they think it is possible and/or appropriate. Author observed:

- many use the term "Valorization" without putting any specific meaning to it.
- many 'translate' this term to their vision, work, business, or whatever they feel is appropriate within their implicit context.
- many are busy with organizing people or assembling small organizations of people, that are going to do 'something'.
- no one seems to have some sort of plan, process, checklist or any overview about what to do, when, how, with whom.

To author it all looks like uncoordinated "isolated actions"; everyone is doing some process on an ad hoc basis of which they think is relevant, in their specific context.

Searching for relevant knowledge

Author frequently searched for Knowledge Valorization literature and related subjects on the internet using all kinds of different keywords. Author found some literature, but they were on specific topics. Author could not find a general holistic approach.

Process model need
As a senior program and project manager, author knows that in order to reach a certain goal, it is important to have a general holistic approach and plan, with:
- clear defined goals and vision, so to know on what to actually work on and aim for.
- clear defined deliverables, so to know what one needs to produce or to do.
- clear defined processes, paths, steps and gates, so to know what to do when.
- clear defined actors, so everybody knows what to do with whom.
- clear direction and governance structure, so direction and governance is defined.

2.1.3 Problem definition

Author's observations and experiences assume the next root problem: In the world of "*knowledge valorization*", a practical Knowledge Valorization Process Model (KVPM) is missing. This assumption is not further researched but taken as the basis of this research.

Problem definition
The success rate of entrepreneurs and businessmen in executing the valorization process is low, due to the lack of a *Knowledge Valorization* process model.

2.1.4 Research relevance

Business relevance
This practical Knowledge Valorization Process Model (KVPM) helps entrepreneurs and businessmen to valorize knowledge in a structured and systemized way, resulting in a much better process and a higher success rate.

Academic relevance
The academic relevance is twofold. First the new KVPM will add to the body of knowledge on *Knowledge Valorization*. Second the usage by academic institutes of the KVPM will help them better to valorize their Research & Development knowledge.

Master *ICT in Business* relevance
The master's focus is on two elements: ICT and Business. First the business element. This is the structuring and systemizing of **business requirements** on the topic of *Knowledge Valorization* leading to a structured KVPM. Second, the ICT element is **the automation** of the structured KVPM into an ICT software system. Due to research time and size limits, author leaves the automation to successor researchers.

2.2 Context and research Goal

Context of Knowledge Valorization
Knowledge Valorization Process Model in this research is viewed as a process or roadmap, filling the current **Gap:** "What to do, when, by who", i.e. that structurally describes and facilitates all the needed actions, to actually **execute** the *Knowledge-to-business* valorization process, i.e. to develop knowledge (or idea) into successful business, this is visualized in Figure 1.

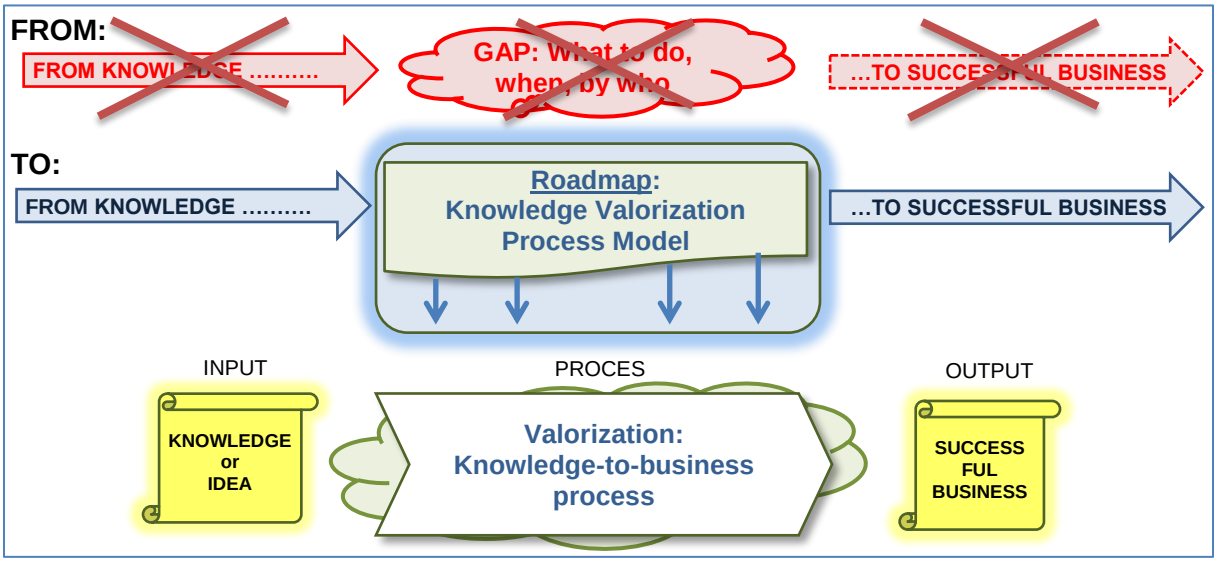


Figure 1: Authors own work: The Context of *Knowledge Valorization*

So the research is not about e.g. establishing a value proposition, not about how to make a business plan, not about pitching a venture capital firm, not about funding, not about business modeling, not about the minimum viable product, not about business design, not about marketing channels, not about customer segments, not about [..and so on].

Research Goal
The research goal is the design of a practical Knowledge Valorization Process Model (KVPM), helping entrepreneurs to be more successful with the development of knowledge or idea into successful businesses. So it is about filling the GAP, by establishing a Roadmap that guides the entrepreneur in actually **doing** the valorization, the development of knowledge or an idea into a successful business.

Assumption
The assumption is that such a practical Knowledge Valorization Process Model will:
(a) result in more successful development of ideas into successful businesses.
(b) allow for easy and efficient automated process support (ICT-system).

These assumptions are not verified or tested, but taken as the starting point.

2.3 Literature research

This literature research first reviews the literature only for definitions that are available on the theme “valorization”. Then “knowledge” and “process model” are explored. In a second review, author filters literature on further content related to valorization. Then author introduces new categories of Valorization, builds and visualizes the process context map, and scopes the research.

Literature collection
First, author used a recent (Mai 2015) and extensive literature review (2015, Debets and Westerveld), spanning 65 literature references from the year 2000 until early 2015.
Second, author did on June 5th 2015 a more general search with Google using the keywords: “valorization process model thesis pdf”. This revealed nine other documents on valorization.

2.3.1 What is valorization?

Valorization is a word that is often used by academics in the context of academic research results. It is about “doing something useful” with the knowledge out of research, where this “something” needs to “add value to or be important for society”.

The process or roadmap to be designed, needs to cater for valorization. So what is valorization? And why is it important?

Importance of knowledge and valorization
Knowledge and valorization of it, is seen by the Dutch government of great importance. They have a special organization called WRR that researches and advise the government on how to act. This WRR, *Scientific council for government policy,* writes in her 2013 report synopsis no. 90 “*Towards a learning economy*” (2013) the challenges that the Netherlands faces in increasing its earning capacity and how to improve this. The WRR describes three challenges of which the last one is how to cope with the rapidly changing, multifaceted nature of modern innovation processes. They write among others:

> *“Innovation can result from good R&D, but also from more efficient production methods developed while the work is on its way, from better organized production chains, from original marketing, or from a much-needed service. The knowledge required for these various forms of innovation can come from many different sources and anyone who is involved can drive them forward.”*
>
> *“Let us begin by analyzing the new concept of innovation. …… ……Increasingly, then, the emphasis is shifting to circulating and absorbing existing knowledge.”*
>
> *“In the WRR’s view, government’s main task is to develop organizations, relationships and career patterns in a way that maximizes knowledge circulation. The focus cannot be on knowledge generation alone; it will be just as important to see that that knowledge is properly absorbed and circulated. …..”.*

"..... On the other hand, knowledge will become more important as a basic attitude. People have to be able to absorb new knowledge quickly and make it productive."

From the above, author concludes that the Dutch government primary driver is "Earning capacity is key" and a major policy (challenge no. 3) is to valorize knowledge because it is vital for the current and future economy.

Also Cleton (2012) in his paper "*What drives the world in 10 years?*" emphasizes the importance of knowledge and to do something with it. Based on a scenario thinking approach, Cleton developed a *Scenario thinking model* called P5ME in which two expanding main future society drivers occur: Knowledge and Products. In this P5ME model the knowledge is most crucial, since this is the basis of the products. Cleton connects directly the "*production of knowledge*" to the "*production of goods and services*". This directly addresses the knowledge valorization' its importance.

Valorization definition
Valorization is not a well-known word and not a common known concept. Therefore author searched for the definitions that are used today. Since the word valorization is mainly used in the academic world, author focused on the definitions used by the academic world.

From literature author found different definitions. Examples are:

1. Debets and Westerveld (2015) used the VNSU (2013, p.12) qualified as a broad definition of valorization leading their paper:
"The process of creating value from knowledge through making knowledge suitable and/or available for economical and societal exploitation and make this knowledge suitable for translation into competitive products, services, processes and new activities"

2. The VNSU itself (2013, p.12) starts -before suggesting their own definition-, with a definition from the Landelijke Commissie Valorisatie:
"The process of creating value from knowledge through making knowledge suitable and/or available for economical and/or societal usage and to translate into competitive products, services, processes and new businesses"

3. Noorda et al. (2015) in her proclamation Samenwerken aan valorisatie: "kennis verzilveren" defines valorization as:
"The process of creating value from knowledge, valorization, is a complex and interactive process, that makes knowledge suitable and available for usage in practice"

4. Rob Martens (2012) from the Open Universiteit Nederland uses in his essay in Onderwijsinnovatie of December 2012 the definition from www.valorisatie.nl:
"Valorization is, in short, to cash on the scientific knowledge and technology"

5. Marjoleine van Egeraat (2014) refers in her masterthesis Act Regional Think Global, to the first definition, first used and defined in the dutch Wetenschapsbudget 2004:
"Valorization is the transformation from the scientific results into economic value"

6. Marjo Stevens writes in the "Contextnotitie valorisatie van kennis" (2015) to the Academiedirectors of Avans Hogeschool members of the "Stuurgroep visietraject Valorisatie": *"… A clear definition of valorization and a broad vision and a strategy on valorization is missing at many universities and graduate schools*."

7. Gunning-Schepers (2014) writes in the University policy paper "Valorisatie bij de Universiteit van Amsterdam":
"*To make the knowledge from scientific education and research suitable or available for economical or societal and also in using through (participation) competitive products, services, processes and new businesses"*

8. Gibcus, P. et al. (2014) uses in "Benutten vermarkten van kennis, midterm review valorisatieprogramma Panteia":
"The process of creating value from knowledge through making knowledge suitable and/or available for economical and/or societal usage and to translate into competitive products, services, processes and new businesses"

9. Frank Ziegele (2013) uses in his presentation "Indicators of valorisation" held at the EURASHE 23rd Annual Conference, 9-10 May 2013, Split (Croatia) the definition from van Droogte et al. (2013) Valuable – Indicators for valorisation:
"Valorisation is the process of creating value from knowledge by making knowledge suitable and/or available for economic and/or societal use and translating that knowledge into competitive products, services, processes and entrepreneurial activity"

10. Karel Luyben (2014) Rector MagnificusTU Delft writes in the "Valorisation Agenda TU Delft 2020":
"The process of creating value from knowledge by making knowledge suitable and/or available for economic or social purposes, and by ensuring that it can be translated into competitive products, services, processes and new business activities. Valorisation mainly concerns the transfer and application of technical/scientific knowledge, with the aim of contributing to sustainable, innovative solutions to social issues."

Summary table
The next Table 1 summarizes the key elements in the found valorization definitions:
- The column *Process* shows the process that is mentioned.
- The column *Purpose* shows the goal that is mentioned.
- The column *Resulting in* shows the results (or outcome) that is mentioned.

Definition	***Institute/Source***	***Process***	***Purpose***	***Resulting in***
1. Debets	VNSU	Process of creating value	Economical and societal exploitation	Competitive products, services, processes and new activities
2. VNSU	VNSU	Process of creating value	Economical and/or societal usage	Competitive products, services, processes and new businesses
3. Noorda	Proclamation	Process of Creating value	Usage in practice	Knowledge suitable and available
4. Martens	OU NL	In short to Cash on	Cash	?
5. Egeraat	Master thesis	Is the transformation	Economic value	Economic value
6. Stevens	Avans	..missing…	…	…
7. Gunning	Univ. A'dam	..make .. suitable/available	Economical or societal exploitation	Competitive products, services, processes and new businesses
8. Gibcus	Panteia	Process of creating value	Economical and/or societal usage	Competitive products, services, processes and new businesses
9. Ziegele	EURASHE	Process of creating value	Economic and/or societal use	Competitive products, services, processes and entrepreneurial activity
10. Luyben	TU Delft	Process of creating value	Economic or social purposes	Competitive products, services, processes and new business activities

Table 1: Authors own work: Summary of key elements in valorization definitions

From Table 1 author draws the following conclusions:
A. From the column *Process*:
1. Valorization is a process +{to Cash; transformation; make}
2. The process is creating value +{Cash; Transformation; make suitable/available}
3. The input is: *from knowledge*.
4. The means (.. to an end) are: *"through making knowledge suitable and available … and… to translate into …"*

B. From the column *Purpose*:
4. The purpose is for economic and/or societal/social exploitation/usage +{usage in practice, cash, economic value, purposes}

C. From the column *Results in*:
5. The results (..to an end) are competitive products, services, processes and new activities/business +{entrepreneurial activity, business activities}

From the common elements in Table 1, author's **definition of Valorization** is:

Valorization is the process of creating value from knowledge through making knowledge suitable and available for economic and/or societal usage (including exploitation) and to translate into competitive products, services and new business and/or activities.

Valorization decomposition
To get to hearth of the matter, analyzing the definition is the key to understanding what valorization is about. The definition has a main section and two parts:

Valorization is:

Main sentence:
*the **process** of **creating value** from knowledge.*

Part one:
through making knowledge suitable and available ***for economic and/or societal usage (including exploitation).***

Part two:
and to translate into ***competitive products, services and new business and/or activities.***

Because valorization is defined as a process, it can be modeled by the IPO-model (input-process-output) and also according to "the means to an end", as follows:

1. An input: (from) knowledge
2. A process: (the process of) Creating value
3. An process activity description ("the means"): (through) making knowledge **Suitable** and **Available** for economic and/or societal usage (incl. exploitation) and to **Translate into**
4. An output ("to an end"): (into) Competitive products, services and new business and/or activities. [author: note the 'and' operator]

This research goal
This research goal is about designing the process model, a 5. ROADMAP that helps and guides those involved on which steps to take, when, what, and by whom must be done, so that this "making" and "translating" can be done.

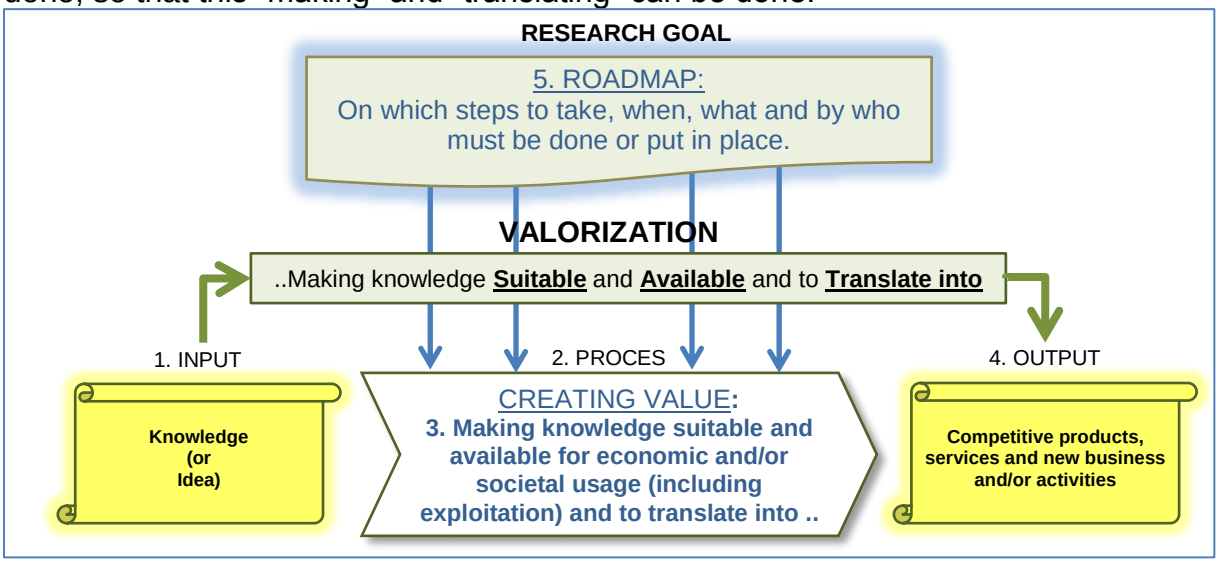


Figure 2: Authors own work: Visualization of *Valorization* and the research goal

2.3.2 What is knowledge?

The roadmap to be designed, needs to cater for the specifics of the valorization, which in this research is “knowledge”. Also *Knowledge* is the input on the Valorization process. So what is knowledge? In the next paragraphs author describes several views on *Knowledge* and summarizes the result in a definition.

2.3.2a Knowledge according to Wikipedia
On August three 2015, Wikipedia (https://en.wikipedia.org/wiki/Knowledge) describes knowledge as follows:

> ***Knowledge*** *is a familiarity, awareness or understanding of someone or something, such as facts, information, descriptions, or skills, which is acquired through experience or education by perceiving, discovering, or learning.*
>
> *Knowledge can refer to a theoretical or practical understanding of a subject. It can be implicit (as with practical skill or expertise) or explicit (as with the theoretical understanding of a subject); it can be more or less formal or systematic.[1] In philosophy, the study of knowledge is called epistemology; the philosopher Plato famously defined knowledge as "justified true belief", though "well-justified true belief" is more complete as it accounts for the Gettier problems. However, several definitions of knowledge and theories to explain it exist.*
>
> *Knowledge acquisition involves complex cognitive processes: perception, communication, and reasoning; while knowledge is also said to be related to the capacity of acknowledgment in human beings.[2]*

Knowledge in this research (1)
Knowledge is in fact everything a human knows about something. It can also be meta-knowledge: knowledge about knowledge, e.g. the knowledge we have about missing knowledge in certain areas.

2.3.2b Knowledge according to Anderson et al. 1-2
Anderson et al. (2000) in his "*A taxonomy for learning, teaching and assessing, a revised the taxonomy of Bloom*", defines and classifies knowledge along two axis:

- Axis one, The Knowledge Dimension, describes the four types of knowledge: Factual, Conceptual, Procedural and Metacognitive (knowledge about yourself).

- Axis two, The Cognitive Process Dimension, describes the six knowledge levels: 1. Remember, 2. Understand, 3. Apply, 4. Analyze, 5. Evaluate, 6. Create. Level 1 through 3 are categorized as low-order thinking skills. Level 4 through 6 are categorized as high-order thinking skills.

Figure 3: Classifying knowledge along two axis and tiles

Source: Iowa State University of science and technology, Center for Excellence in Learning and Teaching, captured in August 3, 2015.

In this model *The Knowledge Dimension* axis has four types of knowledge, where the metacognitive type is not relevant for this research, because it addresses knowledge about yourself.

Knowledge in this research (2)
For this research, knowledge can be Factual, Conceptual or Procedural.

2.3.2c Knowledge according to Anderson et al. 2-2
In this model *The Cognitive Process Dimension* axis has five levels of knowledge. For each level Anderson et al. defined a list an what one can do with knowledge, the verbs belonging at a certain knowledge level.

Table 1. The cognitive processes dimension — categories, cognitive processes (and alternative names)

lower order thinking skills → higher order thinking skills

remember	understand	apply	analyze	evaluate	create
recognizing (identifying) recalling (retrieving)	interpreting (clarifying, paraphrasing, representing, translating) exemplifying (illustrating, instantiating) classifying (categorizing, subsuming) summarizing (abstracting, generalizing) inferring (concluding, extrapolating, interpolating, predicting) comparing (contrasting, mapping, matching) explaining (constructing models)	executing (carrying out) implementing (using)	differentiating (discriminating, distinguishing, focusing, selecting) organizing (finding coherence, integrating, outlining, parsing, structuring) attributing (deconstructing)	checking (coordinating, detecting, monitoring, testing) critiquing (judging)	generating (hypothesizing) planning (designing) producing (construct)

Figure 4: Verbs in the six knowledge levels of the Cognitive Process Dimension
Source: Iowa State University of science and technology, Center for Excellence in Learning and Teaching, captured in August 3, 2015

Knowledge in this research (3)
From the definition of valorization, the main sentence is the input for valorization being “knowledge”, correlates to *Remember* and *Understand*.
- Part one (the means …) is about “*Making knowledge suitable and available*” and this correlates to *Apply*.
- Part two (…to an end) is about “*translate into*” and this correlates to *Analyze*, *Evaluate* and *Create*.

2.3.2d Knowledge according to Nonaka et al
Another viewpoint on knowledge is given by Nonaka (1995). He describes in *The Knowledge Creating Company*, the knowledge conversion process in his SECI model, based on two types of knowledge: Tacit and Explicit.

Knowledge in this research (4)
Knowledge in this research is explicit.

2.3.2e Knowledge according to Boersma
Boersma (2006) describes four types of knowledge: Facts, Procedural, Interpretative and Background. Boersma classified knowledge in an organization, as follows:
1. Needed knowledge: all knowledge needed to run a company
2. Specific knowledge: all knowledge specifically for a product or branch
3. Scarce knowledge: all knowledge that is difficult to get
4. Crucial knowledge: all knowledge that makes a company unique.

Knowledge in this research (5)
Knowledge in this research is crucial knowledge.

2.3.2f Knowledge summary in the context of valorization
Finding different definitions and types of knowledge the question arises what knowledge is in the context of valorization, where valorization is:

> *Valorization is the process of creating value from knowledge through making knowledge suitable and available for economic and/or societal usage (including exploitation) and to translate into competitive products, services and new business and/or activities*

Knowledge summary.
First knowledge is everything a human knows about something. Second knowledge must be explicit otherwise it cannot be made suitable and available for creating value with it. Third it can be Factual, Conceptual or Procedural. And fourth it must be at level 3 Apply (apply readiness) or higher because the 1. Know and 2. Understand must already be done by the academic or R&D company (e.g.: TNO). Fifth it must be crucial, to create a better proposition.

2.3.2g What Knowledge valorization is about
Now it is clear for this research what types of knowledge exists. Then the questions arises what is the knowledge about?

According to the definition is has two parts connected with the 'and' operator:
> *.. making knowledge suitable and available for economic and/or societal usage (including exploitation)*
> *.. and to translate into competitive products, services and new business and/or activities.*

According to the WRR (2013) the purpose is to get more businesses, more jobs and startups, in general: to enhance the earning capacity of the Netherlands.

Author concludes that "*making knowledge suitable and available*" is not enough; this does not enhance the earning capacity of the Netherlands. It must also ("*..and..*") be translated *"..into competitive products, services and new business and/or activities.*" Therefore the knowledge is about everything that enhances (or helps to enhance) the earning capacity of the Netherlands, e .g.: enhancement of the value chain, new

value chains, a new method, new product, new business model, new earning model, etc.

Examples of knowledge-based enhancements are:
- Added Value Chain: Process and information enhancements (incl. COPAFIJTH)
  3D printing, Manufacturing automation, Solar cells printing on plastics
- Product: Product enhancements
  Car navigation, Lane departure warnings, Internet of Things
- Business: Business operations enhancements
  On-line web based sales, new business earning models (freemium)
- Market: Market and marketing enhancements
  Social media, Blue Ocean Strategy, Big data
- Technology: The technology as enabler of doing things better or different
  Streaming video (Netflix), Cellphone 4G, Neural networks.

2.3.2h Knowledge valorization is about: definition
Based on the WRR policy (i.e. *earning capacity*) and the targeted outcome in the definition of valorization ("*..translate into ..*"), author for this research report created the next definition of what **Knowledge Valorization** is about:

> *Any knowledge that enhances or helps to enhance the earning capacity of the Netherlands, through the establishment of a successful business, which introduces competitive products, services and new business and/or activities.*

2.3.3 What is Successful Business?
Having defined what the process *Valorization* is, what the definition of *Knowledge* is being the input in the Valorization process, author defines the output of Valorization as *Successful Business*.

Author did not research this theme, but used existing parts of definitions and authors own logic reasoning as follows:
First , author selected from the definition of Knowledge Valorization the part:
"..that enhances the earning capacity of the Netherlands ..",

Second, author reasoned that (a) Knowledge Valorization Ventures needs funding from e.g. Venture Capitalists (VC) supplying financial support, who steps in and at a certain moment in time, wants to step out, capitalizing on the VC's investment.
(b) This 'step out' (e.g.: doing an IPO, Initial Public Offering, i.e. offering shares at stock exchanges), is actually a 'handover' of the Venture's funding to society, thereby actually ending the venture and leaving the resulting business to society.
(c) The business then must run as a 'self-contained' and 'self-sufficient' business with own earnings.

Third, from the previous author constructed the definition of *Successful Business*:

> *A business that runs as a self-contained and self-sufficient business with own earnings, that enhances the earning capacity of the Netherlands.*

2.3.4 Reviewing literature on Knowledge Valorization

Reviewing the literature on Knowledge Valorization reveals what is known to date. In this chapter author establishes the review filter on what to look for in the literature and then reviews the literature with this filter.

Establishing the review filter
From the definition follows author looks for process and process activities that create value. As it is the goal of the research to design a knowledge valorization process model, author reviews the literature using these filters:
- Review for sentences, assertions about process and process activities or related actions that address valorization as "*value creation*" through:
  a. Making knowledge suitable and available
  ...for economic and/or societal usage (including exploitation)
  b. and to translate into
  ...competitive products, services and new business and/or activities.

Selecting the literature to review
Author reviews the same literature as is used to obtain the valorization definition, see chapter 2.3.1. This will reveal the latest insights, from theory and also insights on actual valorization operationalization present in recent valorization programs of universities and measurements on them through valorization indicators. Since *Knowledge Valorization* is a relatively new phenomenon and is changing all the time, author focusses on trends, streams and perspectives on the "*value creation*".

L01. Debets and Westerveld (2015) did a recent and extensive literature review on valorization, spanning the year 2000 till early 2015 referring to 65 sources, attempting to review the most important literature. They reviewed the literature from the academic perspective on valorization. In the literature they detected two streams: commercialization and academic engagement, which they use to structure their literature research paper.
Debets and Westerveld addresses, due to the excerpts taken from as many as 65 sources, a large amount of different themes, viewed from different perspectives. Author detected 10 valorization related themes, which author hereafter uses to structure Debets and Westerveld their review. Based on these 10 observations from their literature review, author poses corresponding remarks and questions.

1. On the value of cooperation between universities and industry.

"Historically science and industry have been differentiated. It is argued that the separation between science and industry is no longer needed and that science needs to regain legitimacy by showing its socio-economical contribution (Etzkowitz,2013, Haeussler & Colyvas, 2011). While some criticize the role of market forces and commercial values in academic life, others expect beneficial outcomes both for scientists and industry partners (Perkmann & Walsh, 2009; Washburn, 2008)."
- Note from the author: How can this mutual engagement between science and industry function so that benefits are achieved? In other words, how should the process of the engagement work out?

2. On the role of knowledge valorization from the university's perspective.

"The aim is "*The process of creating value from knowledge through making knowledge suitable and/or available for economical and societal exploitation and make this knowledge suitable for translation into competitive products, services, processes and new activities*" (VSNU, 2013, p.12)".

- Note from the author: How does the university know how and when their developed knowledge is of economic and societal value? In other words, should knowledge development be the push of market chances or should market requirements be defined as pull to scientific knowledge development?

3. On the way universities can valorize their knowledge by commercialization.

"The vast majority of literature pays attention to commercialization (Bozeman et al., 2015; Perkmann et al.,2013). The focus of commercialization is mainly on financial outcomes (Perkmann et al., 2013; Bozeman et al., 2015) and is largely driven by monetary incentives (D'Este & Perkmann, 2011).Commercialization is considered as main mechanism to impact economy and society because it constitutes immediate measurable impact (Perkmann et al., 2013). To support commercialization universities can establish technology transfer offices (TTOs), science parks and incubators and facilitate appropriate organizational support (Bozeman et al., 2015; Perkmann et al., 2013)."

- Note from the author: why should universities engage in the set-up of commercial offices and parks, and not make use of industry's facilities?

4. On the way universities can valorize their knowledge in other ways.

"There are many other channels through which research can be transferred to economy and society (Perkmann et al., 2013). Academic engagement puts commercialization in perspective by also paying attention to other interaction channels with non-academic partners (Perkmann et al., 2013). These interactions include formal activities such as collaborative research, consulting as well as informal activities like providing ad hoc advice and networking with different parties (Abreu,Grinevich, Hughes & Kitson, 2009; Perkmann et al., 2013)."

- Note from the author: if there is no commercialization of the respective knowledge, in other words, if there is no customer that benefits from a transfer, why is this particular knowledge considered valorized by co-operation?

5. On the transfer of knowledge from universities.

"This aspect of valorization is concerned with the direct transfer of intellectual property from universities to industries (Perkmann & Walsh, 2007; D'Este & Patel, 2007; Etzkowitz, 2013; Buenstorf, 2009), and is considered a prime example for generating economic impact because its outputs are immediately measurable market statistics (Perkmann et al., 2013). Commercialization activities include for example patenting, licensed research, spin-off formation and the forming or running of a consultancy (Abreu et al., 2009)."

- Note from the author: apparently, the fact that industry needs to do something with the patented knowledge or with the received consultancy is not considered of necessity in order to valorize knowledge, which is what author challenges in this research paper.

6. On knowledge valorization by entrepreneurship.

"Entrepreneurial theory and the entrepreneurial university have provided a framework for commercialization activities aimed at socio-economic development (Etzkowitz, 2003; Perkmann et al,2013)."
- Note from the author: What about existing industries? Why is knowledge only valorized if the resulting entrepreneurship sits within the context of universities?

7. On the reason of universities to valorize their knowledge.

"An unexpected cut in governmental expenditure can be regarded as potentially threatening to the functioning of universities. The financial crisis showed that universities can be susceptible to institutional failure and this might have far stretching consequences (Goddard, Coombes, Kempton & Valence, 2014). As a logical conclusion, universities that are less dependent on public funds and find additional sources of income are less vulnerable to institutional changes. By commercializing its knowledge (for example funds which decreases its institutional dependencies (Buenstorf, 2009)."
- Note from the author: apparently the awareness of financial vulnerability is the prime driver on the development of knowledge valorization rather than the felt responsibility that funds obtained from society should be reimbursed by complementary value to society. This may present a significant risk: in any commercial endeavor it is known that a marketing approach based on 'I need money' is likely to be far less successful than the approach 'I have value to offer to you.'

8. On the entrepreneurial university.

"Corresponding with these notions on the influence of universities on economy and society, is the questioning of the assumption that multi-national firms will be central actors in driving economic development (Etzkowitz, 2013). Instead, scholars argue that a cluster of firms with a close relation to universities will be the biggest stimulators for economies. This emergence lies first of all in the nature of the university as a producer of novel knowledge often required for innovation (Landry, Amara,Cloutier & Halilem, 2014) and the lack of sufficient human talent within firms to create such knowledge (Markman, Siegel & Wright, 2008). Second, innovation is argued to be nonlinear (Etzkowitz & Leydesdorff, 2000) meaning that practical knowledge from industries instead of pure academic knowledge can also fuel basic research (Etzkowitz, 2013). Both spheres are ought to complement each other: the industry possesses business related capacities and practical knowledge while the university relies more on research."
- Note from the author: what about inventions from smaller firms or from newcomers? Firms like Microsoft, Apple, Google did not exactly spin off from universities and so on. Still the market requirements are neglected in the analysis.

9. On the approach to valorization.

"According to Link and Wessner (2011), research partnerships between firms and universities can be regarded as acts of entrepreneurship, because it encompasses systematic and purposeful attempts to identify and capture a new knowledge. This conceptualization considers universities as entrepreneurial entities that actively engage in co-creation: from academic insights to marketable products. Although conceptualizations differ somewhat on this term, in general literature agrees on

the following aspects: a proactive attitude, acquiring a diversified funding base and focusing on combining basic research with considerations of practical implication (Gulbrandsen & Slipersaeter,2007). These 'traits' are said to be required in order to be self-reliant and self-steering."
- Note from the author: why does entrepreneurship consider new knowledge? It can also be to put existing knowledge into new products and services. And on the attitude: what about market awareness? In other words, why not first define market needs and work from there?

10. On the interaction channels with respect to knowledge valorization.

"People based activities included interaction channels like attending conferences, participating in networks, giving invited lectures and sitting on advisory boards. Furthermore community based activities included channels like: lectures for the community, school project and public exhibitions. Additionally, Problem solving activities encompasses interactions like informal advice, joint research and publications, consultancy services and contracts (Abreu et al., 2009)."
- Note from the author: what about contact with customers and markets? And what about studying market literature? Author believes that valorization can only take place if some customer demand is satisfied.

Note from author on next nine reviews
At first global review of the next nine literature sources, author observed many subjects, viewed from different perspectives, with no common and/or shared view of what *Knowledge Valorization* is about. In order to reach the research goal, a structured review is needed. Therefor author decided to report the review findings of the next nine sources, in a structure partly based on the building blocks of Osterwalders' Business Model Canvas (Osterwalder, 2010):
- Source: Literature Source and introduction.
- Intro: introduction of the subject of the literature.
- On the context: Puts the source in a certain context.
- On the objectives: Communicates the source its objectives.
- On the actors: reveals organizational collaborations.
- On the Key Partners (BMC - KP); indicates candidates processes and activities.
- On the Key Resources (BMC - KR); indicates candidates processes and activities.
- On the Key Activities (BMC - KA); described/found processes and activities.

L02. The VNSU, (2015). Een Raamwerk Valorisatie-indicatoren.
- Intro: The publication of the VSNU (Association of Universities of the Netherlands) explains the assignment of de state secretary (Zijlstra, 2015), to develop a model and a set of indicators, with the aim to make the *valorization* results of universities, measurable.
- On the context: The process of valorization is besides research and teaching, the *third core task* of universities. In the process of valorization universities are active in many way's. These activities are not always visible and measurable. There is a growing pressure from society to (a) make transparent what the *valorization process* is and what the activities of universities should be, and to (b) make it measurable. In the development of a model for valorization, the VNSU is starting from a broader

definition, which includes the process of: *value creation out of knowledge from all knowledge domains, by making knowledge suitable and available for economic and societal usage and translation in products, services, processes and activity*.
- On objectives: The objectives (mission) of universities is, to have a professional equipped and staffed valorization infrastructure in place, by 2016. The universities make performance level agreements with the state secretary about ambitions and realization of them. In the same time universities and government will agree on a set of tested indicators, through which the results of the activities in the process of valorization can be described and measured. In this way universities can make visible, in which way and to what extend they contribute to the process of valorization, with the purpose to expend from 2016 2,5% of their research budget on valorization activities.
- On actors: In the development process of the *valorization model and indicators* are the universities (VSNU) in the lead, therein working together with the government.
- On Key Partners: In the development process of the valorization model and indicators, the government and associated universities are key partners.
- On Key Resources: The activities in the valorization process must be measured, therein *a valorization model and indicators* are a key resource in the business model of universities.
- On Key Activities: The activity measuring and reporting about the results of activities in the valorization process is a key activity in the business model of universities, because the funding (revenue stream) of universities will depend on adequate and transparent reporting.

L03. Noorda et al., (2010). Verklaring samenwerken aan valorisatie: “kennis verzilveren”.
- Intro: In a public declaration Noorda et al. stated, that the Netherlands must develop a knowledge intensive society, with space for economic and societal innovation. Such a society needs a highly qualified workforce and sources of knowledge for innovation, which can be translated through adequate processes and competences into value added. That needs an infrastructure which can deliver and absorb knowledge.
- On the context: In their declaration Noorda et al. noted, that results of research do not flow from itself into the economy and society. We are missing chances to collect economic and societal return on investments in knowledge development.
They state that the process of value creation through valorization is a complex and interactive process, wherein knowledge is being made suitable for usage in practice. Hereby the collaboration between businesses and knowledge institutions is important in every step of the process.
The valorization of knowledge is possible and useful in every knowledge domain, not only in physics or technology. Our modern society needs new knowledge to solve major problems like integration, healthcare system and security knowledge from the sociological, psychological and medical domains.
- On objectives: The main objective of the organizations who support the declaration is, to urge the government to develop a clear and consistent policy framework, wherein the valorization process, the ambitions, tasks and responsibilities are defined. To establish an effective valorization policy, it is inevitable to invest long and explicit in knowledge valorization. Thereby it is necessary to set up a stimulating

system of target setting, monitoring and auditing, to measure results and identify best practices. In order to expand the learning capacity of all organizations involved.
The government aims at establishing a competitive, entrepreneurial and innovative, economy, in collaboration with academia, knowledge institutions, businesses and societal organizations.
- On actors; In the development process of the valorization policy framework the government is asked to collaborate with academia, knowledge institutions, businesses and societal organizations.
- On Key Partners: In executing the valorization process, the government, academia, knowledge institutions, businesses and societal organizations can be key partners.
- On Key Resources: The activities in the valorization process must be defined. Therein a valorization policy framework can be a key resource to enable effective valorization process execution.
- On Key Activities: In the execution of the valorization process, the activities in the development process of a valorization policy framework are not key activities.

L04. Martens, (2012). Valorisatie is samenwerken. Article (essay) in the magazine "Onderwijsinnovatie", edition December 2012, Open Universiteit Nederland.
- Intro: In the article Rob Martens states, that in recent years the government and academia where concentrated on excellence in education and research. Therein the position on international rankings and the number of publications where the measure point.
The concentration on excellence is now switching to valorization; *the commercialization of scientific knowledge and technology*, which is a narrow definition found on the website valorisatie.nl. This switch is problematic, because valorization is difficult to measure.
- On the context: To declare valorization as the third core task, is a fundamental change in role and implicates a revaluation of the societal position of academia. The state secretary (Zijlstra, 2012) stimulates and rewards universities for the development of a valorization profile, by making tailor made performance agreements fitting to the profile of the individual university.
- On the Objectives: In the meantime the state secretary made performance agreements, with almost every academy, wherein valorization has central position. (see www.vsnu.nl/Universiteiten/Hoofdlijnenakkoord-en-Prestatieafspraken.htm).
The problem is that valorization is not measurable and comparable by simple counting's. These give inadequate insight in the valorization process and don't show which value is created. To give an founded judgement about the performance on valorization a combination of quantitative and qualitative data is needed. (Rathenau Institute 2011).
When reading the performance agreements mentioned above, everybody can see that none of the academia is able to develop measurable criteria for valorization.
It is impossible and therefore we shouldn't want it. In the performance agreements the collaboration with intrinsic chaired interests, where mentioned enthusiastic by the academia as indicators for valorization.
- On the actors: In the process of making performance agreements the government and academia are actors.
- On Key Partners: In the process of making performance agreements the government and other academia are key partners.

- On Key Resources: The performance agreement of the valorization process is a key resource.
- On Key Activities: In the execution of the valorization process, the activities mentioned in performance agreement are key activities.

L05. Marjoleine van Egeraat (2014), master thesis: Act Regional, Think Global | Een onderzoek naar de strategie van Nederlandse universiteiten voor maatschappelijke valorisatie in de regio.
- Intro: In her master thesis, the role of academia in the valorization process in the region is studied and more precise the societal stream of valorization is studied. Through a multiple case study the answer is given to the question how and why Dutch academia differ in their strategy towards societal valorization.
- On the context: In recent years national and international governments want to see academia as central actors in the knowledge economy, and play a major role in processes of innovation and societal development.
This is translated in international policy, wherein academia have become a third core task. Next to innovative teaching and doing excellent research academia are expected to build up tight contacts in their region. In order to make knowledge applicable and available for societal usage.
The EU policy is aimed at becoming “The innovative union” and in the policy framework “Horizon 2020”, an important part of the EU strategy is about research and innovation.
In this part the EU objectives are not only to realize scientific research on top level and industrial leadership, but also solving ‘Grand Challenges’, which are so called major societal issues.
In order to solve these societal issues, a problem oriented, multidisciplinary approach is needed. In the EU policy innovation is not only about launching new products, but also about new processes, systems and other ways of thinking.
Horizon 2020 (European Commission, 2011) aims to bring together knowledge and resources from disciplines as social and human sciences, in order to solve mutual challenges.
- On the Objectives: The objectives of academia are to make knowledge applicable and available for societal usage.
- On the actors: In the process of making knowledge applicable and available for societal usage, the local government, academia and societal organizations are actors.
- On Key Partners: In the process of making knowledge applicable and available for societal usage, the local government and societal organizations are partners.
- On Key Resources: In the process of making knowledge applicable and available for societal usage, knowledge, adequate workforce, and tight relationships with local governments and societal organizations are key resources.
- On the Key Activities: In the process of making knowledge applicable and available for societal usage, generating knowledge, selecting and educating adequate workers, networking and collaborating are the key activities.

L06. Marjo Stevens writes in the “Contextnotitie valorisatie van kennis” (2015) to the Academiedirectors of Avans Hogeschool members of the “Stuurgroep visietraject Valorisatie”
- Intro: The Avans Hogeschool has a clear vision on education and learning. This vision is at the heart of the ambition 2020, which is a document containing the ambitions of Avans Hogeschool towards education and learning. Next to that there is a policy document for the ambitions towards research. This context report is the starting point for the formulation of a vision towards knowledge valorization, which is the third core task of knowledge institutions. That means not only producing knowledge, but merely maximizing the translation of knowledge into economical and societal value, thereby enhancing the capacity to earn a living [Author NL: verdienvermogen]. In the near future they expect that it will be difficult to keep up the earning capacity of the Netherlands due to growing international competition, and the shortening lead times of innovative products and services. Therefore investments in innovation and entrepreneurship becoming more important. The emphasis of national policy valorization lies on stimulating economic value creation and commercialization of knowledge. Besides that the government stimulates businesses, societal organizations and knowledge institutions academia to set a joint agenda and define national themes to research. Thereby incentive arrangements are deployed to stimulate, such as the so called ‘tweede geldstroom’.
- On the Context: The classical way academia are valorizing knowledge, does not fit to the societal need. There is a need for a broader scope of valorization, wherein the demand is leading in valorization and innovation in collaboration with businesses and societal organizations. In their report the Scientific Council for Government policy (WRR) ‘Naar een lerende economie’: Investeren in het ‘verdienvermogen’ van Nederland’, 2013, they recommend a shift from a knowledge economy to a learning economy.
- On the Objectives: The objective of Avans Hogeschool is, to design an own interpretation of knowledge valorization, which is connected with the vison towards education, teaching and research and is fitting with the ambitions until 2020. Knowledge institutions like Avans Hogeschool need to organize in such a way, that there is sufficient interaction with their environment so knowledge can flow up and down. Thereby connecting expertise with societal demand for knowledge within alliances. The knowledge institutions and organizations in their direct surroundings should explore, understand and respect each other’s and mutual interests.
- On the Actors: In the process defining vision all the layers of the Avans organizations are involved.
- On Key Partners: In the process defining vision all the layers of the Avans organizations are involved. Thereby the *HBO council* and the ministry of *Education, Culture and Science* are key possible key partners.
- On Key Resources: In the process of defining vision, all the layers of the Avans organizations, the policy of *HBO council* and the ministry of *Education, Culture and Science* could deliver insights and building blocks for a vision on knowledge valorization.
- On Key Activities: In the process of defining vision, all the layers of the Avans organizations should be interviewed, the policy of *HBO council* and the ministry of *Education, Culture and Science* could should be investigated and the vison should be discussed, written, approved and committed upon.

L07. Gunning-Schepers (2014) writes in the University policy paper “Valorisatie bij de Universiteit van Amsterdam”:
- Intro: The definition university of Amsterdam uses to define knowledge valorization is:

> “*Making knowledge out of education or research useable and available for economic and societal usage or use it (via participation) in competitive products and services and new activity*”

In this definition valorization knowledge, is knowledge dissemination, which to do activities and or make insights out of scientific research and education in public for free (sharing), thereby gaining societal value. Next to the use of knowledge in competitive products, services, processes and new economic activities with the purpose to gain economic value. There is no hierarchy in this valorization activities, both are of great importance for the university of Amsterdam.
- On the context: The university of Amsterdam states that knowledge dissemination and knowledge usage is equally important and has set in this policy document clear rules for al valorization activities. In their vision valorization should take place in all knowledge domains.
- On the Objectives: The objective of the Amsterdam university is, to enhance the contribution to society by making insights out of scientific research and education, public for free (sharing), thereby gaining societal value. Next making knowledge usable in competitive products, services, processes and new economic activities (economic value).
Thereby set a clear vision, agenda and a rules for all stakeholders involved in the knowledge valorization process. The objective for dissemination of knowledge (chairing knowledge) is contributing to public relations. The objective for usage of knowledge is exploitation of knowledge and contract research, is contributes to own economic value.
- On Actors: In the process of setting a clear vision, agenda and a rules for all stakeholders involved in the knowledge valorization process, the management and steering committee [author NL: Raad van Bestuur] of the university of Amsterdam are involved.
- On Key Partners: In the process of setting a clear vision, agenda and a rules for all stakeholders involved in the knowledge valorization process, all stakeholders should be involved.
- On Key Resources: In support of the valorization process, the university of Amsterdam has organized the next facilities:
  - an Knowledge transfer office, which is called Technical Transfer Office (TTO) for patenting, licensing and collaboration contract (juridical expertise)
  - funds; patent funding (IP fund), Pre seed fund, Seed fund, Proof of concept fund (financial instruments)
  - new ventures (contract research and education)
  - centrum of entrepreneurship (entrepreneurship education)
  - incubator facilities; science park, Campus (valorization and entrepreneurial activity)
- On Key Activities: Executing all activities in support of the valorization process, in the above mentioned valorization facilities.

L08. Gibcus, P. et al. (2014) uses in “Benutten vermarkten van kennis, Mid Term Review valorisatieprogramma Panteia”:
- Intro: The valorization program has started in 2010 with a budget of € 63 million. Herein businesses, knowledge institution and the Dutch government signed this agenda. The motivation is the fact that the Netherlands where getting behind in comparison with other western countries. In this mid-term review an image is given of the results of the program until now, the organizational structures and the governance structure of the program. Besides that there are conclusions, recommendations and best practices given in this mid-term review, to optimize the program which ends after 2018.
- On the Context: The available budget is given to 13 projects, wherein regional consortia are collaborating on knowledge valorization projects. These are grouped around an knowledge institution, mostly an university.
The consortia could choose from a menu consisting of 7 facilities:
1. Educational activities
2. Screening and scouting
3. Intellectual properties
4. Pre-seed funding
5. Proof of concept funding
6. Networking
7. Other activities supports the valorization process

- On Objectives: The valorization program is aiming at enhancing the valorization process in the Netherlands In order to translate society financed knowledge more effective and efficient into society value.
Thereby the valorization process by the end of the program should be anchored in all the organizations that were collaborating in the consortia, in a way that after the program the valorization process can continue.
- On the Actors: In the process enhancing the valorization process in the Netherlands, the Dutch government, Panteia and all collaborating organizations involved in the valorization program.
- On Key Partners: In the process enhancing the valorization process in the Netherlands, by measuring the mid-term results of progress and report it, the involved knowledge institutions, businesses, societal organizations, the government and individual entrepreneurs are key partners.
- On Key Resources: In the process enhancing the valorization process in the Netherlands, by measuring the mid-term results of progress and report it, the validated valorization plans are the starting point for measuring progress. The key resources are:
  - assignment from the government to make a mid-term review
  - key performance indicators for measuring progress
  - data from key partners
- On Key Activities: In the process enhancing the valorization process in the Netherlands process, the key activities are:
  - set key performance indicators for measuring
  - collect data from key partners
  - measure progress on valorization plans
  - write reports, with conclusions and recommendations
  - advise on further actions

L09. Frank Ziegele (2013) uses in his presentation “Indicators of valorisation” held at the EURASHE 23rd Annual Conference, 9-10 May 2013, Split (Croatia) the definition from van Droogte et al. (2013) Valuable – Indicators for valorisation:
- Intro: In a PowerPoint Presentation for the EURASHE 23rd Annual Conference in Split in 2013, Frank Ziegele states, that the measurement of scientific performance is highly criticized, because ‘bibliometrics’ as common standard is biased, only part of the performance story is shown by ‘bibliometrics’, numbers are misused, determine decisions without reflection, outputs not outcomes/impact are measured and value to society is not recognized.
- On the Context: In his vision Valorization is an important concept to enlarge the scope of indicator sets, where: “*Valorization is the process of creating value from knowledge by making knowledge suitable and/or available for economic and/or societal use and translating that knowledge into competitive products, services, processes and entrepreneurial activity.*” (van Drooge et. al. 2013, Valuable – Indicators for valorization), which is close to “applied sciences“ or “knowledge transfer“ – but he stresses that it is an orientation for the whole process of knowledge production.
- On Objectives: Frank Ziegele states we should look for better approaches for measurement of valorization such as: (a) refinement of bibliometric, (b) integrate more aspects of performance into the multi-dimensional approach, (c) support decisions with data, not replace decisions, (d) look for indicators taking value to society into account.
Ziegele looks at the use of valorization indicators from two perspectives:
(1) the usability and factual use of valorization indicators in (international) comparative performance data systems
(2) the relevance and implementation of process-oriented valorization measurement supporting institutional strategies and decisions.
- On the Actors: In the process of looking for better approaches for measurement of valorization, the EU government, other knowledge institutions are actors.
- On Key Partners: In the process of looking for better approaches for measurement of valorization, the key partners are the EU-projects U-Map, U-Multirank and E3M.
- On Key Resources: In the process of looking for better approaches for measurement of valorization, three key resources are mentioned by Ziegele:

U-Map	: showing activity profiles, „mapping“ of horizontal diversity
U-Multirank	: showing performance profiles, ranking of vertical differences
E3M	: looking for opportunities to integrate third mission activities into quantitative performance comparisons

The indicators suggested could be structured with a process logic.
- On Key Activities: In the process of looking for better approaches for measurement of valorization, the key activities are:
(a) specifying the object of analysis: indicator system made for specific: actors/decision-makers, levels of aggregation, disciplines
(b) identifying the relevant indicators of valorization using a process model,
(c) link the indicator set adequately to discussions, decision-making and controlling processes.

L10. Karel Luyben (2014) Rector MagnificusTU Delft writes in the ”Valorisation Agenda TU Delft 2020”:
- Intro: The transfer and application of knowledge for the benefit of society and the economy are becoming increasingly important to the innovation policy of national and international government bodies. TU Delft regards it as its mission in society to deliver pioneering technological/scientific solutions that have a significant impact in helping achieve sustainability and a healthy economy. In the past few years, valorization has developed into a full third core activity of the TU Delft, after education and research. In this agenda the faculties of the TU Delft have set their valorization research priorities.
- On the Context: A number of macro developments influence valorization, such as a changing government innovation policy, the obligatory – as of 2016 – 2.5% contribution from the public resources of universities to valorization, and the increasing importance of knowledge intensive regions and national and international cooperation within consortia of companies and knowledge institutions. These are important factors in determining the valorization strategy and approach of TU Delft.
- On Objectives: TU Delft regards facilitating and promoting the transfer and application of knowledge as its social mission. The definition of valorization of TU Delft is broad, because it’s aim is to deliver also sustainable, innovative solutions to social issues. Next to research on entrepreneurship, supporting Intellectual property (IP) and start-ups.
- On the Actors: In the process of agenda setting for valorization the TU Delft has appointed a Valorization Program director together with the Rector Magnificus of TU Delft and other staff members, within the organization are actors.
- On Key Partners: In the process of agenda setting for valorization the TU Delft, other knowledge institutions, students, businesses, societal organizations and the government are key partners.
- On Key Resources: In the process of agenda setting for valorization the TU Delft, the TU Delft organization parts involved in valorization such as, research and entrepreneurship (Yes), Delft Incubator, IP support and Pre incubator support, and academic staff and their performance (world class scientific research).
- On Key Activities: In the process of agenda setting for valorization the TU Delft, planning of the valorization activities such as, entrepreneurship (incubator), research on entrepreneurship (Yes), IP support and pre incubator support is the key activity.

2.3.5 What is the Knowledge Valorization Process (model)?

This chapter defines the different types of processes, presents a conceptual overview and reviews some different found (knowledge) valorization process models.

1. Different types of processes
The roadmap to be designed, needs to cater for the specifics of the knowledge valorization process. In this research, this roadmap is also a process and to be more specific a process model. There are three process types, see also figure 5:

a. Managing Valorization process: The processes in a roadmap that must be defined, executed and managed in order to valorize knowledge.
This to be finalized and ready for execution, before a valorization process can be

started. This allows for valorization in a controlled, goal-aimed approach.
The design of such a process model is the goal of this research.

b. Valorization of Knowledge process itself: The actual process of valorization, that addresses the valorization of the specific knowledge.
This to be finalized before any business can benefit from the specific knowledge.

c. Business: The business that benefits from the applied valorization results to it.
These are the business benefits, after the valorization process has finished.

d. Valorization of knowledge process its content: The content on specific topics and documents to design or consult during the Valorization process itself.

In this research author addresses "process" as in a. the Managing the Valorization process using the Roadmap.
It is important to address the correct process type in order to prevent talking about:
- b. valorization of the knowledge itself. E.g. the patents, the technology transfer officer, the way it can be used, etc.
- c. business, the business advantages when the knowledge is applied. E.g. how much money shall be earned, which products and markets, etc.
- d. content deliverables needed on the valorization process.

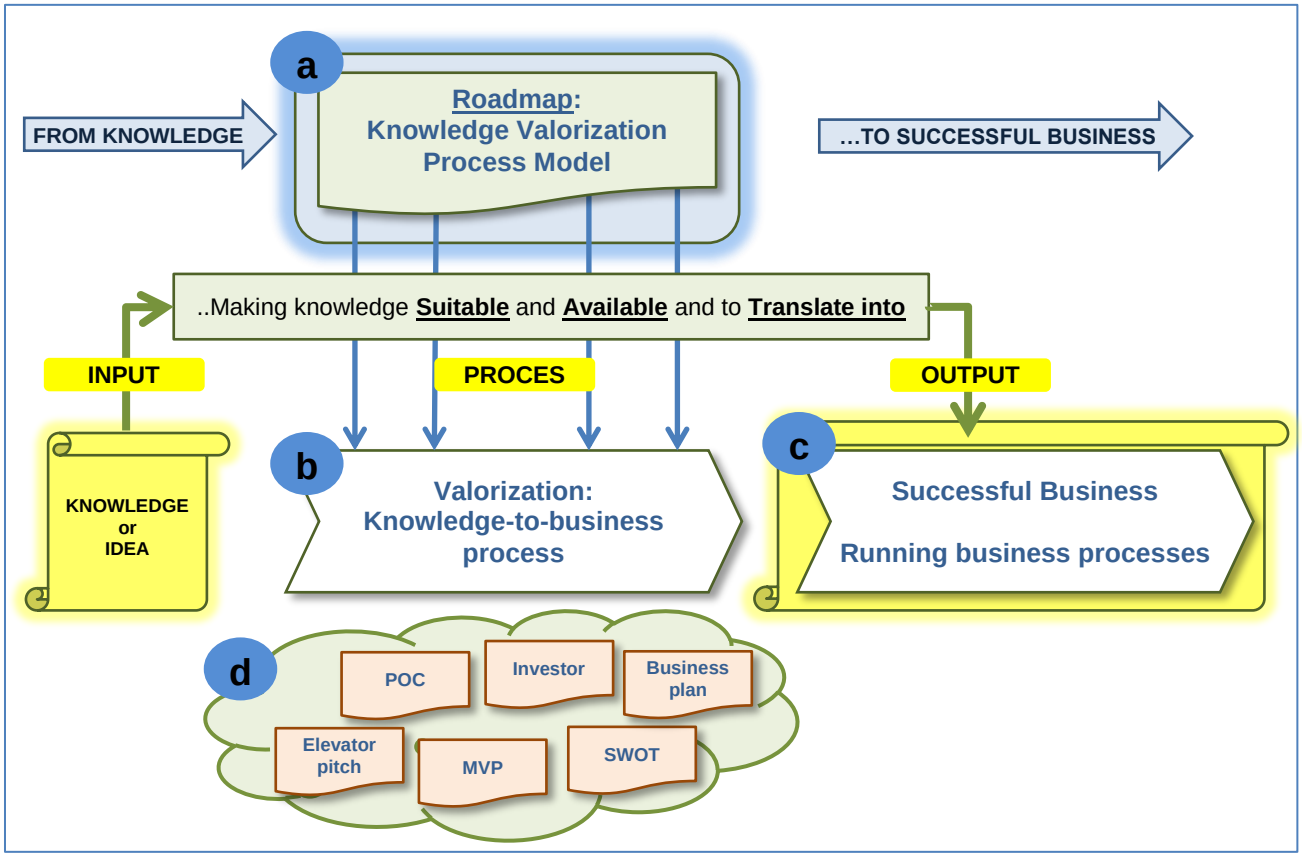


Figure 5: Authors own work: Different process types in the context of *Knowledge Valorization*

2. The conceptual overview of valorization by Cleton.
Cleton (2011a) in his paper "*Valorization of the ECX OLAP Extensions*", constructed a conceptual overview of the (business) valorization process, see hereunder Figure 6.

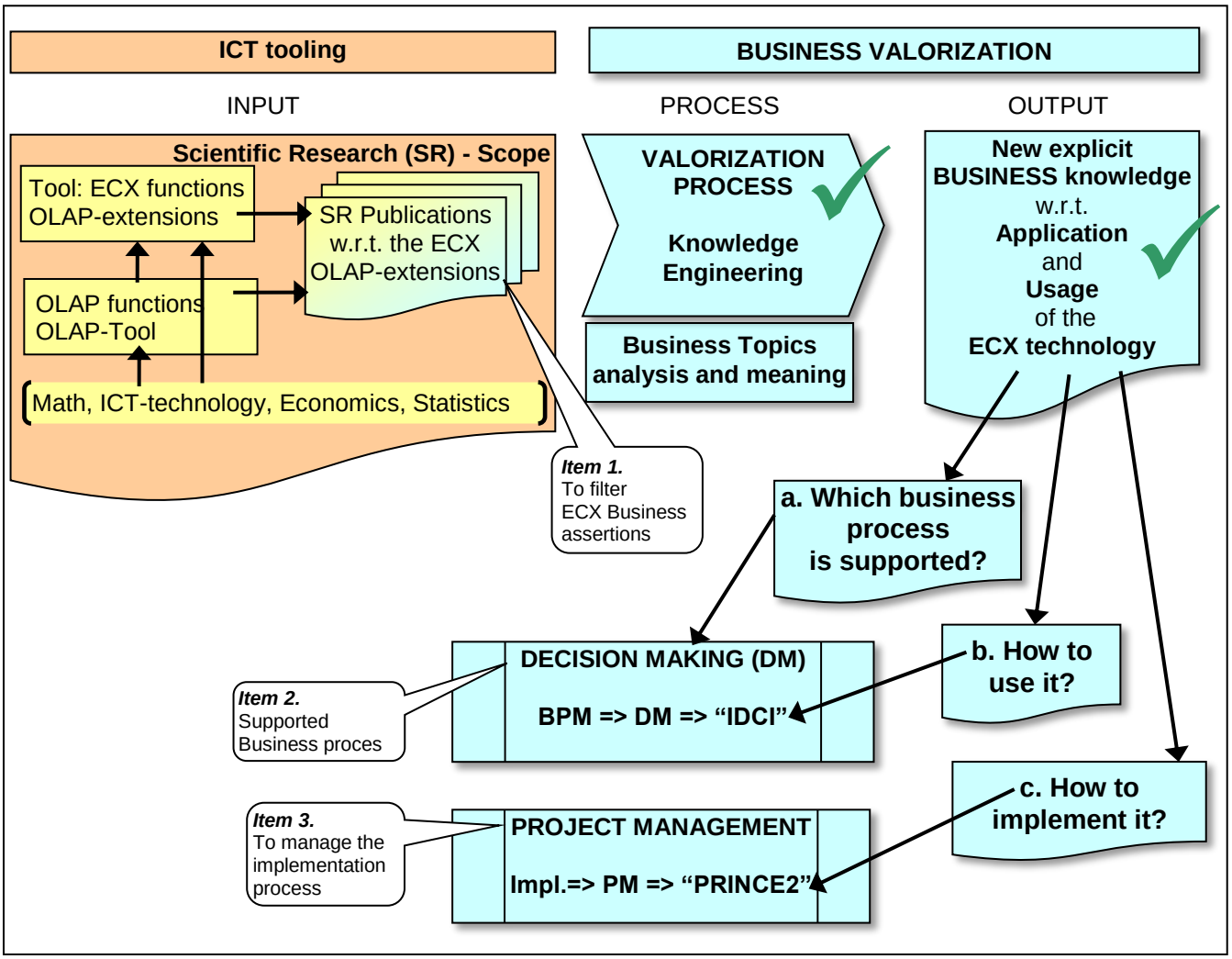


Figure 6: Conceptual Overview of valorization, translated (Cleton, 2011a, p. 5)

The orange areas (INPUT) represents the scientific research scope, the knowledge. The blue areas (PROCESS and OUTPUT) represents the valorization scope. In order to make the "*knowledge suitable and available for economic and/or societal usage (including exploitation) and to translate into competitive products, services and new business and/or activities*", three questions must be answered:

a. Which Business process is supported? (item 2) [author: and will benefit from it].
b. How to use it? (item 2)
c. How to implement it? (item 3)

This research on designing the KVPM, focuses on question c. How to implement it?.

3. Reviewing some found (knowledge) valorization process models.
From the valorization definition it is clear author looks for process models that guides entrepreneurs to “create value”. Hereafter some found models are reviewed.

Hult Model
Gyamfi and Tontoh (2007) researched in their master thesis paper “*Business Planning Process in a New Venture Development (Step-by-Step Approach)*” part of the valorization process. They pose the question: “*What steps can one follow when planning a new business?*” They refer to the Hult Model (Hult et al., 1991) as a tool for new venture development. The Hult model has three elements that interact with each other. The first is the Business planning process which has 5 phases being Idea, Test- and persuasion, Preparation, Start up, Ongoing. The second is the Entrepreneur profile with the items personality, need for achievement, risk and motive of establishment. Third is the Environment that is made up of the role models Personal relations, Financial resources, Other resources, Market, Societies attitude. They further reviewed the planning process of Stan et al. (2003) addressing 7 aspects of business planning process and the 7-step planning process of Profit (2007). From these three they derived (blend) a model for business planning process, see hereunder Figure 7: Derived model for business planning process for a new venture development, source Gyamfi and Tontoh (2007), p. 19, figure 2-2, conceptually looking for steps within the different process approach, for new venture development, which they call *Frame of reference*:

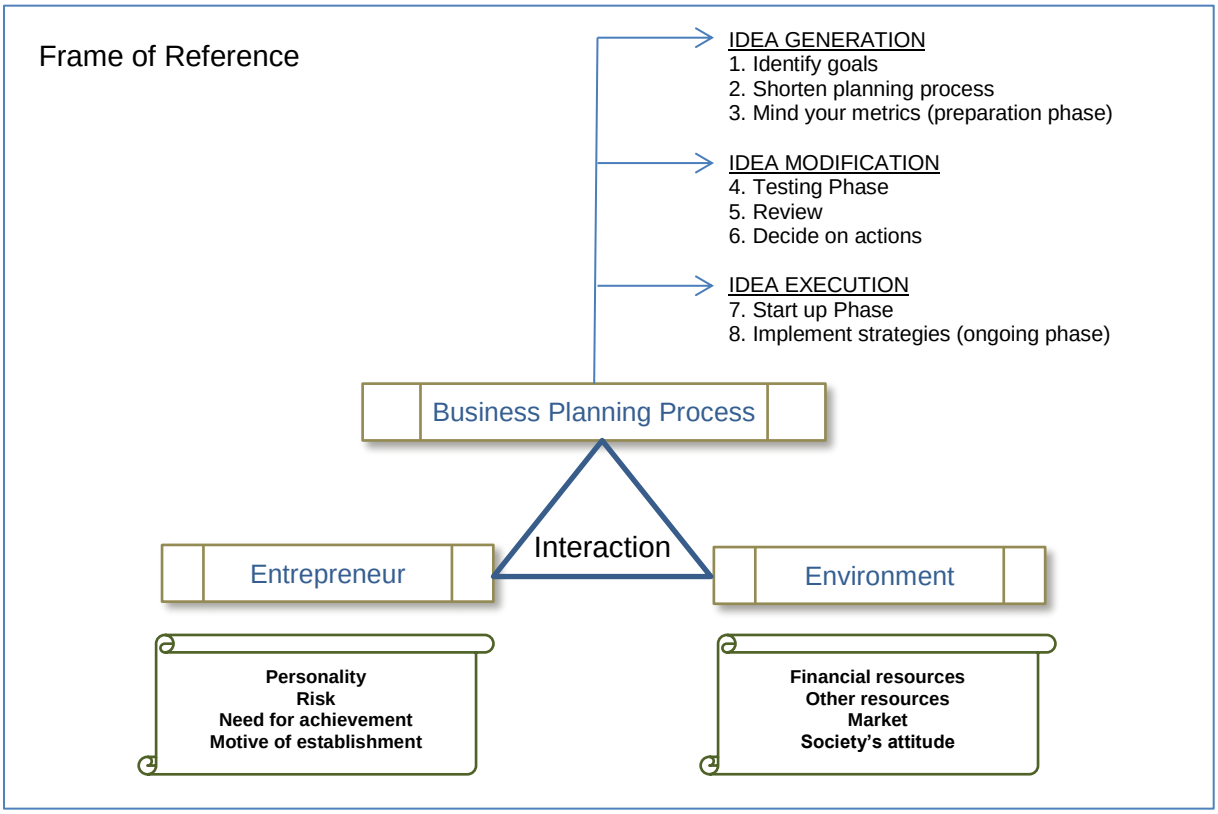


Figure 7: Derived model for business planning process for a new venture development, source Gyamfi and Tontoh (2007), p. 19, figure 2-2

The cycle of innovation, University of Michigan
Lemaitre (2014) describes in his master thesis paper "*Valorisation of Computerized Technology in the Health Care Sector*", the valorization process called "The cycle of innovation", see Figure 8: The cycle of innovation, source Lemaitre (2014), p. 14, Figure 2.5. This was originally developed at the University of Michigan and was published in a booklet titled "*An investor guide to transfer technology*". Later this process model was used by other universities like MIT, Stanford, Aarhus University. The *process of valorization* or *technology transfer* is according to Nisbet et al. (2012) seen as an infinite loop where the sub processes are repeated.

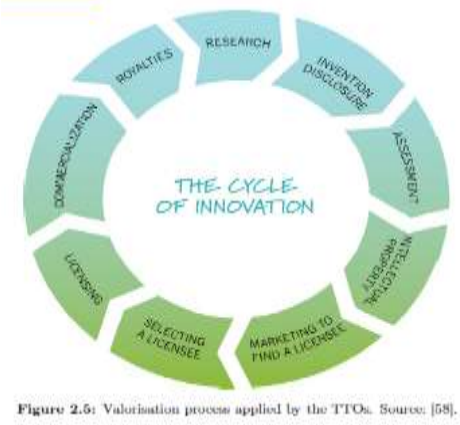


Figure 2.5: Valorisation process applied by the TTOs. Source: [58].

Sub processes

1. Research
2. Invention Disclosure
3. Assessment
4. Intellectual Property (Protection)
5. Marketing (to find a licensee)
6. Selecting a licensee (Company Setup)
7. Licensing
8. Commercialization
9. Royalties (Revenues and reinvestment)

Figure 8: The cycle of innovation, source Lemaitre (2014), p. 14, Figure 2.5

This model 'connects' *valorization* with *innovation* and focusses on the technology transfer as being the result to valorize specific research carried out in universities.

Ter Mate framework, University of Twente
Ter Mate (2010) in his master thesis paper "*Knowledge valorisation in Dutch University Hospitals*", constructed an [author: IPMC] framework for knowledge valorization tasks and activities based on international literature, see Figure 9: Ter Mate IPMC process model on Knowledge Valorization, (2010). Within the framework he divides the knowledge valorization process into four phases, Identification (e.g. screening and scouting activities), Protection (e.g. patenting), Marketing (e.g. performing a technology assessment) and Commercialization (e.g. licensing or creating a spin-off company. Ter Mate approached the valorization as a so called "fourth task" of university hospitals, which have assigned this task to a so called Technology Transfer Office (TTO). The TTO has the task to support the UMC employees in protecting, marketing and commercializing their knowledge. Ter Mate bases has valorization process solely on a sentence from Lee & Win (2004): "*TTO's play and active role in commercializing university research by identifying, protecting, marketing and licensing intellectual property developed by faculty".*

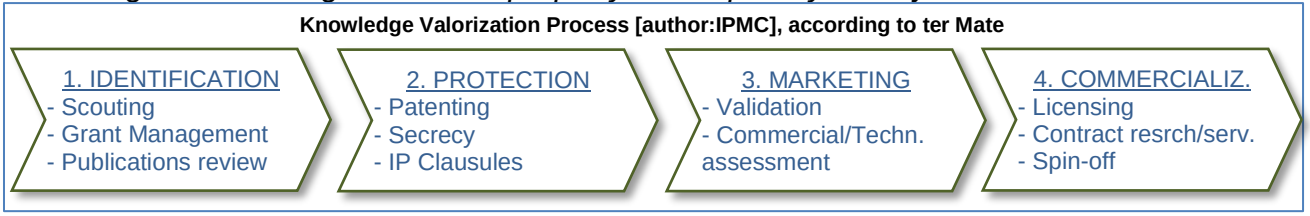


Figure 9: Ter Mate IPMC process model on Knowledge Valorization, (2010)

In chapter 2.2 of his master thesis, ter Mate discusses a number of articles on the subject of knowledge valorization on which he based his framework. He defines 10 knowledge transfer activities. He also explores the shift from a managed to an entrepreneurial economy. Based on among others Rothaermel et al. (2007) ter Mate concludes there are four main streams in research on valorization, being:
1. Entrepreneurial research university
2. Productivity of technology transfer offices
3. New firm creation
4. Environmental context including networks of innovation

He further elaborates on stream 2 and ignores the others. Author could not find any definition of valorization in ter Mate's master thesis.

Debets and Westerveld (2015) presented and discussed in their extensive literature study, two practical models for valorization. The first one presented is the VSNU Framework for measurement of valorization (2013). The second one is the so called "success map" from Perkman et al. (2011). Author summarizes both hereafter.

The VSNU Framework

The VSNU Framework for measurement of valorization (2013) is based on the Finne et al. (2011) framework. It's ambition is to make indicators, and thus valorization, internationally comparable. It consists of "three + more" valorization mechanisms detected in literature: 1. People, 2. Collaboration, and 3. Commercialization. See Figure 10 and Figure 11. The VSNU added a fourth mechanism that has been left empty, as an illustration and opportunity that more mechanism maybe relevant or found in the future. In this way the VSNU express the extensibility of the framework. It is a circular shaped to avoid hierarchy between different forms of knowledge exchange.

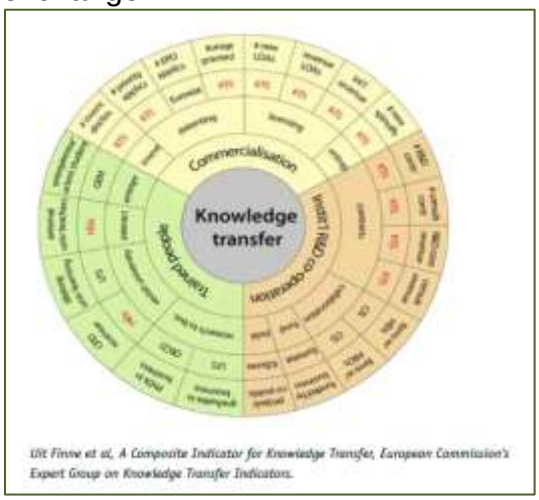


Figure 10: Finne (2011) original model on measurement of valorization

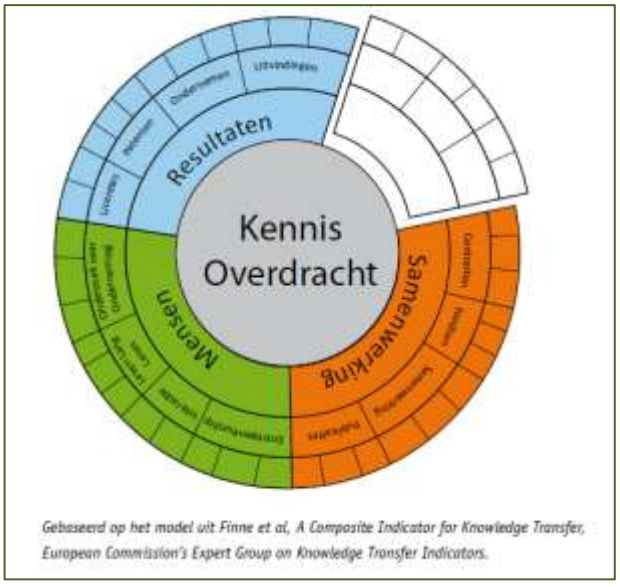


Figure 11: VSNU (2013) adjusted model (+fourth segment)

Author could not find any underpinning process and/or activity model on which the proposed measurements/indicators are based.

The “Success map” from Perkman et al. (2011)
The writers created a “Success map” (Figure 12) capable of assessing each process of an alliance between firms and universities. It is based in the concept: “*Alliances need to be adequately structured and managed because of different organizational and institutional culture come together, because there’s misalignment in incentives, and because there are difficulties relating to project management*”. By quantifying key aspects of activities in each stage of collaboration, progress over time becomes apparent. The writers distinguish four stages: 1. Inputs, 2. In-process, 3. Outputs, and 4. Impact. The writers created a ‘success map’ based on successful alliances. From there on they identified measures for each component of a successful alliance.

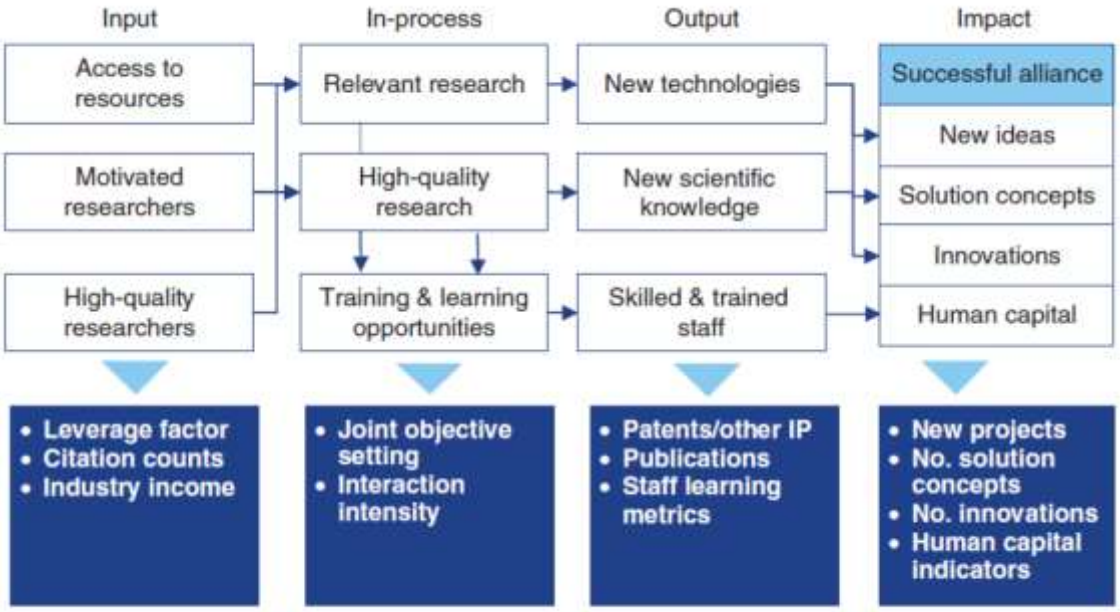


Figure IV – Success map for the evaluation of industry-university collaboration (Perkmann et al., 2011)

Figure 12: Succesmap, Perkman et al., (2011) Source: Debets and Westerveld (2015) p. 26

1. Input
Necessary ingredients are pooled: Mobilization of resources, highly qualified researchers and motivated researchers. The co-occurrence of these inputs leads to several in-process activities.

2.In-process
The in-process activities are relevant research, high-quality research, and training & learning opportunities, which will lead to outcomes in step 3.

3. Output (or outcomes)
The output (or outcomes) can be new scientific knowledge, new technologies, skilled and trained workforce.

4. Impact
The impact can be new idea’s, novel solution concepts, innovations and increase in human capital and organizational capabilities.

More models
Two more models are of interest based on their occurrences in literature. The first one is the so called "*Triple Helix Systems*" model (Etzkowitz et al., 2013) and the second one is the *4D-valorizationmodel* (Landelijke Commissie Valorisatie, 2011). Author does not consider them to be important regarding the aim of this research and also due to time limits and paper length limits. Therefore they are not reviewed here.

Author's conclusion
Based on the previous reviews author concludes as follows.
- First, there is a wide variety of models, totally incompatible with each other.
- Secondly, although all seem to use the definition that "*valorization is a process that creates value*", no one seems to bother about defining an underlying or underpinning process model delivering "..*competitive products, services and new business and/or activities".*
- Third, it is all based on a "push" paradigm where knowledge is simply "pushed" into society, without any asking/research if there is any customer demand.

2.3.6 What is a practical model

Author wants to maximize the chance of quick adoption of the designed KVPM and therefore aims at a "*practical model*", which author defines as (1) a simple, easy to understand and to use model, (2) that is widely known and used (3) and already has automated software systems available.

Therefore, in designing the KVPM, author seeks analogy with widely used best-practice models and seeks analogy and reuse of their conceptual elements.

The practicality is not further researched in literature. Author simply chooses for the practicality in analogy with and is demonstrated by best-practice based models like the ones in the methods MSP (Managing Successful Programmes), PRINCE2 (Projects in controlled environments) and ASAP P&S (Accelerated SAP Phases and Streams), see later in this research.

So the practicality meaning in this research is described as:
- Based on proven best-practice, not theory.
- Easy to understand and use.
- Quick adoption by an already existing community.
- Automation ready by a smart, easy to use, supportive ICT-system.

2.3.7 Author literature view and new Knowledge Valorization categorization

In this paragraph, author reflects on the literature research and introduces a new Knowledge Valorization categorization.

Literature research view

Viewing the literature, author cannot find a clear shared general view on what and how the Knowledge Valorization is operationalized. Also author cannot find any process model, any usable categorization, any valorization activities addressing the knowledge valorization definition i.e. the process of "*creating value*", " *…making knowledge suitable and available ……and to translate into successful business …*". Almost all the described activities are about or have to do with their own research (e.g. funding, contract research, setting up a TTO, filing patents, etc.). Only Debets et al. (2015) mentioned a categorization, i.e. Commercialization stream and the Academic Engagement stream. However this is not connected to the definition.

Pre-Valorization, Valorization and Post-Valorization

Knowledge Valorization is defined as a process to *create value*. In this definition, the product is *existing knowledge,* the input and starting point of the Knowledge Valorization process. The *successful business* is the output and endpoint.
To distinguish between activities related to their own institutes and those related to do actual Knowledge Valorization, author names the period before the knowledge valorization starts, the *Pre-Valorization period* and the period after the knowledge valorization ends, the *Post-Valorization period*. Activities in literature that addresses anything before the *existence of the knowledge* (e.g. contract research, setting up TTO, filing patents, finance incubator facility, etc.), belongs to the Pre-valorization period. These activities are ignored, because they are out of the research scope.
Of course these activities are valuable and one must produce knowledge first, but they belong to the Pre-Valorization. Now the next step must be taken: the Knowledge Valorization process itself, in order to be able to deliver the required output.

Argumentation and concepts underpinning Categorization

To proper conceptualize the Knowledge Valorization process into usable categories, author designed a new categorization which (a) fits with the valorization definition being a process to "*create value"* and (b) addresses the essence of the institutions their main process on the added value chain. For reasons of stable and sustainable categorization, author uses argumentation based on general, well known, principles:

-(a) fits with the valorization definition:
A1. "*Creating value*" means "adding value" to an input that is provided: *Knowledge*.
A2. "*Adding value*" is (about) *making suitable* and *available* and *to translate into*.
A3. "*And to translate into*" process output has result(s): *successful business*.

-(b) addresses the essence of the institutions their main process
B1. The world has people who want products and services for their beneficial use.
B2. These products and services are produced by institutions (i.e. Companies, etc).
B3. The production is conceptualized through the Added Value Chain (Porter, 1985).
B4. Each institution is specialized, has a main process regarding the Added Value Chain (AVC).
B5. Each institution has core competences.

Summarizing previous argumentation, it is “justified true belief” (Knowledge) that:
(a) Adding value to *knowledge* is (about) *making (it) knowledge* (i) *suitable*, (ii) *available*, (iii) *and to translate into*, in order to deliver the output: *successful business.*
(b) Institutions do exists, have an added value chain, and deliver products.

AVC Knowledge delivery
The pre-valorization process (e.g. R&D) is the AVC process that delivers the *Knowledge* as input for Knowledge Valorization (KV). Examples are: Unilever, TNO, Google, Academic institutes. They are suppliers of knowledge on the KV process.

AVC Knowledge Valorization delivery
Based on the previous argumentation, the three conceptual added value chains on Knowledge Valorization, that can be defined are:
1. AVC process that delivers the ***Information*** on and about Knowledge Valorization.
2. AVC process that delivers the ***Successful Business*** as output result from KV.
3. AVC process that delivers the ***People*** who can do Knowledge Valorization.

Institutions main AVC processes
Mapped onto the institutions’ main process, leads to the next AVC processes:
1. Institutes who organize collaboration to share and create Information, like Universities (e.g. Amsterdam, Delft, Utrecht) and High schools (e.g. Avans).
2. Institutes who execute the Knowledge Valorization Process which author looked for in literature but could not find.
3. Institutes who educate on entrepreneurship, like Avans ABC, Den Bosch, NL.

New Knowledge Valorization Categories
Based on the previous argumentation author introduces, -based on (a) the main AVC process and (b) the Delivery-, **three new perspectives on Knowledge Valorization**:

1. Organizational perspective
The view whereby the main AVC process of an institute is to organize collaboration between involved/interested parties who want to share and create information on and about Knowledge Valorization, thereby delivering points of ***Information***.
=> *making knowledge* [author: *on Knowledge Valorization*] (i) *suitable and* (ii) *available* [author: *in the form of Information*].

2. Business perspective
The view whereby the main AVC process of an institute is to actually do (execute) the Knowledge Valorization Process, to create outputs through Ventures, thereby delivering the Knowledge Valorization results: ***Successful Businesses*****.**
=> (iii) *and to translate into* [author: and in the form of] *Successful Businesses*.

3. Educational perspective
The view whereby the main AVC process of an institute is to Educate on Entrepreneurship, thereby delivering skilled, capable ***People***, enabled to successfully do the Knowledge Valorization process (i.e. Venture management).
=> *making knowledge* [author: *on how to do Knowledge Valorization*] (i) *suitable and* (ii) *available* [author: *in the form of skilled, capable People*].

The new AVC-based perspectives on Knowledge Valorization are shown hereunder.

Table 2 shows the new AVC-based perspectives categorization, based on the essence of their main process, their added value chain, of the institutions.

Nr.	*Institute/Source*	*Core competence*	*Process –outcome*	*Resulting in*
1. Org	Expert Institutes on knowledge & valorization	Organizing collaborative partnerships around knowledge	Created network of expertise organizations	Valorization Expertise organizations
2. Busi	Valorization and Venture developers	Converting knowledge to businesses	Created businesses for products and services	Competitive products, services, processes and new businesses
3. Edu	Educational institutes on entrepreneurship	Educating students on entrepreneurship	Created capable entrepreneurs	Entrepreneurs, competent in valorization, ventures, business

Table 2: By author: Categorization based on the institutions's main process

Table 3 shows the same new AVC-based perspectives categorization, now also fitting the definition that valorization is the process of creating value from knowledge.

	KNOWLEDGE VALORIZATION			
A	***Valorization is the Process***			***of creating value from knowledge***
B		***Through Making Knowledge***		
C		***Suitable***	***and Available***	
D		***for economic and/or societal usage (including exploitation)***		
E			***and to Translate into***	
F				***Competitive products, services and new business and/or activities***

Nr	*Process*	*Process-Outcome (= resource)*	*Outcome Usage (of resource)*	*Translation (into earning capab.)*	*Created (added) Value*
1. Org	Organization of collaborative partnerships	A network and pool of valorization expertise	Can be consulted on matters of knowledge, valorization and ventures	Setting up commercial consultancy businesses with consultants	Services, activities, Answering questions about valorization
2. Busi	Execution of the Knowledge-to-business process by doing ventures	A pool of active Valorization Ventures (run by experts)	Can deliver results from ventures and valorization	Setting up successful businesses based on Valorization through Ventures	Competitive products, services and new businesses
3. Edu	Education on entrepreneurship, business development, ventures and valorization	A pool of skilled, capable entrepreneurs, specialists in business development experts on ventures and valorization	Can act on business development, ventures and valorization	Setting up commercial businesses with entrepreneurs professionals	Services and new businesses, specialized in delivering expert services on business development, ventures and valorization

Table 3: By author: Categorization based on the knowledge valorization definition

This research only researches category 2. The AVC-based **Business perspective**.

2.3.8 Knowledge Valorization progress and results

In literature author found many different valorization 'results' with many different argumentations why this is a valorization result. However, having a definition, any claim on progress or results should be based on the definition elements:

Part 1: ... making knowledge suitable and available
...for economic and/or societal usage (including exploitation)
Part 2: … and to translate into
...competitive products, services and new business and/or activities.

To clarify when valorization has delivered its results, the next figure 13 shows the three valorization perspectives. No. 2 delivers the results according to the definition.

On Part 1. Some literature stipulates that (no. 1) just supplying Information or (no. 3) having a pool of educated skilled capable People, already is a valorization result. This is shown in the Figure 13 hereunder for the valorization 1 and 3 with shorter process arrows and the intermediate results as 'pools' with Information and People. Author does not agree; this results in stopping the valorization process to soon.

On Part 2. Part 2 of the Valorization definition is: "…..*and to translate into competitive products, services and new business and/or activities."* Author defined previously, that valorization must enhance (or helps to enhance) the earning capacity of the Netherlands. Hence the "Translate into" in the orange colored area's must be done. Not as a way of earning money for the educational institutes, but as separate self-contained and self-sufficient commercial businesses with own earnings.

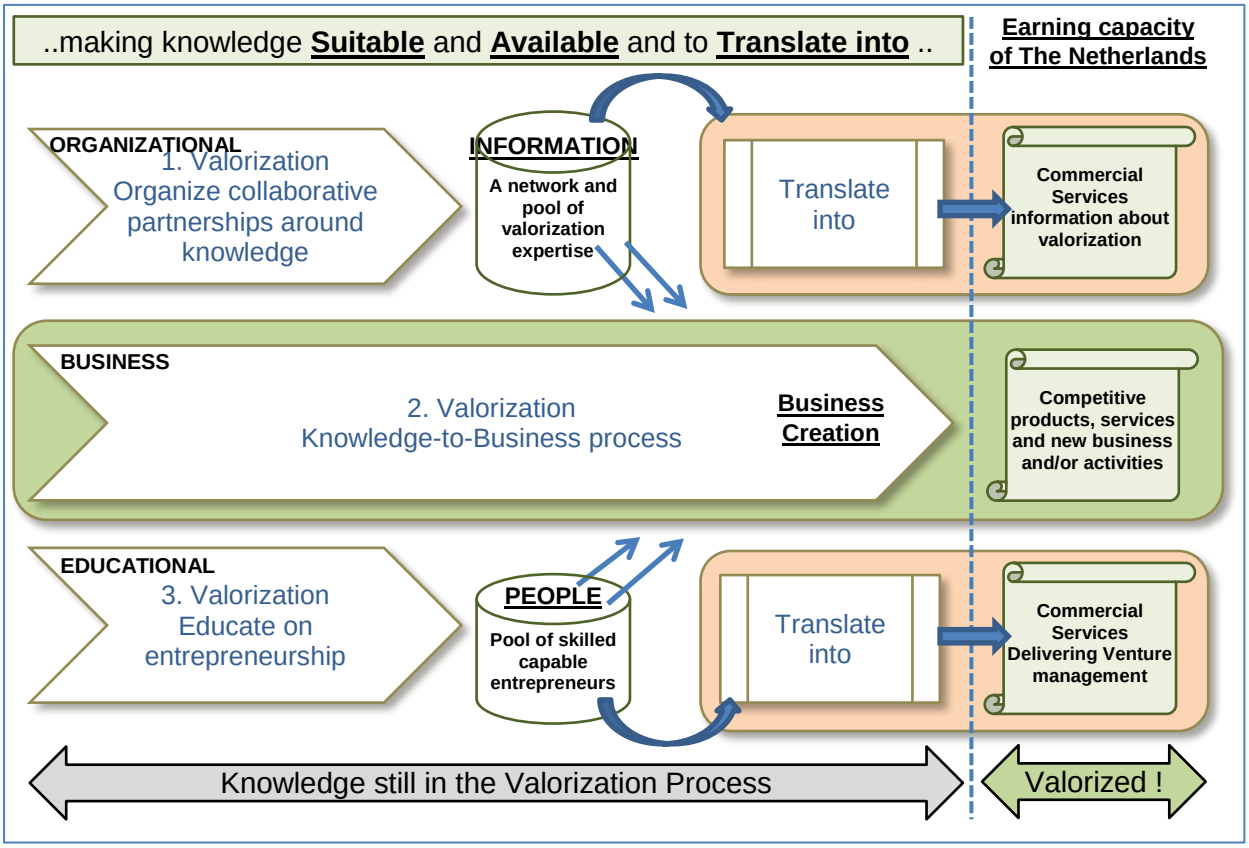


Figure 13: Authors own work: Knowledge Valorization progress and results

2.3.9 Building the Knowledge Valorization process and context map

Up till here the Knowledge Valorization has been reviewed. Hereafter author constructs an overview of the process and context.

Author sees Knowledge Valorization as a process performed by a group of mutually dependant companies -see Chapter 5.4.1-, working together on the result: Succesful Business. This brings up "The issue of inter-organizational relationships" (De Wit et al., 2010). From this author considers in Chapter 7 Network Level strategy, the figure 7.2 "The firm and its web of relational actors" [author: FirmAll] an appropriate skeleton. Author visualized this hereunder in Figure 14 in simplified and adapted form.

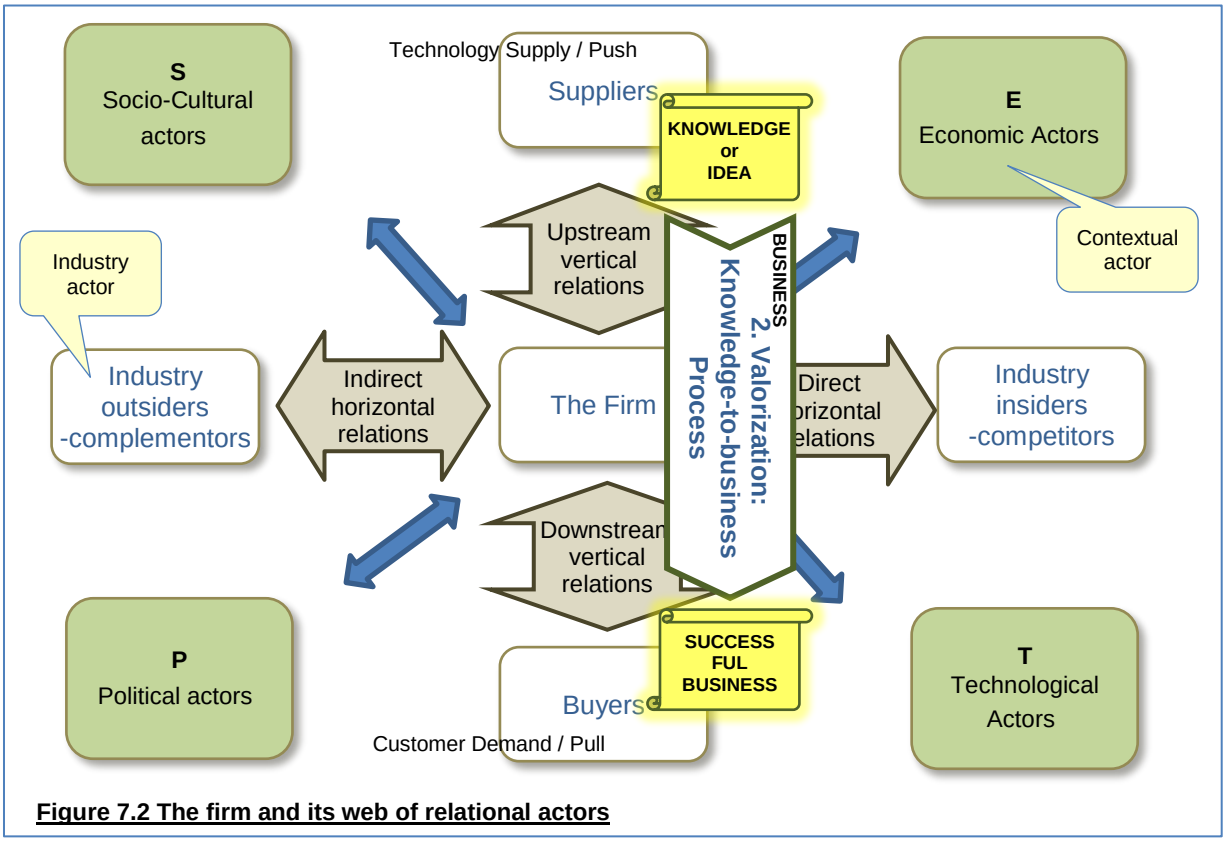


Figure 7.2 The firm and its web of relational actors

Figure 14: Authors own work: Based on the Firm and its web of relational actors, adapted and augmented (De Wit et al., 2010, p. 367)

Explanation on **Theory Item** and author's mapping **On Knowledge Valorization**.

No	Category	Theory Item	On Knowledge Valorization
1	The firm	The Firm	BUSINESS 2. Valorization organization (Added Value chain).
2	Industry Actors		
	…Vertical	Supplier Upstream	Supplier of Technology; Technology Supply / Push; The KNOWLEDGE or idea.
		Buyer Downstream	Customer buying; Customer Demand / Pull The SUCCESSFUL BUSINESS.
	…Horizontal	Industry Outsider (complementors)	Supply organizations: Additional Products
		Industry Insider (competitors)	Steering organizations: Imposing Restrictions
3	STEP	Socio-cultural	Any Socio-cultural influence
		Technological	Any Technological influence
		Economic	Any Economic influence
		Political	Any Political influence

Table 4: By author: Mapping the Firm and its web of relational actors

In the previous Figure 14 author mapped the Knowledge Valorization as follows:
- Firm = Process: BUSINESS 2 Valorization; the firms added value chain.
- Supplier = Input: KNOWLEDGE or IDEA; Technology supply / Push.
- Buyer = Output: SUCCESFULL BUSINESS; Customer demand / Pull
- Ind. Outsid = Supplier organizations: (complementary) Additional products
- Ind. Insider = Steering organizations: Imposing Restrictions
- STEP+LE = Maintained, but at other corners and added Legal and Ecological.
- Figure = Rotated 90 degrees left (anti clockwise).

Figure 15 hereafter visualizes the Knowledge Valorization process and context.

Based on research aim, a practical Knowledge Valorization Process Model, is shown:
GAP: What to do, Phase 1; Phase 2;, Stream 1; Stream 2;, MANAGEMENT, Valorization, Venture, Program, Project, Entrepreneur.

Based on the Added Value Chain on knowledge valorization, horizontally the three Knowledge Valorization process perspectives are shown:
(1.) The Organizational, (2.) The Business and (3.) The Educational perspective.

Based on IPO – Input, Process and Output- are shown:
Input…… : *Knowledge or Idea* that originates from different R&D activities.
Process.. : "*..Making knowledge Suitable and Available and to Translate into ..*"
Output… : *Successful Business* with new, extended business and more jobs.

Based on PESTLE and model "De Leeuw" author positioned the contextual actors:
Steering the process (top)…. : Politics, Legal and Economic
The process itself (middle) … : ORGANIZATIONAL, BUSINESS, EDUCATIONAL
Supporting process (bottom). : Technological, Ecological and Social.

Based on PESTLE and the mechanism Pushing / Neutral / Pulling, placement is:
Pushing (left top): Politics; have wishes and supports this with subsidizes.
Pushing (left bot): Technology; opens opportunities shown by prototypes and IP.

Neutral (middle top): Legal; puts constraints on opportunities (e.g. FDA)
Neutral (middle bot): Ecological; discover and decides on acceptance.

Pulling (right top): Economic; sees value in opportunity with min. viable product.
Pulling (right bot): Social; discovers and decides on adoption based on needs.

Additional: Secondary information on Perspectives
On Organizational: *Beagle* and *Bright* are names of initiatives on collaborative partnerships, focused on the delivery of sharing and creating Information.
On Educational: *Starterslift* and *Ondernemerslab* are names of institutes educating Entrepreneurship, focused on the delivery of skilled, capable People.

Additional: Secondary information on driving forces
Left middle: *Technology Supply / Push* and Right middle: *Customer demand / Pull.*
Auxilary information: e.g. *Topsectoren*, *Ondernemers Centrum.*

2.3.10 Visualizing the Knowledge Valorization process and context map.

The next Figure 15 is the end result of the previous building and underpinning of the Knowledge Valorization process and context and visualizes it.

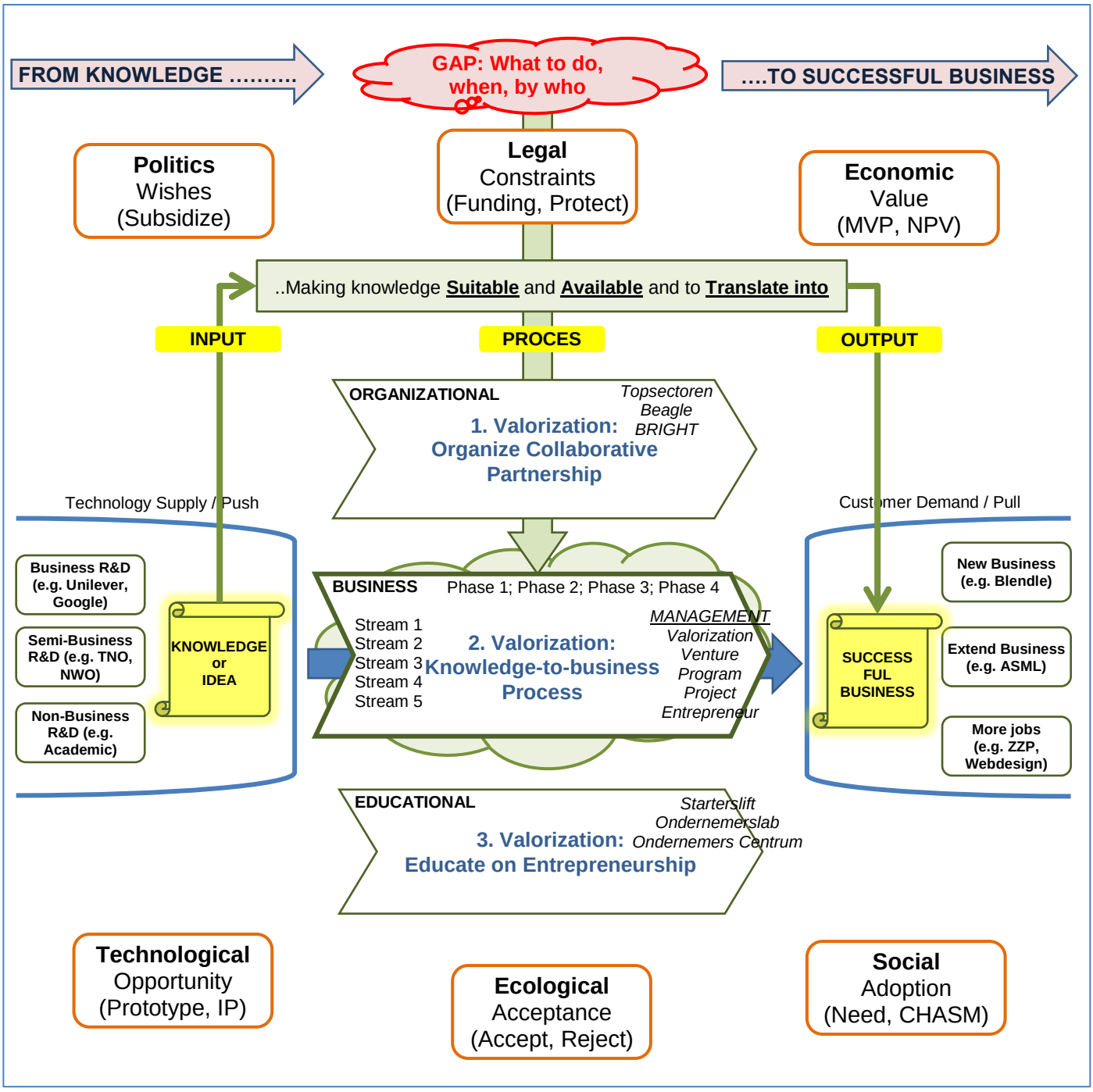


Figure 15: By author: Visualizing the Knowledge Valorization process and context

2.3.11 Scoping the research

Hereafter author reduces the scope of the research and underpins the rationale behind it.

Scoping the research is applied to the input, process, output and the perspectives.

On the Input
As argued before, the valorization process starts using *existing knowledge* as input. The prerequisite is the existence of the knowledge so the R&D is done. The owner of the knowledge is simply seen as a supplier of his product, delivering this knowledge as input to the Knowledge Valorization process.
Therefore any processes or activities that addresses the ***production of*** *knowledge* is ignored, e.g. the creation or protection (patenting) of this knowledge.

On the Process
The valorization (**=** "creating value"), itself is based on the three describing process elements within the definition:

1. … *making knowledge suitable* …
2. … *and available* …
3. … *and to translate into* …

Therefore these three describing elements are within scope.

On the Output
The valorization process is regarded as ended, when it has delivered his projected output, being *Successful Business*. Although e.g. products/services, market size, customer segments, customer needs, customer benefits, etc. are important, these are not taken into account as separate issues in this research. They are assumed to be included in the definition of a *Successful business* through the guiding principle (see chapter 5.4.1) that the Knowledge Valorization must always be based on *Customer Demand / Pull*, never on *Technology Supply / Push*.
Therefore the scope is until and including *Successful Business*.

On the Perspectives
As argued before, valorization can be viewed from three perspectives:
(1) Organizational, (2) Business and (3) Educational.
Each has its own type of institutes, core competences, main added value chain and delivers specific products and services.
First, due to different Added Value Chains, it is expected (author did not verify this) that each Perspective has its own Knowledge Valorization Process model.
Second, the cases that are used (see Chapter 5.4) are all within the category of the (2) Business perspective.
However, due to limiting the amount of work and number of pages, author has to limit the scope of this research.

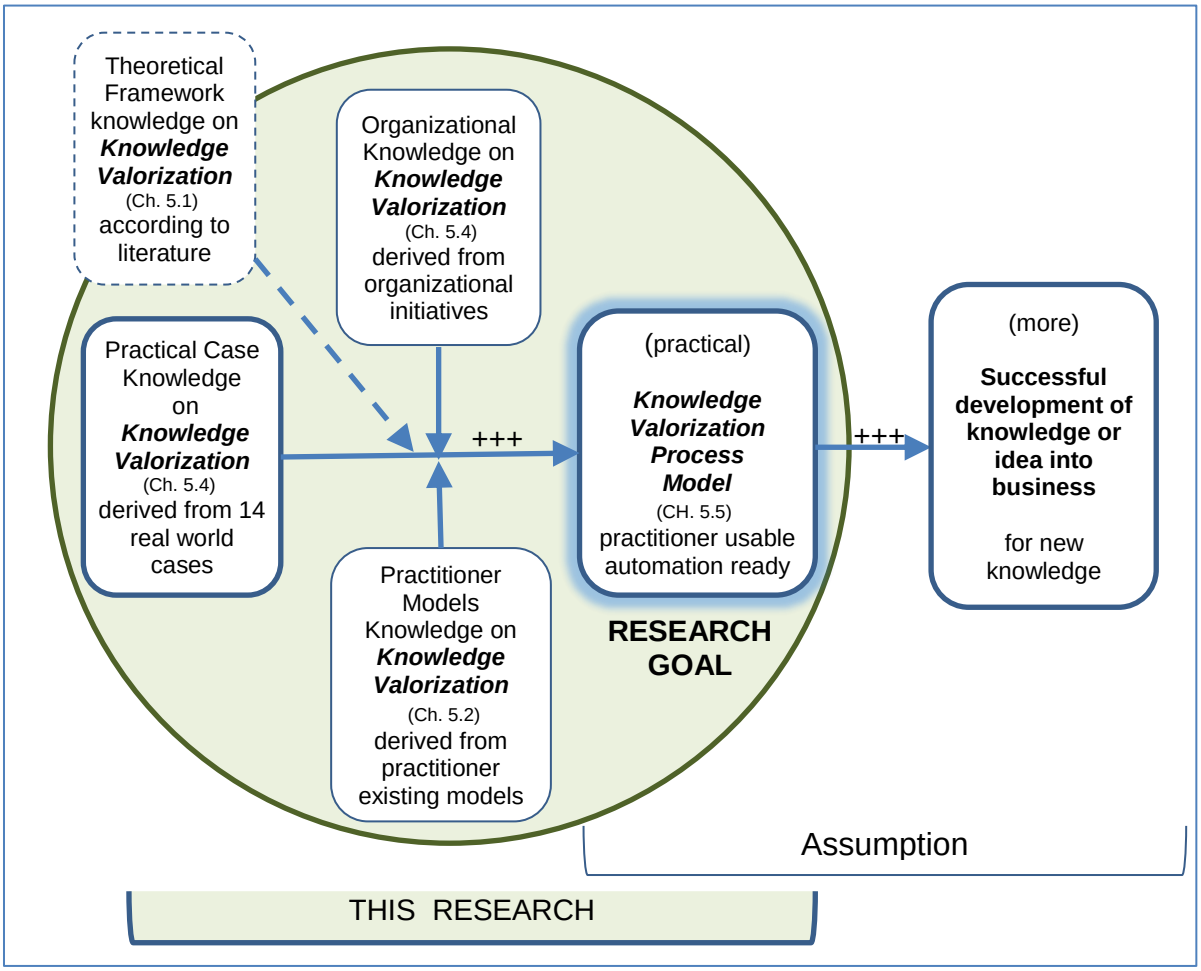
Therefore the scope of this research is to design the practical Knowledge Valorization Process Model (KVPM) only for (2) the Business perspective, named in Figure 15: "*2. Valorization: Knowledge-to-business process*".

2.4 Goal and Conceptual model

Goal
The goal is the design of a **practical <u>Knowledge Valorization Process Model</u>** (KVPM), helping entrepreneurs to be more successful with the development of knowledge or idea into successful businesses, which is:
- Practitioner usable, i.e. based on learnings from best practices.
- Automation ready, i.e. a smart and easy to use supportive ICT-system.

Assumption
The assumption is that such a practical Knowledge Valorization Process Model will:
(a) result in more successful development of knowledge or idea into successful businesses.
(b) allow for easy and efficient automated process support (ICT-system).
These assumptions are not verified or tested, but taken as the starting point.

Conceptual model
Figure 16 shows the research's conceptual model on "Knowledge Valorization".



<u>Figure 16: Authors own work: The conceptual model on *Knowledge Valorization*</u>

The upper and lower squares are moderators on the meta-structure of the KVPM.

2.5 Research question

The main question of this research is:

What is a practical Knowledge Valorization Process Model (KVPM)?

This master thesis research delivers the design of a practical Knowledge Valorization Process Model (chapter 5.5) as the end result of this master thesis research.

Sub questions
From the main question follows that a stepwise approach is needed to find the necessary elements that should be present in a practical process model.

1. What are relevant knowledge valorization activities presented in literature?

Reviewing literature reveals (chapter 5.1) the actual processes and activities and theoretical elements found in literature.

2. What are relevant Knowledge Valorization process models presented in literature?

Reviewing the Knowledge Valorization Process Models reveals (chapter 5.1) the processes, activities, actors and their role, their objectives and goals considered to be important.

3. What are usable process model structure elements in the existing practitioner process models in the methods MSP, PRINCE2 and ASAP Phase & Streams?

Reviewing the existing relevant practitioner process models, reveals (chapter 5.2) the structure elements that should be present in a practical practitioner model.

4. What are relevant process model structure elements in the 14 real world cases?

Reviewing and analyzing the cases, reveals (chapter 5.4 and 5.5) the conceptualized learnings from the actual elements and topics that were addressed in these cases.

3. METHODOLOGY and RESEARCH APPROACH

3.1 Research approach

The research theme is Knowledge Valorization, where the problem is the absence of a practical Knowledge Valorization Process Model (KVPM), i.e. a roadmap on how to do Knowledge Valorization.

The goal of the research, the aim, is to design a practical Knowledge Valorization Process Model (KVPM), where it is author's assumption, that this KVPM will help entrepreneurs to be more successful in Knowledge Valorization.

The research approach to design the Knowledge Valorization Process Model (KVPM) is the systematic collection, analyzing, structuring and systemizing of relevant information available on Knowledge Valorization.
The research approach is based on the next three questions:

1. What is known in literature about Knowledge Valorization Process Models?
2. What can be learned from existing alike practitioner process models?
3. What can be learned from cases on Knowledge Valorization (i.e ventures)?

3.1 Research strategy

The research strategy is to obtain step-wise learnings on the topic of Knowledge Valorization Process Models, working from theory in literature, through examining existing alike practitioner models and the analyzing of multiple cases, continuously working on the design of the KVPM along the way. The strategy to design the KVPM this structured and systematic way, consists of the next four steps:

- First step is to review literature on knowledge valorization and on knowledge valorization process models, what is known and what is usable.
- Second step is to review existing alike models and to determine which structure elements from them are usable for the KVPM.
- Third, based on the previous steps, an initial KVPM (i.e. first draft) is designed.
- Fourth step is to analyze the fourteen cases and add the case findings to the initial KVPM, resulting in the design of the Knowledge Valorization Process Model v1.0.

3.2 Methodology

The research approach requires a different methodology for each step.
The methodology on step one is a literature study, looking for concepts, analyzing and evaluating the concepts on applicability and usability, and their role and place in the KVPM. The methodology on step two is an exploration study, where relevant existing alike models are reviewed on which structure elements from them are usable. The methodology on step three is a design study, where a first initial KVPM using the research results so far, is designed. The methodology on step four is a multiple case study, where multiple cases are inspected on their implied structure and content elements, relevant for the Knowledge Valorization Process Model.

Research type
The research is according to Yin (2000) a combination of three types. First it is a desk research to find relevant theoretical information. Second it is an exploratory research doing analyses on existing models and to design a first skeleton design. Third it is a multiple case study, qualitative of nature, descriptive, exploring and analyzing.
According to Dul (2008) this research is practice-oriented, because the aim of the research is to solve a practical problem.

3.3 Research data sources

Author selected three types of research data sources (i.e. input) to do the research on and to design (i.e. create) the KVPM from:

1. Literature.
   Knowledge in Literature on (a) the Knowledge Valorization theme and (b) literature on existing Knowledge Valorization process models (i.e. research what is already known in literature).

2. Existing alike practitioner process models.
   Descriptions from the existing alike (i.e. seeking analogy) practitioner process models in the methods MSP, PRINCE2 and ASAP Phases & Streams) and uses *structure elements* and content from them.

3. Multiple cases.
   Abstractions from fourteen cases (all start-up ventures) on Knowledge Valorization (i.e. pattern searching and categorization). From these cases author selected a limited set of material that author considers relevant and is allowed to use,
   Some material cannot be used, due to a non-disclosure agreement (NDA) or because the involved stakeholders want to stay anonymous.

3.4 Organizations involved

The data collection regarding the fourteen cases from the different organizations involved, is done prior to this research project. The organizations involved delivering the basic case information and author's derived concepts are:

1. TNO's RunAdvisor venture.
2. LogiMedical's ProMonitor venture.
3. Avans AOC support on the Blue Eye Innovations venture.
4. Monty's Europe expansion venture.
5. (5-14) Get in the ring 2014 final event with the ventures of the ten finalists.

3.5 Research scope

To limit the report size, author, -based on his expert knowledge and experience on program, project- and venture management-, reduces the scope of the research, as follows:

Scope on literature
Author reviews and analyzes on a general holistic level, relevant literature on knowledge valorization and models, where the data collection is based on the same literature scope as used in paragraph 2.3.4 *Reviewing literature on Knowledge Valorization*.

Scope on alike practical process models
Author reviews and analyzes on a general holistic level, relevant alike practical process models. Author selects the alike relevant well known practitioner and widely used process models in the methods MSP, PRINCE2 and ASAP Phases and Streams (P&S).

Scope on alike practical process models their elements
Author reviews which important and minimal needed, -so named by author-, *structure elements* are present in the alike practical process models in the methods MSP, PRINCE2 and ASAP Phases & Streams. Author, based on his expert knowledge and experience, decides the next four *structure elements* are important and minimal needed for a process model:

No#	***Structure element***	***Authors considerations***
(1)	Principles	Principles are the basis a model is grounded on. E.g. Business Case, Aligned Strategic Goal, Benefits, Deliverables, Plans.
(2)	Processes	Processes are needed. So everybody knows what to do.
(3)	Phases (i.e. stages) and Streams (i.e. disciplines)	Phases and Streams are needed. So that (a) progress (through Phases) and (b) disciplines,- i.e. expertise's- (through Streams), are known and can be managed.
(4)	Organization	Organization is needed. So that governance on e.g. roles, responsibilities, and direction on e.g. tasks, are known and can be managed.

Scope on initial KVPM design
Author scopes the initial KVPM design to the *structure elements* and content present in the alike process models in the methods MSP, PRINCE2 and ASAP Phases & Streams.

Scope on case information
With more than thirty gigabyte of information, and its content not structured to the research objective, it is impossible to review all available documents, audio and video. Therefore author arbitrary selects a limited set of data from the fourteen cases, which author considers important and representative.

Scope on final KVPM design content
Due to the high amount of information on cases it is impossible to be complete. Therefore author scopes this research to ten major conceptualizations (i.e. the number of Phases and the number of Streams), that is of great importance for successful knowledge valorization.

4. RESEARCH DESIGN

4.1 Research design

The research design and operationalization for a *practical Knowledge Valorization Process Model* is shaped to the research approach and therefore has four parts. The research design's parts are:

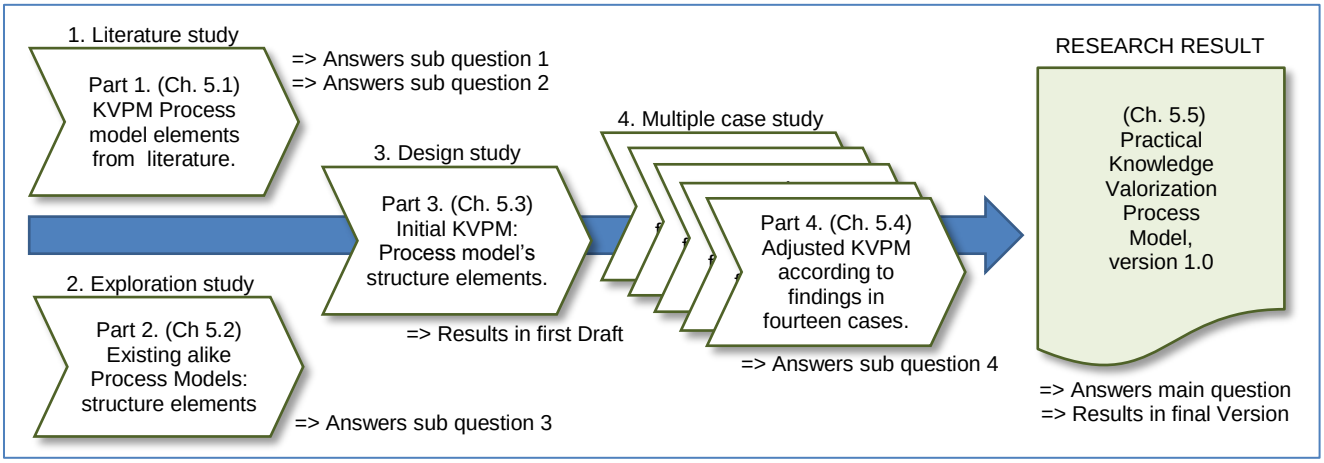


Figure 17: Authors own work: Schematic presentation of the Research Design

Part 1 Literature study

Part one is a **literature study** to determine KVPM process model elements from theory in literature. It is based on desk research, searching for relevant literature on (a) Knowledge Valorization as a theme, and (b) literature on existing Knowledge Valorization process models, both using the same literature as in chapter 2.3.
Result: Both literature studies reveal **what is currently known** on the theme and on process models. This answers sub question 1 and 2.

Part 2 Exploration study

Part two is an **exploration study** to determine the structure elements that form the KVPM process model. It is based on the Design-by-Analogy (DbA) technique, using analogy between existing alike process models and the KVPM. Due to time limits author choses the existing process models in the methods MSP, PRINCE2 and ASAP P&S, because they are alike, well known, widely used, best-practice based and well-structured so ready for automation. Also author is an expert on them.
Result: The exploration study delivers the KVPM **structure elements** (i.e. framework elements) on a fundamental (i.e. conceptual) level. This answers sub question 3.

Part 3 Design study

Part three is a **design study.** Based on the previous results an initial KVPM is designed. It is also based on the Design-by-Analogy (DbA) technique, using the same previous analogy between existing alike process models and the KVPM.
Result: The design study delivers the initial KVPM's **content** of the structure elements (i.e. names and titles of Phases and Streams) on a concrete (i.e. perceptual) level. This results in a first Draft.

Part 4 Multiple case study

Part four is a **multiple case study**, where fourteen cases are inspected and analyzed to discover case elements that addresses a KVPM structure element. It is based on the Cross-case synthesis technique (Yin, 2003) where author seeks **categories of expertise's** (i.e. disciplines), based on analyzing, categorizing and synthesizing the data (i.e. assertions or sentences) in fourteen cases (i.e. ventures), all on the Business perspective. The case findings are incorporated in the initial KVPM.
Result: the multiple case study delivers the practical Knowledge Valorization Process Model v1.0. This answers sub question 4.

Because the research is a continuous process of building the KVPM, this answers also the main research question and therefore delivers the aimed research result: the design of a **Practical Knowledge Valorization Process Model, version 1.0**.

The **aim** of the research is to design a practical Knowledge Valorization Process Model. The research is based on theory, best-practice learnings and case learnings. The nature of the research (Yin, 2003) is qualitative, explorative, analogical and inductive. The units of research are *Knowledge Valorization Process Model elements: the structure elements and their content*.

4.2 Design-by-Analogy technique

Author determined similarity (i.e. analogy) between the existing process models in methods, (e.g. MSP, PRINCE2), and the KVPM to be designed. Therefore author decided to use the Design-by-Analogy (DbA) technique. Author hereunder elaborates on the DbA technique.

A. Design-by-Analogy and methods

Hereunder author briefly introduces the DbA technique and methods, its suitability for the research and its operationalization for this research.

Definition of Analogy

According to Wikipedia (retrieved from internet by author on October 4th, 2015), analogy is:

> "***Analogy*** *is a cognitive process of transferring information or meaning from a particular subject (the analogue or source) to another (the target), or a linguistic expression corresponding to such a process."*
>
> *"In a narrower sense, analogy is an inference or an argument from one particular to another particular, as opposed to deduction, induction, and abduction, where at least one of the premises or the conclusion is general. The word analogy can also refer to the relation between the source and the target themselves, which is often, though not necessarily, a similarity, as in the biological notion of analogy.*"

According to Moreno et al. (2014), adapted by author, analogy is:

> "*Analogy is the association of a situation from one domain (source) that is well-understood to another (target) domain that is typically poorly understood, and that is possible due to relations or representations.*".

Moreno et al. (2014) further elaborates on the *Design-by-Analogy* (DbA) technique:

> "*Design-by-Analogy (DbA) is based on the premise that the solution to a given design problem may already exist in either in an analogous domain or in an analogous solution, and therefore, such solution may be extracted once the analogy connections between source and target are made.*".
>
> "*Analogical design requires first accessing and then transferring elements from an existing solution for a design problem to the solution for another design problem. Such elements may be components, relations between them or more complex combinations of components and relations. The analogical transfer is enabled by the use of abstractions and analogical encoding.*".

Moreno et al. lists available DbA methods, e.g.:

- exploration of analogical categories by means of questions
- finding inspiration in the natural world
- through biomimetic and bio-inspired concepts
- from abstractions of functional models and flows
- by means of design problem re-representation and semantic mappings
- through search engines and algorithms to identify potential analogies within digital sources, databases, and repositories.

Fantoni et al. (2013) distinguishes two different DbA analogy techniques:

1. Close-domain analogies
   Considers only elements belonging to the same domain of the product under study
2. Cross-domain analogies
   Considers also elements belonging to different fields/sector i.e. other domains of the product under study.

Fantoni et al. lists different design theory and problem solving DbA methods e.g.:

- based on analogical thinking.
- the TRIZ structured method.
- similarity of products through the concept of functions and flows.
- focused on the concept of function.
- wordTree method.
- systematic transfer of biological knowledge into the engineering domain.
- combined functional modeling and biomimetic design.

- the functional representation of biological systems.
- and more.

Fantoni et al., argues on a specific DbA method as follows:

> "*As seen before, different works resort to **the concept of function**, since it provides an abstract representation of the product.*".

B. DbA technique suitability
Author judges the DbA technique is suitable for the Part 2 Exploration study, and for the Part 3 Design study, based on:

a. The previous literature on analogy and the DbA technique.
b. Authors' expert knowledge on, and large experience with, program and project management.
c. Authors' expert knowledge on, and large experience with, the program and project management methods MSP, PRINCE2 and ASAP P&S.
d. Authors' medior knowledge on, and medior experience with, Knowledge Valorization Process Management (i.e. Venture management).
e. Authors' judgement there **is** analogy between (source) program and project management, and (target) Venture management.

C. DbA operationalization
Based on authors' knowledge and experience, author hereafter describes the operationalization of the DbA technique.

C.1 The premise of analogous solution existence
Author judges the "*..(DbA) is based on the premise..*" (Moreno et al., 2014) is *true*:
- The solution to the given design problem (target), i.e. the KVPM, already exists in an analogous solution (source), i.e. the methods MSP, PRINCE2 and ASAP P&S.

Rationale: As an expert in source and target, it is author's judgement both –source and target-, are a temporary process with start, phases and stop, that must deliver something, needs an organization for the delivery and must be managed.

C.2 Analogy, Source and Target
Author defines the "..*analogy connections..*" (Moreno et al., 2014) as follows: the source domain is *Program and Project management*, where the target domain is *Knowledge Valorization Process management* (i.e. *Venture management*).
Rationale: Based on authors judgement there **is,** on an abstract level, similarity in functions in source and target domain.

C.3 The DbA analogy technique is the *Close-domain analogy*
Author judges the DbA analogy technique (Fantoni et al., 2013) is a *Close-domain analogy*: i.e. author considers only elements belonging to the same domain of the product under study.
Rationale: It is authors judgement the source domain *Program and Project management* and the target domain *Knowledge Valorization Process management* (i.e. *Venture management*), are in the same domain of the product under study. E.g.: Both deal with organization, added value chain, products, markets, finance, etc.

C.4 The DbA problem solving method
Author judges a suitable problem solving method for the KVPM design (Fantoni et al., 2013) is: *the focus on the concept of function.*
Rationale: Source and target have similarity in and on functions, e.g.:

> Both need to reach goals and realize benefits. Both have inputs and outputs, both need deliverables, both need specialists (disciplines) on specific topics, both operate on an organization, both need a financial legitimation (Business case), both need funding, both are started and done based on future projected benefits, need an temporary organizational structure to realize the deliverables. Both need a 'market' for the deliverables, need management on risks, dependencies, etc.

C.5 The analogical design.
According to Moreno et al. (2014) the analogical design requires two steps:

> "*Analogical design requires first accessing and then transferring elements from an existing solution for a design problem to the solution for another design problem.*

These steps are presented in this research design as follows:

- The step 1 "*Analogical design requires first accessing ..*" is covered in Part 2 **Exploration study** of the research design.
- The step 2 "*….and then transferring elements from an existing solution for a design problem to the solution for another design problem."*, is covered in Part 3 **Design study** of the research design.

4.3 Cross-case synthesis technique

Part 4 is a multiple case study based on cross-case synthesis (Yin, 2003) where author collects data from fourteen cases on the Business perspective, also called Ventures. Yin elaborates in Chapter 5 *Analyzing Case study evidence*, paragraph 5.2 *Specific analytic techniques*, topic *Cross-case Synthesis*:

> "*One possibility is to create word tables that display the data* [author: i.e. the case's assertions or sentences] *from the individual cases according to some uniform framework.*"
>
> "*Complementary word tables can go beyond the single features of a case … the analysis can start to probe whether different groups of cases appear to share some similarity …. cross-case patterns.*".

The data author examines (Yin: Units of analysis) are the assertions (or sentences) within each of the fourteen cases. Author searches for the **categories of assertions**, i.e. "*…some uniform framework.*", where the assertions (or sentences) "*..share some similarity..*", i.e. are about a specific expertise or discipline, needed during the whole venture, e.g. Venture management, Market development, etc.
Result: The multiple case study delivers the "**categories of assertions**" of the Practical Knowledge Valorization Process Model version, 1.0.

4.4 Academic context (blue) and the research design (green), visualized

A. On the context of worlds, there is the Academic world and the Reality world:
- The upper part (2 and 3) is the Academic world which is at Conceptual level.
- The lower part (1 and 4) is the Reality world which is at Perceptual level.

B. On the context of problem-solving, there is the Problem and the Solution:
- Left (1 and 2) is the problem area, at Concrete (1) and Fundamental (2) level.
- Right (3 and 4) is the solution area, at Fundamental (3) and Concrete (4) level.

C. On the context of data, there are four domains with each their specific data:
1. Observations: Data on the concrete problem, collected through observations.
2. Knowledge: Data on the fundamental problem and causes, in Literature.
3. Models: Created fundamental solution to the problem, by conceptual models.
4. Solution: Created concrete solution, by applied conceptual models.

D. On the context of processes, there are four processes, connecting the domains:
4'->1. Discover & Describe: Document observations on the discovered problem.
1->2. Abstract: Abstract the concrete problem, to fundamental cause(s).
2->3. Analyze & Synthesize: Create conceptual model on related cause(s).
3->4. Concretize: Apply conceptual model, to create concrete solution.

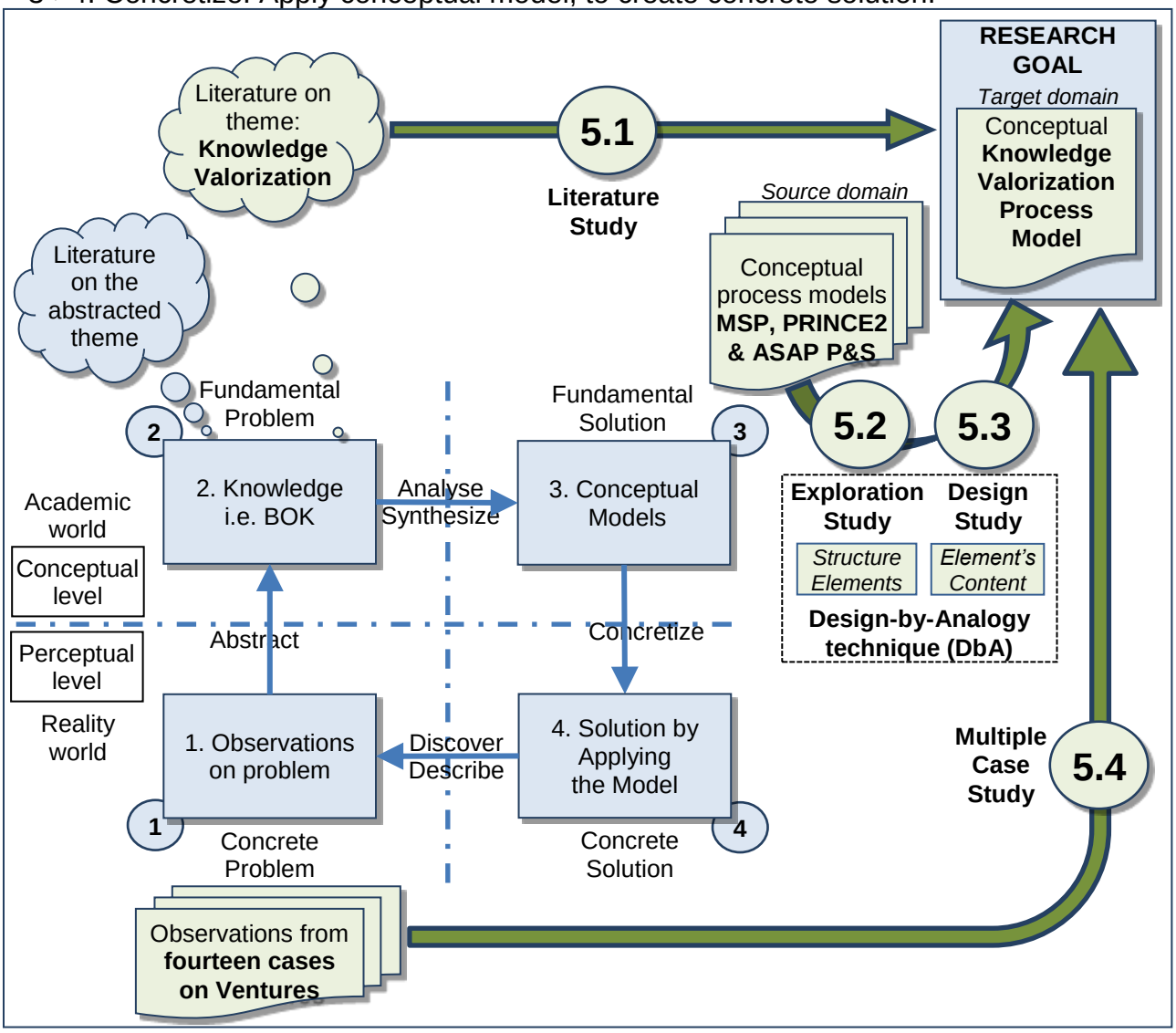


Figure 18: by author: Academic context and the research design, visualized

4.5 Cases overview

Cases
Author has been involved (in different roles) in fourteen cases of valorization through the set-up, management and observation of ventures, from which author is using the information. These fourteen cases are:

1. TNO's RunAdvisor Venture.
   This involves the TNO R&D and TNO Business Development organizations, where they patented new technology and models on calculating running metrics, using only (no GPS) an inlay sole in a run shoe.
   Author was involved as one of three business men – and as the unofficial project manager-, who wanted to make a successful business out of this technology knowledge and ultimately looked for funding of appr. 11+ mio euro.

2. LogiMedical's ProMonitor Venture.
   This involves the Logimedical enterprise being a trading company delivering smart cars for medicine distribution in hospitals and elderly houses.
   They developed (by TU Delft) a smart car with integrated ICT, software and data, that makes medicine distribution more effective and safer.
   Author was involved as the unofficial program manager in the unofficial team who tried to define the venture and to find funding of appr. 4.8 mio euro.

3. Avans AOC support on the Blue Eye Innovations venture.
   This involves the start-up Blue Eye Innovations, being an innovation consultancy firm, formed by two Avans students doing the bachelor "Entrepreneurship Education". Directly after finishing their bachelor, they want to start their own business. Author was involved through the *Avans Ondernemers Centrum* (AOC) as an experienced business man and venture consultant, in order to help them with the design and support on shaping their venture.

4. Monty's Europe expansion venture.
   This involves the expansion of the existing trading company Monty's -specialized in environmental friendly agricultural fertilizers-, to other parts of the world. Their holding and production company is in the USA. Their holding company supplies licenses to trading companies all over the world. A new trading company for the Benelux needs funding to start up.
   Author was involved as a consultant on the business plan, Commercial communications, Go to market strategy, finance and funding of appr. 5 mio euro.

5. Case 05 through 14, being the ventures of the ten finalists of the "Get in the ring 2014 final" event on November 21, 2014 (GITR 2014, 2014), where each finalist's venture is a case. This event is the global competition to win funding of one's venture, based on the "Get in the ring" concept. The ten finalist –all entrepreneurs-, competed against each other in pairs in five battles, by pitching and promoting their venture on predefined topics. Four investors -called Champions-, of venture capitalist firms (VCF's), asked them questions, judged them and voted the battle winner. Author was involved as an observer in the

audience and downloaded the video registration of the event on November 23, 2014 for detailed review on what can be learned from this.

The predefined topics were:
-Intro. 30 seconds to introduce yourself and the product.
-01. Team.
-02. Achievements.
-03. Business model & Size of the market.
-04. Financials and Business/Investment proposal.
-Why. Why they are going to win from their opponent.

Questions asked –during the event-, by the Champions are e.g.:
1. What do I get for 2 million?
2. What about the competition?
3. Is the product ready? (for sale).
4. How do you control the channel, e.g. when a big company takes over?
5. Biggest challenge so far and how did you passed that, in three sentences.
6. Did you put money in yourself?
7. Valuation of 4 bio in 4 years?

Different Cases and Roles
The different ventures and author's different roles results in a wide and deep knowledge and experience pool on ventures, that delivers much and high quality learnings, helping to design the Knowledge Valorization Process Model.
Because every case is also done with or by others, bias of the author is reduced.

4.6 Case Data sources limits and scope

The available data sources consist of documents, calculations, audio and video's. The data in it is not structured to the research aim and research questions, and are therefore "*unstructured data sources*". Due to the high amount of data sources and data (30+ GB) it is not possible to process all data sources through a protocol.

Scope
A great deal of data sources cannot be used, because author has signed several Non-Disclosure Agreements (NDA). Also many involved do not want their names published; In that case author uses dummy names or acronyms.

4.7 Case Data sources types

The data source types are everything one can think of when developing ventures. The different media types are Word, PowerPoint, Excel, Pictures, Jpeg, Audio, Video, Photo, etc.. Specific topics are e.g.: business plan, venture capital information, value proposition, pitching, funding criteria, legal structure, valuation, competitor analyses, stakeholders, planning, deliverables (product breakdown structure), Venture information leaflets, seminar information (e.g. M&K, ICT Valley), congress information (e.g. Mountain Club), exhibit information (e.g. e-Health, CSI Basel), Patent descriptions, IP regulations, notes on investor "masterclass" (e.g. Raymond Wicki), Venture Capital presentations, etc.
For this research the categorization of datatypes is not important, since the data collection procedure does not require a certain structure.

4.8 Case Data sources selection and preparation

Author divided the data sources into two groups. Group 1 is documented by written documents. Group 2 is documented by the transcription of a video' audio recording.

Group 1: Cases 01 - 04, Case Data in Documents

Group 1 contains the cases 01 through 04. These cases are separate ventures and each has its own documents (written text), which are inspected. The content of a page(s) in a document is assessed and categorized to the Stream it belongs.
Author selected an arbitrary set of documents of each case as follows:

Case 01: 33 documents Case 02: 14 documents
Case 03: 1 document Case 04: 1 document

Group 2: Cases 05 - 14, Case Data in Audio transcripts from video

Group 2 contains the cases 05 through 14. These cases are the 'Get in the ring 2014 final' (GITR) ventures. The GITR 2014 final is recorded on video with audio. Author made a transcript of all battles their relevant contester's audio parts, and collected their assertions. The content of each assertion (sentence or part of a sentence) is assessed and categorized to the Stream it belongs. The battles and contesters (i.e. cases) are as follows (e.g. "1:23:30" is the start time of the battle in the video):

Battle 1	***Battle 2***	***Battle 3***	***Battle 4***	***Battle 5***
CA05: 6. Spot*on, USA	CA07: 8. Choo-Choo baby, Moldova	CA09: 2. GoMetro, South Africa	CA11: 10. eFishery, Indonesia	CA13: 3. Templify, Denmark
1:23:30	1:48:26	2:17:20	2:34:42	2:52:16
CA06: 5. Healthy Memory, Bolivia	CA08: 4. Nannuka, Greece	CA10: 1. SnappCar, Netherlands	CA12: 9. Integreight, Egypt	CA14: 7. ScreenDY, Morocco
1:24:40	1:50:05	2:18:32	2:35:44	2:54:04

Table 5: By author: GITR final 2014, the 5 battles and 10 contesters (i.e. ventures)

4.9 Case Data sources processing and results example

Because each of the two groups has a different data source, the processing and coding for each group is different. However, the results of both groups must be combined in one overall overview (spreadsheet), in order to be used as case exhibits. Hereafter author describes for each group the coding process, shows a result example and shows the appearance in the overall spreadsheet, "*Overview of Case Exhibits and the KVPM Stream*".

Group 1 (documents) processing and example

Group 1 consists of four cases with existing documents. To use the cases, documents and their content in a systematic way, author coded them as follows. (See columns D, E, F, H and B in the overall spreadsheet example on next page).

-D. Each case is coded as follows, e.g.: CA01 => Case number 01 (through 04).

-E. Each document is coded as follows, e.g.: DC01 => Document number 01.

-F. Each page is coded as follows, e.g.: _pag002 => page number 002.

Then (H) the page title or description (i.e. page-topic) what it is about, is shown. Finally (B) the page-topic is assessed and linked to a stream (e.g. 03 MD).

Author hereunder shows an example of a group 1 processing result.
1. The data source entry is described, see the lines ***Case*** through ***Title***.
2. For each document, author selects page(s) listed in columnar format as follows:
   - column ***Page***: The specific page ("page-entry") within the data source.
   - column ***Title***: The title or description the page-topic is about.
3. Author then assesses and links each page-entry, to one or more KVPM Streams:
   - column ***Topic***: The KVPM Stream(s) the page-topic addresses or is about.

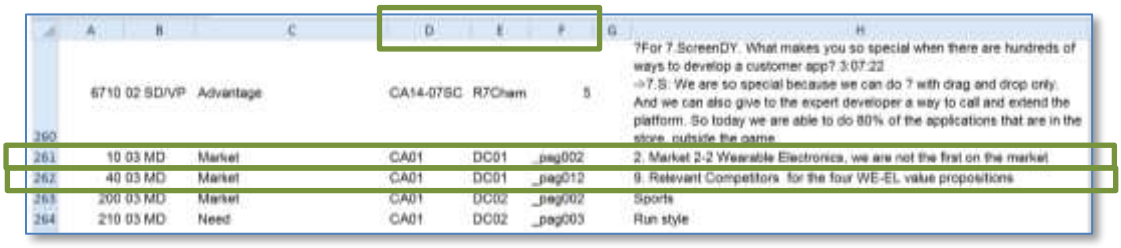
Case 01 RunAdvisor –EXAMPLE-

DC01 - Draft Business Plan

Case	CA01 - RunAdvisor (RunAnalyzer)	
Document	DC01 - Draft Business Plan	By JVW & PCL
Source-id	CA01_DC01_All_BusiPlan_Overview_v090	
Doc.Name	SmWi_BusiPlan_Overview_V090	PPT
Date	24 April 2013	
Title	Presentation Wearable Electronics Draft Business Plan - Overview	39 pages
Page	***Title***	***Topic***
_pag002	2. Market 2-2 Wearable Electronics, we are not the first on the market	03 MD: Market exploration
_pag009	6. Supplier – Buyer: Supply Chain	05 DA: AVC of delivery
_pag010	7. Bill Of Material – BOM within Target Market	06 TD: BOM
_pag012	9. Relevant Competitors for the four WE-EL value propositions	03 MD: Market competition
…….	…….	…….

Figure 19: By author: Group 1 example of a case document processing and result

In the overall spreadsheet where each ***Page*** is a line, this shows as follows:



	A	B	C	D	E	F	G	H
								?For 7.ScreenDY. What makes you so special when there are hundreds of ways to develop a customer app? 3:07:22
	6710 02 SD/VP		Advantage	CA14-07SC	R7Cham	5		=>7.S: We are so special because we can do 7 with drag and drop only. And we can also give to the expert developer a way to call and extend the platform. So today we are able to do 80% of the applications that are in the store, outside the game
260								
261	10 03 MD		Market	CA01	DC01	_pag002		2. Market 2-2 Wearable Electronics, we are not the first on the market
262	40 03 MD		Market	CA01	DC01	_pag012		9. Relevant Competitors for the four WE-EL value propositions
263	200 03 MD		Market	CA01	DC02	_pag002		Sports
264	210 03 MD		Need	CA01	DC02	_pag003		Run style

Figure 20: By author: Group 1 example of "*Overview of case exhibits and the KVPM Streams*"

Group 2 (audio transcripts from video) processing and example

Group 2 consists of ten cases (i.e. contesters, CA05 through CA14) with relevant audio transcripts from the recorded GITR Final 2014 video.
To use these cases (i.e. contesters), the GITR battle rounds, subjects and the contester's audio content (i.e. assertions), all in a systematic way, author coded them as follows. (See columns D, E, F, H and B in the overall spreadsheet on next page).

-D. Each case (i.e. contester) is coded as follows, e.g.: **CA05-06SP:**
- "CA05" means case number 05 (there are 10 contesters, so through 14).
- "-06SP" means "6. Spot*on Sciences, from USA".

-E. Each round in a battle is coded as follows, e.g.: **R1Team:**
- "R1" means round number 1.
- "Team" means the rounds' topic is "About the Team".

The next round codes with their assertions' (i.e. speech) topic are used:

Round code	Numb	Assertions' (i.e. speech) topic
R0aIntro	0	a. Product introduction.
R0bYrslf	0	b. About Yourself.
R1Team	1	Round 1. About the Team.
R2Achie	2	Round 2. Your achievements so far.
R3BuMa	3	Round 3. Business model and market.
R4FiBp	4	Round 4. Finance and Business proposal.
R5Free	5	Free format; convince the champions in 30 seconds.
R6Why	6	Why you should win from your opponent?
R7Champ	7	Answer the champions' questions.
R8Twitr	8	Answer the twitters' questions.
== Only for the five battle winners:		
R9RndW	9	Round winners: each's final promotion of their selves.

-F. Each assertion in a round is coded as follows, e.g.: **1** = assertion number 01.

Then (H) the assertion (i.e. the sentence) itself is shown. Finally (B) the assertion (i.e. the sentence) is assessed and linked to one or more streams.

Author hereunder shows an example of a group 2 processing results.
1. The data source entry is described. Each battle has two contesters, who answer questions in multiple rounds. For an ***Assertion*** it is known (see example below):
   - The contestant (e.g. "6. Spot*on Sciences, from USA", coded as **CA05-06SP**).
   - The round (e.g. "==ROUND 1: Team==", coded as **R1Team**).
   - The assertion (i.e. the sentence, answering the question) number (e.g. **1**).
2. For each battle, author made a transcription, listed in columnar format as follows:
   - Column ***Assert.***: The assertion (the sentence) number in the answer (speech).
   - Column ***Title***: The assertion (the sentence) itself.
3. Author then assesses and links each assertion, to one or more KVPM Streams:
   - Column ***Topic***: The KVPM Streams the assertion-topic addresses or is about.

==ROUND 1: TEAM== -EXAMPLE-

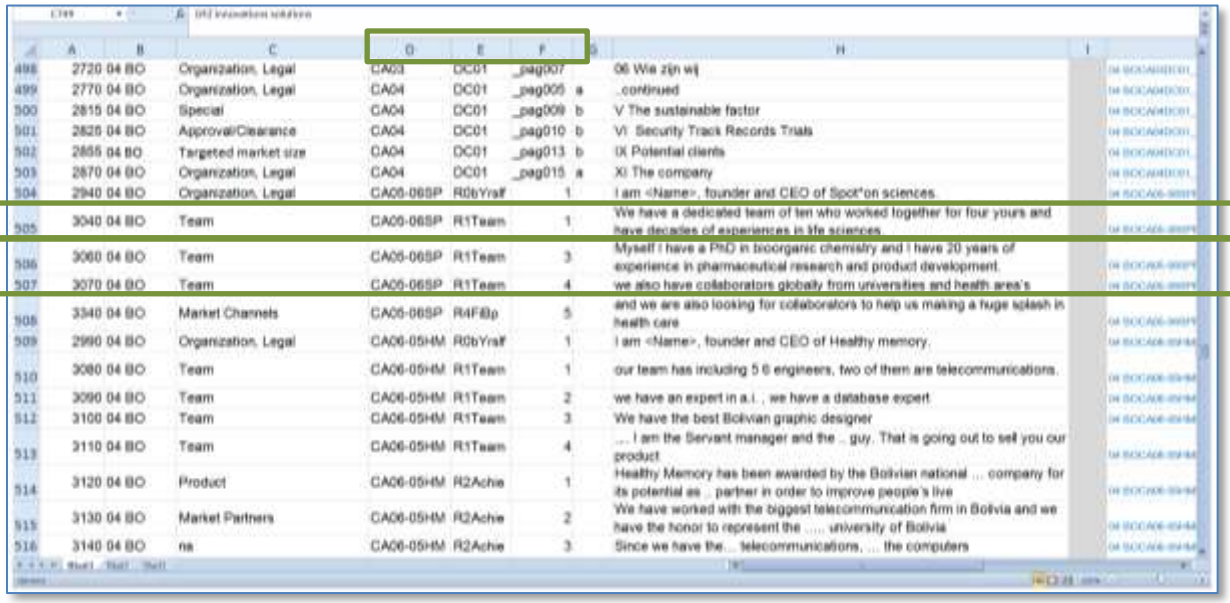
?Great concept, but what about the team behind it, because you are not the only one I think.

Round 1: TEAM, 6. Spot*on Sciences, from USA

Assert.	*Title*	*Topic*
1	We have a dedicated team of ten who worked together for four yours and have decades of experiences in life sciences.	04 BO
2	And produced three patents on our technology.	06 TD
3	Myself I have a PhD in bioorganic chemistry and I have 20 years of experience in pharmaceutical research and product development.	04 BO
4	we also have collaborators globally from universities and health area's	04 BO

Figure 21: By author: Group 2 example of a case document processing and result

In the overall spreadsheet where each ***Assert.*** is a line, this shows as follows:



	A	B	C	D	E	F	G	H	I
498	2720	04 BO	Organization, Legal	CA03	DC01	_pag007		06 Wie zijn wij	
499	2770	04 BO	Organization, Legal	CA04	DC01	_pag005	a	..continued	
500	2815	04 BO	Special	CA04	DC01	_pag009	b	V The sustainable factor	
501	2825	04 BO	Approval/Clearance	CA04	DC01	_pag010	b	VI Security Track Records Trials	
502	2855	04 BO	Targeted market size	CA04	DC01	_pag013	b	IX Potential clients	
503	2870	04 BO	Organization, Legal	CA04	DC01	_pag015	a	XI The company	
504	2940	04 BO	Organization, Legal	CA06-06SP	R0bYraF	1		I am <Name>, founder and CEO of Spot*on sciences	
505	3040	04 BO	Team	CA06-06SP	R1Team	1		We have a dedicated team of ten who worked together for four yours and have decades of experiences in life sciences	
506	3060	04 BO	Team	CA06-06SP	R1Team	3		Myself I have a PhD in bioorganic chemistry and I have 20 years of experience in pharmaceutical research and product development.	
507	3070	04 BO	Team	CA06-06SP	R1Team	4		we also have collaborators globally from universities and health area's	
508	3340	04 BO	Market Channels	CA06-06SP	R4FBp	5		and we are also looking for collaborators to help us making a huge splash in health care	
509	2990	04 BO	Organization, Legal	CA06-05HM	R0bYraF	1		I am <Name>, founder and CEO of Healthy memory.	
510	3080	04 BO	Team	CA06-05HM	R1Team	1		our team has including 5 6 engineers, two of them are telecommunications.	
511	3090	04 BO	Team	CA06-05HM	R1Team	2		we have an expert in a.i. , we have a database expert	
512	3100	04 BO	Team	CA06-05HM	R1Team	3		We have the best Bolivian graphic designer	
513	3110	04 BO	Team	CA06-05HM	R1Team	4		... I am the Servant manager and the .. guy. That is going out to sell you our product	
514	3120	04 BO	Product	CA06-05HM	R2Achie	1		Healthy Memory has been awarded by the Bolivian national .... company for its potential as .. partner in order to improve people's live	
515	3130	04 BO	Market Partners	CA06-05HM	R2Achie	2		We have worked with the biggest telecommunication firm in Bolivia and we have the honor to represent the ..... university of Bolivia	
516	3140	04 BO	na	CA06-05HM	R2Achie	3		Since we have the... telecommunications, ... the computers	

Figure 22: By author: Group 2 example of "*Overview of Case Exhibits and the KVPM Stream*"

5. DATA COLLECTION and PROCESSING

As described in the research design, the data collection and processing consist of four parts, each contributing to the design of the knowledge valorization process model (KVPM). Hereafter each part describes the actions on collecting and processing, the rationale behind choices, conclusions, what can be learned from it and how author uses the findings for the design of the KVPM.

5.1 Part 1 Literature study on Knowledge Valorization

Part one of the research is a **literature study** to determine KVPM process model elements from theory in literature. The literature study has two subjects. Subject one is a general literature search on Knowledge Valorization as a theme; this answers sub question 1.
Subject two is a specific literature search on Knowledge Valorization Process models; this answers sub question 2.

5.1.1 General literature search on Knowledge Valorization as a Theme

5.1.1.a Scoping and filter for the literature research.
Hereafter author sets the scope and the filter of the literature research.

First the scope. This is defined earlier in this research as follows:

A. The design of a practical Knowledge Valorization Process Model, requires:
- On searched objects: the KVPM process model elements.

B. In paragraph 2.3.7 author introduced the periods Pre-Valorization, Valorization and Post-Valorization. In here author sets the scope findings as follows:
- On period: only within the Valorization period.

C. In paragraph 2.3.11 author sets the scope for the research on input, process, output and Perspective. In here author sets the scope as follows:
- On input: to start from and with existing knowledge.
- On process: ..making knowledge suitable … and available .. and to translate into .. .
- On output: to end with Successful Business.
- On perspective: for only (2) The Business perspective.

Second the filter. This is defined by:
- all verbs that addresses e.g. a phase, stages, processes, activity, actions on the process scope, direct or indirect.
- all nouns that address the input scope, intermediate results, or output scope
The previous two filters have to be positioned within the *Valorization period* and must be relevant for the *Business perspective*.

5.1.1.b The literature research findings, 1st pass
This 1st pass author reviews, assesses and classifies the literature review results in chapter 2.3.4. Although it did not reveal any usable information, it is documented as a source for successor researchers for further inspection and new conclusions.

Reviewing the literature listed in chapter 2.3.4, author classifies the conceptualized found information in the next categories:

A. Pre-Valorization period
Activities are about and for the institutes themselves and/or about knowledge creation or protection and thus these belong to the *Pre-valorization period*.
This information is not usable, because the *Pre-valorization period* is out of scope.

B. Organizational perspective
Activities are about organizing partnerships and/or about collaboration with other institutes, industries, etc. and thus these belong to the *Organizational perspective*.
This information is not usable, because the *Organizational perspective* is out of scope.

C. Educational perspective
Activities are about Entrepreneurship Education and/or about entrepreneurship activities of the institutes and thus these belong to the *Educational perspective*.
This information is not usable, because the *Educational perspective* is out of scope.

D. Business perspective
Activities are about "*..making knowledge suitable and available … and to translate …. into Successful Business ..*" and thus these belong to the *Business perspective*.
This information is usable, because the *Business perspective* is in scope.

E. Measurements models
Activities are about measuring Valorization initiatives and/or activities on Entrepreneurship, where almost every measuring "system" (except Ziegele) does not have an underlying process model and also does not link to the Valorization definition.
This information is not usable, because measuring systems are out of scope. This research aims to design a practical Knowledge Valorization Process model, not measurement systems on valorization. Also obtaining learnings from the measurement models is not possible, because there is no common ground, i.e. a process model and/or link to the definition.

Summarizing the above, author earlier in this research report, limited the scope to the Business perspective, and is therefore only interested in research findings related to the category ***D. Business perspective***. All other categories are out of scope.

Hereafter in Table 6 author (a) assesses and (b) categorizes the literature research findings, based on the 65 (L01) + 9 (L02 through L10) = 74 references to literature.

		(b) Category of literature research findings				
Doc	***(a) Assessment description: what it is about***	***A. Pre-Valo. Period***	***B. Organiz. Perspec.***	***C. Educat. Perspec.***	***D. Busin. Perspec.***	***E. Measure ments***
L01	Debets & Westerveld (2015) on 65 papers.					
	On 1: is about cooperation & engagement		**V**			
	On 2: University role is supplier of knowledge	**V**				
	On 3: TTO is an University organizational unit	**V**				
	On 4: Other channels: Collaborative R&D		**V**			
	On 5: Transfer of knowledge; is input	**V**				
	On 6: Entrepreneurship & university			**V**		
	On 7: Financing Own R&D for themselves	**V**				
	On 8: Entrepreneur University => education			**V**		
	On 9: Research Partnership = organizing		**V**			
	On 10: Interaction: networks, lectures, conf.		**V**			
L02	Is about Valorization Indicators i.e. measurements. No underlying process model					**V**
L03	Is about a declaration statement communicating the policy and will to collaborate		**V**			
L04	Author poses: Valorization is collaboration and organizing of this		**V**			
L05	Is about collaboration: KA: networking and collaboration		**V**			
L06	Is about defining vision on collaboration and education entrepreneurship learning		**V**	**V**		
L07	Is about all organizational activities		**V**			
L08	Review on valorization program, based on Indicators i.e. measurements. No underlying process model					**V**
L09	Finding Indicators of Valorization. I.e. measurements, with pre-valorization process model					**V**
L10	Is about Agenda setting & Organizing & Themselves	**V**	**V**			

Table 6: By author: Overview of literature classification

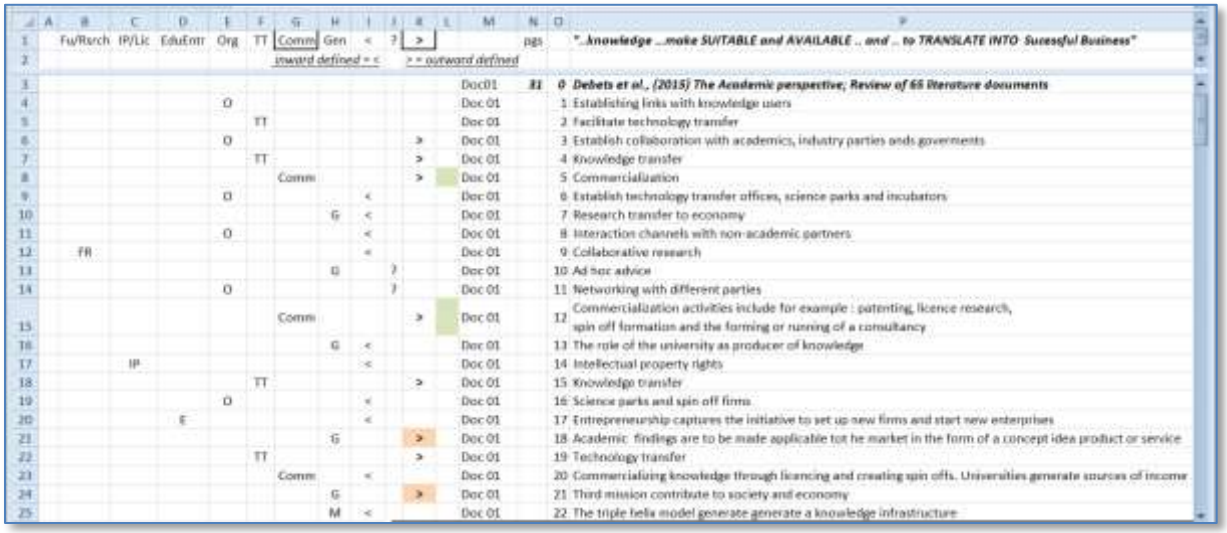
The results of literature research findings, 1st pass.
Author needs literature findings (= reference level) categorized by column ***D. Business Perspective***. However this column is empty, i.e. author did not find any valorization literature on the Business perspective.

Conclusion: Author concludes that reviewing 74 references on the topic of "*Knowledge Valorization"* and almost everyone using author's definition on valorization "*Valorization is the process to create value from knowledge …*", that nobody is writing about activities and/or results on "*… making … available and ..suitable …to translate into …. Successful Business.*"

5.1.1.c The literature research findings, 2nd pass
For successor researchers, author describes the 2nd pass its three attempts on extracting relevant information from the Debets et al. 65 and 9 other documents.

Not having found at reference level any needed information, author decided to do a 2nd pass on all the documents, now doing a detailed search, whereby three attempts where necessary, before finding usable information.
-First attempt. Author searched for assertions on processes and process model. In all the documents, all the writers are using the definition that knowledge valorization is the **process** to "create value". Therefore author expects to find assertions on the structure and content of such a process model.
Surprisingly author could not find assertions addressing –the description of- the "create value" process model. Only Ziegele (2014, p. 12-13) has a simple 'process model'. Not finding assertions is an omission which emphasizes the need for a practical Knowledge Valorization Process Model.
-Second attempt. Author searched for assertions near/related to the three key words "suitable", "available" and "translate". These are the verbs all writers are using in the valorization definition. Therefore author expects to find assertions on activities and/or results that are listed under or labeled with these three keywords.
Surprisingly author could not find any assertion addressing or labeling these three elements in the definition. This omission emphasizes the need of a practical Knowledge Valorization Process Model.
-Third attempt. Author decided to do a manual document-by-document and sentence-by-sentence search, whereby author used a 'wide' filter to find candidate assertions on activities (action verb + noun) that possibly relate to, names or addresses a possible 'valorization', as seen by the writer. Author dropped the Business perspective filter and allowed for pre-Valorization assertions.

Search selection results
Author finds 176 candidate assertions according to authors 'wide' filter that the assertions might be an activity belonging to any valorization, from any perspective. Hereafter in Table 7, author shows the first 23 results. For full listing see Exh01.



	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P
1		Fu/Rsrch	IP/Lic	EduEntr	Org	TT	Comm	Gen	<	?	>			pgs		"..knowledge ...make SUITABLE and AVAILABLE .. and .. to TRANSLATE INTO Sucessful Business"
2							inward defined = <				> = outward defined					
3													Doc01	31	0	Debets et al., (2015) The Academic perspective; Review of 65 literature documents
4					O								Doc 01		1	Establishing links with knowledge users
5						TT							Doc 01		2	Facilitate technology transfer
6					O						>		Doc 01		3	Establish collaboration with academics, industry parties ands governments
7						TT					>		Doc 01		4	Knowledge transfer
8							Comm				>		Doc 01		5	Commercialization
9					O				<				Doc 01		6	Establish technology transfer offices, science parks and incubators
10								G	<				Doc 01		7	Research transfer to economy
11					O				<				Doc 01		8	Interaction channels with non-academic partners
12		FR							<				Doc 01		9	Collaborative research
13								G		?			Doc 01		10	Ad hoc advice
14					O					?			Doc 01		11	Networking with different parties
15							Comm				>		Doc 01		12	Commercialization activities include for example : patenting, licence research, spin off formation and the forming or running of a consultancy
16								G	<				Doc 01		13	The role of the university as producer of knowledge
17			IP						<				Doc 01		14	Intellectual property rights
18						TT					>		Doc 01		15	Knowledge transfer
19					O				<				Doc 01		16	Science parks and spin off firms
20				E					<				Doc 01		17	Entrepreneurship captures the initiative to set up new firms and start new enterprises
21								G			>		Doc 01		18	Academic findings are to be made applicable tot he market in the form of a concept idea product or service
22						TT					>		Doc 01		19	Technology transfer
23							Comm		<				Doc 01		20	Commercializing knowledge through licencing and creating spin offs. Universities generate sources of income
24								G			>		Doc 01		21	Third mission contribute to society and economy
25								M	<				Doc 01		22	The triple helix model generate generate a knowledge infrastructure

Table 7: By author: From 10 document: 176 candidate assertions on 'valorization'

Categorization of the search selection results
Next author filters the Knowledge Valorization assertions that are: within definition, on the Business perspective and within Valorization-period (i.e. not in pre-valorization).

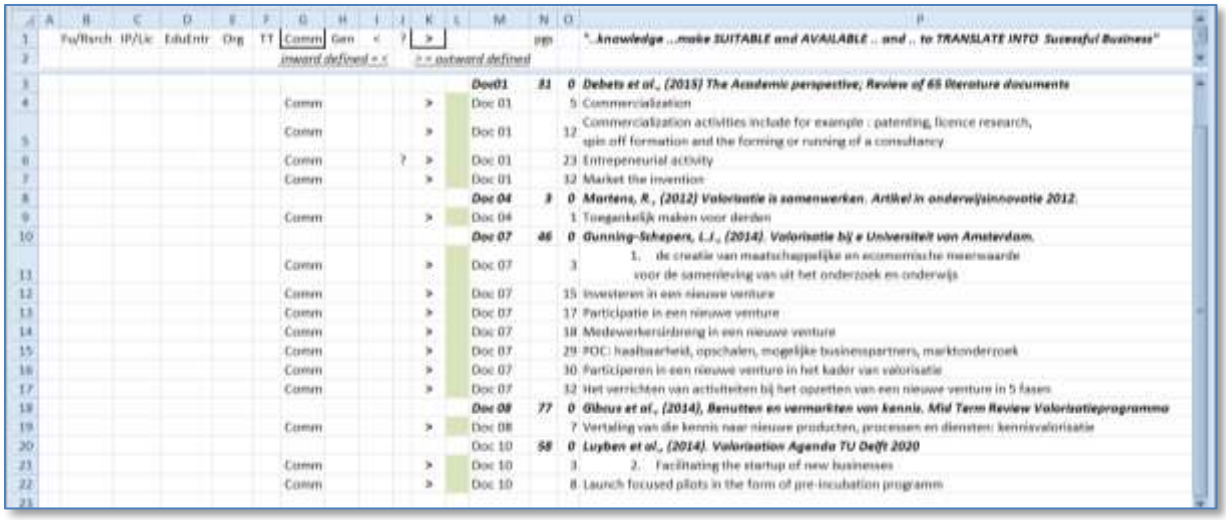
First author applied the "what-it-is-about" label to the assertions using mutually exclusive categories in the different columns (see Table 7):
- cB. Fu/Rsrch: about research and/or funding and/or research funding, etc.
- cC. IP/Lic: about licensing, IP, patent, defend, financing of IP, etc.
- cD. EduEntr: about Entrepreneurship Education, Entrepreneurial University, etc.
- cE. Org: about organizing 'something': institutes, links, collaboration, etc.
- cF. TT: about technology transfer, knowledge transfer, etc.
- cG. Comm: about commercialization, entrepreneurial activity, market invention, etc.
- cH. Gen: about a general assertion, opinion, prerequisite, concept, etc.

Author **excluded** five categories from *Knowledge Valorization*, because:
(excl1) cB. and cC. and cF. are activities for and within the institutes themselves.
(excl2) cD. is about the Educational perspective, which is out of scope.
(excl3) cE. is about the Organizational perspective, which is out of scope.

Author **included** two categories on *Knowledge Valorization*, because:
(incl1) cG. are *action assertions* about the Business perspective, which is in scope.
(incl2) cH. are *general assertions* about the Business perspective, which is in scope.

Second author categorizes and labels the assertions on "where-is-it-looking-to":
(a) inward (to institute) defined, in column I labeled with '*inward defined* = <', or
(b) neutral defined, in column J labeled with '*?*', or
(c) outward (to market) defined, in column K labeled with '>= *outward defined*'.

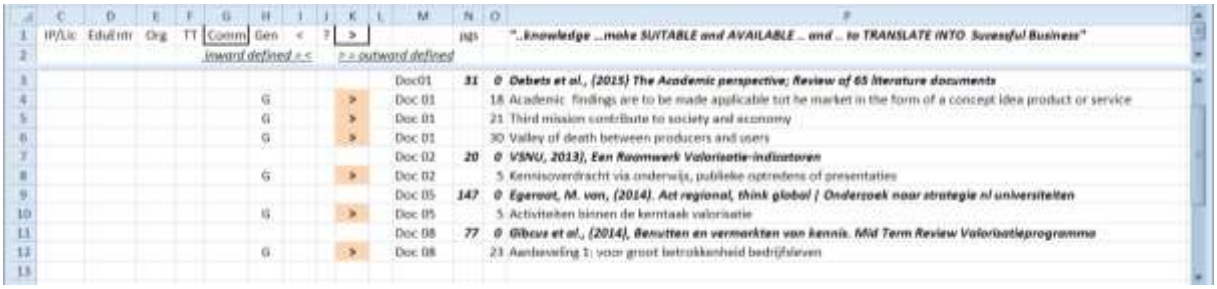
Third author declared those assertions with column G 'Comm' and column K '>= *outward defined*', valid as ***action assertions*** on (i) Knowledge Valorization according to the definition, (ii) within the Valorization period and (iii) on the Business perspective. Author finds fifteen (15) valid *action assertions* (green colored) on a total of 176 candidate assertions (8,5%), displayed in Table 8 hereunder:



	Fu/Rsrch	IP/Lic	EduEntr	Org	TT	Comm	Gen	<	?	>		pgs	"..knowledge ...make SUITABLE and AVAILABLE .. and .. to TRANSLATE INTO Sucessful Business"
						inward defined = <				>= outward defined			
											Doc01	81	0 Debets et al., (2015) The Academic perspective; Review of 65 literature documents
						Comm				>	Doc 01		5 Commercialization
						Comm				>	Doc 01		12 Commercialization activities include for example : patenting, licence research, spin off formation and the forming or running of a consultancy
						Comm			?	>	Doc 01		23 Entrepeneurial activity
						Comm				>	Doc 01		12 Market the invention
											Doc 04	3	0 Martens, R., (2012) Valorisatie is samenwerken. Artikel in onderwijsinnovatie 2012.
						Comm				>	Doc 04		1 Toegankelijk maken voor derden
											Doc 07	46	0 Gunning-Schepers, L.J., (2014). Valorisatie bij e Universiteit van Amsterdam.
						Comm				>	Doc 07		3 1. de creatie van maatschappelijke en economische meerwaarde voor de samenleving van uit het onderzoek en onderwijs
						Comm				>	Doc 07		15 Investeren in een nieuwe venture
						Comm				>	Doc 07		17 Participatie in een nieuwe venture
						Comm				>	Doc 07		18 Medewerkersinbreng in een nieuwe venture
						Comm				>	Doc 07		29 POC: haalbaarheid, opschalen, mogelijke businesspartners, marktonderzoek
						Comm				>	Doc 07		30 Participeren in een nieuwe venture in het kader van valorisatie
						Comm				>	Doc 07		32 Het verrichten van activiteiten bij het opzetten van een nieuwe venture in 5 fases
											Doc 08	77	0 Gibcus et al., (2014), Benutten en vermarkten van kennis. Mid Term Review Valorisatieprogramma
						Comm				>	Doc 08		7 Vertaling van de kennis naar nieuwe producten, processen en diensten: kennisvalorisatie
											Doc 10	58	0 Luyben et al., (2014). Valorisation Agenda TU Delft 2020
						Comm				>	Doc 10		3 2. Facilitating the startup of new businesses
						Comm				>	Doc 10		8 Launch focused pilots in the form of pre-incubation programm

Table 8: By author: 10 documents and 15 valid *action assertions* on 'valorization'

Fourth author declared those assertions with column H 'G' and column K '>" (i.e. '>= *outward defined*'), valid as ***general statements*** on (i) Knowledge Valorization according to the definition, (ii) within the Valorization period and (iii) on the Business perspective. Author finds six (6) valid *conceptual statements* (in Table 9 orange colored) on a total of 176 candidate assertions (3,4%), displayed hereunder:



	C	D	E	F	G	H	I	J	K	L	M	N	O	P
1	IP/Lic	Edu/Intr	Org	TT	Comm	Gen	<	?	>			pgs		"..knowledge ...make SUITABLE and AVAILABLE ... and .. to TRANSLATE INTO Sucessful Business"
2					inward defined = <				> = outward defined					
3											Doc01	31	0	Debets et al., (2015) The Academic perspective; Review of 65 literature documents
4						G			>		Doc 01		18	Academic findings are to be made applicable tot he market in the form of a concept idea product or service
5						G			>		Doc 01		21	Third mission contribute to society and economy
6						G			>		Doc 01		30	Valley of death between producers and users
7											Doc 02	20	0	VSNU, 2013), Een Raamwerk Valorisatie-indicatoren
8						G			>		Doc 02		5	Kennisoverdracht via onderwijs, publieke optredens of presentaties
9											Doc 05	147	0	Egeraat, M. van, (2014). Act regional, think global / Onderzoek naar strategie nl universiteiten
10						G			>		Doc 05		5	Activiteiten binnen de kerntaak valorisatie
11											Doc 08	77	0	Gibcus et al., (2014), Benutten en vermarkten van kennis. Mid Term Review Valorisatieprogramma
12						G			>		Doc 08		23	Aanbeveling 1: voor groot betrokkenheid bedrijfsleven
13														

Table 9: By author: Ten documents and 6 valid *general statements* on 'valorization'

5.1.1.d Conclusion and judgement on all literature search results
Validating the literature search results, author finds only Ziegele (2014, p. 12-14) has defined a 'process model'. However Ziegele is not about the valorization process, but on measurements "Indicators of valorization", which is out of scope.

Author concludes the 15 literature search results are not usable, because:
(1) they are not based on a process model as is set in the Knowledge Valorization definition part "*Valorization is the process to create value ……*".
(2) they are not based on (or linked to) the three key words "*..make Suitable and Available .. and .. to Translate into…*" in the definition.
(3) they are on the Business perspective and within the Valorization-period, but:
- they lack the link to a process model and the three key words, and
- they are not clear on their meaning and understanding.

"One cannot find it, if it is not there", source: author

Author realizes this research report newly introduces the "*Business perspective*" and uses it as a filter. However this Business perspective is derived from and closely linked to the Valorization definition, which almost everyone is using in their writing. Therefore, finding only 15 valid, -not clear-, *Knowledge Valorization* related assertions on the *Business perspective* in 408 pages, all pages specifically dedicated to the subject of *Knowledge Valorization*, is extremely low.

5.1.1.e Conclusions on reviewed literature

The previous mentioned omissions are a strong argument for the need of a practical Knowledge Valorization Process Model.

Reviewing, analyzing and evaluating the literature, author draws the next conclusions:

1. Valorization process model and derived activities are missing.
According to the definition, Knowledge Valorization is a process that "*creates value*". Author could not find any evidence on addressing this in their activity descriptions. Author could not find any overview or summary on a process model with derived phases, steps, activities, processes, that constitutes this process of "*value creation*". Also there was no reference to the "*suitable*", "*available*", and "*to translate into*". In the literature, they "jump forward and backward" on topics, without realizing that valorization is about a process. They do not address the valorization process, but mostly address issues around it, e.g. what is needed, organized or facilitated, mostly addressing their own internal oriented institutional activities.

2. Valorization deliverables missing.
According to the definition, valorization must deliver ("*..and to translate into..*") successful business, jobs, etc.. Author could not find any assertion that referred or addressed this delivery.

3. Valorization is seen as their own R&D funding.
Author noticed almost all institutes are writing about valorization activities as a 'legitimation' to get and fund their own research and development. This is wrong because these activities belong to the Pre-Valorization period. Valorization starts after the knowledge creation. It is NOT intended for funding the knowledge creation. Valorization is not about the process and funding of research and e.g. funding a patent, but about everything that comes after this! **Valorization starts** with ***existing knowledge***.

4. Valorization input is Existing knowledge.
The academic institutes are simply the supplier, delivering the input to the (start of the) Knowledge Valorization process, i.e. the already ***existing knowledge***.

5. Missing coherence
Author noticed most institutes do use and refer to almost the same Knowledge Valorization (KV) definition. However each institute is operationalizing KV in its own way; there is no coherence in goal, strategy, common process, etc.

This research on Knowledge Valorization underpins the need for a clear, structured and practical "**One shared view on the Knowledge Valorization Process**" (Cleton, 2011b) and for its Inputs, Intermediate results and Outputs.

5.1.1.f Final conclusion and judgement on usability of results
Author judges this "missing process model" as an omission in facilitating people to execute the valorization process in a systematic way.
Author judges this "missing of addressing or labeling the three key elements" in the knowledge valorization definition, i.e. '*suitable*', '*available*' and '*to translate into*', is also an omission, in defining what the output should be of the Knowledge Valorization process. Due to these two omissions, author concludes all 'valorization' assertions in the researched documents are not about or linked to the Knowledge Valorization process and therefore nothing from the literature searches can be used as building blocks for a Knowledge Valorization Process Model.

5.1.2 Specific literature search on Knowledge Valorization Process Models

In this paragraph, author reviews the literature results on Knowledge Valorization Process Models and assesses what is usable.

5.1.2.a Scoping the literature research topics

Author searches the literature listed and described in chapter 2.3.5 on the Knowledge Valorization Process Models, only for (a) phases and stages, (b) organizational topics and (c) -if described-, some deliverables for illustration purpose.

5.1.2.b The literature research

Evaluation the search findings from chapter 2.3.5, leads to the next results:

01. From Cleton, (2011a)

"*Valorization of a certain knowledge is about the question: how to implement it?*"

Author: This is coherent with the aim of this research, the design of a KVPM that acts as a Roadmap for Knowledge Valorization. But is does not describe or propose a process model and therefore cannot be used.

02. From Gyamfi et al., (2007)

The frame of reference for new venture development consists of three elements: Phases, Entrepreneur and Environment.

-Phases in the "*Business Planning Process*" are:

1. Idea Generation.
   1. Identify goals, 2. Shorten planning process, 3. Mind your metrics
2. Idea Modification.
   4. Testing Phase, 5. Review, 6. Decide on actions
3. Idea Execution.
   7. Startup Phase, 8. Implement strategies (ongoing phase)

The "*Business Planning Process*" interacts with the:

- Entrepreneur characteristics:
  Personality, Risk, Need for achievement, Motive of establishment.
- Environment characteristics:
  Financial resources, Other resources, Market, Society's attitude.

Author: The phases are usable.

The *Entrepreneur characteristics* are personal attributes and therefore cannot be mapped. The *Environment characteristics* are resources (Financial and Other) and value proposition related (Market, Society's attitude) and therefore cannot be mapped.

03. From Lemaitre (2014) '*Cycle of innovation*' or '*Process of valorization*'.

The *Process of valorization* and its nine sub processes mentioned here:

1. Research, 2. Invention Disclosure, 3. Assessment, 4. Intellectual Property (Protection), 5. Marketing (to find a licensee), 6. Selecting a licensee (Company Setup), 7. Licensing, 8. Commercialization, 9. Royalties (Revenues and reinvestment),

are activities on the R&D institutes' own funding and purpose of existence. They have nothing to do with: ".. make *available*.. and *suitable*.. *and to translate into* ..".

Author: the process and sub processes are all for the institute's own purpose, thus within the Pre-Valorization period and therefore not usable.

04. From Ter Mate (2010)
Ter Mate concludes there are four main streams in research on valorization:

1. Entrepreneurial research university.
2. Productivity of technology transfer offices.
3. New firm creation.
4. Environmental context including networks of innovation.

He further elaborates on stream 2 and ignores the others.
Author: Ter Mate's main streams can be mapped to authors' (Cleton) new categorization of perspectives Organizational, Business and Educational as follows:

	Categorization of Perspectives by author (Cleton)	***Streams by Ter Mate***
1	Organizational	4. Environmental context including networks of innovation
2	Business	3. New firm creation
3	Educational	1. Entrepreneurial research university
--	None: is a R&D institutes' internal process (thus in pre-valorization period)	2. Productivity of technology transfer offices

Table 10: By author: Mapping *Perspectives by Cleton* and *Streams by Ter Mate*

From this Table 10 and Ter Mate's choice on stream 2. "Productivity of technology transfer offices" which's' activities belong to the pre-valorization period, it is clear nothing can be used. Nevertheless, author assesses Ter Mate's framework.

Ter Mate's [author: IPMC] framework for knowledge valorization tasks and activities, divides the knowledge valorization process into four phases:

1. Identification (e.g. screening and scouting activities),
2. Protection (e.g. patenting),
3. Marketing (e.g. performing a technology assessment) and
4. Commercialization (e.g. licensing or creating a spin-off company)

The *Knowledge valorization process* and its four phases mentioned here are activities on the R&D institutes' own funding and purpose of existence. They have nothing to do with: ".. make *available*.. and *suitable*.. *and to translate into* ..".
Author: The phases and processes –except maybe *creating a spin-of company*-, are all about trying to sell (i.e. earn income) their technology, a so called "Technology Supply / Push". They are for the institute's own purpose and thus in the Pre-Valorization period and therefore are not usable.

Authors note on "….–except maybe *creating a spin-of company*-,…": This could be a start activity (i.e. "..make *available* ..") within the Valorization-period, if this implies also making the knowledge available. It this is not true, this is only the *creation of an organizational unit*, which activity belongs to the Organizational perspective, which is out of scope for this research.

05. From Debets and Westerveld (2015)
Debets et al. referred in their literature review two practical models for valorization:
1. The VNSU framework for measurements of valorization (2013) based on the Finne et al. (2011) Framework, and 2. The Success map from Perkman et al. (2011)
Both are 'measure' models, designed to measure 'something' about valorization.

Author: This research's goal is the design of a practical Knowledge Valorization Process Model, not the measurement of the valorization process.
Therefore nothing is usable.

06. More models (*Triple Helix systems* and *4D-valorizationmodel*)
Based on their frequent occurrence in literature, author globally assessed two more models, the "*Triple Helix Systems*" (Etzkowitz et al., 2013) and the *4D-valorizationmodel* (Landelijke Commissie Valorisatie, 2011).
Both are 'categorizing' models used to structure 'information' about valorization. They do not have an underlying process or activity model.
Author: This research's goal is not categorization, but the design of a practical Knowledge Valorization Process Model. Therefore nothing is usable.

5.1.2.c The literature research findings
Author considers the reviewed literature on Knowledge Valorization Process Models, chaotic. It shows many and different Phases/Stages and '*sub processes and/or detail activities*' which are (a) badly defined, or (b) difficult to match or (c) has nothing to do with *knowledge valorization* as author has defined it.

As an example, to name a phase "*commercialization*" is wrong. Commercialization is not a subject in one phase. This subject is an ongoing –Venture lifecycle spanning- task where in different phases, activities and deliverables are needed. This needs the constant attention of an expert in the field of commerce, who leads and manages constantly the commercialization aspects as a stream through all phases.

As a rule, phases should never address a special interest topic. The design of a phased model must be based on the life cycle of the **theme**, analogous to:
- Product lifecycle for Project management.
- Organization lifecycle for Program management.
- Business lifecycle for Business development.
- Venture lifecycle for Venture management.
- Knowledge lifecycle for Knowledge (Valorization) management.

5.1.2.d The literature research conclusions
In paragraph 5.1.2.a *Scoping the literature research topics*, author limited the search topics to (a) phases and stages, (b) organizational topics and (c) -if described-, some deliverables for illustration purpose.
Concluding on all the above, only one model and in it, only phases, was found:

-02. From Gyamfi et al., (2007)
The phases for new venture development in the "*Business Planning Process*":
1. Idea Generation.
    1. Identify goals, 2. Shorten planning process, 3. Mind your metrics
2. Idea Modification.
    4. Testing Phase, 5. Review, 6. Decide on actions
3. Idea Execution.
    7. Startup Phase, 8. Implement strategies (ongoing phase)

5.2 Part 2 Exploration study on existing process models

Part two is an **exploration study** to determine and deliver the structure elements that form the KVPM. The research is based on the Design-by-Analogy (DbA) technique using MSP, PRINCE2 and ASAP P&S. This chapter answers sub question 3.

5.2.1 Analogy considerations

Based on the Design-by-Analogy (DbA) technique described in chapter 4. Research Design, author uses analogy between (source) existing alike process models and (target) the design of the KVPM.

First the *target domain*. According to the definition, Knowledge Valorization is a process to create value. It's input is 'knowledge'. For each new 'knowledge', a new Knowledge Valorization process is started called a *Venture*, to deliver the output, the *Successful Business*.

Second *the concept of function*. This Knowledge Valorization process requires the involved, mutually dependent organizations on the "*AVC of Valorization*"(1), to strategically change their business, based on the Venture's aligned strategic goal (= defined objective). To realize this goal in a systematic way, this temporary requires the definition and management of a specific set of projects, identified by the Venture manager.

Third the analogies
Author conceives two *analogies*: (1) the Whole Venture with a Program, and (2) the Venture and its Sub-ventures with Projects. Therefore structured program and project models are a usable source for designing the KVPM's structure elements.

Fourth the source domain and its concept of function.

- According to the MSP method (OCG, 2005) the definition of a programme is:
  "*A **programme** is made up of a specific set of projects identified by an organisation that together will deliver some **defined** objective, or set of objectives, for the organization.*"

- According to the PRINCE2 method (OCG, 2004) the definition of a project is:
  "*A **Project** is a temporary organization that is created for the purpose of delivering one or more business products according to an agreed Business Case.*"

Fifth the Source and Target analogy connections.
The Close-domain *analogy connections* on Source and Target, are as follows:

- At a conceptual level a **Whole Venture** is analogous to a **program**:
  A program (e.g.: MSP) delivers several organizational changes in coherence aiming at realizing (= delivering) a *collective strategic business goal*.
- At a conceptual level the **Venture and its Sub-Ventures** on the "*AVC of Valorization*"(1), are analogous to **projects**:
  A project (e.g.: PRINCE2, ASAP P&S) delivers products to an organization, aiming at extending, changing or creating capabilities of an organizational unit.

(1) note to reader: author suggests first reading chapter 5.4.1 where this concept is introduced and explained.

Choice on alike process models
Author seeks analogy with the alike models of the methods MSP, PRINCE2 and 'ASAP Phases and Streams', because they are best-practices based, well known, well-structured and easy to automate. Also author is an expert on them.

Scope of structure elements
According to chapter 3.5 Research scope, the method's structure elements author examines are: (1) Principles, (2) Processes, (3) Phases (i.e. stages) and Streams (i.e. disciplines) and (4) Organization.

To limit the length of the paper, author assumes that readers have basic knowledge of these three methods and therefore hereafter the methods are briefly described.

5.2.2 The MSP method

MSP (OCG, 2005), an acronym for *Managing Successful Programmes*, is a program management method based on best practices and is structural linked to PRINCE2. It is the best known and most used method in the Netherlands. Figure 23 is a simplified view of the method. The upper part shows the *Program lifecycle* in relation to the *Organization lifecycle*, thereby showing the MSP method is intended for designing, changing or building of organizations, based on strategic business goals.

-First the principles. MSP is mission, vision and program business case driven. If the program business case fails, the program is closed. Controlling is by process GP.
-Second the MSP processes. The lower part of the figure shows a simplified overview of the six processes (the process arrows). The main *production-of-changes* are the processes ***Managing Portfolio of projects*** and ***Managing Benefits***. Only those two are delivering the program results. Process GP is for management and control.
-Third the MSP Tranches (1, 2, X), also referred to as *plateaus*. The tranches are controlling mechanism for stepwise 'go-forward', i.e. tranche by tranche.
MSP does not prescribe a formal tranche-structure. The Program Director decides how many tranches (= combi of MP and MB) he designs and how he names them.
-Fourth the organizational elements. The program is directed by a Program Sponsoring Group (PSG). Daily management is done by the Program Director appointed by the Senior Responsible Owner in PSG. Projects results delivery is managed by the Project Managers. Benefit Management results delivery is managed by the Business Change Managers. Meetings are the *Program Steering Committee* for the Program Sponsoring Group and *Program Team Committee* with the Project Managers and Business Change Managers.

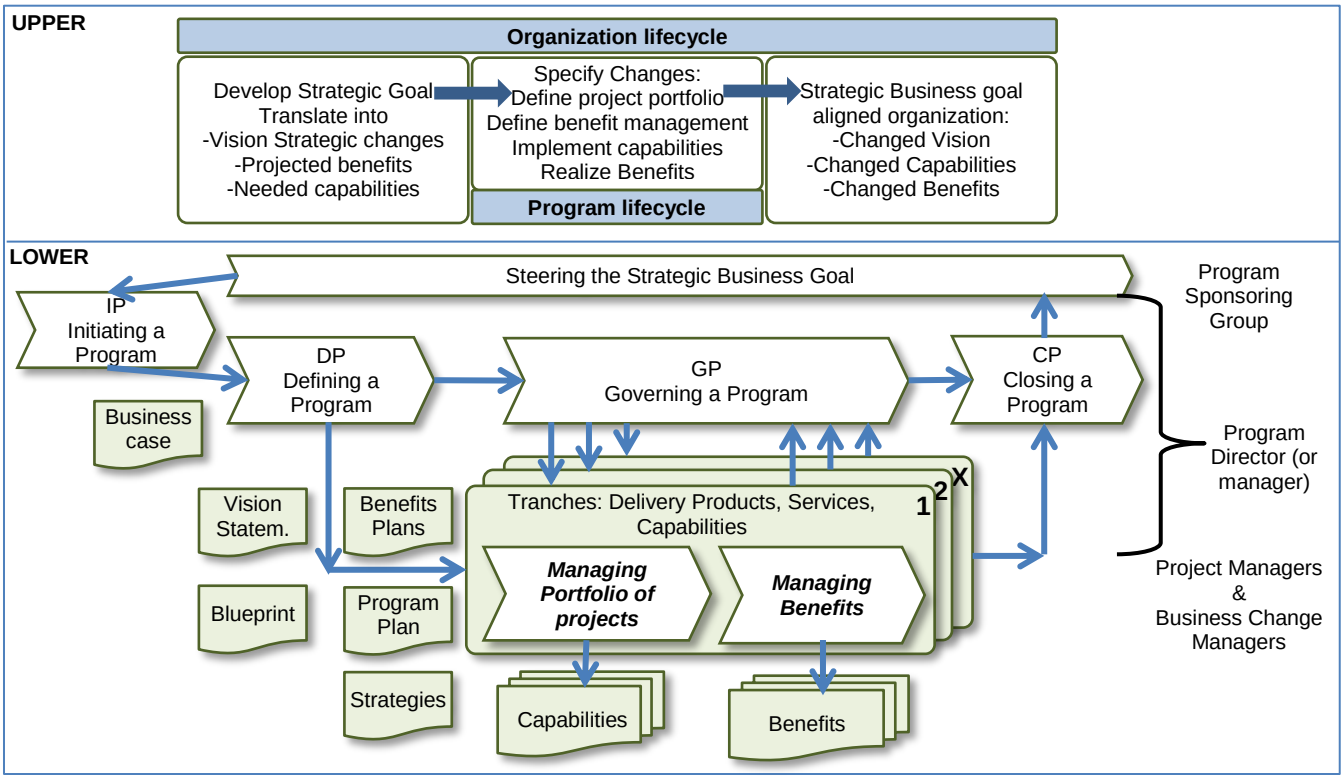


Figure 23: Authors own work: Simplified overview of MSP method

5.2.3 The PRINCE2 method

PRINCE2 (OCG, 2004), an acronym for *Projects IN Controlled Environment* version 2, is a project management method based on best-practices and linked to MSP. It is well known and the most used method in the Netherlands. Figure 24 is a simplified view of the method. The upper part shows project lifecycle in relation to the product lifecycle, thereby showing the PRINCE2 method is mend only for the production of products. PRINCE2 uses the term Stage(s) which is the same as Phase(s).

-First the principles. PRINCE2 is business case driven. If the business case fails, the project is closed. Process controlling mechanism are by stages (CS) and at the crossing of stage boundaries (SB). It delivers products based on a PBS - Product Breakdown Structure, defining exactly what has to be delivered, and in which stage.
-Second the PRINCE2 processes. The lower part of the figure shows a simplified overview of the eight processes (the arrows). The main *production-of-products* loop is the green area with the three processes CS, SB and MP. Only process **MP** delivers products. Processes CS and SB are for management and control purposes.
-Third the PRINCE2 stages (CS and SB), also referred to as phases. PRINCE2 does not prescribe a formal stage-structure. The project manager decides how many stages (= combinations of CS, SB and MP) he designs and how he names them.
-Fourth the organizational elements. The project is directed by a Project Board. Daily management is done by the Project Manager appointed by the board. Product delivery is managed by the Team Managers. Meetings are the *Steering Committee* for the project board and the *Team Committee* for the project and team managers.

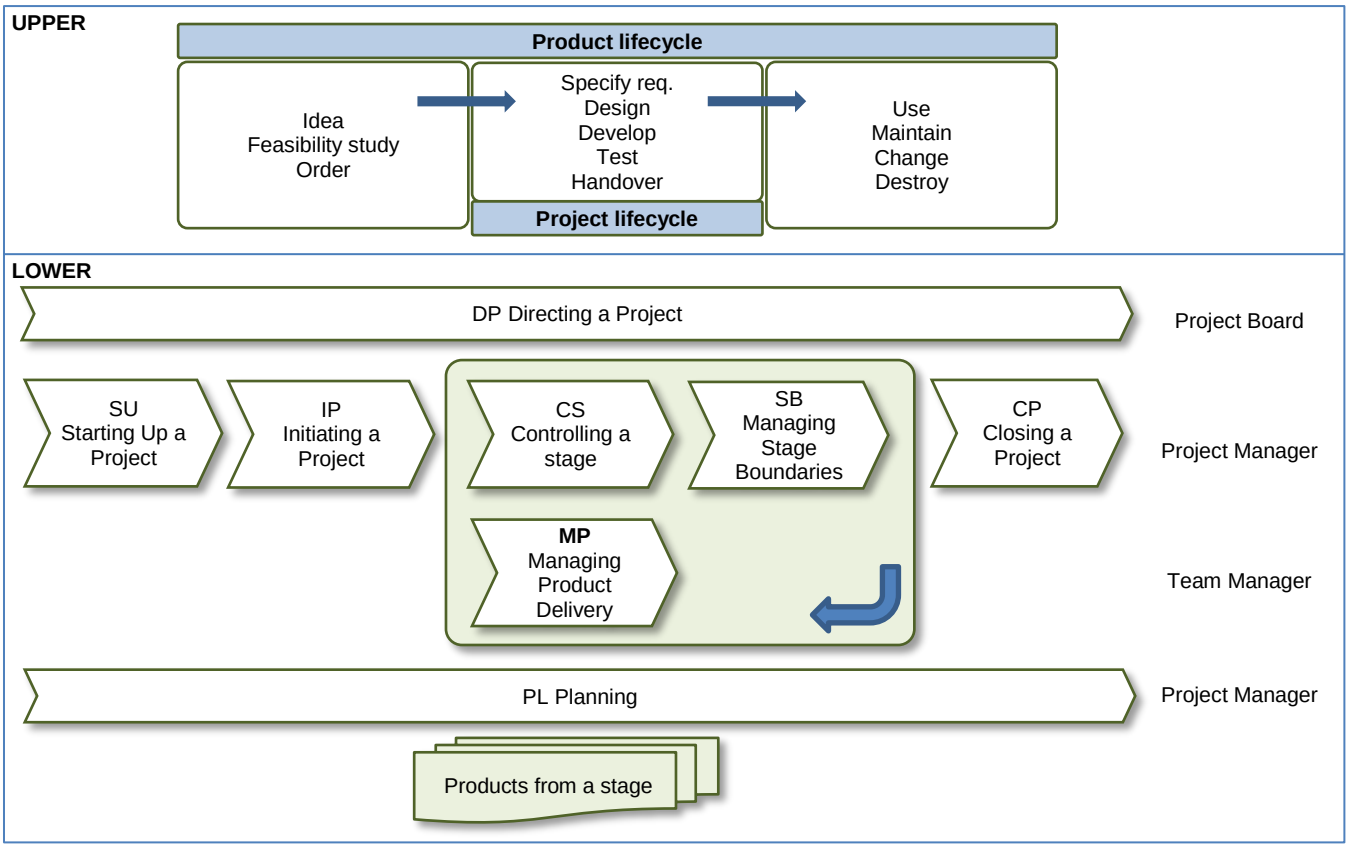


Figure 24: Authors own work: Simplified overview of PRINCE2 method

5.2.4 The ASAP P&S method

ASAP P&S (ACS, 2007, p. 60), an acronym for *Accelerated SAP Phases and Streams*, original from SAP AG (1996), is a well-known, global used best-practice based project management method, used by SAP and partners to worldwide implement SAP's software solutions. Figure 25 is a simplified view of the method. Author added the phase *-2 Awareness*, as a necessary pre-requisite to Mobilization.

The method has, -like PRINCE2-, phases for a stepwise approach, to steer focus and control progress. By introducing specific streams, being (and honoring) different disciplines, it ensures that all disciplines progress forward in sync. At each intersection of Phase and Stream, the needed products are defined that must be finished. The P&S method strongly steers on finishing a phase for all streams, so to move forward in-sync, before starting the next one. The streams help to focus on their specific discipline and assure the integral governance on all streams.

The ASAP P&S method is an extension on the PRINCE2 method, where PRINCE2 stages are equal to the ASAP P&S Phases, and adding the next three '*Prescribed's*':
1 Prescribed formal Phase-structure, from -2 Awareness to 6 Post Live Effectiveness.
2 Prescribed Disciplines, represented by the six Streams, from PM to QA.
3 Prescribed next Phase progress control mechanism. Progressing to next Phase is only allowed if all Streams in a Phase have delivered their respective deliverables.

-First the principles. The ASAP P&S has the same principles as PRINCE2.
-Second the ASAP P&S processes. These are the same as in PRINCE2, with the addition of the previous mentioned three 'prescribed' changes.
-Third the ASAP Phases (&S). These are, -for each of the six Streams-, prescribed in terms of formal Phase-structure and the next Phase progress control mechanism.
-Fourth the organizational elements. These are the same as in PRINCE2, where the Stream managers are also project Team Managers.

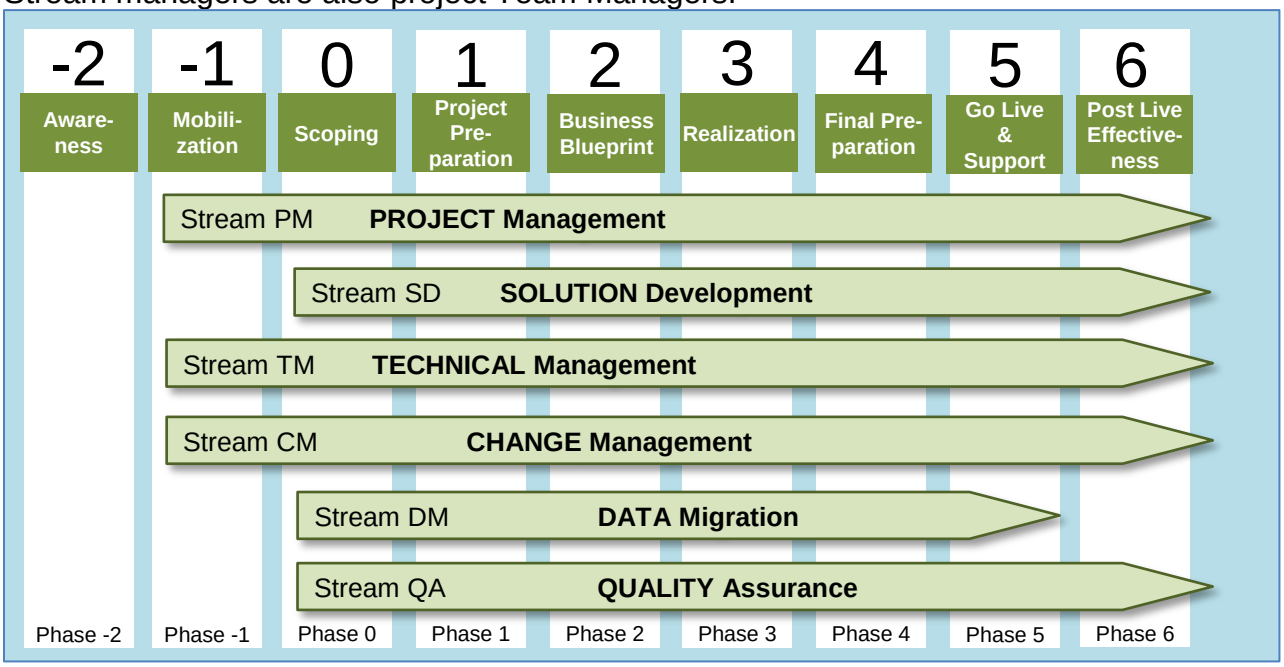


Figure 25: Simplified ASAP Phases & Streams (ACS, 2007) adapted by author

5.2.5 Analogy based formation of the KVPM's structure elements

In this paragraph we combine the findings on MSP, PRINCE2 and ASAP P&S, evaluate them and create the structure elements on the KVPM.

Based on analogy, author concludes a **Venture** can be managed through the method author names VINCE2 (Venture IN Controlled Environment 2), based on:

a. The **Whole Venture**, where a *Venture's strategic aligned goal* is managed on program management principals, using the elements from the method **MSP.**

b. The **Venture project** and its **Sub-Ventures** is managed on project management principals, using the elements from the method **PRINCE2,** enhanced by adding the method **ASAP P&S's** three '*Prescribed's*' (see chapter H5.2.4).

5.2.5.a The **Whole Venture** as a program
The VINCE2 method with the next filling and interpretations of the MSP method:

1. *Venture lifecycle* replaces *Organizational lifecycle.*
2. *Venture Manager* replaces *Program Director/Manager*.
3. *Venture Sponsoring Group* replaces *Program Sponsoring Group.*
4. *Venture Steering Committee* replaces *Program Steering Committee.*

5. The **Managing Portfolio of projects** are filled with projects based on:
   a. Projects on the *AVC of Valorization* for getting the results as a Whole Venture.
   b. One Project for each Sub-Venture in the *AVC of Valorization.*
   c. One Project manager from each Sub-Venture in the *AVC of Valorization.*

6. The **Managing Benefits** are filled with Business Change Managers (BCM):
   a. One BCM for benefits management as a Whole Venture.
   b. One BCM for (and from) each Sub-Venture in the *AVC of Valorization.*

7. The **Tranches** (or Plateaus) are deployed as "*Solution/VP development maturity*" plateaus, defined and based on the go-to market strategy and steps.

In paragraph 5.2.1 the scope for the structure elements is set.
Al these structure elements found in MSP are also applicable and therefore chosen by author and hereunder repeated as result.

-First the principles. MSP is mission, vision and program business case driven. If the program business case fails, the program is closed. Controlling is by process GP.

-Second the MSP processes. The lower part of the figure shows a simplified overview of the six processes (the arrows). The main *production-of-changes* is the green area with *Managing the portfolio of projects* and *Managing Benefits*. Only those two are delivering the program results. Process GP is for management and control purpose.

-Third the MSP Tranches (1, 2, X), also referred to as *plateaus*. The tranches (= phases) are controlling mechanism for stepwise 'go-forward', i.e. tranche by tranche. MSP does not prescribe a formal tranche-structure. The Program Director decides how many tranches (= comb. of MP and MB) he designs and how he names them.

-Fourth the organizational elements. The program is directed by a Program Sponsoring Group (PSG). Daily management is done by the Program Director appointed by the Senior Responsible Owner in PSG. Projects results delivery is managed by the Project Managers. Benefit Management results delivery is managed by the Business Change Managers. Meetings are the *Program Steering Committee* for the Program Sponsoring Group and *Program Team Committee* with the Project Managers and Business Change Managers.

5.2.5.b The **Venture project** and its **Sub-Ventures** as a project
The VINCE2 method with the next filling and interpretations of the PRINCE2 method, enhanced by adding ASAP P&S's three '*Prescribed's* (see chapter H5.2.4).

1. *All project terminology* relates to *Venture and Sub-Ventures.*

2. The **CS - Controlling a Stage** are filled with ASAP P&S no. 1 *Prescribed* formal Phase-structure, from "*-2 Awareness"* up to and incl. "*6 Post Live Effectiveness*".

3. The **MP - Managing Product Delivery** are filled with ASAP P&S no. 2 *Prescribed* Disciplines, represented by the six Streams, from *PM* to *QA*.

4. The **SB - Managing Stage Boundaries** is also executed with the ASAP P&S no. 3 *Prescribed* next Phase progress control mechanism. Progressing to next Phase is only allowed if all Streams in a Phase have delivered their deliverables.

In paragraph 5.2.1 the scope for the structure elements is set. Al these structure elements found in PRINCE2 and ASAP P&S are also applicable and therefore chosen by author and hereunder repeated as result.

-First the principles. PRINCE2 is business case driven. If the business case fails, the project is closed. Process controlling mechanism are by stages (CS) and at the crossing of stage boundaries (SB). It delivers products based on a PBS - Product Breakdown Structure, defining exactly what has to be delivered, and in which stage.

-Second a. the PRINCE2 processes. The lower part of the figure shows a simplified overview of the eight processes (the arrows). The main *production-of-products* loop is the green area with the three processes CS, SB and MP. Only process MP delivers products. Processes CS and SB are for management and control purposes.
-Second b. the ASAP P&S processes. These are the same as in PRINCE2, with the addition of the previous mentioned three 'prescribed' changes.

-Third a. the PRINCE2 stages (CS and SB), also referred to as phases. PRINCE2 does not prescribe a formal stage-structure. The project manager decides how many stages (= combinations of CS, SB and MP) he designs and how he names them.
-Third b. the ASAP Phases (&S). These are, -for each of the six Streams-, prescribed in terms of formal Phase-structure and the next Phase progress control mechanism.

-Fourth a. the PRINCE2 organizational elements. The project is directed by a Project Board. Daily management is done by the Project Manager appointed by the board. Product delivery is managed by the Team Managers. Meetings are the *Steering Committee* for the project board and the *Team Committee* for the project and team managers.
-Fourth b. ASAP P&S organizational elements. These are the same as in PRINCE2, where the Stream managers are also project Team Managers.

5.2.6 Summary of results from Existing process model study

Hereafter author summarizes the results and the conclusion.

-The results of chapter 5.2.2: The MSP method structure elements.
Learnings found in this chapter are:
The MSP method, its application on Whole ventures, and all principles, processes, Tranches (i.e. Phases) and organizational elements are usable.

-The results of chapter 5.2.3: The PRINCE2 method structure elements.
Learnings found in this chapter are:
The PRINCE2 method, its application on a *Whole venture project* and the *Sub-Venture projects*, and all principles, processes, Stages (i.e. Phases) and organizational elements are usable.

-The results of chapter 5.2.4: The ASAP P&S method structure elements.
Learnings found in this chapter are:
The ASAP P&S method, its three '*Prescribed*'s added to PRINCE2 are usable.

Author concludes all findings from MSP, PRINCE2 and ASAP P&S are usable as elements for the Knowledge Valorization Process Model.

5.2.7 KVPM's structure elements: Example RunAdvisor

As an illustrative example and to make the KVPM more concrete, author hereunder describes some KVPM structure elements of the RunAdvisor venture.

The **Business board** shows the four key business roles: CEO (Executive), CCO (Commercial), COO (Operations) and CFO (Finance).

The **Knowl. Suppl. TNO** delivers the **Input: Knowledge supplier**.

The **Whole Venture Prgm,** delivers the **Output: Successful Business**.
This must be managed and executed as a program, e.g. using the MSP method.

The **Venture Proj Mngmnt** and **Sub-ventures Prjcts,** deliver the intermediate products.
These must be managed and executed as the projects of the program, i.e. according to PRINCE2 with the additions of ASAP P&S.

No.	*Venture Topic*	*Details*	*Venture Lead*	*Project Lead*	*Discipline expert*
	Business board				
1	..CEO / CFO	Key Business position	JvW		
2	..CCO	Key Business position	HK		
3	..COO	Key Business position	PCL		
	Knowl. Suppl. TNO	**Input: Knowledge supplier**			
4	..Knowledge / Venture	TNO R&D	AS, RC	AS del. RC, JB advis.	AS
5	..Participation	TNO Bedrijven	VE, JWV	VE del. JWV	SP
	Whole Venture Prgm				
	..RunAdvisor	**Output: Successful Business**	JvW	PCL	JvW
	Venture Proj Mngmnt				
6	..Busin. Vent. Mngr	Self assigned Program Managr	PCL	PCL	PCL
	..Vent. Mng TNO/TTO	TNO Supplier; also as TTO	RC	RC + JB advisor	RC??
7	..Business as a whole	Successful Business delivery	JvW		
8	..AVC of Valorization	AVC Supplier – Buyer chain	PCL		
9	..Funding / KTI M&K	Subsidizes	HK, RW	HK	RW advisor
10	..ECFG, Investors. Summit, ICT valley	Funding, from wherever, who ever; rules, law	PCL	HK	
11	..Solution Devel. / VP	e.g. Minimum Viable Product	JvW & PCL	PCL	JvW
12	..Launching Customer	Help funding and customers	HK		
	….Bern	Olympic Champion	HK	HK	Bern Hardloper
	….NL	Football team	HK	JP	Sparta
13	..Lab Luxemburg	Usability and application	1+ 3 persons	Chief	3x
14	..Techn Develop	POC update to new technology	HK/JvW	HK	Hoheschule Biel
	Sub-Ventures Prjcts	(Suppl.-Buyer AVC of Valoriz.)			
15	..Community	Non-existing	HK	HK	Many
16	..Sales	Non-existing	JvW	JvW	PCL
17	..Distribution/Outlets	Go to market strategy / Steps	PCL	PCL	JvW
18	..Web platform	Non-existing	PCL	PCL	Tbd
19	..Software	Non-existing	PCL	PCL	Tbd
20	..Integration	POC Re-development for mass usage and mass production	PCL	PCL	Tbd
21	..Electronics	POC Re-development for mass usage and mass production	PCL + Neways	AS	2x Neways eng.
22	..Sole	POC Re-development for mass usage and mass production	PCL + IEE	AS	2x IEE eng.
23	..Engineering	The POC was hand made	PCL + Neways	AS	1x Neways eng.

Table 11: By author: Some of RunAdvsior Venture's KVPM structure elements

5.3 Part 3 Design study, building the initial KVPM

Part three of the research is a **design study**. Based on the previous results author designs and builds an initial KVPM. This results in a first draft.

5.3.1 Introduction

In this chapter author introduces the results from the previous H5.1 and H5.2 studies:

From H5.1 Literature research results:

-The results of chapter 5.1.1 "*General literature search on Knowledge Valorization as a general theme*", are:
-Only fifteen valid action assertions were found: See Table 8 on page 71.
-Only six general statements were found: See Table 9 on page 72.

=> Author concludes in chapter 5.1.1.b and 5.1.1.d, that 'valorization' assertions in the researched documents are not about and/or are not linked to the Knowledge Valorization process. And therefore these assertions cannot be used as building blocks for a Knowledge Valorization Process Model.

-The results of chapter 5.1.2 "*Specific literature search on Knowledge Valorization Process Models*", are:
Only one Phase model (Gyamfi et al., 2007) was found:
The phases for new venture development in the "*Business Planning Process*":
1. Idea Generation.
    1. Identify goals, 2. Shorten planning process, 3. Mind your metrics
2. Idea Modification.
    4. Testing Phase, 5. Review, 6. Decide on actions
3. Idea Execution.
    7. Startup Phase, 8. Implement strategies (ongoing phase)

=> Author concludes the phases of the Phase model from Gyamfi et al. are usable elements for phase design.

From H5.2 Existing process model study results:

-The results of chapter 5.2.2: The MSP method structure elements.
Learnings found in this chapter are:
The MSP method, its application on Whole ventures, and all principles, processes, Tranches (i.e. Phases) and organizational elements are usable.
-The results of chapter 5.2.3: The PRINCE2 method structure elements.
Learnings found in this chapter are:
The PRINCE2 method, its application on a *Whole venture project* and the *Sub-Venture projects*, and all principles, processes, Stages (i.e. Phases) and organizational elements are usable.
-The results of chapter 5.2.4: The ASAP P&S method structure elements.
Learnings found in this chapter are:
The ASAP P&S method, its three '*Prescribed*'s added to PRINCE2 are usable.

=> Author concludes all learnings from MSP, PRINCE2 and ASAP P&S are usable

Conclusion

Based on these results, a first initial KVPM is hereafter designed.

5.3.2 KVPM design input, scope and analogy considerations

Author introduces the KVPM design aspects.

Design input
Design input from the previous literature study and exploration study are:
a. the phases from Gyamfi et al, and
b. the input from the existing methods MSP, PRINCE2 and the ASAP P&S method, with the three '*Prescribed*s'.

Author argues a first initial design only based on Gyamfi et al. and the three existing methods, would lack any link to Knowledge Valorization (i.e. Venture) reality.

Therefore author introduces here already a learning from a case from chapter 5.4, The RunAdvisor Roadmap, see addendum 5: RunAdvisor Venture, *A first highlevel Roadmap of the Valorization Process named D3C (Discover, Develop, Deliver, Cash), mapped on a real case*.
c. Author uses this D3C model in guiding the naming and bundling of KVPM phases.

Design scope
In chapter 5.2.1 Analogy considerations, author introduced two analogies:

- At a conceptual level a **Whole Venture** is analogous to a **program**:
  A program (e.g.: MSP) delivers several organizational changes in coherence aiming at realizing (= delivering) a *collective strategic business goal*.

- At a conceptual level the **Venture and its Sub-Ventures** on the "*AVC of Valorization"*(1), are analogous to **projects**:
  A project (e.g.: PRINCE2, ASAP P&S) delivers products to an organization, aiming at extending, changing or creating capabilities of an organizational unit.

(1) note to reader: author suggests first reading chapter 5.4.1 where this concept is introduced and explained.

Out of scope
Author decides to set the first analogy (i.e. the **Whole Venture** is analogous to a **program)**, for the remaining part of this research report, out of scope, because:
- Each Whole Venture can be executed using the standard MSP method, replacing the Business-related terminology by Venture-related terminology.
- To authors knowledge, each Whole Venture will have a different project portfolio, based on the specific "*AVC of Valorization"* of the Whole Venture, and therefore cannot be standardized.

In scope
Author decides to set the second analogy (i.e. the **Venture and its Sub-Ventures** on the "*AVC of Valorization"*(1), are analogous to **projects)**, in scope, because:
- Each Venture and its Sub-Ventures can and must be designed to the specifics of and standardized to, a Venture project "template", the KVPM.

So from here, author designs the KVPM only for the project analogy.

Using project analogy: based on ASAP P&S
Previously, on the project analogy, the KVPM analogy with PRINCE2 and ASAP Phases and Streams (sources) was established. However, PRINCE2 is a generic method with a generic (conceptual) process model without pre-scribed content, i.e. it does not have predefined Phases and Streams. Thus the source to target mapping for the KVPM content, based on PRINCE2, is not possible.
However, ASAP Phases and Streams does have pre-scribed content, i.e. it does have predefined Phases and Streams. Therefore author choses the ASAP P&S's predefined Phases and Streams, as the basis for the design of the first initial KVPM.

Analogy source: ASAP Phases and Streams is about a Product.
The ASAP P&S method and its process framework is based on implementing a SAP product solution (i.e. implementing software) as a project. Therein:
- the ASAP Phases are defined and named after SAP's product topics (i.e. product lifecycle)
- the ASAP Streams are defined and named after SAP's Product *realization* related disciplines (i.e. specialists).

So the ASAP P&S project management is about the Product lifecycle.

Analogy target: KVPM is about a Venture.
The first initial KVPM design's Phases and Streams (target) process framework is based on "*Create value from knowledge …making …suitable …and available …and to translate ..into Successful Business*", i.e. executing (or doing) Ventures. So the KVPM, i.e. the venture is about the Venture lifecycle. Therefore:
- the KVPM Phases are defined and named after KVPM's Venture topics (i.e. venture lifecycle)
- the KVPM Streams are defined and named after KVPM's Venture *realization* related disciplines (i.e. specialists).

So the KVPM P&S venture management is about the Venture lifecycle.

Design of the KVPM Phases and Streams

The KVPM phases design addresses the Venture Life Cycle and therefore the phases defining and naming is based on this Venture Life cycle, combined with the D3C format.

The KVPM streams design, facilitates Venture specialists from different disciplines and therefore the streams defining and naming is based on disciplines (=needed specialist knowledge), that is crucial and needed for all Venture phases.

The Design-by-Analogy for phases and streams consists of three steps:
1. Describe - Describe the source domain.
2. Abstract - Abstract the source domain description into a summary.
3. Map - Map the summary into the design of the alike (i.e. analogue) target domain.

5.3.3 Initial design of the KVPM Phases

Hereafter, the KVPM phases analogy with ASAP P&S phases is established, then the KVPM phases are designed.

Step 1. Describe
KVPM Phases, description of the ASAP P&S phases
The ASAP P&S **Phase plan and a Phase** (Cleton, 2003) are defined as follows:

*A **Phase plan** is a logic set of sequential time boxes, representing progress within a project, wherein a **Phase** is a single time box, defined as:*

- A set of related task and activities which need to be completed in order to meet a milestone or objective within a project,

- in order to produce a pre-defined and coherent set of deliverables,

*- that generates a **natural break point** within a project.*

The ASAP Phases main objectives (i.e. "underlined" is authors Phase summary) are:

-2 Awareness => Awareness in the organization on needed enhancements
Assessing current performance and systems
Knowledge on the availability of better solutions

-1 Mobilization => Organized meetings on the need
Readiness Assessment
Create Awareness and Commitment
Define Operational unit Business Objectives

0 Scoping => Defining requirements and what's in scope
Set the Project scope
Determine Gaps
Define High Level Business Case
Create Project team training Plan
Set up Development System

1 Project Preparation => Set up the project
Project Kick-off
Project Organization & Standards
High Level Project Plan
Technical Environment Planning

2 Business Blueprint => Define the new situation, define gaps with as-is
Produce Business Blueprint
Detailed Business Case
Refine Goals & Objectives
Define TO BE Business Processes

3 Realization => Built and configure the new system
Configuration & Programming
Do Integration test
Test Cases

Review/update Technical Landscape & Infrastructure
Develop end-user training material

4 Final Preparation => Test, train and prepare for implementation and use
End-user training
Cut-over/Data Upload
Stress Test

5 Go Live & Support => Do the Go live actions and help starting up
Define Long Term Plans
Application Support
Infrastructure Support/Transfer

6 Post Live Effectiveness => Enhance effectiveness
Realize Business Case
Optimize System & Organization

Step 2. Abstract
The nine ASAP P&S Phases with authors previous *underlined* Phase summary:

__ASAP P&S Phases__	_____Authors Phase summary_____
-2 Awareness	- Awareness in the organization on needed enhancements
-1 Mobilization	- Organized meetings on the need
0 Scoping	- Defining requirements and what's in scope
1 Project Preparation	- Set up the project
2 Business Blueprint	- Define the new situation, define gaps with as-is
3 Realization	- Built and configure the new system
4 Final Preparation	- Test, train and prepare for implementation and use
5 Go Live & Support	- Do the Go live actions and help starting up
6 Post Live Effectiveness	- Enhance effectiveness

Table 12: By author: Overview of nine ASAP P&S Phases with author's summary

Step 3. Map
KVPM Phases Design, based on analogy mapping from the ASAP P&S phases
The mapping is based on the Venture life cycle. This means the verb "*Venture*" implicitly follows the phase name. Based on:
(a) the Valorization definition as the basis of the KVPM,
(b) the D3C model (Discover, Develop, Deliver, Cash) as the *process*,
(c) the venture has a start (i.e. Initiate) and an end (i.e. Close),
(d) author's conceptual venture view (i.e. the input is *Knowledge* and the output is *Successful Business*), and
(e) author's knowledge on and experience with ASAP P&S and Ventures,

Author hereafter uses analogy between the ASAP P&S phases i.e. its "*natural breakpoint within a project*", and the Venture's phases to be designed, i.e. the "*natural breakpoint **point** within a Venture*".

Based on Design-by-Analogy technique-, author designs the KVPM Phases:

== Input: ***Knowledge*** ==

Initiate Venture

Analogy Source & Target	*Phase id*	*Phase name*	*Phase Summary*
ASAP P&S	-2	Awareness	Awareness in the organization on needed enhancements
KVPM	10	Awareness	Awareness of available knowledge, ready for venture

== Process "Knowledge Valorization": ***Create Value*** ==

Discover Venture

Analogy Source & Target	*Phase id*	*Phase name*	*Phase Summary*
ASAP P&S	-1	Mobilization	Organized meetings on the need
KVPM	20	Mobilization	Organized searching for venture candidates

Analogy Source & Target	*Phase id*	*Phase name*	*Phase Summary*
ASAP P&S	0	Scoping	Defining requirements and what's in scope
KVPM	30	Scoping	Assess and Select a promising Venture candidate

Develop Venture's businesses

Analogy Source & Target	*Phase id*	*Phase name*	*Phase Summary*
ASAP P&S	1	Project Preparation	Set up the project
KVPM	40	Preparation	Set up the venture plan and it's proposed businesses

Analogy Source & Target	*Phase id*	*Phase name*	*Phase Summary*
ASAP P&S	2	Business Blueprint	Define the new situation, define gaps with as-is
KVPM	50	Design	Define the new venture, businesses, and what is in scope

Deliver Venture's businesses

Analogy Source & Target	*Phase id*	*Phase name*	*Phase Summary*
ASAP P&S	3	Realization	Built and configure the new system
KVPM	60	Realization	Configure and built the Venture and its businesses

Analogy Source & Target	*Phase id*	*Phase name*	*Phase Summary*
ASAP P&S	4	Final Preparation	Test, train and prepare for implementation and use
KVPM	70	Delivery	Deliver the products and services to customers

Cash Venture's businesses

Analogy Source & Target	*Phase id*	*Phase name*	*Phase Summary*
ASAP P&S	5	Go Live & Support	Do the Go Live actions and help starting up
KVPM	80	Establish	Do raise earnings and reach self-supporting positive P&L

== Output: ***Successful Business*** ==

Close Venture

Analogy Source & Target	*Phase id*	*Phase name*	*Phase Summary*
ASAP P&S	6	Post Live Effectiveness	Enhance effectiveness
KVPM	90	Handover to society	Take over own financing and funding

5.3.4 Initial design of the KVPM Streams

Hereafter, the KVPM Streams analogy with ASAP P&S phases is established, then the KVPM streams are designed.

Step 1. Describe
KVPM Streams, description of the ASAP P&S streams
The ASAP P&S **Streams** (Cleton, 2003) are defined as:

A natural grouping of skills within a project, i.e.:

- *-PM: Project Management stream contains all activities to run and control the project.*
- *-SD: Solution Development stream contains a group of people with the ABM W6 [author: name of software] functional knowledge that can be utilized in finding an optimum solution for the Operational units' requirements.*
- *-TM: Technical Management stream provides a technical infrastructure to support the development and production environment.*
- *-CM: Change Management supports the implementation process in communication, mobilization and Education & Training.*
- *-DM: Data Migration handles the migration of the data from a current system(s) to the new system.*
- *-QA: Quality Assurance supports the project organization to deliver the deliverables according to the standards/norms by doing audits and give recommendations.*

Step 2. Abstract
Overview of the six ASAP P&S Streams with authors Stream summary:

___ASAP P&S Streams____	_____Authors Stream summary_____
1. PM Project Management	- Manage the project
2. SD Solution Development	- Develop the needed solution
3. TM Technical Management	- Manage the needed technical infrastructure
4. CM Change Management	- Manage the implementation & org. changes
5. DM Data Migration	- Manage the data migration from prev. systems
6. QA Quality Assurance	- Audit on time, within budget, within quality

Table 13: By author: Overview of 6 ASAP P&S Streams with author's summary

Step 3. Map
KVPM Streams Design, based on analogy mapping to the ASAP P&S streams
The mapping is based on the Venture's KVPM in almost all the phases needed disciplines (i.e. expertise's). Based on:
(a) the Valorization definition as the basis of the KVPM,
(b) the D3C model (Discover, Develop, Deliver, Cash) as the *process*,
(c) the venture has a start (i.e. Initiate) and an end (i.e. Close),

(d) author's conceptual venture view (i.e. the input is *Knowledge* and the output is *Successful Business*), and
(e) author's knowledge on and experience with ASAP P&S and Ventures,

Author hereafter uses analogy between the ASAP P&S streams i.e. its "*natural grouping of skills within a project"*, and the Venture's streams to be designed, i.e. the "*natural grouping of skills within a venture*".

Based on Design-by-Analogy technique-, author designs the KVPM Streams:

1. ASAP P&S, PM - Project Management

Analogy Source & Target	*Stream Id*	*Stream name*	*Stream Summary*
ASAP P&S	PM	Project Management	Manage the project
KVPM	VM	Venture Management	Manage the Venture - Using Program method for Whole Venture - Using Project method for Venture and Sub-ventures

2. ASAP P&S, SD - Solution Development

Analogy Source & Target	*Stream id*	*Stream name*	*Stream Summary*
ASAP P&S	SD	Solution Development	Develop the needed solution
KVPM	SD/ VP	Solution Development and Value Proposition Development	Develop market, customer and product - Solution is about the need of customers, their problem, a pain, a risk or a gain. - Value proposition is about the offering as a solution to the problem.

3. ASAP P&S, TM - Technical Management

Analogy Source & Target	*Stream Id*	*Stream name*	*Stream Summary*
ASAP P&S	TM	Technical Management	Manage the needed technical infrastructure
KVPM	DA	Delivery AVC Management	Develop AVC production & delivery organization - The production and delivery on the AVC is organized for successful delivery

4. ASAP P&S, CM - Change Management

Analogy Source & Target	*Stream id*	*Stream name*	*Stream Summary*
ASAP P&S	CM	Change Management	Manage the implementation & organizational changes
KVPM	BO	Business Organizational Development	Develop organization of the running business - The organization and support of the AVC of valorization, is at business level, chain organized on strategic goal.

5. ASAP P&S, DM - Data Migration

Analogy Source & Target	*Stream id*	*Stream name*	*Stream Summary*
ASAP P&S	DM	Data Migration	Manage the data migration from previous systems
KVPM	TD	Technology Development	Manage the development of the knowledge into product - The Proof of Concept is stepwise improved, via Minimum Viable Product , to great product.

6. ASAP P&S, QA – Quality Assurance

Analogy Source & Target	*Stream id*	*Stream name*	*Stream Summary*
ASAP P&S	QA	Quality Assurance	Audit on time, within budget, within quality
KVPM	QA	Quality Assurance	Audit if progress is conform agreed specifications and agreed appointments

5.3.5 The first initial, theory based, design of the KVPM, summarized

In this chapter author summarizes a first, theory based, initial KVPM
Author uses the **definition of Valorization,** on the Business perspective.

KVPM Phases Design Summary
Using analogy between ASAP P&S Phases (source) in column 2, and Venture Phases (target), author designed the Venture´s KVPM Phases in columns 1, 3 and 4.

--INPUT: The *Knowledge*

--PROCESS: The *Phases*: ..*making*..*suitable*..*and*..*available*.. *and to translate into*..

1	2	3	4

Initiate

Phase id	Original name in ASAP P&S	KVPM Phase Name and role	Phase Summary
10	-2 Awareness	Awareness	Awareness of available knowledge, ready for venture

…Discover

Phase id	Original name in ASAP P&S	KVPM Phase Name and role	Phase Summary
20	-1 Mobilization	Mobilization	Organized searching for venture candidates
30	0 Scoping	Scoping	Assess and Select a promising Venture candidate

...Develop

Phase id	Original name in ASAP P&S	KVPM Phase Name and role	Phase Summary
40	1 Project Preparation	Preparation	Set up the venture plan and it's proposed businesses
50	2 Business Blueprint	Design	Define the new venture, businesses, and what is in scope

…Deliver

Phase id	Original name in ASAP P&S	KVPM Phase Name and role	Phase Summary
60	3 Realization	Realization	Configure and built the Venture and its businesses
70	4 Final Preparation	Delivery	Deliver the products and services to customers

…Cash

Phase Id	Original name in ASAP P&S	KVPM Phase Name and role	Phase Summary
80	5 Go Live & Support	Establish	Do raise earnings and reach self-supporting positive P&L

Close

Phase id	Original name in ASAP P&S	KVPM Phase Name and role	Phase Summary
90	6 Post Live Effectiveness	Handover to Society	Take over own financing and funding

--OUTPUT: The *Successful Business*

KVPM Phases Design Summary overview
The next Table 14 shows, in columnar format, the design summary on Phases.
- The KVPM Phases, column *1. Phase id*, *5. 'D3C*[(1)] and *7. Venture KVPM Phase*,
- The analogy source ASAP P&S Phases in column *3. ASAP P&S*.
- Other sources and categories in columns *4. Gyamfi et al.*, and *6. Funding stages*[(1)].

1	*2*	*3*	*4*	*5*	*6*	*7*
Phase id		***ASAP P&S***	***Gyamfi et al. (2007)***	***D3C***[(1)]	***Funding stages***[(1)]	***Venture KVPM Phase***
FROM	**Knowledge**					
	Input					
				Initiate		
10		-2 Awareness			Subsidizes/FFF	Awareness
			1. Idea Generation	Discover	Seed	
20		-1 Mobilization				Mobilization
30		0 Scoping				Scoping
			2. Idea Modification	Develop	Start up	
40		1 Project Preparation				Preparation
50		2 Business Blueprint				Design
			3. Idea Execution	Deliver	First stage	
60		3 Realization				Realization
70		4 Final Preparation				Delivery
				Cash	Second Stage	
80		5 Go Live & Support				Establish
				Close	Third Stage	
90		6 Post live Effectiveness			Bridge	Handover Society
	Output					
INTO	**Successful Business**					

VALORIZATION

(1) See later in Chapter H5.4.2; here only displayed as secondary info

Table 14: By author: KVPM Phases design summary, theory based.

KVPM Streams Design Summary overview
The next table 15 shows the design summary on Streams, with source ASAP P&S Streams (columns A and B), and the KVPM Venture Streams (columns C and D).

A	*B*	*C*	*D*
ASAP P&S Stream id	***ASAP P&S Stream name***	***KVPM Venture Stream Id and Name***	***KVPM Venture Stream Stream Details and Remarks***
PM	Project Management	VM – Venture Management	Managing the Venture. Starting from *Knowledge* up to and including *Running business with own earnings*, using the Valorization process.
SD	Solution Development	SD/VP – Solution Development and Value Proposition Development	Market and Customer Product Development. Includes among others Product offering, Market Demand, Go to market management, Community development, Customer Journey, etc.
TM	Technical Management	DA – Delivery AVC Management	Production organization. All Operational topics necessary to produce the product up till and including customer delivery and maintenance, spanning the whole involved Supplier – Buyer AVC chain.
CM	Change Management	BO – Businesses Organizational Development	Business Organizational Development. Develops all Organizational topics necessary to get a running business, on the whole Supplier – Buyer AVC chain.
DM	Data Migration	TD – Technology Development	Technology Development. Iterations from POC via MVP to Successful product in "Early Majority" group (see Technology Adoption Lifecycle, in "Crossing the Chasm", G. Moore). Includes Suppliers Management and its Finance and Funding.
QA	Quality Assurance	QA – Quality Assurance	Quality Assurance on Venture Progress.

Table 15: By author: KVPM Streams design summary, theory based.

5.3.6 The first design of the initial KVPM with Phases and Streams, visualized

Figure 26 hereunder shows the first, initial KVPM with Phases and Streams.

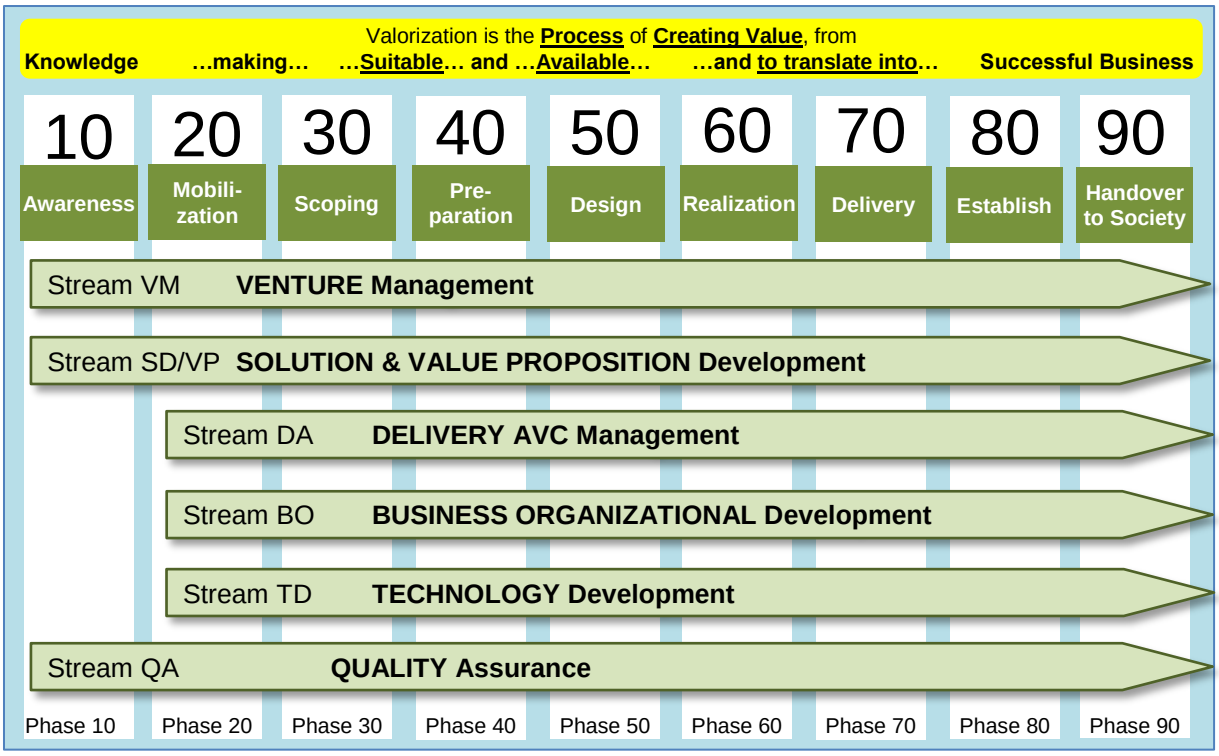


Figure 26: By author: First initial KVPM based on literature and analogy

Phases, global description.

The phase 10 Awareness receives the **input** of the Venture: the **Knowledge**.
It is about the awareness of available knowledge from different R&D institutes, to be viewed and inspected, if there is knowledge that might be of interest to valorize.

The phases 20 Mobilization and 30 Scoping are about the discovery, assessment, selection and scoping of a venture based on a selected promising knowledge.

The phases 40 Preparation and 50 Design are about all the preparations and design activities, needed for the next phases 60 Realization and 70 Delivery.

The phases 60 Realization and 70 Delivery are about the construction and realization of the venture's running business including the full AVC of valorization, and to actually deliver to customers, the products and services, thereby generating revenue.

The phase 80 Establish is about stabilizing the running business and raising earnings in order to reach self-sustained, profitable business with own earning capacity.

The phase 90 Handover to Society delivers the **output** of the Venture: the **Successful Business**. It is about the handover of the running business from the Venture's investors to society, where the business has own earning capacity, now adding to the earning capacity of the Netherlands.

Streams, global description.

VM Venture management – Manage the venture
The Venture Management stream contains all activities to run and control the project.
The Program level steers the Whole venture.
The Projects level steers the Venture and the Sub-ventures as a project.

SD/VP Solution and Value proposition - Develop market, customer and product
The Solution Development and Value Proposition stream contains a group of people with the needed functional knowledge (= disciplines) that can be utilized in finding an optimal solution for the Customers' requirements.
Solution is about the need of customers, the problem, a pain or a gain.
Value proposition is about the offering as a solution to the problem.

DA Delivery AVC management – Develop AVC production & delivery organization
The Delivery AVC management contains a group of people, experts in logistics, distribution and logistics chains, who support all production and delivery aspects of the AVC of Valorization, from raw material up to maintenance of product at customers place.
The production and delivery on the AVC is organized for successful delivery.

BO Business Organizational Dev. – Develop organization of the running business
The Business Organizational Development stream contains a group of people, experts in organization change and creation, who supports all organizational aspects of the AVC of Valorization, including communication, mobilization and Education & Training.
The AVC of Valorization is at business level, chain organized on strategic goal.

TD Technology development – Iterate from POC to MVP, to perfect product
The Technology Management stream contains a group of people, that provides the necessary requirements and steps to develop a robust and usable product for the customer, where the technology is the enabler for a great product and great customer journey and experience.
The Proof of concept is stepwise improved, via MVP, to great product.

QA Quality assurance – Audit checkpoints on time, within budget, within quality
The Quality Assurance supports the venture organization to deliver the deliverables according to the standards/norms by doing audits and giving recommendations.
Audits confirm progress if agreed specifications and agreed appointments are met.

5.4 Part 4 Multiple case study, using fourteen cases to form the final KVPM

Part four is a **multiple case study**, where fourteen cases are inspected and analyzed to discover case elements that addresses a KVPM structure element. First an important AVC learning is introduced. Second the scope is established and the KVPM approach on valorization is explained. Third the Phases are established and the Streams are introduced. Finally details are added on organizational aspects.

5.4.1 Cases and Learnings on the AVC of Valorization on multiple dependent businesses

In this paragraph author introduces an important conceptual learning from the cases on the added value chain (AVC) of Valorization involving multiple dependent businesses. This conceptual learning has big impact on the design of the KVPM.

Cases on the AVC of Valorization
Author explored a failed TNO-venture as a case with fantasy name “SolarPlus”. Using the Business Model Canvas (Osterwalder, 2009) author explored why it failed. This led to new important insights on giving proper attention to the nature and structure of the Valorization’s AVC. These insights are further explored and documented hereunder, in the cases RunAdvisor, LogiMedical and CaravanMoisture.

5.4.1.a AVC of Valorization and case SolarPlus

TNO, -a R&D company-, developed Knowledge (deposition production technology) on the smart deposition of high-efficient (22%) EV-cells (i.e. solar cells) on foil. This was already possible but at lower production speed and only with the existing low-efficient (12%) EV-cells. The new technology was pushed onto the market as the SolarPlus Venture “*Enabling the smart production of high-efficient EV-cells on foil*.”, promising (i.e. assuming) a customer advantage (i.e. added value) of *higher efficiency and easier maintenance*. The special machines were produced, but the venture failed; there was no market demand; no one bought the special machines.

Exploring the case, author started with one Business Model Canvas. Soon author realized this venture was not about one business (= one canvas), but about multiple –six- businesses (i.e. canvasses) in a mutually dependent value chain, as follows:

_____Institute/Business____	____Core Competence / Delivery of product____
Input: TNO	=> Created *Knowledge*
1. Engineering Bureau	Design / Machine Designed documents
2. Machine Builder Ltd	Build and sell / Built & Sold Special Machines
3. Producer of Foil with EV-cells	Production / Produced Foils with EV-cells
4. Trading Ltd F-EV-cells	Trading / Traded batches of Foils
5. Distribution Ltd F-EV-cells	Logistics / Managed Foil batches
6. Installation Ltd F-EV-cells	Installation/ Installed Foils
Out1: Installation Ltd F-EV	=> Projects with profit (+market demand and size)

(Out2: Customer higher costs, but => *higher efficiency and easier maintenance*.)

Table 16: By author: Case SolarPlus AVC of Valorization with multiple businesses

Table 16 shows the needed AVC of Valorization, the process to "create value", as a chain formed by multiple businesses, mutually dependent, summarized as:

a. the input from TNO the *knowledge* (deposition production technology) to valorize.
b. the valorization process: *6 businesses in a chain mutually dependent* are needed.
c. the output i.e. Installation Ltd the *Successful business*, doing projects with profit.

The output (Out1) is, -according to the Knowledge Valorization definition-, the "*Successful Business*", reflected in [author's speculation:] "Installation Ltd F-EV is doing projects with profit in a market with demand and this market is big enough (i.e. size) for running a sustainable business.".

In table 16 author also introduced (added) an extra line: "(Out2: Customer ..."). It is added, because the value proposition of the knowledge includes components that are only of interest and beneficial to the customer!

> "*Enabling the smart production of high-efficient EV-cells on foil*.", promising (i.e. assuming) a customer advantage (i.e. added value) of *higher efficiency and easier maintenance*.

The extra line "Out2" is shown between brackets, because this output is **not** part of the definition of Knowledge Valorization. But it has to be considered, because the Value proposition of the AVC Valorization is addressing this!

AVC of Valorization "chain failure" vulnerability

The AVC of valorization in the SolarPlus venture consists of 6 mutually dependent businesses in a chain and is therefore vulnerable to the risk of "chain failure". This is reflected in the premise on the AVC of Valorization: "If one in the chain fails, the whole chain fails". Such a "chain failure" can arise in each of the AVC of Valorization involved mutually dependent businesses, represented by the symbol "Business-n". Author speculated, -from a business perspective-, on the possible business considerations causing chain failures, analyzed and categorized as follows:

1. Customer demand / pull clarity (i.e. market validation) failure.
   Business-n does not belief there is (enough) demand in the market.
2. Business promised benefits & price.
   Business-n does not belief the customer is interested in the benefits & price.
3. Investment risk failure.
   Business-n thinks the needed investment is too risky.
4. Business model failure.
   Business-n thinks it does not fit in their business model (i.e. product portfolio).
5. Profit contribution failure.
   Business-n thinks the profit contribution will be to small (i.e. not worth focus).
6. Market size failure.
   Business-n thinks the market is to small (i.e. not worth investment and focus).
7. Market strategy failure.
   Business-n thinks this product does not fit within its marketing strategy.
8. Business model sub-optimization wish, versus AVC of Valorization optimization.
   Business-n wants profit/results optimization only to its own business model.

Note to reader: This is a first initial list created by author and therefore not complete. Author leaves it to successor researchers to elaborate more on the categorized business considerations.

AVC of Valorization "chain failure" analyses and conclusion
The failure of the SolarPlus venture is caused by Business number "*3. Producer of Foils with EV-cells*", based on its business consideration number "*5. profit contribution failure*" and number "*6 market size failure*".
They simply think it is not worth it because this whole venture's contribution to their profit is to low and they consider the market too small, resulting in producing only (too) low volumes. For them it is much easier and profitable to continue to produce the old Foil. So they decide not to produce this new "Foil with EV-cells" and therefore they do not need (i.e. do not buy) a new special machines, i.e. the AVC of Valorization is broken. Summarizing this case, the direct cause is business consideration number 5 and 6, ending up in its decision belonging to business consideration number "*8.*
Business model sub-optimization wish, versus AVC of Valorization optimization":
Business-n wants profit/results optimization only to its own business model.

Learnings on the AVC of Valorization and Venture Management
Author concludes for the AVC of valorization (AVC-V) on ventures the following: This SolarPlus case demonstrates the need for starting and running a venture along the lines of (1) "<u>One shared view of the Valorization/Venture process</u>" and an AVC of Valorization collaboration based on (2) "<u>a Shared & Aligned Strategic Venture Goal</u>".

Need (1) underpins the need for a practical Knowledge Valorization Process Model, aimed at **running a venture** and accommodating it with instruments to honor the individual mutually dependent businesses to **run as multiple sub-ventures**.

Need (2) underpins the need for a mature and experienced Venture Management Organization, who (a) understands business and businesses and (b) manages the Venture according to the Customer demand / pull perspective. I.e. executing the Knowledge Valorization process, starting with the Customer Demand, working backwards through the mutually dependent businesses chain, honoring each involved business, up to reaching the input: the knowledge.

In essence, Valorization is not about the creation of one business, but about the <u>creation of a chain of businesses</u>.

C1. AVC-V Supplier-Buyer Venture Chain.
The full value chain, from Customer Demand to Knowledge Supply, i.e. for all of the involved businesses must be clear and filled, otherwise there will be no products at the end of the value chain.
C2. Customer Demand / Pull Driven.
The AVC-V chain must start from the customer's demand as a pull 'for solutions' mechanism. I.e. it must be clear that there are enough people who want to buy.
C3. AVC-V chain must be worked on backwards from Customer demand.
The AVC-C chain involved businesses must be linked from Customer demand, working backwards for each involved business, up to the Knowledge Supply.
C4. AVC-V Each in the chain should benefit.
Each of the AVC-C chain involved businesses must have a **clear sub-venture business case, aligned with the venture goal and their advantage** (i.e. wiifm: what's in it for me), with clear consequences for their earnings (i.e. BMC).

The next Figure 27 shows the mechanism of the AVC of Valorization with the chain of multiple businesses; One venture running with multiple sub-ventures.

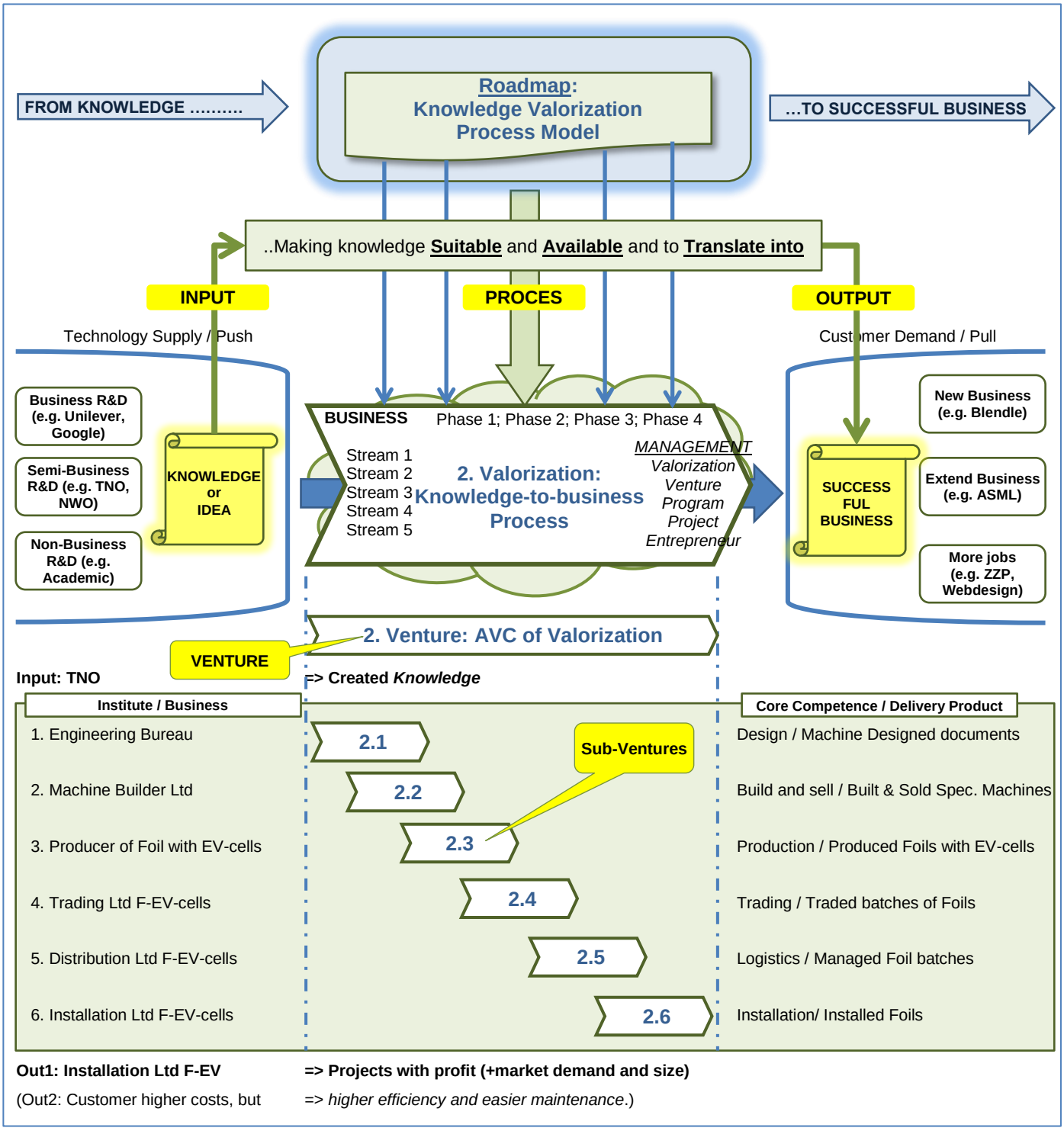


Figure 27: By author: Mechanism AVC, with chain of multiple dependant businesses

The Venture is an instance of the Valorization process, creating Successful Business from Knowledge. The Sub-Ventures are delivering needed intermediate results.

5.4.1.b AVC of Valorization and case RunAdvisor

TNO, -a R&D company-, developed Knowledge (i.e. running measurement methodology and technology) and patented this knowledge which is on calculating running metrics using an inlay sole in a running shoe with electronics. TNO assumed (i.e. did no market research) runners will be interested in these "body and performance metrics". They developed a prototype, patented the methods and then looked for interested entrepreneurs wanting to set up 'a' business. TNO's aim was to cash-in on the research and patenting costs by selling the patents to this entrepreneur. For this purpose, TNO appointed an internal "venture manager". TNO approached the venture from a push perspective, only aimed at obtaining entrepreneur's funding for (a) development of next prototype and (b) buying TNO's patents.

Author concludes (see also addendum 7: Supplier – Buyer: Supply Chain) this venture consists of 10 mutually dependent businesses:

_____Institute/Business____	_____Core Competence / Delivery of product____
Input: TNO	=> Created *Knowledge*
1. Engineering Bureau	Design / Sole & Electronics documents
2. Producer of Soles+Sensors Ltd	Production / Built & Sold Soles+Sensors
3. Producer of Electronics Ltd	Production / Built & Sold Electronics
4. Builder of Software Ltd	Building software / Built & License Software
5. Product Integrator Ltd	Integration / Built Integrated product
6. Builder of Web platform Ltd	Web software builder/ Built & License Softw.
7. Community Marketing Ltd	Community Mark. / Raise Commun. demand
8. Distribution Products Ltd	Logistics / Distributed Integrated product
9. Outlets for Sales Ltd	Sales via outlets / Sold products
10. RunAdvisor Business AG	Servicing the Running Community
Out1: RunAdvisor Business AG	=> Community Subscription based business
(Out2: Customer buys product	=> *Run better, Run Faster*.)

Table 17: By author: Case RunAdvisor AVC of Valorization & multiple businesses

Table 17 shows the needed AVC of Valorization, the process to "*create value*", as a chain formed by multiple businesses, mutually dependent, summarized as:

a. the input from TNO the *knowledge* (running methodology/ technology) to valorize.
b. the valorization process: *10 businesses chained mutually dependent* are needed.
c. the output i.e. RunAdvisor Business AG the *Successful business*, Serving the Running Community, with subscription based revenues and profit.

The output (Out1) is, -according to the Knowledge Valorization definition-, the "*Successful Business*", reflected in [author's speculation:] "RunAdvisor Business AG delivering inlay soles and servicing running community with subscription profit with market demand and market is big enough (size) for running a sustainable business.".

AVC of Valorization "chain failure" analyses and conclusions

The RunAdvisor venture failed because TNO's approach is not driven by "*market demand / pull*", but driven by "*technology supply push*", with no relation to market needs, customer benefits, price, market size and sales revenues.

The failure is caused by Business number 1, 2 and 3. who simply wanted to be fully paid for their efforts on producing a next prototype and were not linked to and not interested in investing in the (unsure future) of the rest of the AVC up to 'an' assumed customer, having an assumed benefit.

5.4.1.c AVC of Valorization and case LogiMedical

Logimedical B.V. is a trading company delivering Smart Cabinet Cars for medicine distribution in institutes like hospitals and elderly houses. They contracted the Technical University Delft to develop a smart medicine distribution car with integrated electronics, software, interfaces and network communications. This is presented to the market as a total solution for medicine distribution, promising (i.e. assuming) a customer advantage (i.e. added value) that implementing this solution (i.e. the Value Proposition) makes medicine distribution "*more efficient for institutes and safer for the patient.*" The venture failed; there was no market demand; no one bought the cars.

Author concludes the venture is about 11 mutually dependent businesses, as follows:

_____Institute/Business____	_____Core Competence / Delivery of product____
Input: TU DELFT	=> Created *Knowledge*
1. Engineering Bureau	Design / Smart Car documents
2. Producer of Car Sensors Ltd	Production / Built & Sold Car Sensors
3. Producer of Electronics Ltd	Production / Built & Sold Electronics
4. Builder of Distr. Software Ltd	Building software / Built & License Software
5. Car Product Integrator Ltd	Integration / Built Integrated Car product
6. Car Seller Ltd	Sales / Sold Cars with smart software.
7. Medicine Supplier Ltd	Medicine production / Produced medicine
8. Med. Distribution & Stock Ltd	Logistics / Distributed Medicines & Stock
9. Medicine Prescript. Patient Ltd	Doctor Prescription / Patient Med. Recipe
10. LogiMedical B.V. Smart Cars	Projects / Implemented Smart Car Solution
----------	----------
11. Medicine Supply to Patient Ltd	Routing Patient's Medicine / Suppl. Medicine
Out1: Logimedical B.V.	=> Smart Cars with profit (+market demand & size)
(Out2: Customer ??	=> *more efficient for institutes and safer for the patient*.)

Table 18: By author: Case LogiMedical AVC of Valorization & mupltiple businesses

Table 18 shows the needed AVC of Valorization, the process to "*create value*", as a chain formed by multiple businesses, mutually dependent, summarized as:

a. the input from TU DELFT the *knowledge* (Smart Cars Technology) to valorize.
b. the valorization process: *11 businesses in a chain mutually dependent*.
c. the output i.e. LogiMedical BV the *Successful business*, doing projects with profit.

The output (Out1) is, -according to the Knowledge Valorization definition-, the "*Successful Business*", reflected in [author's speculation:] "LogiMedical B.V. is doing projects with profit in a market with demand and this market is big enough (i.e. size) for running a sustainable business.".

AVC of Valorization "chain failure" analyses and conclusion.
The failure of LogiMedical's Smart Cabinet Car venture is caused by businesses:
"5. Car Product Integrator Ltd Integration / Built Integrated Car product"
up to business:
"9. Medicine Prescript. Patient Ltd Doctor Prescription / Patient Med. Recipe"
In essence they had no business advantage but a business disadvantage! So their business consideration is number 8. "Business model sub-optimization wish ……". All five businesses would actually loose turnover and profits, because the Smart Cabinet Car solution would stop the current spillage of medicines. They all unofficially agreed on the proposed advantage and outcome "*more efficient for institutes and safer for the patient*". Bottom line, businesswise they did not want to deliver their sub contribution to this venture. Summarizing this case, the direct cause is business consideration number 8. "Business model sub-optimization wish, versus AVC of Valorization optimization": Business-n wants profit/results optimization only to their own business model. Author concludes this venture never had a chance.

5.4.1.d AVC of Valorization and case CaravanMoisture

Author was told about developed knowledge on "condensation prevention". This was applied to a caravan. The question was what the value proposition must be to bring this caravan with this special feature, successful to the market. Author speculates a Value Proposition: "*Your LongLife caravan with the NoCondens innovative system*" delivering you many great holidays with "*superb indoor climate, for more comfort.*". Author assumes this *LongLife caravan* targets the higher market segment (e.g. 5% of the total caravan sales) where customers value extra comfort, value longer caravan life and can afford a higher price tag (e.g. 2,000 euro.).

To explore the possible "chain failure" vulnerability author builds the expected AVC of Valorization: the needed multiple businesses in the mutually dependent value chain:

_____Institute/Business____	_____Core Competence / Delivery of product____
Input: TNO	=> Created *Knowledge*
1. Engineering Bureau	Design / Caravan Designed documents
2. Caravan Parts Suppliers Ltd	Build caravan parts / Built parts
3. Caravan Builder Ltd	Build caravan / Built Caravans
4. Distribution Caravans Ltd	Logistics / Managed Caravan Stock
5. Caravan Dealer Selling Ltd	Sales & support / Sold Caravans
Out1: Caravan Dealer Ltd	=> Sales with profit (+market demand and size)
(Out2: Customer higher costs	=> *higher efficiency and easier maintenance*.)

Table 19: By author: Case CaravanMoisture AVC of Valorization & multiple businesses

AVC of Valorization “chain failure” vulnerability analyses and conclusion

On Out1: the question is: Can there be a Successful Business based on this product-with-knowledge? I.e. the customer needs and market must be validated:
(a) is there a customer need? , (b) is the customer prepared to pay the extra? (c) is the market big enough? I.e. Validated need + validated price + validated market!

On 5. Caravan dealer
What is the Caravan dealer his business advantage, whereby this is derived from the translated customer advantage?
- does he have focus on customers/leads in the targeted segment?
- is it more profitable to focus on the other 95% of the customer segment?

On 4. Distribution Caravans
What is the Distribution business advantage, whereby this is derived from the translated Caravan dealer advantage?
- does it make his logistic process more difficult?
- does he receive extra profit (for logistics a caravan is a caravan)?
- does it require extra / special handling, packaging?

On 3. Caravan builder
- does it make building more difficult?
- does it require more investment/risk due to more expensive parts/license costs?
- does it require expensive specialists?
- does it require new investments, due to a change in molds, production order, sub stations, support frames?
- does it require extra certification (e.g. TUV)?
- does it extend –due to longer life claim-, the “buying-a-new-caravan” period?
  i.e. reduction of caravan sales per year.
- does it substantially add more to my profit?

And so on.

Again author concludes every business in the mutually dependent value chain must comply to the Aligned Strategic Goal of the total Venture, otherwise – like in a real chain-, if one in the chain does not do so, the chain (i.e. Venture) will break, resulting in the failure of the whole Venture.

5.4.1.e Concluded Impact on the design and usage of the KVPM

As stated in the introduction of this paragraph 5.4.1, this previous conceptual learning on the AVC of Valorization has the next impact on the design of the KVPM:

Program and projects.
Author concludes a Venture must be run and managed like a program (i.e. using MSP), not like a project. This program takes care for timely delivery of e.g. a Venture business case, a Vision statement, an Aligned Strategic Goal, an initial AVC of valorization chain, a Venture Benefits Profile overview, a Venture Benefits Realization plan, a Venture Businesses Blueprint, a Venture Portfolio of Projects and Activities, a Venture Program plan, Venture Tranches (i.e. Phases), Venture program organization, Venture strategies, and so on.

Within the Venture's AVC of Valorization, the involved businesses are the sub-ventures to be run as the program's projects (i.e. in MSP: *Managing the Portfolio*) and helping to deliver the benefit realization (i.e. in MSP: *Managing Benefits*). Each involved business, appoints a manager responsible for the benefit delivery (i.e. in MSP: The *Business Change Manager*). The Venture's program organization (i.e. in MSP: *Program Sponsoring Group*) steering the Strategic Goal, must consist of the Senior executives (or delegates) of each involved business. The business that delivers the end result must appoint the responsible leader of the Venture (i.e. in MSP: *Senior Responsible Owner*).

Therefore running a venture requires an expert in program management, (i.e. in MSP: *Program Director*), **not** a project manager.

Running a sub-venture requires an expert in project management, (i.e. in PRINCE2: *Project manager*).

The consequences for the KVPM are:
For each Whole Venture an instance of the KVPM is needed to be executed as a program. For the venture as a project and for each involved business, an instance of the KVPM is needed to be executed as a project.

The individual businesses
Author assumes that each involved individual independent business, internal needs organizational and/or strategic changes in order to deliver it's part of the venture. These internal strategic changes are not part of the venture and sub-ventures, because each business manage their own guiding and governance strategy and policy.

5.4.2 Cases and Knowledge Valorization from an organizational perspective

Hereafter author describes case findings on Knowledge Valorization from an organizational perspective, i.e. who should be in the lead and manage Ventures.

Customer demand versus Technology push
It is widely known, valorization must start from customer demand; i.e. market needs. Not from technology push. Because *Successful Business* delivers products/services; and products/services are bought by *customers who need it*. Thus the valorization process must be customer "need driven", also called "Customer Demand / Pull" driven. This is a main guiding principle for Knowledge Valorization. The opposite is "*Technology Supply / Push*" driven, where new technology (i.e. new knowledge) is taken one step further by the R&D institute based on the technology itself. This leads to technology (i.e. knowledge) that no one wants (i.e. no customer and market demand exists) and therefore this way of Knowledge Valorization fails.

Leading valorization dichotomy: "knowledge" versus "business" experts
Author felt in all cases the continuous tension on "*leading valorization*" between the R&D experts, -the "*knowledge experts*"- (on the left side in Figure 27 page 101) and the Business men -the "*business experts*"- (on the right side in Figure 27 page 101). The "*knowledge experts*" were enthusiastic and opportunistic about the possibilities and wanted to develop their knowledge one step further. Their approach to valorization and ventures was continuously "Technology supply/push" based. When asked, they did not do any (i.e. none) marketing research to support their claims on the possibilities. They "believed" in the product.
The "*business experts*" however, were not convinced at all about the possibilities and first wanted to find out if there is a need in the market for products/services based on the knowledge, the size of the market and the price people wanted to pay for such a product. Their approach to valorization and ventures was continuously "Customer demand/pull" based. They first wanted to research, - before going any further-, if there is a market for these products and if any money can be made with it.

Author observed a gap between the two types of experts because of the differences of both worlds they live in and different core competences. They differ in language, subject matter expertise, knowledge domains, world knowledge, marketing knowledge, business knowledge, product readiness for market knowledge, and so on.

Valorization must be in expert hands: Small and Midsize Enterprises
Valorization must **not** be in the hands of academic or R&D institutes, but must be **organized by and in the hands of people who understand business and market**. Therefore author advocates for putting the lead on valorization in the hands of those who are experts in doing successful business, the Business men. Not the business men of big/multinational companies; they are merely managers. But in the hands of Business men running Small and Midsize Enterprises (i.e. SME's). They know what it is to build a product, a company, to win a market, make money, and so on.

Leaving Valorization in the hands of academic or R&D institutes will never lead to success, because they lack knowledge, capabilities and skills needed to "*create value"* from knowledge, i.e. to translate into a *successful business*.

5.4.3 Cases approach and scoping the KVPM Phases and Streams

Author defines approach, scopes the KVPM elements and addresses specifics on the cases, their usage and what can be derived from them.

Case learnings approach

This **multiple case study** involves fourteen cases -all on the Business perspective-, which author uses as data sources to discover KVPM structure elements.
As is designed in Chapter 4 *Research Design*, the study is based on the Cross-case synthesis technique (Yin, 2003).
The data author examines (Yin: "*Units of analysis*") are the assertions (or sentences) within each of the fourteen cases (i.e. ventures). Author searches for the **categories of assertions**, i.e. "*…some uniform framework.*", where the assertions (or sentences) "*..share some similarity..*".

Case learnings on KVPM structure elements scope

Earlier in chapter 3.5 *Research scope*, author limited the KVPM structure elements to design, to the next scope:

(1)	Principles
(2)	Processes
(3)	Phases (i.e. stages) and Streams (i.e. disciplines)
(4)	Organization

To limit the length of the paper, author further reduces the research scope as follows:
- Author limits the **categories of assertions** to only (3) Phases and Streams.
- Author limits the amount of Phases (i.e. the Phases categories) to ten.
- Author limits the amount of Streams (i.e. the Stream categories) to ten.

Case usage on KVPM Phases and Streams scope

When author explored the cases, a lot of assertions were found related to Streams (i.e. Stream categories). However, few assertions were found related to Phases (i.e. Phase categories).
Therefore author decided to continue this case research hereafter as follows:

- Phases: Author uses only the RunAdvisor case as input for the KVPM Phases. Therefor author explores the RunAdvisor case its Phases and Streams model, see addendum 5 and addendum 8.

- Streams: Author uses all fourteen cases only as input for the KVPM Streams. Therefore the "similarity" author seeks are the major ten KVPM's Streams, i.e. the **categories of expertise's** (or disciplines) needed during the venture, based on analyzing, categorizing and synthesizing the data (i.e. assertions or sentences). E.g. Venture management, Market development, Technical development, etc.
See chapter *Case Data Sources, used as Exhibits*.

5.4.4 Cases and the design of the KVPM Phases

This chapter processes the findings on the RunAdvisor case only.

Case RunAdvisor

On the RunAdvisor case an overall roadmap was needed, to manage expectations and to align timeline and deliverables. Author then engineered a first phased model on this RunAdvisor case, based on the next three views A, B and C.:

A. Project approach and B. Business approach,
See addendum 5: RunAdvisor Venture: A first highlevel Roadmap of the Valorization process named D3C (Discover, Develop, Deliver, Cash) mapped on a real case, also present as "CASE DATA SOURCES, used as Exhibits", with id CA01_DC02_pag037. See also addendum 7 and 8.

and C. Finance stages.
See addendum 6: RunAdvisor Venture: Investment stage-gate financing approach, also present as "CASE DATA SOURCES, used as Exhibits", with id CA01_DC02_pag033.

Case RunAdvisor Phases content

Analyzing these views for Venture Phases ("*natural break points*"), shows:

A. Phases on the *Project Approach: Communication & Plans (= Roadmap)*:
Author arbitrary engineered "Start->", 1, 2, 3, 4, "->Flag (finish)". To make sense to the stakeholders, author summed some content on 1, 2, 3, 4. Based on this content, author arbitrary decided to name this Roadmap model "**D3C**", short for 1. Discover, 2. Develop, 3. Deliver, and 4. Cash.

B. Phases on the *Business Approach: Partnering & Development:*
The summed content is titled as follows: 1. Partnership, 2. Organization, 3. Products, 4. Sales, 5. New R&D, 6. Go Public.

C. Phases on the *Financing stages (= Venture funding)*:
The summed content is titled as follows: a. Seed, b. Start-up, c. First stage, d. Second stage, e. Third stage, f. Bridge.

Case RunAdvisor Streams content

Analyzing these views for Venture Streams ("*natural grouping of skills*"), shows:
S1. Project approach,
S2. Business Approach,
S3. Financing [author: = Venture funding], and
S4. Review And Check [author: on Project (= Venture) progress].

During the RunAdvisor venture, this D3C model was used as the basis for progress and actions, honoring the two main “streams” S1 and S2:
- S1. Project approach, only used by author and “accepted” by the others, and
- S2. Business approach, used by everyone.
The streams S3 and S4 were not used, because no one seemed to be interested.

The previous is hereunder summarized:

Phase->	***Phase 1***	***Phase 2***	***Phase 3***	***Phase 4***
Streams	***Start->***			***->Flag***
A. Project Approach	1. Discover	2. Develop	3. Deliver	4. Cash
Com. & Plan Roadmap	Define Venture Define Organization	Establish Business Case Start-up	Make detail stage plans Execute stage plans	Handover business Close venture
B. Business Approach	1. Partnership	2. Organization	3. Products	4. Sales (5. New R&D) (6. Go Public)
Business Opportunity	From the demand (market) site, identify business opportunities Look into knowledge possibilities to translate into business, products or services, were there is a market need.	Covers the design of the global business and product approach covering all aspects to check the viability of the Venture.	Realizes the global business and product delivery covering all aspects to make the total product delivery and use worthwhile for the customer	Realizes a positive constant cash flow, where the business is going to be self-sustained and in the end, VC’s can step out.
Venture Topics	-Mutual interests -Must-haves -Not-possibles -Shared view -Shared Added value -Shared future	-Business Vehicles -Organizational structure -Positions -Investor Business Case -Investors Funding -Quick Wins	-Target Cust. Segment -Market -Business model -Competition -Marketing & Sales -Cash Flow	-Manufacturing -Distribution -Launch Event -Promotion -Marketing & Sales -Cash Flow
C. Funding (financing)	a. Seed	b. Start-up	c. First stage	d. Second stage (e. Third stage) (f. Bridge)
Venture Funding	-Initial product feasibility, dev. Market -Rough business plan	-Completed Product dev. -Refined Business plan, start marketing efforts	-Full manufacturing, marketing, sales. -Man. Team complete.	-Production, contracts -Expansion

Figure 28: By author: Case RunAdvisor ‘D3C’ model based Phases and Streams

Phase design summary
The learnings of this D3C model are already applied in the phase design in chapter H5.3. Therefore author maintains the Phase design as defined in the first initial design, in chapter H5.3.3. *Initial design of the KVPM Phases*.

5.4.5 Cases and the design of the KVPM Streams

Hereafter, author explains the collection and processing of the case information. The findings of the fourteen cases, the Streams of the KVPM, are documented.

Research approach
As explained in chapter 4. *Research design*, the "similarity" author seeks the major ten KVPM's Streams, i.e. the **categories of expertise's** (or disciplines) needed during the venture. E.g. Venture management, Market development, etc.

Collecting Case information seeking for similarities.
Author processed the case information in five steps.
- In the first step, author collected structured information on assertions, assessed each assertion on the Stream (i.e. the category of the assertion) it address or is about, and documented these findings.
- in step two to five, author further processed the collected information in a structured way as proof and to find more details on streams.

First, as author described in chapter *4 Research Design*:
- in paragraph *4.8 Case Data sources selection and processing* and
- in paragraph *4.9 Case Data sources processing and result example*

(a) all fourteen cases and selected documents/speech are described and
(b) the pages or assertions are assessed on and are linked to a specific KVPM Stream(s) the page or assertion topic, addresses, or is about.

Author documented this in addendum: *CASE DATA SOURCES, used as exhibits*.

As a result, author found the next ten Streams (i.e. Categories of assertions), where column 3 shows the six Streams already found through analogy in chapter 5.3:

1	***2***	***3***	***4***
Stream	***S-id***	***first Draft chapter 5.3***	***Stream Description***
S01	VM	VM	Venture Manager i.e. Program Director/Manager
S02	SD/VP	SD/VP	Solution Development & Value Proposition Development
S03	MD		Market Development
S04	BO	BO	Business Organizational Development
S05	DA	DA	Delivery AVC Management
S06	TD	TD	Technology Development
S07	FM		Financial Management
S08	FU		Funding Management
S09	LM		Legal Management
S10	QA	QA	Quality Assurance

Table 20: by author: Found ten KVPM Streams in the fourteen cases.

Second, author entered this information in a structured spreadsheet, as follows:

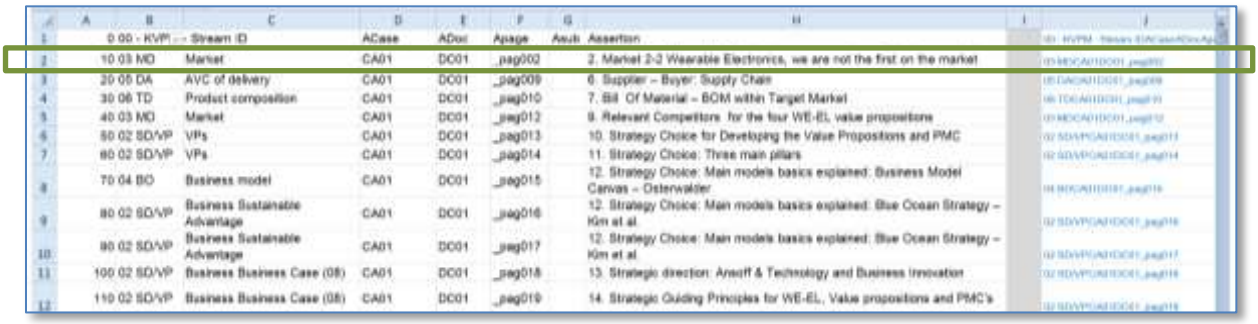
- Column A: the sequence number of the case information, e.g.: “10” (or “2920”)

- Column B: the assess result on page or assertion, e.g.: “03 MD” (or “02 SD/VP”)

- Column C: the detail information on B -empty[1)]- (here e.g.: “Market” (or “Product”))
- Column D: the case identification, e.g.: “CA01” (or CA05-06SP)
- Column E: the Document or Round identification, e.g.: “DC01” (or “R0aIntro”)
- Column F: the Page or Assertion identification, e.g.: “_pag002” (or “1”)
- Column G: the subsequence number, when more than one Stream is assessed.
- Column H: the Page title or description itself, or the Assertion itself.

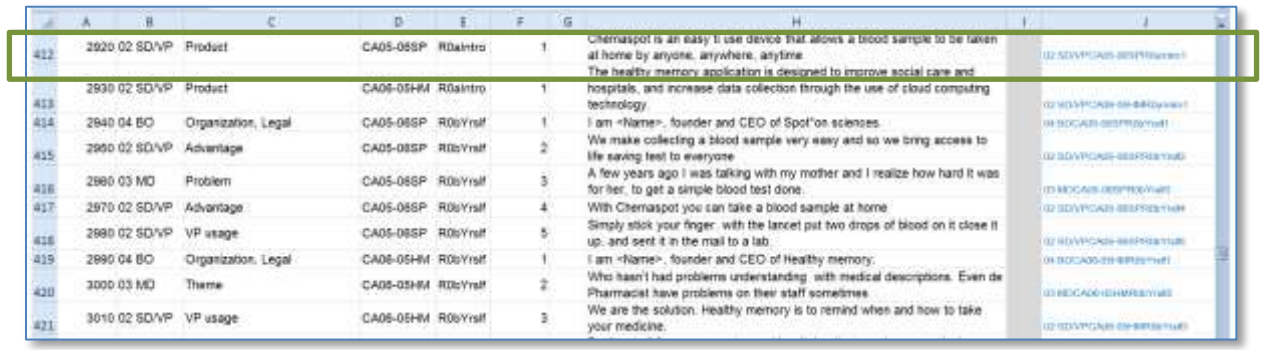
The total of the cases on pages (group 1) and assertions (group 2) is 834 lines.

[1)] The detail content information is added in the third step, see next page.



	A	B	C	D	E	F	G	H	I	J
1		0 00 - KVP	Stream ID	ACase	ADoc	Apage	Aseb	Assertion		
2		10 03 MD	Market	CA01	DC01	_pag002		2. Market 2-2 Wearable Electronics, we are not the first on the market		
3		20 05 DA	AVC of delivery	CA01	DC01	_pag009		6. Supplier – Buyer: Supply Chain		
4		30 06 TD	Product composition	CA01	DC01	_pag010		7. Bill Of Material – BOM within Target Market		
5		40 03 MD	Market	CA01	DC01	_pag012		9. Relevant Competitors for the four WE-EL value propositions		
6		50 02 SD/VP	VPs	CA01	DC01	_pag013		10. Strategy Choice for Developing the Value Propositions and PMC		
7		60 02 SD/VP	VPs	CA01	DC01	_pag014		11. Strategy Choice: Three main pillars		
8		70 04 BO	Business model	CA01	DC01	_pag015		12. Strategy Choice: Main models basics explained: Business Model Canvas – Osterwalder		
9		80 02 SD/VP	Business Sustainable Advantage	CA01	DC01	_pag016		12. Strategy Choice: Main models basics explained: Blue Ocean Strategy – Kim et al		
10		90 02 SD/VP	Business Sustainable Advantage	CA01	DC01	_pag017		12. Strategy Choice: Main models basics explained: Blue Ocean Strategy – Kim et al		
11		100 02 SD/VP	Business Business Case (08)	CA01	DC01	_pag018		13. Strategic direction: Ansoff & Technology and Business Innovation		
12		110 02 SD/VP	Business Business Case (08)	CA01	DC01	_pag019		14. Strategic Guiding Principles for WE-EL, Value propositions and PMC's		

Figure 29: By author: Step 2 example group 1 information, from /..2015-Exh02..



	A	B	C	D	E	F	G	H	I	J
412		2920 02 SD/VP	Product	CA05-06SP	R0aIntro	1		Chemaspot is an easy to use device that allows a blood sample to be taken at home by anyone, anywhere, anytime. The healthy memory application is designed to improve social care and		
413		2930 02 SD/VP	Product	CA06-05HM	R0aIntro	1		hospitals, and increase data collection through the use of cloud computing technology		
414		2940 04 BO	Organization, Legal	CA05-06SP	R0bYrslf	1		I am <Name>, founder and CEO of Spot"on sciences		
415		2950 02 SD/VP	Advantage	CA05-06SP	R0bYrslf	2		We make collecting a blood sample very easy and so we bring access to life saving test to everyone		
416		2960 03 MD	Problem	CA05-06SP	R0bYrslf	3		A few years ago I was talking with my mother and I realize how hard it was for her, to get a simple blood test done.		
417		2970 02 SD/VP	Advantage	CA05-06SP	R0bYrslf	4		With Chemaspot you can take a blood sample at home		
418		2980 02 SD/VP	VP usage	CA05-06SP	R0bYrslf	5		Simply stick your finger, with the lancet put two drops of blood on it close it up, and sent it in the mail to a lab		
419		2990 04 BO	Organization, Legal	CA06-05HM	R0bYrslf	1		I am <Name>, founder and CEO of Healthy memory.		
420		3000 03 MD	Theme	CA06-05HM	R0bYrslf	2		Who hasn't had problems understanding with medical descriptions. Even de Pharmacist have problems on their staff sometimes		
421		3010 02 SD/VP	VP usage	CA06-05HM	R0bYrslf	3		We are the solution. Healthy memory is to remind when and how to take your medicine.		

Figure 30: By author: Step 2 example group 2 information, from /..2015-Exh02..

Third, author sorted the information in the structured spreadsheet on:
- the Stream id (column B) and Case id (columns D+E+F+G).

Then author added Detail information on the Stream in column C, based on authors assessment of Column H: the Page title or description itself, or the Assertion itself.

	A	B	C	D	E	F	G	H	I	J
3	180	01 VM	Venture Roadmap	CA01	DC01	_pag037		27. Business Development Program: Roadmap		
4	230	01 VM	Venture information	CA01	DC03	_pag001-002	a	RAOpp – page 1-2		
5	260	01 VM	Team: Business men	CA01	DC05	_pag001	a	KPC the company, KPC & Partners		
6	580	01 VM	Stakeholders	CA01	DC07	_pag032	a	18. Main Stakeholders		
7	596	01 VM	Funding Business Case (04)	CA01	DC07	_pag033	d	19. Investment		
8	860	01 VM	Team: Contact information	CA01	DC07	_pag040	a	25. Contact information		
9	876	01 VM	Funding Business Case (04)	CA01	DC08	_pag023	d	Investment		
10	930	01 VM	Stakeholders	CA01	DC08	_pag029	a	Main Stakeholders		
11	1000	01 VM	Venture Products (PBS)	CA01	DC09	_pag001-005	a	Project Product Breakdown Structure		
12	1010	01 VM	Planning	CA01	DC09	_pag006	a	Planning Schedule Step 1. Suggested payments		
13	1020	01 VM	Venture Products (PBS)	CA01	DC10	_pag001-002	a	Project Product Breakdown Structure		
14	1030	01 VM	Planning	CA01	DC10	_pag003	a	Planning Schedule Step 1. Suggested payments		
15	1050	01 VM	Planning	CA01	DC12	_pag001	a	Venture steps, deliverables and needed capital; Explanation per step (base: go to market approach)		
16	1180	01 VM	Planning	CA01	DC15	_pag038		Planning schedule		
17	1205	01 VM	Business Business Case (08)	CA01	DC16	_pag001	b	Business & investment opportunity		

Figure 31: By author: Step 3 example group 1+2 information, from /..2015-Exh02a

Fourth, author sorted the information in the structured spreadsheet on:
- the Stream id (column B) and Detail information (column C).

Then author cleared and structured the Detail information text in column C.

Fifth, author sorted the information in the structured spreadsheet again on:
- the Stream id (column B) and Detail information (column C).

Hereunder author shows (a part of) the end result:

1. Column B shows the Streams that are “discovered” (i.e. learned) from the cases.
2. Column C shows the specific Detail information on the discovered Stream.
3. Columns D+E+F+G identify the *case data source* the information originates from.
4. Column H shows the case’s original page title, page description or assertion text.

	A	B	C	D	E	F	G	H	I	J
3	1510	01 VM	Business	CA01	DC27	_pag005	a	H5. Business plan terminology		
4	1205	01 VM	Business Business Case (08)	CA01	DC16	_pag001	b	Business & investment opportunity		
5	2515	01 VM	Business Business Case (08)	CA02	DC09/15	_pag031	b	..Mtsch BC 1. Mdgbrk, 2 MdGb & ZH opn		
6	2530	01 VM	Business Business Case (08)	CA02	DC09/15	_pag033	b	Hoe we geld gn verdnn 1, 2 markt		
7	2580	01 VM	Business Business Case (08)	CA02	DC09/15	_pag038		Business Case, 1, 2, 280 mio		
8	1320	01 VM	Communication plan	CA01	DC23	_pag003		Communication plan proposal		
9	1735	01 VM	Communication plan	CA01	DC31	_pag001-006	b	Overview, Location, Programm, Company Presentations		
10	1745	01 VM	Communication plan	CA01	DC32	_pag001	b	Table of Content of short Pitch, draft		
11	150	01 VM	Estimated Earnings	CA01	DC01	_pag031		21. Estimated Earnings on products, first draft		
12	1810	01 VM	Funding	CA02	DC02	_pag002	a	ProMonitor, the Venture and Funding		
13	596	01 VM	Funding Business Case (04)	CA01	DC07	_pag033	d	19. Investment		
14	876	01 VM	Funding Business Case (04)	CA01	DC08	_pag023	d	Investment		
15	1560	01 VM	Funding, Risks, Issues	CA01	DC27	_pag010	a	x.7 Investment, x.8 Risks, x.9 Issue log		
16	1590	01 VM	Funding, Risks, Issues	CA01	DC27	_pag013	a	x.7 Investment, x.8 Risks, x.9 Issue log		
17	1610	01 VM	Funding, Risks, Issues	CA01	DC27	_pag015	a	x.7 Investment, x.8 Risks, x.9 Issue log		
18	1630	01 VM	Funding, Risks, Issues	CA01	DC27	_pag017	a	x.7 Investment, x.8 Risks, x.9 Issue log		
19	1650	01 VM	Funding, Risks, Issues	CA01	DC27	_pag018	a	x.7 Investment, x.8 Risks, x.9 Issue log		
20	1730	01 VM	Goto market & Funding	CA01	DC33	_pag005	c	How much money do you need and what are you going to do with it: Steps, Plateaus and needed capital		
21	2565	01 VM	Goto market & Funding	CA02	DC09/15	_pag036	b	..Approach, plateaus 5 stuks		
22	2570	01 VM	Goto market & Funding	CA02	DC09/15	_pag037	a	..Markt uitrol Fase a tem E		
23	1680	01 VM	Issues	CA01	DC27	_pag022		Issuelog		
24	1470	01 VM	Market	CA01	DC27	_pag002-003	a	D. More detailed market research		

Figure 32: By author; Step 5 example of group 1+2 information from /..2015-Exh02b..

Streams and responsibilities of CxO's
Author observed responsibility and venture task focus are improved, if the future Business key-roles (see Figure 33: 1. CEO, 2. CCO, 3. COO, 4. CFO), in the Venture:

(a) have their own business area (see Table 21), based on Osterwalder BMC (2010).

(b) each within their business area (see Table 22), can act on their own streams.

#	*Role*	*Business area*	*BMC Building blocks in Business Area*
1	CEO	General	All BMC blocks, Business Organization as a whole
2	CCO	Commerce	CS, CR, CH, VP-demand, RS-Revenue Generation
3	COO	Operations	KP, KA, KR, VP-supply, C$-Costs Minimization
4	CFO	Finance	C$, RS, VP-Cost/Revenue Profit & Loss Control

Table 21: By author: Business key-roles, area and BMC blocks

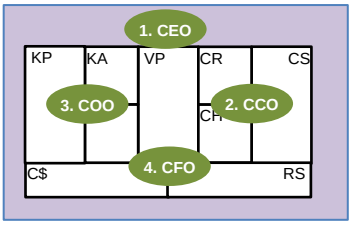


Figure 33: By author: BMC and key-roles

1. CEO	*2. CCO*	*3. COO*	*4. CFO*	*Stream*	*S-id*	*Stream Description*
V				S01	VM	Venture Manager i.e. Program Director/Manager
	V			S02	SD/VP	Solution Development & Value Proposition Development
	V			S03	MD	Market Development
V				S04	BO	Business Organizational Development
		V		S05	DA	Delivery AVC Management
		V		S06	TD	Technology Development
			V	S07	FM	Financial Management
			V	S08	FU	Funding Management
V				S09	LM	Legal Management
V				S10	QA	Quality Assurance

Table 22: By author: Business key-roles with each their own streams

Reporting format
Hereafter, author describes the streams case information, in a structured format.
First (A), the stream is introduced based on and sequenced by the fifth result on the case information. Also the importance of the stream is emphasized.
Second (B), the main mentioned cases Details are summed up.
Third (C), author, based on his experience and own viewpoint, suggests some sub-streams within the stream to make the stream more concrete.
Fourth (D), some characteristics of the stream are shown in a structured table, i.e. the Role description, Organization, the BMC blocks involved and a global description of the expertise knowledge the person fulfilling the role must have, followed by suggested literature or knowledge domains.
Finally (E), a snapshot of the case information in the structured spreadsheet is shown, only showing the begin of the stream information.

S01 VM. Venture Management stream

A. General observations

On all Ventures author observed omissions, e.g.: no program director, no project manager, no program plan, no roadmap, no deliverables, no organization, no stakeholder management, no risks log, no issue log, no planning, etc.. Running ventures without a Venture manager and a plan is like building a house without plans and a project manager. Author unofficially appointed himself as the “Venture manager” and ad hoc created some venture management documents.

B. Case Stream Detail information, spreadsheet /…2015_Exh02b_.., lines 002 - 080

Details	***Details***	***Details***	***Details***
Business organization	Business Case	Communication plan	Estimated Earnings
Funding	Funding Business Case	Funding, Risks, Issues	Go to market & funding
Market & finance	Contact information	MP: deliverables	MP: Products
MP: VPs	Organization Legal	Patents	Planning
Planning & Products	Process	Roadmap	Stakeholders
Team	Venture information	Venture products (PBS)	Venture roadmap

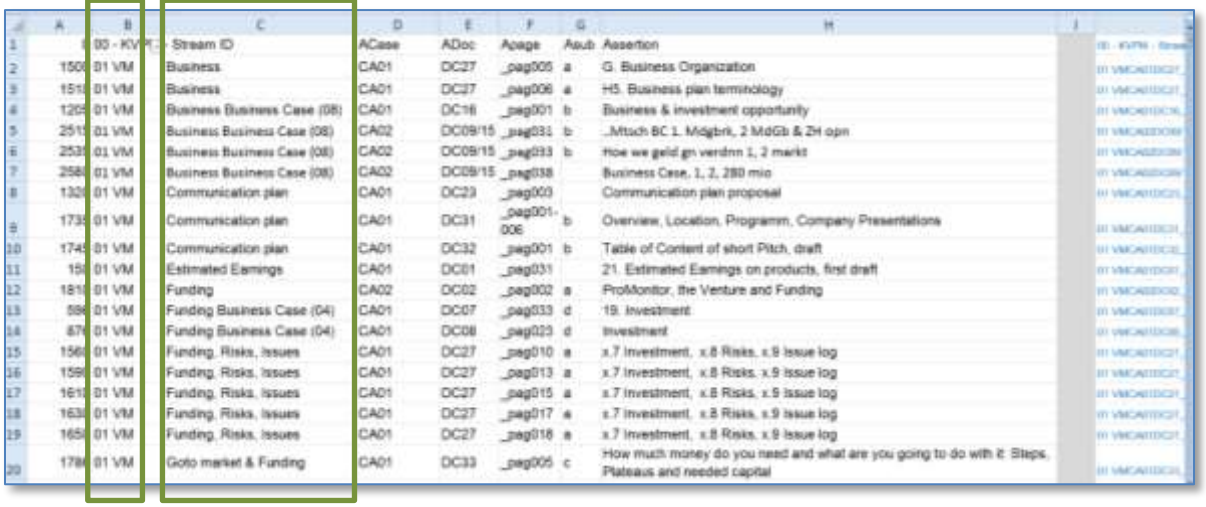
C. Suggested Sub streams of S01

- xxx-aa Governance; Program, Stakeholders, Risks
- xxx-aa Business Cases validity:
  xxx-aa Venture Valorization BCase stream (BC: create value through .. delivering ..)
  xxx-aa Venture Funding BCase stream (BC: wiifm “whats in it for me” for investors)
  xxx-aa Venture and sub-ventures Exit scenario’s (For partners and investors)
-Controlling financial viability:
  xxx-aa Valorization progress control stream
  xxx-aa Phases in-sync execution control stream

D. Some characteristics of the stream

Stream Topics	***Content***	***Remarks***
Role: **S01 Venture manager**	Manages a Venture as a program director, including sub-ventures with Project Managers	Must be an experienced business man, exercising leadership
Organization	General: CEO	
BMC blocks	All	
Expertise knowledge	Program, Project, Business, AVC, COPAFIJTH	MSP, PRINCE2, Porter AVC, BITA

E. Case information in structured spreadsheet, snapshot



	A	B	C	D	E	F	G	H
1		00 - KVM	Stream ID	ACase	ADoc	Apage	Asub	Assertion
2	150	01 VM	Business	CA01	DC27	_pag005	a	G. Business Organization
3	151	01 VM	Business	CA01	DC27	_pag006	a	H5. Business plan terminology
4	125	01 VM	Business Business Case (08)	CA01	DC16	_pag001	b	Business & investment opportunity
5	251	01 VM	Business Business Case (08)	CA02	DC09/15	_pag031	b	..Mtsch BC 1. Mdgbrk, 2 MdGb & ZH opn
6	253	01 VM	Business Business Case (08)	CA02	DC09/15	_pag033	b	Hoe we geld gn verdnn 1, 2 markt
7	258	01 VM	Business Business Case (08)	CA02	DC09/15	_pag038		Business Case, 1, 2, 280 mio
8	132	01 VM	Communication plan	CA01	DC23	_pag003		Communication plan proposal
9	173	01 VM	Communication plan	CA01	DC31	_pag001-006	b	Overview, Location, Programm, Company Presentations
10	174	01 VM	Communication plan	CA01	DC32	_pag001	b	Table of Content of short Pitch, draft
11	15	01 VM	Estimated Earnings	CA01	DC01	_pag031		21. Estimated Earnings on products, first draft
12	181	01 VM	Funding	CA02	DC02	_pag002	a	ProMonitor, the Venture and Funding
13	59	01 VM	Funding Business Case (04)	CA01	DC07	_pag033	d	19. Investment
14	87	01 VM	Funding Business Case (04)	CA01	DC08	_pag023	d	Investment
15	156	01 VM	Funding, Risks, Issues	CA01	DC27	_pag010	a	x.7 Investment, x.8 Risks, x.9 Issue log
16	159	01 VM	Funding, Risks, Issues	CA01	DC27	_pag013	a	x.7 Investment, x.8 Risks, x.9 Issue log
17	161	01 VM	Funding, Risks, Issues	CA01	DC27	_pag015	a	x.7 Investment, x.8 Risks, x.9 Issue log
18	163	01 VM	Funding, Risks, Issues	CA01	DC27	_pag017	a	x.7 Investment, x.8 Risks, x.9 Issue log
19	165	01 VM	Funding, Risks, Issues	CA01	DC27	_pag018	a	x.7 Investment, x.8 Risks, x.9 Issue log
20	178	01 VM	Goto market & Funding	CA01	DC33	_pag005	c	How much money do you need and what are you going to do with it. Steps. Plateaus and needed capital

Figure 34: By author: Stream 01 VM case information, from /..2015-Exh02b..

S02 SD/VP. Solution and Value Proposition Development stream

A. General observations

On all Ventures, author observed no one was responsible and working on the constant development of the solution, product and *Value Proposition* (VP) offered to the market. Solution Development and VP development must be a constant activity in order to present the market a clear sustainable advantage. Also new insights are arising constantly (i.e. be flexible and agile) which pushes for changes. They (i.e. mostly the entrepreneur himself) 'established' 'a' product with 'an' advantage and 'a' benefit. Mostly product function/technology driven, not customer demand use-benefit driven. Also they think in USP's i.e. Unique Selling Points, while it is necessary to think in UBM, i.e. Unique Buying Motives.

B. Case Stream Detail information, spreadsheet /…2015_Exh02b_.., lines 081 - 260

Details	***Details***	***Details***	***Details***
Activities	Advantage	Approval/Clearance	Business Business Case
Business model	Business plan	Business sustainable adv.	Communication plan
Go to market & funding	Market	Organization, Legal	Pain
Planning	Problem	Process	Product
Product function	Risks	Solution	Special
Targeted market	Technology	Theme	VP
VP Delivery	VP Usage	VP's	

C. Suggested Sub streams of S02

xxx-aa Customer need development stream
xxx-aa Value proposition development stream
xxx-aa Product development stream

D. Some characteristics of the stream

Stream Topics	***Content***	***Remarks***
Role: **S02 Solution & VP Development**	Manages and works on the solution and value proposition offered to the market	Expert in determining what users need and wants (Hassle map)
Organization	Commerce: CCO	Customer: Pain, Risk, Gain
BMC blocks	VP, CS	
Expertise knowledge	Product development, Market development	BMC, BOS, Gearup, MVP, CHASM

E. Case information in structured spreadsheet, snapshot

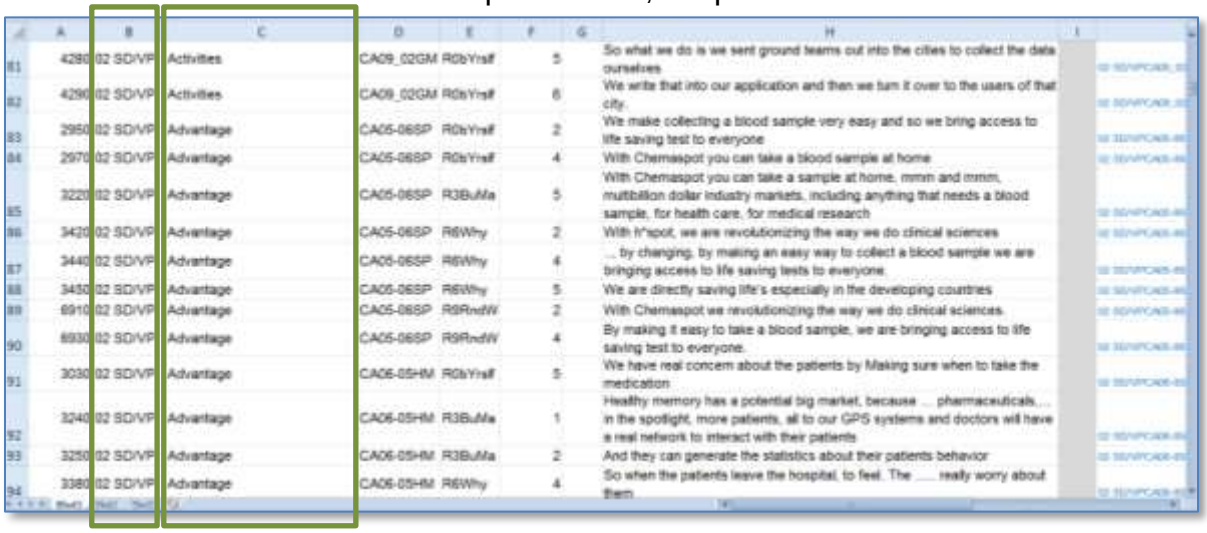


Figure 35: By author: Stream 02 SD/VP case information from /..2015-Exh02b..

S03 MD. Market Development stream

A. General observations

Author observed no one was responsible and working on the constant market exploration and development. Market is constantly changing and one must pro-actively react to prevent developing something no one wants. Also new insights are arising constantly which pushes for product and/or VP changes. They (i.e. the entrepreneur) simply 'believe' in the product and think [author: assume] that "*Of course there is demand and everyone wants it and pay the price. Because my product is the one everyone is waiting for*". This stream must constantly work on the UBM (Unique Buying Motives), market exploration and look for launching customers, advocates, promoters, influencers, go to market strategies, outlets, service, etc..

B. Case Stream Detail information, spreadsheet /…2015_Exh02b_.., lines 261 - 470

Details	***Details***	***Details***	***Details***
Advantage	Approval/Clearance	Business plan	Capital need
Channel	Communication plan	Company growth	Competition
DIY product building	Earnings	Functions	Funding
Funding & market	Funding & market scaling	Funding usage	Go to market
Go to market & Funding	Launching customer	Market	Market actual
Market beneficials	Market channels	Market Customers	Market diversification
Market DIY	Market Expand	Market fish farming	Market growth
Market Growth Expecta.	Market growth prove	Market impact	Market leadership
Market opener	Market sales	Market Scaling & Size	Market segmentation
Market size	Market support	Market Upscaling	Marketing costs
Need	Organization, Legal	Prices	Problem
Product	Product price	Product usage	Risks
Sales	Special	Stakeholders	Targeted market
Targeted market size	Theme		

C. Suggested Sub streams of S03

xxx-aa Go to market stream
xxx-aa Channel development stream
xxx-aa Community development stream
xxx-aa Revenue generation stream

D. Some characteristics of the stream

Stream Topics	***Content***	***Remarks***
Role: **S03 Market Development**	Manage and work on market development including competition and customer segment	Sales, Pice/fee, Go to market, Stakeholders, PESTLE, Advocates
Organization	Commerce: CCO.	
BMC blocks	CR, CH	Use smart existing channels 2 market
Expertise knowledge	Market development	BMC, BOS, Gearup, MVP, CHASM

E. Case information in structured spreadsheet, snapshot

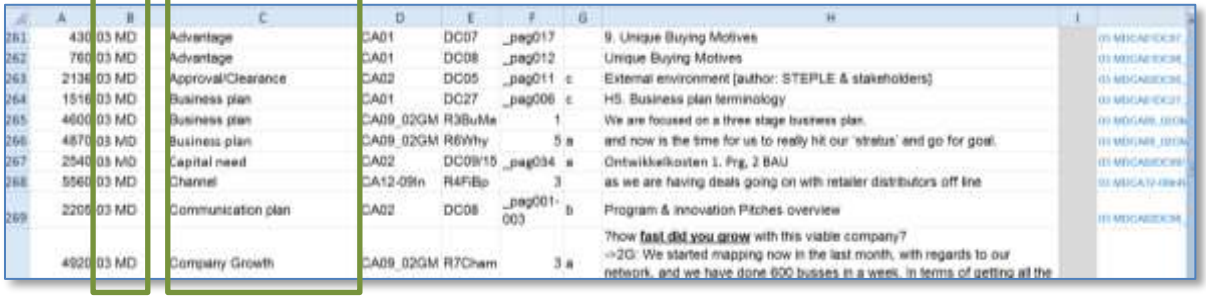


Figure 36: By author: stream 03 MD case information, from /..2015-Exh02b..

S04 BO. Business Organizational Development stream

A. General observations

On all Ventures, author observed a lack of interest in the design, creation and future management of the organizational unit that must support all processes needed to be successful. No one thought about the needed competences, knowledge, skills and experience needed to get the business running and keep running. Also the needed investment is neglected. Growth and upscaling was not addressed. Once the business starts, it must be ready to execute to enable business growth. Also investors want you to prove how you manage growth.

B. Case Stream Detail information, spreadsheet /…2015_Exh02b_.., lines 471 - 601

Details	***Details***	***Details***	***Details***
Approval/Clearance	Business Business Case	Business model	Busi. Sustainable adv.
Company growth	Earnings	Funding reason	Go to market & Capital need
Market actual	Market channels	Market Growth and actual	Market partners
Market position	Market size & scalability	Need	Organization, Legal
Partner network, channels	Process	Product	Scalability & market size
Special	Stakeholders	Targeted market	Targeted market size
Team	Team specialist		

C. Suggested Sub streams of S04

xxx-aa Business Organizational structure, Business management & Key Roles
xxx-aa Business Physical Locations for support and outlet
xxx-aa Business IT-support
xxx-aa Business Growth scenario's, upscaling

D. Some characteristics of the stream

Stream Topics	***Content***	***Remarks***
Role: **S04 Business Organizational Development**	Manages and works on the New Business organizational development, as the organizational unit that manages and runs the business	Includes Governance and the COPAFIJTH* processes, collaboration contracts with businesses, etc.
Organization	General: CEO	Scalability, Agile, Channels, Partners
BMC blocks	KR, KA, KS	For the organization of the business
Expertise knowledge	Organization creation and development	Business creator and manager, MBA

*COPAFIJTH: Communication, Organization, Personal, Administration, Finance, ICT, Legal (Juridisch), Housing

E. Case information in structured spreadsheet, snapshot

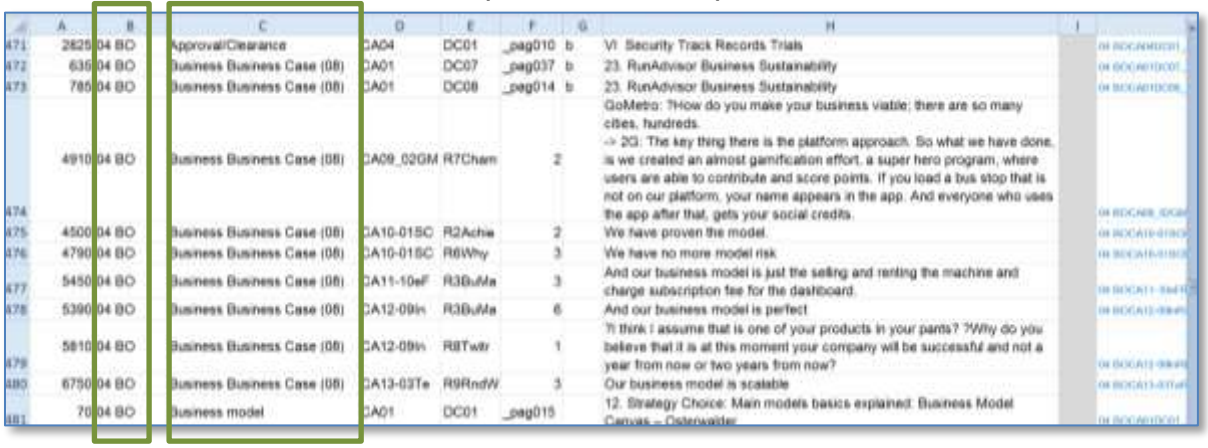


Figure 37: By author: Stream 04 BO case information, from /..2015-Exh02b..

S05 DA. Delivery AVC Management stream

A. General observations

On all Ventures, author observed a lack of interest on the creation and organization of the AVC of mutually dependent businesses. The Value chain design, organizational arrangements and running the delivery of multiple dependent businesses is not seen as a subject that needs attention. The “we look into this later” excuse prevents the discovery of the technological issues and involved finances. Also the risks on “chain breaking” are not known.

B. Case Stream Detail information, spreadsheet /…2015_Exh02b_.., lines 602 - 621

Details	***Details***	***Details***	***Details***
AVC of delivery	Market actual	Market channels	Partner network, chann.
Product development	Product maturity/finished	Product technology	Risks
Scaling through distribution	Stakeholders	Team	Upscaling production

C. Suggested Sub streams of S05

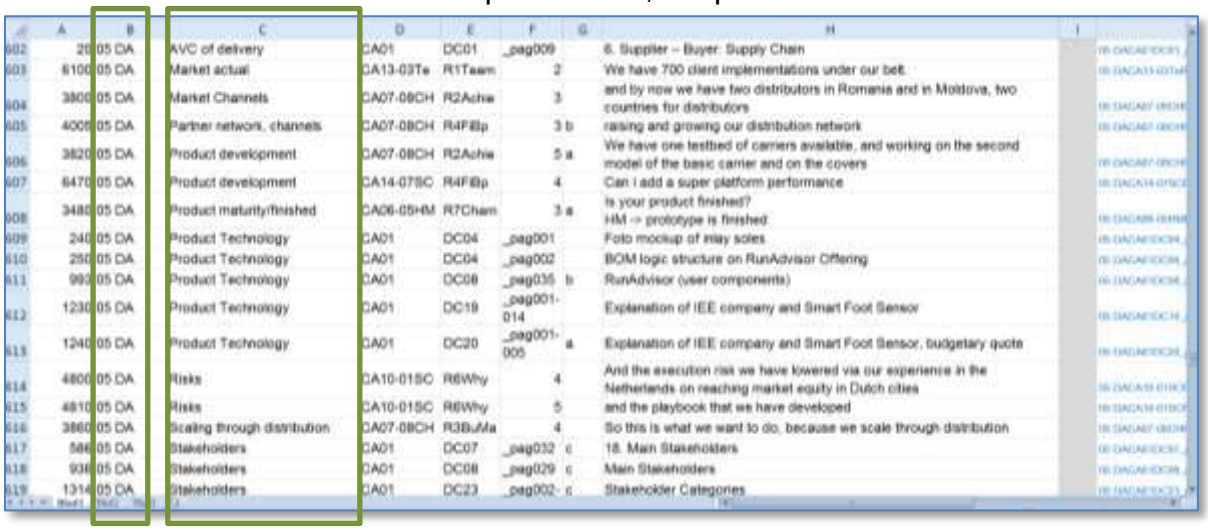
xxx-aa Key Partner (Suppliers) management
xxx-aa Advanced Planning and Scheduling
xxx-aa Constant quality control (zero defects)
xxx-aa Lot control tracking and tracing

D. Some characteristics of the stream

Stream Topics	***Content***	***Remarks***
Role: **S05 Delivery AVC management**	Manages and works on the creation of the AVC of mutually dependent businesses, as well as own business. Makes sure all deliver their part of the total product according to spec’s and demand.	Addresses the full main Added Value Chain: Inbound, Production, Outbound, Customer, Services. S04 facilitates and supports this.
Organization	Operations: COO	
BMC blocks	For producing the goods on KA, KR, KP, VP-product/service, CH-delivery, CS-services	This is the SIPOC* AVC stream that creates, delivers and maintains the products and services
Expertise knowledge	Operational production management	Logistics, ERP, Lean, AVC, distribution, warehousing, SLA

*SIPOC: Supplier, Input, Process, Output, Customer

E. Case information in structured spreadsheet, snapshot



602	20	05 DA	AVC of delivery	CA01	DC01	_pag009		6. Supplier – Buyer: Supply Chain
603	6100	05 DA	Market actual	CA13-03Te	R1Team	2		We have 700 client implementations under our belt.
604	3800	05 DA	Market Channels	CA07-08CH	R2Achie	3		and by now we have two distributors in Romania and in Moldova, two countries for distributors
605	4000	05 DA	Partner network, channels	CA07-08CH	R4PBp	3	b	raising and growing our distribution network
606	3820	05 DA	Product development	CA07-08CH	R2Achie	5	a	We have one testbed of carriers available, and working on the second model of the basic carrier and on the covers
607	6470	05 DA	Product development	CA14-07SC	R4PBp	4		Can I add a super platform performance
608	3480	05 DA	Product maturity/finished	CA06-05HM	R7Chan	3	a	Is your product finished? HM -> prototype is finished
609	240	05 DA	Product Technology	CA01	DC04	_pag001		Foto mockup of inlay soles
610	250	05 DA	Product Technology	CA01	DC04	_pag002		BOM logic structure on RunAdvisor Offering
611	990	05 DA	Product Technology	CA01	DC08	_pag035	b	RunAdvisor (user components)
612	1230	05 DA	Product Technology	CA01	DC19	_pag001-014		Explanation of IEE company and Smart Foot Sensor
613	1240	05 DA	Product Technology	CA01	DC20	_pag001-005	a	Explanation of IEE company and Smart Foot Sensor, budgetary quote
614	4800	05 DA	Risks	CA10-01SC	R6Why	4		And the execution risk we have lowered via our experience in the Netherlands on reaching market equity in Dutch cities
615	4810	05 DA	Risks	CA10-01SC	R6Why	5		and the playbook that we have developed
616	3860	05 DA	Scaling through distribution	CA07-08CH	R3BuMa	4		So this is what we want to do, because we scale through distribution
617	580	05 DA	Stakeholders	CA01	DC07	_pag032	c	18. Main Stakeholders
618	930	05 DA	Stakeholders	CA01	DC08	_pag029	c	Main Stakeholders
619	1314	05 DA	Stakeholders	CA01	DC23	_pag002-	c	Stakeholder Categories

Figure 38: By author: Stream 05 DA case information, from /..2015-Exh02b..

S06 TD. Technology Development stream

A. General observations

Technology issues to get the product working ***as a prototype*** are seen. However. on all Ventures, author observed technology issues and requirements after the prototype phase are neglected. There seems to be no awareness about the larger technology development effort, time and money necessary to make the product market ready. This requires specialists from different disciplines, because of conflicting requirements and cost price consequences for a particular solution.

B. Case Stream Detail information, spreadsheet /…2015_Exh02b_.., lines 622 - 638

Details	***Details***	***Details***	***Details***
Costs	Patents	Product composition	Product development
Product enhancement	Product maturity/finished	Product technology	Stakeholders
Team	Technology		

C. Suggested Sub streams of S06

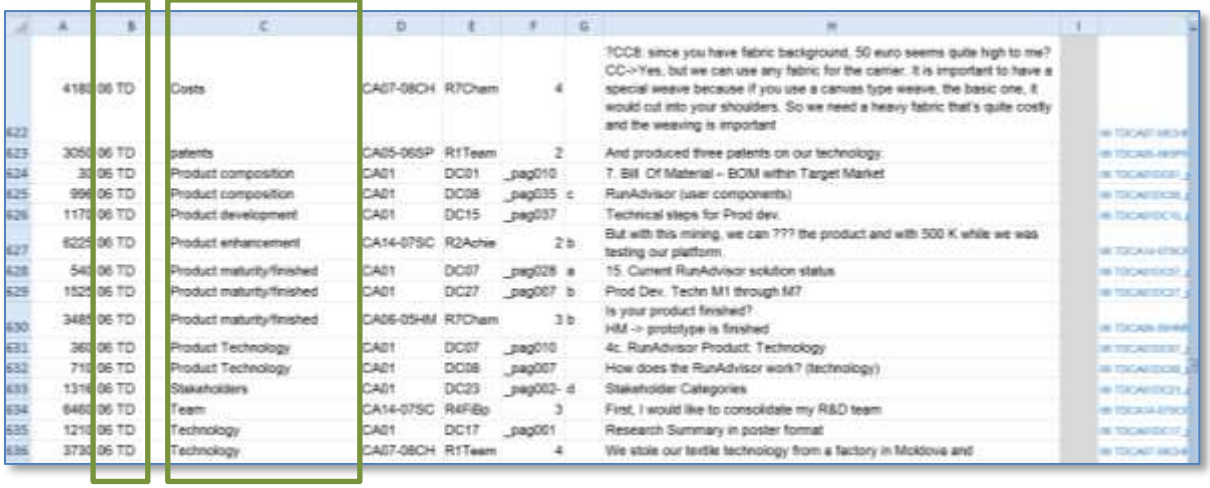
xxx-aa Technology Functionality and standards to adhere to (e.g. Blue tooth)
xxx-aa Technology Production requirements (e.g. Surface mounting, Cooling)
xxx-aa Technology Environmental requirements (e.g. Temperature, Water, Dust)
xxx-aa Technology Usability and Sustainability requirements (e.g. Battery replace)
xxx-aa Technology User Use and Maintain requirements (e.g. Washing, Falling)

D. Some characteristics of the stream

Stream Topics	***Content***	***Remarks***
Role: **S06 Technology Development**	Manages and works on all technology issues related to the solution and Value Proposition. From the constituting parts, up to successful use and maintenance by targeted user.	MUST work on "Crossing the Chasm" with FIRST product offering. Added Value Chain: Inbound, Prod., Outbound, Customer, Serv.
Organization	Operations: COO	
BMC blocks	For technological issues on KA, KR, KP, VP-product/service, CH-delivery, CS-services	This is actually the technology under the S05 stream SIPOC* that creates and delivers the product/service
Expertise knowledge	Technological production, use and maintain management	Applied technology based on production, usability, sustainability and constant positive user experience

*SIPOC: Supplier, Input, Process, Output, Customer

E. Case information in structured spreadsheet, snapshot



	A	B	C	D	E	F	G	H	I
	418	06 TD	Costs	CA07-08CH	R7Cham		4	?CC8. since you have fabric background, 50 euro seems quite high to me? CC->Yes, but we can use any fabric for the carrier. It is important to have a special weave because if you use a canvas type weave, the basic one, it would cut into your shoulders. So we need a heavy fabric that's quite costly and the weaving is important	
622									
623	305	06 TD	patents	CA05-06SP	R1Team		2	And produced three patents on our technology.	
624	3	06 TD	Product composition	CA01	DC01	_pag010		7. Bill Of Material – BOM within Target Market	
625	99	06 TD	Product composition	CA01	DC08	_pag035	c	RunAdvisor (user components)	
626	117	06 TD	Product development	CA01	DC15	_pag037		Technical steps for Prod dev.	
627	622	06 TD	Product enhancement	CA14-07SC	R2Achie		2 b	But with this mining, we can ??? the product and with 500 K while we was testing our platform.	
628	54	06 TD	Product maturity/finished	CA01	DC07	_pag028	a	15. Current RunAdvisor solution status	
629	152	06 TD	Product maturity/finished	CA01	DC27	_pag007	b	Prod Dev. Techn M1 through M7	
630	348	06 TD	Product maturity/finished	CA06-05HM	R7Cham		3 b	Is your product finished? HM -> prototype is finished	
631	36	06 TD	Product Technology	CA01	DC07	_pag010		4c. RunAdvisor Product: Technology	
632	71	06 TD	Product Technology	CA01	DC08	_pag007		How does the RunAdvisor work? (technology)	
633	131	06 TD	Stakeholders	CA01	DC23	_pag002-	d	Stakeholder Categories	
634	646	06 TD	Team	CA14-07SC	R4FiBp		3	First, I would like to consolidate my R&D team	
635	121	06 TD	Technology	CA01	DC17	_pag001		Research Summary in poster format	
636	373	06 TD	Technology	CA07-08CH	R1Team		4	We stole our textile technology from a factory in Moldova and	

Figure 39: By author: Stream 06 TD case information from /..2015-Exh02b..

S07 FM. Financial Management stream

A. General observations

Having a financial expert on board from the start, is a key factor for potential success. In four ventures author had only ad hoc and limited access to financial expertise and therefore had to discover the language and how finance works by making mistakes. An accountant or bank manager is not enough; they are financial experts but they do not understand the specifics of ventures.

B. Case Stream Detail information, spreadsheet /…2015_Exh02b_.., lines 639 - 673

Details	***Details***	***Details***	***Details***
Business business case	Communication plan	Development costs	Earnings
Finance & cash flow	Finance & needed capital	Finance cash flow	Funding exit
Go to market & capital need	Investment	Investment request	Market & finance
Market & Funding	Market actual	Market earnings	Organizational growth
Patents	Prices margins	Scenarios	Supplier costs
VP			

C. Suggested Sub streams of S07

xxx-aa Finance and Control.
xxx-aa Non VC/PE Funding, e.g. Subsidizes, Investments, FFF, tax deductions.
xxx-aa Shares, Capital and Valuation after financial injections.

D. Some characteristics of the stream

Stream Topics	***Content***	***Remarks***
Role: **S07 Financial Management**	Manages and works on all Financial issues and full financial consequences related to the full Venture, including VC and FFF financing	Is about the Venture as well as Post-Venture Successful Business operational running.
Organization	Finance: CFO	Organizes Revenue Streams
BMC blocks	C$, RS and VP portfolio	Reflects all decisions in P&L and balance sheet prognoses.
Expertise knowledge	Expert in Finance and VC funding	MUST also talk the language and now the concepts domain of VCF's and PE

VCF=Venture Capital Firm; FFF=Family, Friends, Fools (Angels) Pre-seed; P&L=Profit & Loss; PE Private Equity

E. Case information in structured spreadsheet, snapshot

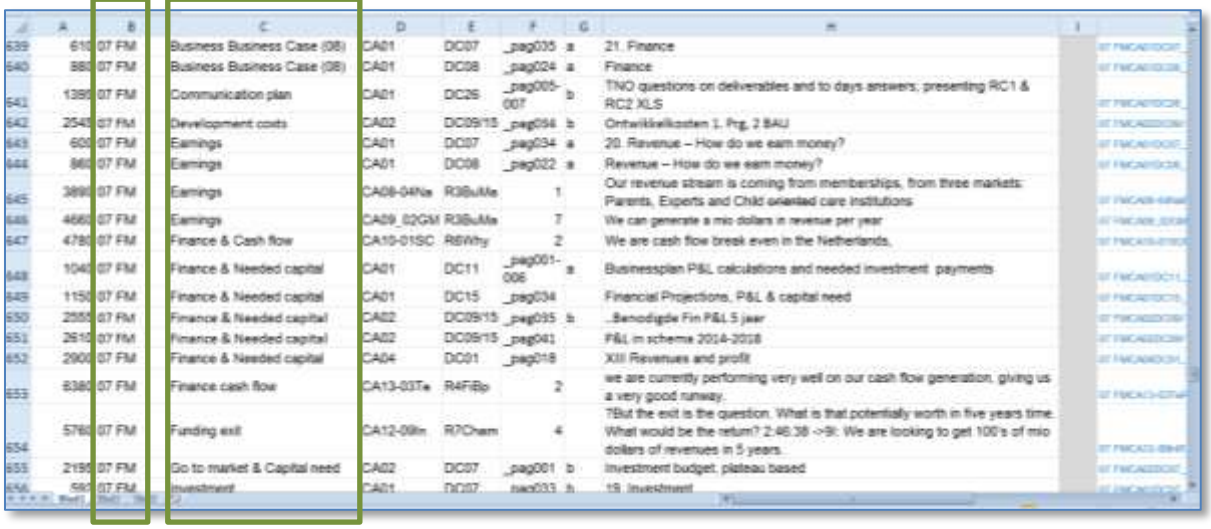


Figure 40: By author: Stream 07 FM case information from /..2015-Exh02b..

S08 FU. Funding Management stream

A. General observations

Each venture must have a Venture Capital (VC) or Private Equity (PE) expert on board. First, their way of looking and assessing a venture is different from the business view and the venture view. They see the venture as a "mean to an end" to make money. They only invest if (a) they can make (the "end") a lot of money – ROI: Return On Investment or IIR: Internal Rate of Return- and (b) the risk of losing the money is low. Second, they have a specific knowledge domain and language which is alien to non-experts and hard to learn.

B. Case Stream Detail information, spreadsheet /…2015_Exh02b_.., lines 674 - 826

Details	***Details***	***Details***	***Details***
Advantage	Benefits for DFZ	Busi & innov. Awards	Business Business case
Capital need	Capital need & purpose	Comm. Invest. Busi Case	Communication plan
Crowdfunding	DFZ as healt insur. Comp	DFZ chall. In health care	DFZ goals and ambitions
DFZ innovations solution	DFZ investment criteria	DFZ investment focus	DFZ mission
DFZ participation theme	DFZ part. About us	DFZ part. So far	DFZ partners
DFZ proposed solutions	DFZ stakehldr environmnt	Earnings	Finance & cash flow
Finance P&L	Funding exit / Valuation	Funding fee Lehman form	Funding info
Funding tranches	Goto market & capi need	Initial doing bootstrapping	Investment fit with DFZ
Investment request	Inv. Request summary	Investm, risks, issues	Investor contact inform.
Investor exit: demands	Inv. Return for capital	Inv return f cap: on exit	Investor shares for capit.
Invision: Fund informa.	Mountain: Venture instr.	Needed invest. budget	Org. Business managem.
Organization & legal stat	Other investors	Patents	Planning
Previous fundings	Product maturity/finished	Questionn. Venture info	Scenarios
Shares & stakeholders	Stakeholders	Sustainable	Team
Venture inform. Instr.	Venture products (PBS)	Vent. Present. overview	Why NOT to invest you

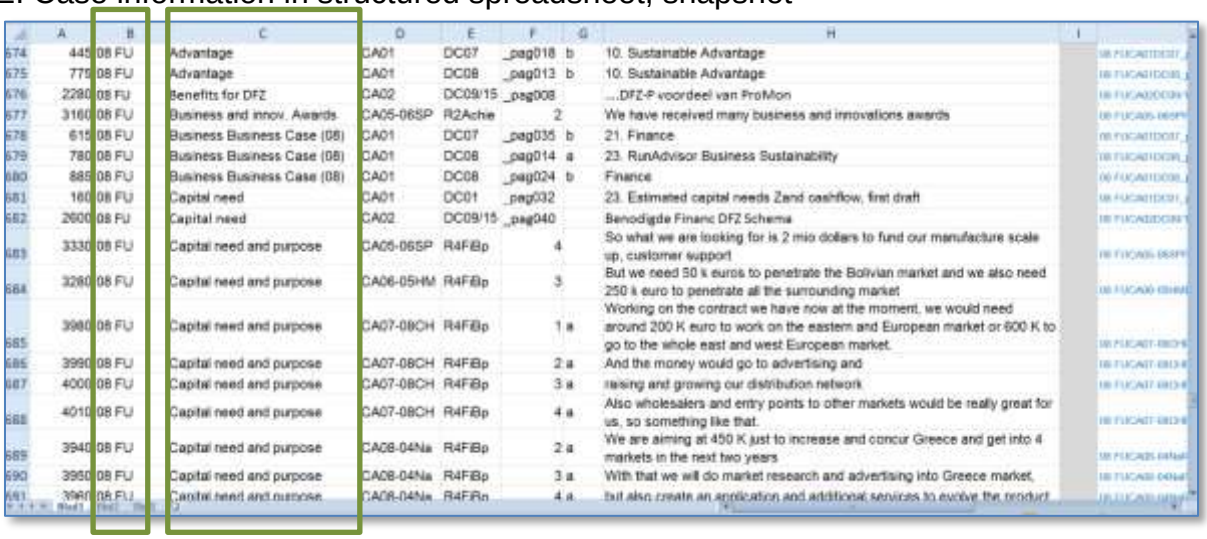
C. Suggested Sub streams of S08

xxx-aa Shares, Capital injections and Valuation (what do I get back on exit?)
xxx-aa Venture Risks mitigation
xxx-aa Hockey stick / Earliest revenue generation
xxx-aa Business handover / exit strategy, e.g. go to Stock Market (IPO)

D. Some characteristics of the stream

Stream Topics	***Content***	***Remarks***
Role: **S08 Funding Management**	Manages and works on Funding and Shares with full financial consequences for Venture, including serving the needs of VC's and PE's.	Is about Funding the Venture from the perspective and in the interest of the FUNDER, not the business.
Organization	Finance: CFO	With funding knowledge & experience
BMC blocks	RS, C$, Capital injections, Valuations and Shares/stock	Reflects all decisions and funding from a Funder perspective.
Expertise knowledge	Expert in VC / PE funding	MUST be expert and experienced in the working domains of VCF's and PE

E. Case information in structured spreadsheet, snapshot



	A	B	C	D	E	F	G	H	I
674	445	08 FU	Advantage	CA01	DC07	_pag018	b	10. Sustainable Advantage	
675	775	08 FU	Advantage	CA01	DC08	_pag013	b	10. Sustainable Advantage	
676	2280	08 FU	Benefits for DFZ	CA02	DC09/15	_pag008		...DFZ-P voordeel van ProMon	
677	3160	08 FU	Business and innov. Awards	CA05-06SP	R2Achie		2	We have received many business and innovations awards	
678	615	08 FU	Business Business Case (08)	CA01	DC07	_pag035	b	21. Finance	
679	780	08 FU	Business Business Case (08)	CA01	DC08	_pag014	a	23. RunAdvisor Business Sustainability	
680	885	08 FU	Business Business Case (08)	CA01	DC08	_pag024	b	Finance	
681	160	08 FU	Capital need	CA01	DC01	_pag032		23. Estimated capital needs Zand cashflow, first draft	
682	2600	08 FU	Capital need	CA02	DC09/15	_pag040		Benodigde Financ DFZ Schema	
683	3330	08 FU	Capital need and purpose	CA05-06SP	R4FBp		4	So what we are looking for is 2 mio dollars to fund our manufacture scale up, customer support	
684	3280	08 FU	Capital need and purpose	CA06-05HM	R4FBp		5	But we need 50 k euros to penetrate the Bolivian market and we also need 250 k euro to penetrate all the surrounding market	
685	3980	08 FU	Capital need and purpose	CA07-08CH	R4FBp		1 a	Working on the contract we have now at the moment, we would need around 200 K euro to work on the eastern and European market or 600 K to go to the whole east and west European market.	
686	3990	08 FU	Capital need and purpose	CA07-08CH	R4FBp		2 a	And the money would go to advertising and	
687	4000	08 FU	Capital need and purpose	CA07-08CH	R4FBp		3 a	raising and growing our distribution network	
688	4010	08 FU	Capital need and purpose	CA07-08CH	R4FBp		4 a	Also wholesalers and entry points to other markets would be really great for us, so something like that.	
689	3940	08 FU	Capital need and purpose	CA08-04Na	R4FBp		2 a	We are aiming at 450 K just to increase and concur Greece and get into 4 markets in the next two years	
690	3950	08 FU	Capital need and purpose	CA08-04Na	R4FBp		3 a	With that we will do market research and advertising into Greece market,	
691	3960	08 FU	Capital need and purpose	CA08-04Na	R4FBp		4 a	but also create an application and additional services to evolve the product	

Figure 41: By author: Stream 08 FU case information from /..2015-Exh02b..

Some of author's experiences and learnings on funding issues:

Exhibit 08 FU +1: Investor W.N.; Case: RunAdvisor
After doing all the business plans, calculations, presentations, investment requests etc., the Canadian investor W.N. explicitly asked for a go to market planning with least amount of activities and costs and earliest delivery of the product that started a revenue stream. At the final funding decision, he considered the amount of first investment (i.e. seed capital) did not generate early enough and big enough revenue stream.

Exhibit 08 FU +2: Investor Dasym; Case: RunAdvisor
The Dutch investment company Dasym was much into the Venture and ready to invest. But they required someone of their own people on the board. At the final investment decision moment, they were busy on many initiatives and did not have anyone available.

Exhibit 08 FU +3: Investor "Ca-USA"; Case: RunAdvisor
The USA investment company "Ca-USA" only invests in companies that are legally based in the USA. RunAdvisor companies were in CH.

Exhibit 08 FU +4: Investor "SF-USA"; Case: RunAdvisor
The USA investment company "SF-USA" only invests in companies when they are the only investor. This was not the case since TNO was also an investor.

Exhibit 08 FU +5: Investor "eHealth summit"; Case: RunAdvisor
The investment company "eHealth summit" only invests in ventures that comply to their simple rule for easy understanding the product: "Single purpose, single value".

S09 LM. Legal Management stream

A. General observations

Shortly after venture start, each venture must have a Legal specialist on board. Knowledge is an asset that must be protected and costs money. Also appointments, NDA's and contracts between the knowledge supplier and business men need a legal approach. For investors, the legal Corporate structure with tax consequences are important. Governmental subsidizes require legal related specifics with reference to corporate structure, status and the official registered location. This requires a legal expert with international knowledge.

B. Case Stream Detail information, spreadsheet /…2015_Exh02b_.., lines 827 - 835

Details	***Details***	***Details***	***Details***
Business Organization	Company	Organizational structure	Patents

C. Suggested Sub streams of S09

xxx-aa Legal Structure entity structure stream
xxx-aa Business operational structure
xxx-aa Shareholders stream
xxx-aa Legal barriers stream (e.g.: FDA, local laws, permits)

D. Some characteristics of the stream

Stream Topics	***Content***	***Remarks***
Role: **S09 Legal Management**	Manages and works on all issues and topics related to Legal knowledge domains.	E.g. IP, Corporate structure, Tax, Statutes, Contracts, Shares, Permits, Registration, Liabilities, Patents, Terms, NDA's, FDA, etc.
Organization	General: CEO	
BMC blocks	All	Make sure everything is official and according to all rules and laws.
Expertise knowledge	Expert in international Law, Business design and VC / PE funding	Expert himself or knows to find the needed (local) expert. LAW, IP, FDA

E. Case information in structured spreadsheet, snapshot

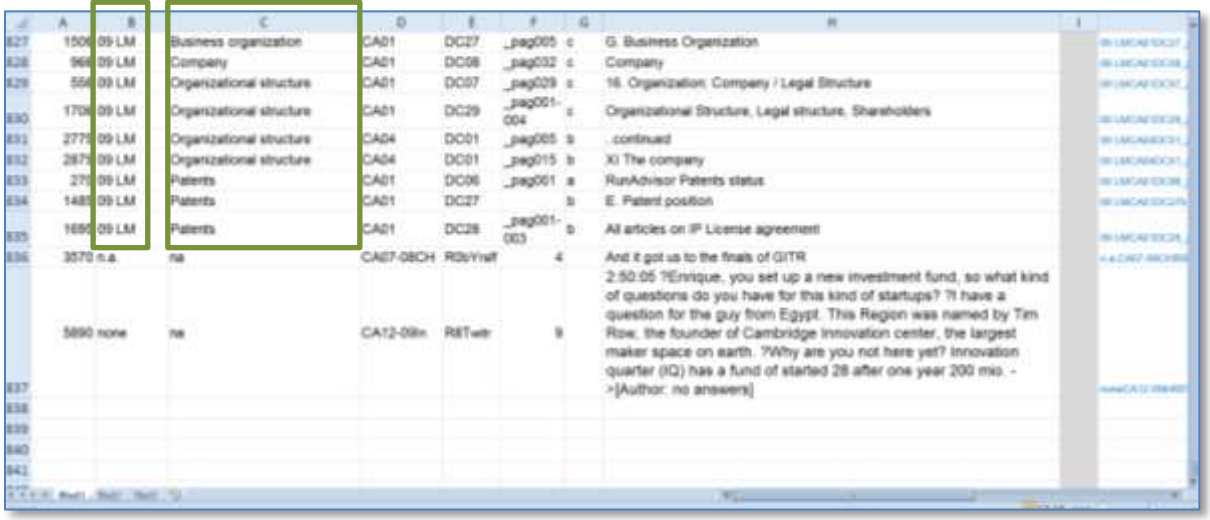


Figure 42: By author: Stream 09 LM case information from /..2015-Exh02b..

S10 QA. Quality Assurance stream

A. General observations

Author observed the trend of people to only do those things well, they like or think are important. How well and how complete its done, is up to the one doing it. This results in missing deliverables & bad designed/delivered products, blocking the progression to the next phase. Therefore an independent expert must audit regularly the Ventures progress and report it to the Program Sponsoring Group. This requires expertise on Audits & Ventures. Within the cases, there was not a single one mentioned.

B. Case Stream Detail information, spreadsheet /…2015_Exh02b_.., lines none

Details	***Details***	***Details***	***Details***
none	none	none	none

C. Suggested Sub streams of S10

xxx-aa Legal Structure entity structure stream
xxx-aa Business operational structure
xxx-aa Shareholders stream
xxx-aa Legal barriers stream (e.g.: FDA, local laws, permits)

D. Some characteristics of the stream

Stream Topics	***Content***	***Remarks***
Role: **S10 Quality Assurance**	Manages, works and check everyone is performing within agreed parameters and the content is delivered within agreed requirements and quality.	This prevents “wishful thinking”, opportunistic behavior. It makes sure the content results of a phase are complete and usable before preceding to next phase.
Organization	General: CEO	Ensure correct Venture content.
BMC blocks	All	Make sure content is there and OK.
Expertise knowledge	Expert in reviewing and auditing Ventures, Programs and Projects	Auditing expertise knowledge, e.g. an Ra or AA.

E. Case information in structured spreadsheet, snapshot

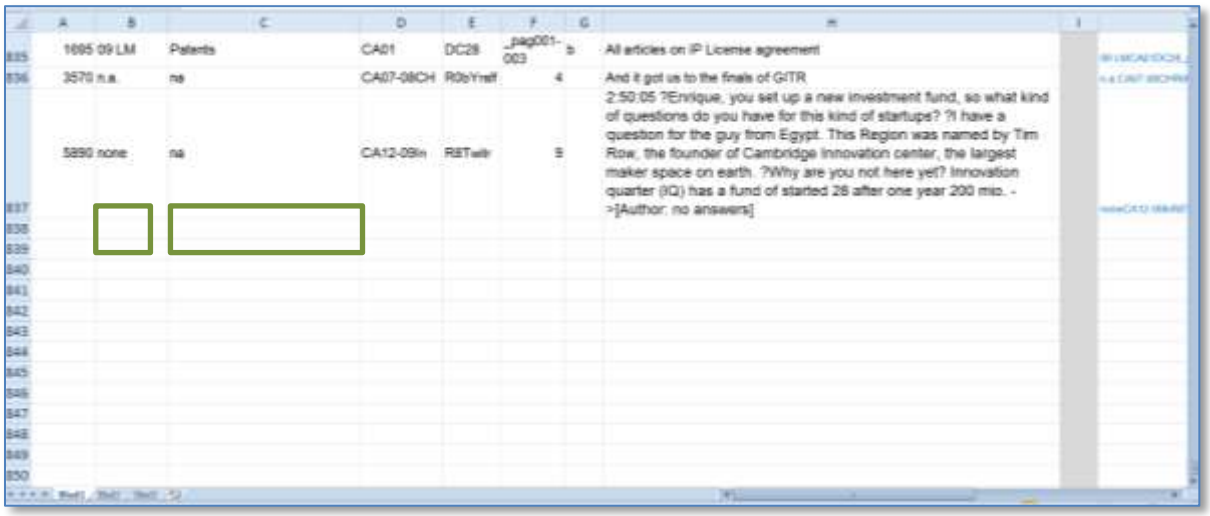


Figure 43: By author: Stream 10 QA case information from /..2015-Exh02b..

5.5 KVPM, the practical Knowledge Valorization Process Model v1.0

This chapter presents the KVPM version 1.0, describes streams relations, proposes indicative an example deliverable at phase/stream crossing, and ends with remarks.

5.5.1 KVPM, the practical Knowledge Valorization Process Model v1.0

The resulting elements on the KVPM v1.0 are summarized hereunder.

a. Definition elements -based on IPO-, are:

Input	**Process**	**Output**
	Valorization is the process of creating value from	
Knowledge **=>** ..making.. ..Suitable.. and ..Available.. and ..to Translate into.. **=>** *Successful Business*		

b. Phases elements -based on D3C-, designed are:

Initiate	***Discover***		***Develop***		***Deliver***		***Cash***	***Close***
10	***20***	***30***	***40***	***50***	***60***	***70***	***80***	***90***
Awareness	***Mobilization***	***Scoping***	***Preparation***	***Design***	***Realization***	***Delivery***	***Establish***	***Handover to society***

c. Streams elements (and here their grouping) -based on disciplines-, designed are:

Leadership
- 01 VM Venture Management

Product/Market
- 02 SD/VP Solution and Value proposition development
- 03 MD Market Development

Business
- 04 BO Business Organizational development
- 05 DA Delivery AVC management
- 06 TD Technology Development

Finance
- 07 FM Financial Management
- 08 FU Funding Management
- 09 LM Legal Management

Quality
- 10 QA Quality Assurance

d. Start of a Stream

In most cases it is not practical and useful to start all streams in the first phase 10 Awareness. Therefore author arbitrary suggests to start:
- in phase 10 Awareness: the streams 01 VM, 02 SD/VP, 07 FM and 10 QA.
- in phase 20 Mobilization: the streams 03 MD, 04 BO, 05 DA, 06 TD and 08 FU.
- in phase 30 Scoping: the stream 09 LM.

This is visualized in one picture on the next page.

The result: the practical Knowledge Valorization Process Model v1.0, visualized.

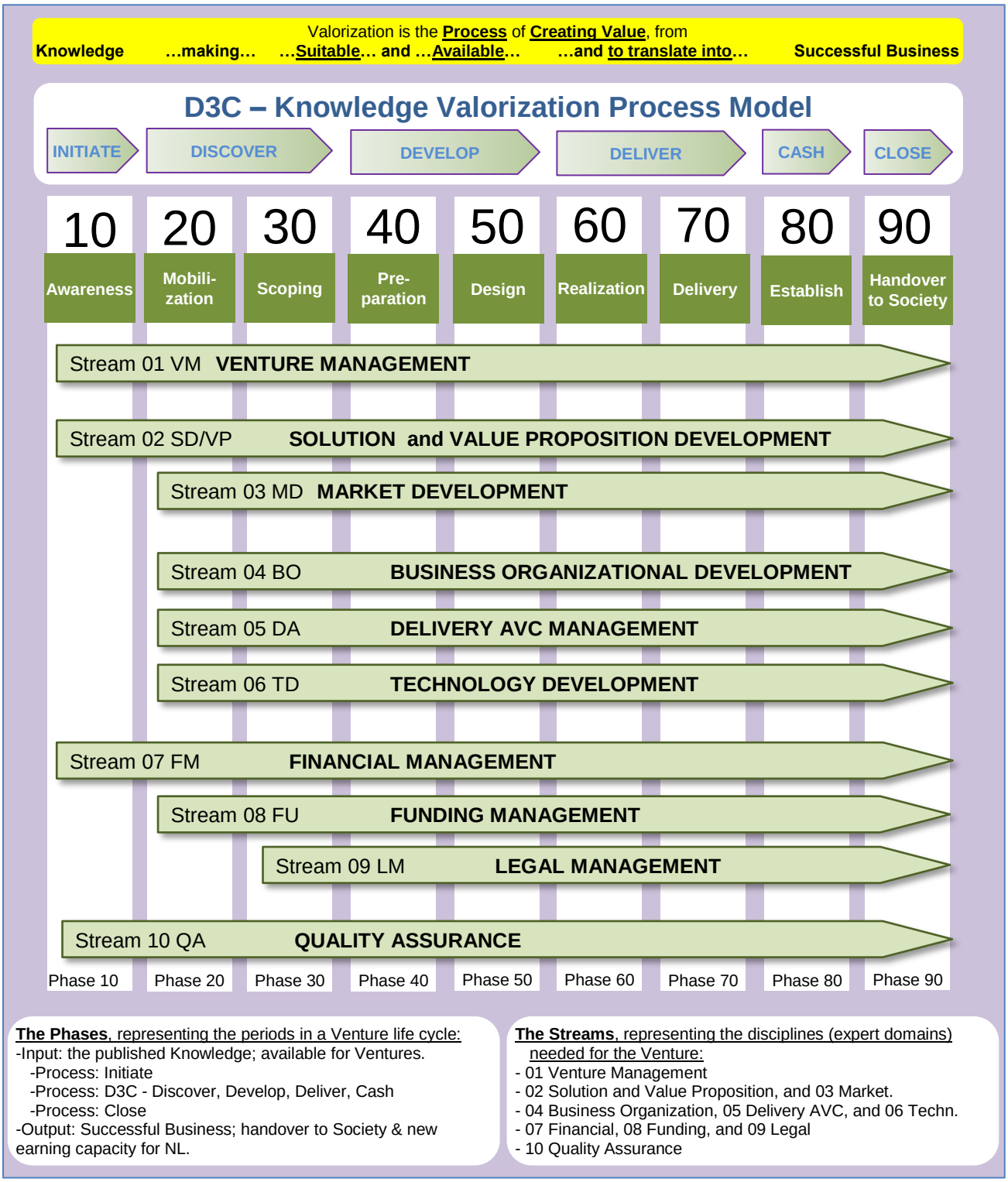


Figure 44: By author: Practical Knowledge Valorization Process Model v1.0

5.5.2 KVPM, relations between and influences on Streams

Relationship and interaction between the streams is not a research goal and is therefore out of scope. However there are relationships and interactions between the streams and author has experiences and thoughts about these. Therefore, author hereafter briefly documents some “author-knowledge” on this, for possible use by successor researchers.

Relations between streams

Streams 01 VM and 10 QA
Stream 01 VM creates the ventures definition and plans, manages the venture execution, manages ventures progress, and adapts definition and plan when and where needed. This all based on the delivery of products, within budget, on time, on quality.
Stream 10 QA uses this all, to regularly check the venture’s “health” and reports on this and to suggest changes.

Streams 04 BO and 05 DA
Stream 04 BO delivers the organization and organization of the organization and partners, to facilitate the production, delivery and maintenance of products.
Stream 05 DA manages the production, delivery and maintenance of products, and therefore need a smooth running organization who facilitates everything necessary.

Streams 05 DA and 06 TD
The streams 05 DA and 06 TD must work together “in sync”. 06 TD must manage the timely delivery of technology, which is needed for sufficient product maturity, in order to enable 05 DA to deliver the expected product fulfilling the expectations of the customer, as is established and communicated in the 02 SD/VP stream.

Streams 07 FM and 08 FU
The stream 07 FM delivers the foreseen cash flow figures on projected costs, expected earnings and the difference between the two: the needed funding.
These figures are critical when communicating with funding parties.
Funding parties demand knowledge “on entry”; e.g. how much money you need, when, what you are going to do with it, and what he gets from you when he invests.
Funding parties also demand knowledge “on exit”; e.g. the prognoses on when (and how) the funding party can exit and how much he can expect to have earned with his investment.
Author heard from an investor the next first quick assessment they do: From your prognoses, they double the costs and halve the revenue. Then they assess if the venture is still viable.

Streams 02 SD/VP and 08 FU (1)
Funding parties 08 FU want to know the maturity and finish-status of the product (i.e. proof of concept, prototype, test model, etc.) with relation to the 02 SD/VP solution and value proposition that is needed to concur the market. This defines the effort, time and money, needed to get the product to sufficient level, suitable and adequate to deliver.

Streams 02 SD/VP and 08 FU (2)
Funding parties 08 FU want ventures to develop on 02 SD/VP an absolute Minimum Viable Product (MVP) with the least investment that can be sold, because they want to have a revenue stream coming in as soon as possible. This proves to them there is interest in the product and there is a market for it.

Streams 03 MD and 08 FU
Funding parties 08 FU want ventures immediately from start, to work on market and sales, to keep the "width" of the finance "hockey stick" as small as possible. 03 MD must deliver as soon as possible some first successful sales. This makes subsequent funding easier or even possible.

Streams 04 BO and 08 FU
Funding parties want to have influence on the legal holding/daughter structure, their location and their shareholders, for specific investor reasons. Therefore the 04 BO must be matched with their requirements, otherwise finding funding fails.
E.g. some investors want HQ to be in the USA, because the "exit" through IPO in the USA is the biggest in the world. E.g. investors only invest "IPO-ready" companies and only -if there are patents-, in the legal entity which owns the patents. I.e. investors do not invest in legal entities who have only a license agreement. E.g. some investors want to be the only investor. E.g. some investors only invest in USA based companies.

Streams 07 FM and 08 FU
Investors do not accept high cost figures on salaries, housing, licenses and so on. They expect the founders to work for only living based costs.
Also they do not invest in stock forming, because these are operational costs, that should be covered by or the suppliers (taking them back option) or orders from customers.

Streams 03 MD and 05 DA
Market development 03 MD promising product delivery to the market, must work closely and "in-sync" with 05 DA because 05 DA must be able to deliver.

Author leaves the further research on relations between streams to successor researchers.

Influences on streams

Environmental influences on streams
Environmental influences (PESTLE) on streams are out of scope for this research. However, they are important because they could "kill" a venture easy. E.g. Legislation is changing all the time and what today is allowed, can be forbidden tomorrow. Also approval and clearances (e.g. FDA) can damage a venture seriously.

Author leaves the exploration of environmental influences to successor researchers.

5.5.3 KVPM, proposal of one Deliverable at each Phase/Stream crossing

The design of venture deliverables is out of scope for this research. However, author has experiences and thoughts about this, and this will make the designed KVPM more clear and usable in further research by successor researchers. Therefore, author hereafter briefly documents some "author-knowledge" on this.

Hereunder author proposes deliverables at each Phase/Stream crossing.

	Initiate	***Discover***		***Develop***		***Deliver***		***Cash***	***Close***
	10	***20***	***30***	***40***	***50***	***60***	***70***	***80***	***90***
	Awarenes s	***Mobilizatio n***	***Scoping***	***Pre- paration***	***Design***	***Realization***	***Delivery***	***Establish***	***Handover to society***
S01 VM Venture Mngmnt	High level Venture & Knowledge Information & Description sheet	Establish exploration Venture team & establish Needed Expertises & stakehldr list	Scoping = down sizing, of Venture; Venture program plan & Risk, Mitig. Exit Strat.	Startup & man the venture organiz. & Org. Risk Mitigation, & review exit strategies	Scale up venture org. to full strength and impact. Assess risk & exit plans	Manage the creation and operation of the product production & businesses	Manage the creation and operation of product delivery	Manage the creation and operation of raising revenues	Manage the creation and operation of successful handover to society
S02 SD / VP Solution Develop & Value Proposit.	Overview Knowledge and Potential Appli- cations	First applic. Description, Customer Need, usage	Choice on best Applic. Validated Customer Need	Develop MVP with Key user. Test VP and usage (Cust. Exp Journey)	Sell solution to key user; test adjust; test adjust; test adjust. Review VP & Commun.	Start community communicatio n; adjust VP, check expectations	Manage enhancing the solution/produ ct/market fit	Manage the profitability of the solution and market prices	Manage customer loyalty, margin and new offerings
S03 MD Market Develop		First market Segment & competition Exploration	Validated Market, Size, price and Customer need; candidates Launching customers	Setup BOS and BUM. Define Goto market & Competit. advantage & Assess competition	Define final markets & customer segments; Define goto market roll out steps; define channels	Start with MVP product in CHASM "Bowling Alley" Get all cust. Segments; Be the gorilla	Takes care of creating the CHASM "Tornado" in the market.	Diversificatio n with other products. Upsell and Xsell	Manage on multiple product pillars; increase self-dependence
S04 BO Busines Organiz. Develop		First draft needed business organizat.	Design of business organiz. And struct.	Selecting & on boarding resources	Startup minimum organization for first wave	Steer business to full market penetration With MVP	Steer business on lean and faster production	Steer on Business P&L optimization	Steer on business sustainability: continuous Rev. streams
S05 DA Delivery AVC Mngmnt		First draft Supplier-Buyer AVC businesses; & Aligned Strategic Goal	Detail design of involved mutually dependent business. & Wiifm.	Selecting & on boarding interested AVC partner businesses OK on Align. Strat. goal	Activate & test first full AVC chain production; Apply Lean; Test 2nd time	Optimize production, lower costs & delivery time; no variants!	Steer on more/better product quality with same or lower costs	Raise customer satisfaction with better customer journey	Raise customer support; repair = sales (a la Miele)
S06 TD Technol. Develop		First draft needed technical development and costs	Detail requirem. & steps & iterations & costs	Plan & estimate TD steps & time table & prod. Runsizes	Develop market ready MVP; Do 2nd iteration.	Learn from customer complaints, Do 3rd iteration.	Learn from production and delivery. Do 4rd iteration.	Learn from mass feed back Do 5rd iteration.	Prevent failure Do 6rd iteration.
S07 FM Financ. Develop	High level Venture outline Business Case	First draft Venture, and sub-venture BC	Detail venture, sub-vent & Funding BC	Make detail plans & budgets; make detail liquidity plan	Arrange and manage finance from worst case scenario	Push for more sales & revenue; Cut on devel. Costs	Invest in market development. Optimize costs organization	Optimize income on revenues	Consolidate financial stability
S08 FU Funding Mngmnt		First Funding Overview; outline Venture case	Funding specification s & VC profile & BC	Engineer & select candidates Funding institutes	Arrange receiving Seed capital from investor(s)	Make sure to deliver to promise (hockey stick)	Fund market expansion	Maximize company shares value	Execute exit with best profit possible
S09 LM Legal Mngmnt			Legal Corp. Struc, IP, Shares	Legal Corp. location, shares, contracts	Setup Corp legal structur Arrange shares	Optimize on legal;	Establish holding with many daughters	Prepare for IPO	Manage IPO
S10 QA Quality Assuran.	Correct Available Venture information Sheet	Quality and timely delivery of first draft documents	Quality and timely delivery & signoff of all docum. & active.	Quality and timely delivery and signoff of all documnts & act.	Quality and timely delivery and signoff of all documnts & act.	Quality and timely delivery and signoff of all documnts & act.	Quality and timely delivery and signoff of all documnts & act.	Quality and timely delivery and signoff of all documnts & act.	Make lessons learned for next venture

Table 23: By author: Suggested deliverables at each Phase/Stream crossing

6. RESULTS

This chapter presents the results of the research.

6.1 Results Part 1 Literature study on Knowledge Valorization

Part one determines usable process model structure elements from theory in literature. This answers sub question 1 and 2.

Results

The phases from Gyamfi et al. (2007 for new venture development in the "*Business Planning Process*":

1. Idea Generation.
   1. Identify goals, 2. Shorten planning process, 3. Mind your metrics
2. Idea Modification.
   4. Testing Phase, 5. Review, 6. Decide on actions
3. Idea Execution.
   7. Startup Phase, 8. Implement strategies (ongoing phase)

6.2 Results Part 2 Exploration study on existing process models

Part two seeks analogy with existing process models frameworks. The models MSP, PRINCE2 and ASAP P&S, were studied and assessed on their applicability for the KVPM. The research is scoped to (1) principles, (2) processes, (3) stages (= phases) and (4) organization:

6.2.1 Results on MSP

On the MSP method, its application on Whole ventures, and all principles, processes, Tranches (i.e. Phases or Plateaus) and organizational elements.

-First the principles. MSP is mission, vision and program business case driven. If the program business case fails, the program is closed. Controlling is by process GP.

-Second the MSP processes. The lower part of the figure shows a simplified overview of the six processes (the arrows). The main *production-of-changes* is the green area with *Managing the portfolio of projects* and *Managing Benefits*. Only those two are delivering the program results. Process GP is for management and control purpose.

-Third the MSP Tranches (1, 2, X), also referred to as *plateaus*. The tranches (= phases) are controlling mechanism for stepwise 'go-forward', i.e. tranche by tranche. MSP does not prescribe a formal tranche-structure. The Program Director decides how many tranches (= comb. of MP and MB) he designs and how he names them.

-Fourth the organizational elements. The program is directed by a Program Sponsoring Group (PSG). Daily management is done by the Program Director appointed by the Senior Responsible Owner in PSG. Projects results delivery is managed by the Project Managers. Benefit Management results delivery is managed by the Business Change Managers. Meetings are the *Program Steering Committee*

for the Program Sponsoring Group and *Program Team Committee* with the Project Managers and Business Change Managers.

6.2.2 Results on PRINCE2 and ASAP P&S

On the PRINCE2 method, its application on a Whole venture project and the Sub-Venture projects, and all principles, processes, Stages (i.e. Phases) and organizational elements. And the ASAP P&S method, its three 'Pre-scribed's added to PRINCE2.

-First the principles. PRINCE2 is business case driven. If the business case fails, the project is closed. Process controlling mechanism are by stages (CS) and at the crossing of stage boundaries (SB). It delivers products based on a PBS - Product Breakdown Structure, defining exactly what has to be delivered, and in which stage.

-Second a. the PRINCE2 processes. The lower part of the figure shows a simplified overview of the eight processes (the arrows). The main *production-of-products* loop is the green area with the three processes CS, SB and MP. Only process MP delivers products. Processes CS and SB are for management and control purposes.
-Second b. the ASAP P&S processes. These are the same as in PRINCE2, with the addition of the previous mentioned three 'prescribed' changes.

-Third a. the PRINCE2 stages (CS and SB), also referred to as phases. PRINCE2 does not prescribe a formal stage-structure. The project manager decides how many stages (= combinations of CS, SB and MP) he designs and how he names them.
-Third b. the ASAP Phases (&S). These are, -for each of the six Streams-, prescribed in terms of formal Phase-structure and the next Phase progress control mechanism.

-Fourth a. the PRINCE2 organizational elements. The project is directed by a Project Board. Daily management is done by the Project Manager appointed by the board. Product delivery is managed by the Team Managers. Meetings are the *Steering Committee* for the project board and the *Team Committee* for the project and team managers.
-Fourth b. ASAP P&S organizational elements. These are the same as in PRINCE2, where the Stream managers are also project Team Managers.

6.3 Results Part 3 Design study, building the initial KVPM.

In part 3, based on the previous chapters, author designed a first initial KVPM.

Results.

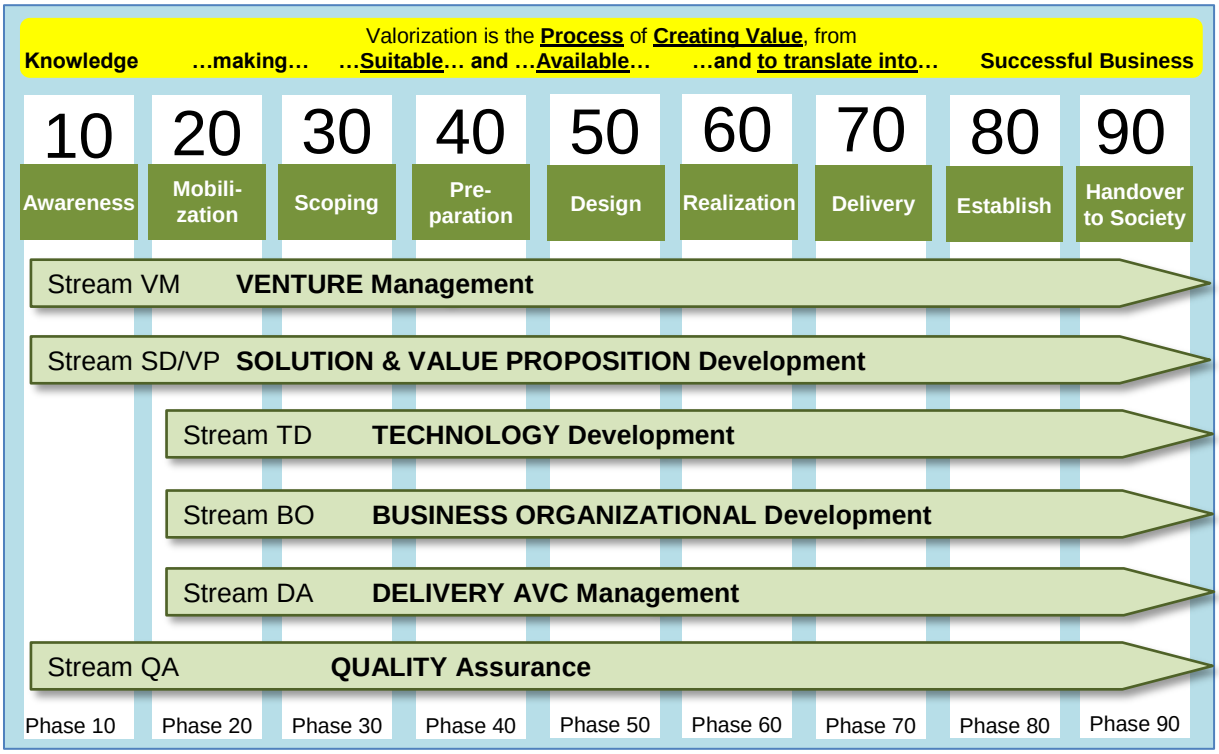


Figure 45: By author: first initial KVPM based on theory and practitioner models

Explanation on Phases

The phase 10 Awareness receives the **input** of the Venture: the **Knowledge**.
It is about the awareness of available knowledge at different R&D institutes, to be viewed and inspected, if there is knowledge that might be of interest to valorize.

The phases 20 Mobilization and 30 Scoping is about the discovery, assessment, selection and scoping of a venture based on a selected promising knowledge.

The phases 40 Preparation and 50 Design is about all the preparations and design activities, needed for the next phases 60 Realization and 70 Delivery.

The phases 60 Realization and 70 Delivery is about the construction and realization of the venture's running business including the full AVC of valorization, and to actually deliver to customers products and services, thereby generating revenue.

The phase 80 Establish is about stabilizing the running business and raise earnings in order to reach self-sustained, profitable business with own earning capacity.

The phase 90 Handover Society delivers the **output** of the Venture: the **Successful Business**. It is about the handover of the running business from the Venture's investors to society, where the business has own earning capacity, now adding to the earning capacity of the Netherlands.
Explanation on Streams

VM Venture Management – Manage the venture
The Venture Management stream contains all activities to run and control the project.
The Program level steers the Whole venture.
The Projects level steers the Venture as project, and the Sub-ventures.

SD/VP Solution and Value proposition - Develop market, customer and product
The Solution Development and Value Proposition stream contains a group of people with the needed functional knowledge (= disciplines) that can be utilized in finding an optimum solution for the Customers' requirements.
Solution is about the need of customers, the problem, a pain or a gain.
Value proposition is about the offering as a solution to the problem.

DA Delivery AVC management – Develop AVC production & delivery organization
The Delivery AVC management contains a group of people, experts in logistics, distribution and logistics chains, who supports all production and delivery aspects of the AVC of Valorization, from raw material up to maintenance of product at customers place.
The production and delivery on the AVC is organized for successful delivery.

BO Business Organizational Dev. – Develop organization of the running business
The Business Organizational Development stream contains a group of people, experts in organization change and creation, who supports all organizational aspects of the AVC of Valorization, including communication, mobilization and Education & Training.
The AVC of Valorization is at business level, chain organized on strategic goal

TD Technology Development – Manage the development of the knowledge into prod.
The Technology Development stream contains a group of people, that provides the necessary requirements and steps to develop a robust and usable product for the customer, where the technology is the enabler for a great product and great customer journey and experience.
The Proof of concept is stepwise improved, via MVP, to great product.

QA Quality Assurance – Audit checkpoints on time, within budget, within quality
The Quality Assurance supports the venture organization to deliver the deliverables according to the standards/norms by doing audits and give recommendations.
Audits if progress is conform agreed specifications and agreed appointments.

6.4 Results Part 4 Multiple case study, using fourteen cases to form the final KVPM

In part four, author inspected and analyzed fourteen cases to discover case elements that address a KVPM element.

Results
The results reported here are limited to (a) phases and (b) streams summary.
For more details, see chapter 5.4.4 and 5.4.5.

(a) Phases are:

Initiate
10 Awareness

..Discover
20 Mobilization
30 Scoping
..Develop
40 Preparation
50 Design
..Deliver
60 Realization
70 Delivery
..Cash
80 Establish

Close
90 Handover to society

(b) Streams elements (and here their grouping) -based on disciplines- are:

Leadership
01 VM Venture Management
Product/Market
02 SD/VP Solution and Value proposition development
03 MD Market Development
Business
04 BO Business Organizational development
05 DA Delivery AVC management
06 TD Technology Development
Finance
07 FM Financial Management
08 FU Funding Management
09 LM Legal Management
Quality
10 QA Quality Assurance

6.5 End result: KVPM, a practical Knowledge Valorization Process Model v1.0, visualized.

The practical Knowledge Valorization Process Model v1.0, visualized.

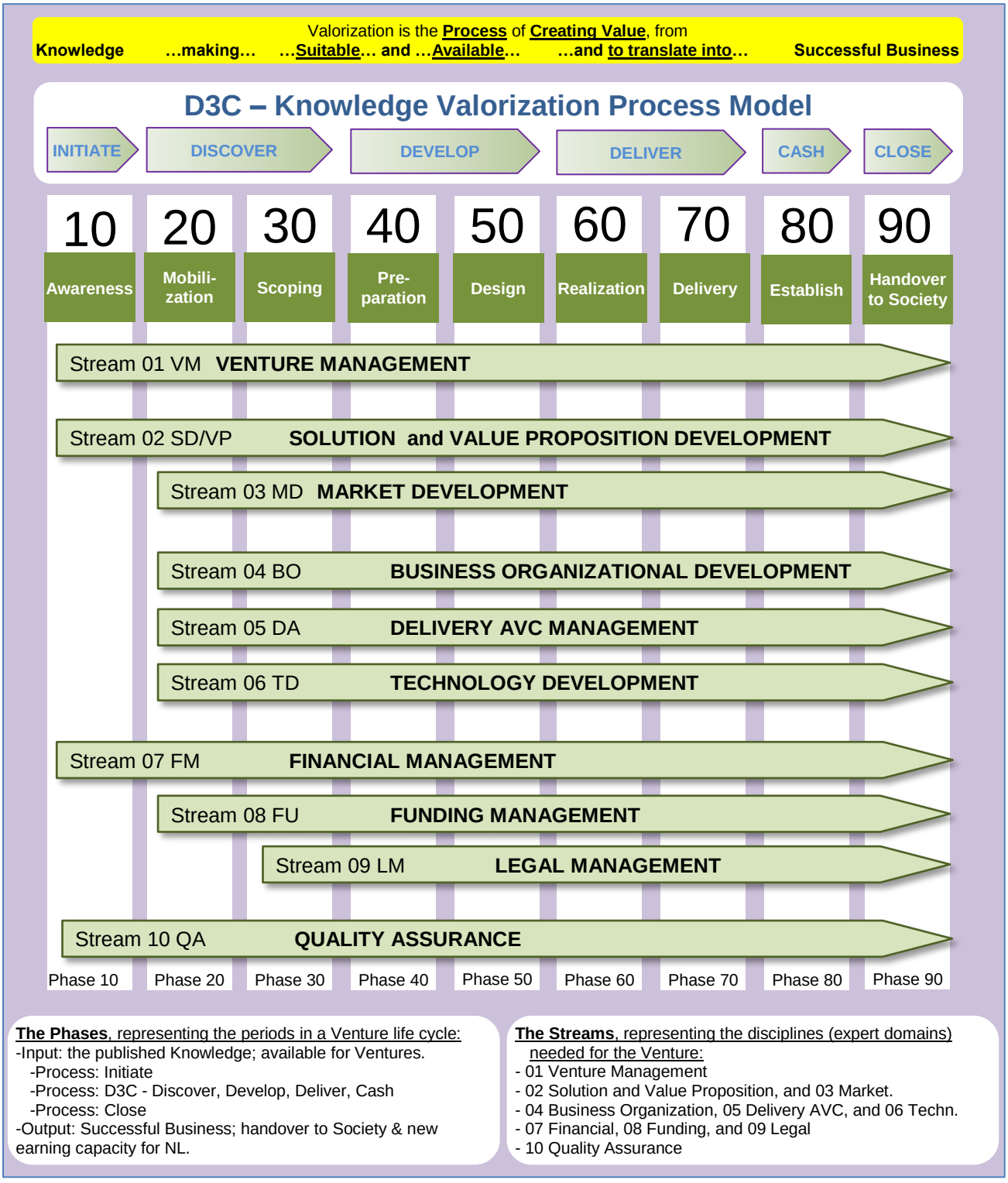


Figure 46: By author: practical Knowledge Valorization Process Model v1.0

7. MAIN CONCLUSIONS

Author describes the main conclusions with reference to answering the main and sub questions. Author also documents some other conclusions.

7.1 Conclusions answering the research questions

Chapter 2.2 describes the research goal: The design of a **practical Knowledge Valorization Process Model** (KVPM), helping entrepreneurs to be more successful with the development of knowledge or idea into successful businesses. In this it is author's assumption (not verified) that using the KVPM will result in *more* successful development of knowledge or ideas into successful businesses.

The **main question** of this research is:

What is a practical Knowledge Valorization Process Model (KVPM)?

The research goal is to design a practical Knowledge Valorization Process model. This design is established step by step in chapter 5.5, with the end result in ch. 6.5.

Therefore author's answer to the main question is:

- The descriptions in chapter 5.5 and the model overview in chapter 6.5.

The **sub questions** from the main question are:

1. What are relevant knowledge valorization activities presented in literature?

The result from the literature search in chapter 5.1.1 and documented in paragraph *5.1.1.f Final conclusion and judgement on usability of results*, is:

> "*…**all** 'valorization' assertions in all documents are questionable, and therefore cannot be used as a reliable source to design the Knowledge Valorization Process Model from.*"

Therefore author's answer to sub question one is:

- None. Author found little usable information which was also unreliable.

2. What are relevant Knowledge Valorization process models presented in literature?

The result derived from the research in chapter 5.1.2 and documented in paragraph *5.1.2.d The literature research findings conclusions*, is:

> "*….Concluding on all the above, only one model and in it, only phases where found: -02. From Gyamfi et al. (2007)*".

Therefore authors answer to sub question two is:

- The phases from Gyamfi et al. (2007 for new venture development in the "*Business Planning Process*":
  1. Idea Generation.
     1. Identify goals, 2. Shorten planning process, 3. Mind your metrics
  2. Idea Modification.

4. Testing Phase, 5. Review, 6. Decide on actions

3. Idea Execution.

7. Startup Phase, 8. Implement strategies (ongoing phase)

3. What are usable process model structure elements in the existing practitioner process models in the methods MSP, PRINCE2 and ASAP Phases & Streams?
The derived results in chapter 5.2, scoped to the structure elements (1) principles, (2) processes, (3) stages (= phases) and (4) organization, are:

-The results of chapter 5.2.2: The MSP method structure elements.
The MSP method, its application on Whole ventures, and all principles, processes, Tranches (i.e. Phases) and organizational elements are relevant and usable.
-The results of chapter 5.2.3: The PRINCE2 method structure elements.
The PRINCE2 method, its application on a Whole venture project and the Sub-Venture projects, and all principles, processes, Stages (i.e. Phases) and organizational elements are relevant and usable.
-The results of chapter 5.2.4: The ASAP P&S method structure elements.
The ASAP P&S method, its three 'Prescribed's added to PRINCE2 are relevant and usable."

Therefore authors answer to sub question three is:

- All scoped learnings from MSP, PRINCE2 and ASAP P&S can be used.

4. What are relevant process model elements in the 14 real world cases?
The answer derived from reviewing and analyzing the cases in chapter 5.4 on the conceptualized learnings from the actual elements and topics that were addressed in these cases, hereunder limited reported by author to only Phases and Streams, are:

- KVPM Phases Design Summary overview

1	*2*	*3*	*4*	*5*
	D3C	*Phase id*	*Venture KVPM Phase*	*Funding stages*
FROM Knowledge				
Input				
VALORIZATION	Initiate			
		10	Awareness	Subsidizes/FFF
	Discover			Seed
		20	Mobilization	
		30	Scoping	
	Develop			Start up
		40	Preparation	
		50	Design	
	Deliver			First stage
		60	Realization	
		70	Delivery	
	Cash			Second Stage
		80	Establish	
	Close			Third Stage
		90	Handover Society	Bridge
Output				
INTO Successful Business				

Table 24: KVPM Phases Design summary overview

- KVPM Streams (i.e. disciplines) Design Summary overview:
  Leadership
    01 VM Venture Management
  Product/Market
    02 SD/VP Solution and Value proposition development
    03 MD Market Development
  Business
    04 BO Business Organizational development
    05 DA Delivery AVC management
    06 TD Technology Development
  Finance
    07 FM Financial Management
    08 FU Funding Management
    09 LM Legal Management
  Quality
    10 QA Quality Assurance

7.2 Other conclusions

From the research, author also draws some other non-research question based conclusions. These are hereafter documented.

Academic approach
The academic approach is useless. The content of their valorization programs have nothing to do with valorization according to the (and also their) definition, because they write about pre-valorization activities and results.

Valorization is not seen as a process
All writers do not see (i.e. approach) valorization as a process, which is an omission.

Valorization (i.e. the Venture) is not managed
Author observes everyone is focusing on the content, which is important but not the main issue. No one seems to manage the venture, or even thinks about the fact the venture must be (and properly!) managed in order to reach and obtain the required results. Building a house without a drawing and without a plan, will almost certain deliver something (if at all) you do not want and does not fulfill your requirements.

Valorization needs a roadmap
The KVPM as a roadmap for successful valorization is a must for every venture, every startup, every entrepreneur who has certain knowledge or an idea, in order to have a chance to translate this into successful business.

Indicators and Measuring
All attempts on measuring valorization i.e. to define indicators and measurements, are and will be wrong, as long as they are not based on a general process model, which is structurally operationalized the same way by everyone.

8. DISCUSSION

8.1 On the Knowledge Valorization Process Model

Theoretical knowledge on the business perspective is absent
From the literature research, it is clear that the theoretical knowledge on knowledge valorization from a business perspective, is nonexistent.

Practical knowledge on the business perspective
The result of this research mainly leans on data from practice (i.e. not literature):
(a) analogy with the a like practitioner models MSP, PRINCE2 and ASAP P&S
(b) findings from the fourteen cases.
There are many successful companies which obviously did successful valorization. This is a valuable pool of cases from which –if studied-, a lot can be learned on the business perspective.

The KVPM results
Author designed this KVPM using general, globally well-known and proven concepts (i.e. AVC, core competences, education institutes, etc.), and globally well-known best-practice models (i.e. MSP, PRINCE2, ASAP P&S), and fourteen real cases from different countries. Therefore the KVPM model is usable.

KVPM fulfills a need
From this research it is clear that not even a simple model exists. Therefore this KVPM fulfills a need and is an important tool to be more successful with valorizing knowledge.

Model is usable for all Ventures
The KVPM model is developed without a special focus on a specific type of venture. Therefore the KVPM is usable for all ventures.

8.2 On the Research Approach

This research is based on a structured, stepwise approach.

First the definition of “knowledge valorization” was established.
Second, the other related definitions were established, e.g. successful business.
Third, process elements in the definition were analyzed.
Fourth the perspectives on valorization were structurally developed.
Fifth, the process context and content were established.
From this a structured research approach was designed
Sixth, from research on literature theory, analogy with existing models and fourteen real cases, a first KVPM was designed.

This research approach has worked out well. The research is rigid, structured, is understandable and repeatable by other researchers and therefore the results are trustable.

Definition is crucial
For this research, author’s definition and interpretation of Knowledge Valorization is crucial, because everything in this research is based on this definition.
Therefore the change of the definition in the future might lead, to other results.

Organizational and Educational perspectives.
Author introduced new knowledge valorization categories and three perspectives on knowledge valorization: Organizational, Business and Educational.
Author declared the Organizational and Educational perspectives out of scope and continued to develop the KVPM for the Business perspective.
However, author emphasizes to put also attention to the other two perspectives, because they both deliver results that are needed to execute the valorization process on the business perspective (see also chapter 2.3.8 and Figure 13 page 45), i.e.:

- the Organizational perspective delivers Information, information points and networks to share and enhance knowledge on valorization. The organizations working with this perspective play the role of the ticket-window, for anyone who wants to know about valorization. An example of this is Avans special lector ships, see addendum 1, 2, 3 and 4, or partnerships on valorization e.g. Beagle and BRIGHT.

- the Educational perspective delivers People, experts in ventures and valorization, who know how to execute the knowledge valorization process. The organization working with this perspective, play the role of entrepreneurship education, for anyone who wants to know, how one does valorization. An example of this is the development of Avans’ Entrepreneurship Education (Cleton, 2015a) and (Lelkes, 2015).

8.3 On the Validity of the research

This research has good validity from a qualitative research view.

The fourteen cases were all different, from and with different people and from different countries. Author estimates the amount of persons directly and indirectly involved in these cases are thousands (i.e.: 14 cases assuming each 100 persons => 1.400 persons). So there is independency between cases and a high spread in different kind of people involved.

The fourteen cases delivered 824 data source lines, that are assessed on which of the ten streams they are about.

All grounding and reasoning is based on clear definitions and solid well known concepts (e.g. Added Value Chain, Core competences, Delivery of products, Common known entities, etc.). So the bias of the author is limited.

Also all research is extensive documented, enabling tracking and tracing on the data sources, how the data is derived, processed, analyzed, evaluated and concluded on. The chain of evidence is fully documented.

Also the case source data of the research is recent. Therefore this research is actual. (As opposed to outdated).

Although author had different roles on the cases, there are two topics where bias of author might be playing a role:

1. In the RunAdvisor case, author was also involved as one of the business man and investor. However, this case had two other business men involved as partners and also involved a 100+ people who gave input and comments on our venture.

2. The assessments on all case pages and assertions, on the belonging of the stream: this was solely done by author and perhaps another researcher would have made another assessment or choice.
However, every assessment and choice is documented and is clearly linked to the case data source. Therefore the research is valid, because it can be reviewed and/or repeated by other researchers.

Summarizing, the validity is good. According to author, the research must be seen as a first qualitative exploration, which delivered a first practical KVPM, that helps to direct a bigger research on this subject matter.

This is a general research for a general problem, based on a medium group of ventures. Therefore the results can be generalized.

8.4 On the Proposals for further research

Author reduced the scope of this research considerably, due to the wide and deep knowledge domain of the topic of Knowledge Valorization. Therefore author suggest the following for further research:

Perspectives 1 and 3

This research introduced three perspectives on Knowledge Valorization: 1.Organizational, 2.Business and 3.Educational. This research only researched the perspective 2.Business.
Therefore author proposes to research the other perspectives, 1. Organizational and 3. Educational, and suggests to use the same research format, which might lead to discover common concepts and meta-information on how to research Knowledge Valorization.

Organizational aspect

On building the practical Knowledge Valorization Process Model, this research sets Venture organizational topics and issues, out of scope. But the organizational aspects of running a venture are important.
Therefore author proposes to research the organizational aspects of running a venture, based on the KVPM.

Streams limit to ten

The KVPM's design is based on the Phases and Streams framework. Phases as a controlling mechanism to measure progress in time, and Streams as a controlling mechanism to ensure -for each stream different-, proper expert attention in all Phases. Due to the enormous amount of information, the number of streams conceptualized from the cases, was limited to ten.
Author proposes to further research the necessity and usefulness of more streams, and to take in consideration if a stream has to be added, and why it should be added.

Deliverables on crossing Phase/Stream

Designing the KVPM led to Phases and ten Streams. The research scheduled a chapter in which for each crossing of Phase/stream, only one deliverable is defined.
Author proposes to further develop the KVPM, by defining all the deliverables at each crossing of Phase and Stream.

Relations between Streams

Designing the KVPM, the Streams were defined based on the conceptualizations from evidence in the cases. Also several obvious relations between Streams were mentioned. However, all needed relationships in the KVPM are important in order to be able to pro-active react on interferences.
Therefore author proposes to do further research on the relationships and interferences between the streams along all Phases.

Using and Testing with cases
Defining a Knowledge Valorization Process Model based on literature and case findings is not enough, because it is theory. The KVPM should also be tested and adjusted by using it in reality.
Therefore author proposes to do further research on the practical usability of the KVPM, by applying the model on real cases, and adjust the KVPM based on the lessons learned from these cases.

Setting up a keystone organization by the SME/MKB
During the research author discovered initiatives and literature around something called a 'keystone organization', see addendum 1, 2, 3 and 4. Unfortunately there was no time to do research on this subject.
Therefore author proposes to do further research on 'keystone organizations' and assess the consequences for the KVPM process model if any.

Program plans from Universities
During this research, several university valorization programs were investigated. These programs can be seen as an operationalization of knowledge valorization from the academic perspective and therefore might contain important learnings for the KVPM.
Therefore author proposes to research e.g. ten university programs on their (common) elements within the programs, referring to Knowledge Valorization.

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OVERVIEW of FIGURES and TABLES

OVERVIEW of FIGURES

OVERVIEW of TABLES

CASE DATA SOURCES, used as Exhibits

Hereunder author lists the selected Case Data Sources, used as KVPM exhibit.
Each case data source entry is described, see the lines ***Case*** through ***Title***. Coding the document is as follows: CA01 = Case number 01, DC01 = Document number 01.
For each document, author selects one or more specific relevant page(s) and describes them hereunder, listed in columnar format as follows:

- column ***Page***: The specific page ("page-entry") within the data source.
- column ***Title***: The title or description the page-topic is about.

Author then assesses and links each page-entry, to one or more KVPM Stream(s):

- column ***Topic***: The KVPM Stream(s) the page-topic addresses or is about.

Case 01 RunAdvisor

DC01 - Draft Business Plan

Case	CA01 - RunAdvisor (RunAnalyzer)	
Document	DC01 - Draft Business Plan	By JVW & PCL
Source-id	CA01_DC01_All_BusiPlan_Overview_v090	
Doc.Name	SmWi_BusiPlan_Overview_V090	PPT
Date	24 April 2013	
Title	Presentation Wearable Electronics Draft Business Plan - Overview	39 pages
Page	***Title***	***Topic***
_pag002	2. Market 2-2 Wearable Electronics, we are not the first on the market	03 MD: Market exploration
_pag009	6. Supplier – Buyer: Supply Chain	05 DA: AVC of delivery
_pag010	7. Bill Of Material – BOM within Target Market	06 TD: BOM
_pag012	9. Relevant Competitors for the four WE-EL value propositions	03 MD: Market competition
_pag013	10. Strategy Choice for Developing the Value Propositions and PMC	02 SD/VP: principles
_pag014	11. Strategy Choice: Three main pillars	02 SD/VP: principles
_pag015	12. Strategy Choice: Main models basics explained: Business Model Canvas – Osterwalder	04 BO: Future Business Earnings: Business Model Canvas: principles
_pag016	12. Strategy Choice: Main models basics explained: Blue Ocean Strategy – Kim et al.	02 SD/VP: Future Business Sustainable Advantage: BOS principles
_pag017	12. Strategy Choice: Main models basics explained: Blue Ocean Strategy – Kim et al.	02 SD/VP: Future Business Sustainable Advantage: BOS ERRC New Value curve
_pag018	13. Strategic direction: Ansoff & Technology and Business Innovation	02 SD/VP: Future Business Sustainable Advantage: SWOT & Innovation focus.
_pag019	14. Strategic Guiding Principles for WE-EL, Value propositions and PMC's	02 SD/VP: Future Business Sustainable Advantage: GP's Customer Demand based
_pag020	15: Value Proposition 1 of 4: IP – Intellectual Property Rights	02 SD/VP: VP1 = IP
_pag023	16. Value Proposition 2 of 4: RunAlyzer VP overview	02 SD/VP: VP2 = "Running Enhancer" for to-be-Athletes
_pag030	20. Corporate Structure, first Draft	04 BO: Business Org. Dev.
_pag031	21. Estimated Earnings on products, first draft	01 VM: Business Case
_pag032	23. Estimated Capital Needs and Cashflow, first draft	08 FU: Funding need
_pag033	25. Investment staged-gate financing approach	01 VM: Venture Roadmap 08 FU: Funding stages explanation

_pag037	27. Business Development Program: Roadmap	01 VM: Venture Roadmap

DC02 – Visual VP & Market positioning

Case	CA01 - RunAdvisor (RunAnalyzer)	
Document	DC02 – Visual VP & Market positioning	By PCL
Doc.Name	CA01_DC02_VP_Visual3_VisionVsExecute, from 6th	PPT
Date	23 Mai 2014	
Title	VP in three simple pictures + Market positioning	4 pages
Page	***Title***	***Topic***
_pag001	The VP in Three pictures	02 SD/VP development
_pag002	Sports	03 MD: market positioning
_pag003	Run style	03 MD: market positioning
_pag004	Personal Goal	03 MD: market positioning

DC03 – Venture Factsheet

Case	CA01 - RunAdvisor (RunAnalyzer)	
Document	DC03 – Venture Factsheet	By PCL
Doc.Name	CA01_DC03_InvestmentFactsheet_RunAdvisor_v07	PPT
Date	24 April 2014 (6h)	
Title	Venture Opportunity, RunAdvisor	2 pages
Page	***Title***	***Topic***
_pag001-002	RAOpp – page 1-2	01 VM + 08 FU

DC04 – Briefing Logo Joop Els, BOM-part

Case	CA01 - RunAdvisor (RunAnalyzer)	
Document	DC04 – Briefing Logo Joop Els, BOM-part	By PCL
Doc.Name	CA01_DC04_BriefinfJoopEls_BOM_sheets_v2i_2shts	PPT
Date	20 February 2014	
Title	Bill of material RunAdvisor Solution	2 pages
Page	***Title***	***Topic***
_pag001	Foto mockup of inlay soles	05 DA
_pag002	BOM logic structure on RunAdvisor Offering	05 DA

DC05 – Corporate Information sheet KPC

Case	CA01 - RunAdvisor (RunAnalyzer)	
Document	DC05 – Corporate Information sheet KPC	By PCL
Doc.Name	CA01_DC05_KPC_Corp_Info_v07	PDF
Date	17 November 2013	
Title	Corporate Information sheet	1 page
Page	***Title***	***Topic***
_pag001	KPC the company, KPC & Partners	01 VM & 08 FU

DC06 – Patents Overview and Status per 21 March 15

Case	CA01 - RunAdvisor (RunAnalyzer)	
Document	DC06 – Patents Overview and Status per 21 March 15	By HKO
Doc.Name	CA01_DC06_20140321 Patent Overview with status	PDF
Date	21 March 2015	
Title	Patents Status	1 page
Page	***Title***	***Topic***
_pag001	RunAdvisor Patents status	09 LM + 08 FU

DC07 – Investor presentation Dasym

Case	CA01 - RunAdvisor (RunAnalyzer)	
Document	DC07 – Investor presentation Dasym	By JVW & PCL
Doc.Name	CA01_DC07_20140326 RunAdvisor v46d-Dasym	PDF
Date	26 March 2014	
Title	Investment Opportunity for Dasym	40 page
Page	***Title***	***Topic***
_pag002	1. the investment scope	03 MD
_pag003	Possible B2C market segments	03 MD
_pag004	Our approach	08 FU
_pag005	2. think big start small	08 FU
_pag006	Picture of runners	03 MD
_pag007	3. Customer Need: Problem	02 SD/VP
_pag008	4a. Customer Need: Solution	02 SD/VP
_pag009	4b. Value Proposition Delivery	02 SD/VP
_pag010	4c. RunAdvisor Product: Technology	06 TD
_pag011	5. RunAdvisor Product: How does it work?	02 SD/VP
_pag012	6. Competition: How are we Different?	03 MD
_pag013	7. RunAdvisor Key Market Trends	03 MD
_pag014	8. Market Analyses: Runners in the USA	03 MD
_pag015	Market Analyses: RunAdvisor Worldwide	03 MD
_pag016	5. Market: Customer Segments	03 MD
_pag017	9. Unique Buying Motives	03 MD
_pag018	10. Sustainable Advantage	02 SD/VP & 08 FU
_pag019	11. Revenue Streams: Earning Money	03 MD & 04 BO & FU
_pag020	12. Competition	03 MD
_pag021	12-1. Sport Shoe manufacturer Competition	03 MD
_pag022	12-2. Technology Competition	03 MD
_pag023	12-2. Technology Competition – Sports visual	03 MD
_pag024	12-3. Platform Competition	03 MD
_pag025	12-3. Platform Competition – Running Style visual	03 MD
_pag026	13. Market Approach	03 MD
_pag027	14. Assets: New Patents	07 FM & 08 FU
_pag028	15. Current RunAdvisor solution status	06 TD & 08 FU (-> SD & MD)
_pag029	16. Organization: Company / Legal Structure	04 BO & 08 FU & 09 LM
_pag030	17. Business Management	04 BO & 08 FU
_pag031	Operational Management	04 BO & 08 FU
_pag032	18. Main Stakeholders	01 VM & 08 FU & 05 DA
_pag033	19. Investment	08 FU & 07 FM & 03 MD & 01 VM (fBC)
_pag034	20. Revenue – How do we earn money?	07 FM (bBC) & 08 FU (fBC)
_pag035	21. Finance	07 FM (bBC) & 08 FU (fBC)
_pag036	22. Exit scenario's	08 FU (fBC)
_pag037	23. RunAdvisor Business Sustainability	08 FU (fBC) & 04 BO (bBC)
_pag038	24. Investment request	08 FU (fBC) & 07 FM (bBC)
_pag040	25. Contact information	01 VM & 08 FU

DC08 – Peter Braun presentation, Mountain Club CH

Case	CA01 - RunAdvisor (RunAnalyzer)	
Document	DC08 – Peter Braun presentation, Mountain Club CH	By JVW & PCL
Doc.Name	CA01_DC08_20140502 RunAdvisor v24 Peter Braun	PDF
Date	02 Mai 2014	
Title	Peter Braun presentation, Mountain Club CH	36 page
Page	***Title***	***Topic***
_pag001	Are you interested in the fast growing runners' market?	08 FU
_pag003	About this document	08 FU
_pag004	Problem	02 SD/VP
_pag005	Solution	02 SD/VP
_pag006	What is it about	02 SD/VP
_pag007	How does the RunAdvisor work? (technology)	06 TD
_pag008	How does the Runadvisor work? (usage)	02 SD/VP
_pag009	Market USA - Analysis	03 MD
_pag010	Market	03 MD
_pag011	Market Approach	03 MD
_pag012	Unique Buying Motives	03 MD
_pag013	10. Sustainable Advantage	02 SD/VP & 08 FU
_pag014	23. RunAdvisor Business Sustainability	08 FU (fBC) & 04 BO (bBC)
_pag015	12. Competition	03 MD
_pag016	Sport Shoe manufacturer Competition	03 MD
_pag017	Technology Competition	03 MD
_pag018	Technology Competition – Sports visual	03 MD
_pag019	Platform Competition	03 MD
_pag020	Platform Competition – Running Style visual	03 MD
_pag021	Revenue – How do we Earn Money	03 MD & 04 BO & FU
_pag022	Revenue – How do we earn money?	07 FM (bBC) & 08 FU (fBC)
_pag023	Investment	08 FU & 07 FM & 03 MD & 01 VM (fBC)
_pag024	Finance	07 FM (bBC) & 08 FU (fBC)
_pag025	What if scenarios	08 FU & 07 FM
_pag026	Patents	07 FM & 08 FU
_pag027	Current Legal Patent Status	08 FU
_pag028	Exit	08 FU (fBC)
_pag029	Main Stakeholders	01 VM & 08 FU & 05 DA
_pag030	Business Management	04 BO & 08 FU
_pag031	Operational Management	04 BO & 08 FU
_pag032	Company	04 BO & 08 FU & 09 LM
_pag033	Current Legal Company Status	08 FU ??
_pag034	Summary	02 SD/VP & 08 FU
_pag035	RunAdvisor (user components)	02 SD/VP & 05 DA & 06 TD

DC09 – Venture PBS and Planning Schedule Step 1, v42

Case	CA01 - RunAdvisor (RunAnalyzer)	
Document	DC09 – Venture PBS and Planning Schedule Step 1	By PCL
Doc.Name	CA01_DC09_20140506 RunAdvisor Bi.Ca. v42 - Wah	PDF
Date	29 Mai 2014	
Title	Venture PBS and Planning Schedule Step 1, v42	6 page
Page	***Title***	***Topic***
_pag001-005	Project Product Breakdown Structure	01 VM & 08 FU
_pag006	Planning Schedule Step 1, Suggested payments	01 VM & 08 FU

DC10 – Venture PBS and Planning Schedule Step 0, v42a

Case	CA01 - RunAdvisor (RunAnalyzer)	
Document	DC10 – Venture PBS and Planning Schedule Step 0	By PCL
Doc.Name	CA01_DC10_20140506 RunAdvisor Bi.Ca. v42a – Wah	PDF
Date	29 Mai 2014	
Title	Venture PBS and Planning Schedule Step 0, v42a	3 page
Page	***Title***	***Topic***
_pag001-002	Project Product Breakdown Structure	01 VM & 08 FU
_pag003	Planning Schedule Step 1, Suggested payments	01 VM & 08 FU

DC11 – Business plan P&L calc SumFin, v18

Case	CA01 - RunAdvisor (RunAnalyzer)	
Document	DC11 – Business plan P&L Calc Sum Fin v18	By PCL
Doc.Name	CA01_DC11_20130813 SmWi i.Ca.Tab_SumFin_v18	PDF
Date	29 Mai 2014	
Title	Business plan P&L calc SumFin, v18	6 pages
Page	***Title***	***Topic***
_pag001-006	Businessplan P&L calculations and needed investment payments	07 FM & 08 FU

DC12 – Business plan P&L calc SumFin, v18

Case	CA01 - RunAdvisor (RunAnalyzer)	
Document	DC12 – Venture Steps 1-10	By PCL
Doc.Name	CA01_DC12_20130813 SmWi Bi.Ca.Tab_Step11-10_v18 (from business plan MoveNFit v42)	PDF
Date	13 August 2013 / updated 17 December 2013	
Title	Project and financial stepwise realization approach	1 page
Page	***Title***	***Topic***
_pag001	Venture steps, deliverables and needed capital; Explanation per step (base: go to market approach)	01 VM & 08 FU & 03 MD

DC13 – Business plan: Competition overview, page 4, TOC H6.4, (v010)

Case	CA01 - RunAdvisor (RunAnalyzer)	
Document	DC13 – Competition on idea, overview	By JVW
Doc.Name	CA01_DC13_20130813 SmWi Bi.Ca.Tab_Step11-10_v18 (from business plan MoveNFit v42)	PDF
Date	27 February 2013 / updated 09 October 2013 (v010)	
Title	H6.4 Competition on Idea	1 page
Page	***Title***	***Topic***
_pag004	H6.4 Competition on Idea; H6.4.1 through H6.4.30	03 MD

DC14 – Venture Questions Collected Summary

Case	CA01 - RunAdvisor (RunAnalyzer)	
Document	DC14 – Venture questions, collected from different sources	By PCL
Doc.Name	CA01_DC14_DDev_MOBD_VentureQuestionsSummary_v09a	PDF
Date	26 October 2013	
Title	Venture Questions Collected Summary	13 page
Page	***Title***	***Topic***
_pag002	Appendix 3, Angels Groups preliminary questionnaire	08 FU
_pag003	Small Business Investment Company program (SBIC)	08 FU
_Pag004	Success Factors	08 FU
_Pag005-007	Monty's Business plan TOC	08 FU
_Pag008-009	Mountain club Fundraising process, 5 PPT's	08 FU

DC15 – Businessplan MoveNFit v.42

Case	CA01 - RunAdvisor (RunAnalyzer)	
Document	DC15 – Businessplan MoveNFit v.42	By JVW & PCL
Doc.Name	CA01_DC15_20131214 Businessplan MoveNFit v.42	PPT
Date	17 Dec 2013	
Title	Business Plan, final -> Investors finding	45 pages
Page	***Title***	***Topic***
_pag027	Organizational structure	04 BO
_pag028	Organizational structure	04 BO
_pag033	Go to Market in Waves	02 SD/VP
_pag034	Financial Projections, P&L & capital need	07 FM
_pag035	Funding Tranches	08 FU
_pag037	Technical steps for Prod dev.	06 TD
_pag038	Planning schedule	01 VM
_pag039	Products	02 SD/VP

DC16 – Venture info for pre-interested Investors v03d

Case	CA01 - RunAdvisor (RunAnalyzer)	
Document	DC16 – Venture info for pre-interested Investors v03d	By PCL
Doc.Name	CA01_DC16_Venture info for pre-interested Investors v03d	PPT
Date	17 Dec 2013	
Title	Venture Global Information Sheet for pre-interested Investors v03d	1 pages
Page	***Title***	***Topic***
_pag001	Business & investment opportunity	08 FU & 01 VM

DC17 – Research by CRP Santé, Centre Hospitalier De Luxembourg

Case	CA01 - RunAdvisor (RunAnalyzer)	
Document	DC17 – Research by CRP Santé, Centre Hospitalier De Luxembourg	From RMA – CRP Sante
Doc.Name	CA01_DC17_CRP_ePosterECSS2013_Final_R.Mann	PPT
Date	2013	
Title	Strike Index And Spatiotemporal Parameters at Different Running Velocities	1 pages
Page	***Title***	***Topic***
_pag001	Research Summary in poster format	06 TD

DC18 – Lehman Formule for intermediars

Case	CA01 – RunAdvisor (RunAnalyzer)	
Document	DC18 – Intermediars fee based on Lehman	From Wikipedia, www
Doc.Name	CA01_DC18_DDev_Lehman_formule_v02_24nov2014	PDF
Date	24 nov 2014	
Title	Lehman Formula, wikipedia	4 pages
Page	***Title***	***Topic***
_pag001-004	Explanation of the formula and how to apply it	08 FU

DC19 – Supplier IEE Smart Foot Sensor, Presentation

Case	CA01 – RunAdvisor (RunAnalyzer)	
Document	DC19 – Supplier IEE Smart Foot Sensor, Presentation	From IEE, Luxembourg
Doc.Name	CA01_DC19_IEE_1_CorpPres_and_SmartFootSensor_rev06	PDF
Date	05 sept 2013	
Title	IEE Smart Foot Sensor, presentation	14 pages
Page	***Title***	***Topic***
_pag001-014	Explanation of IEE company and Smart Foot Sensor	05 DA

DC20 – Supplier IEE Smart Foot Sensor, Budgetary quote

Case	CA01 – RunAdvisor (RunAnalyzer)	
Document	DC20 – Supplier IEE Smart Foot Sensor, Presentation	From IEE, Luxembourg
Doc.Name	CA01_DC20_IEE_2_Budgetary Quote TNO Shoe Sensor 18 Sep 13	PDF
Date	23 sept 2013	
Title	IEE Smart Foot Sensor, budgetary quote	5 pages
Page	***Title***	***Topic***
_pag001-005	Explanation of IEE company and Smart Foot Sensor, budgetary quote	05 DA & 07 FM

DC21 – Investment Proposal Delivery plan v24a Wah

Case	CA01 – RunAdvisor (RunAnalyzer)	
Document	DC21 – RA Business Dev. Plan, High level deliverable	By PCL
Doc.Name	CA01_DC21_Investment_Proposal_Delivery_plan_24A - Waheed	PDF
Date	21 Mai 2014	
Title	Business Development Plan, High Level Deliverables	2 pages
Page	***Title***	***Topic***
_pag001-002	Business Development Plan, High Level Deliverables, PBS based; Projected results per Dec 2015, with 3 mio	01 VM & 08 FU

DC22 – Information Package for Entrepreneurs w.r.t. fundraising process

Case	CA01 – RunAdvisor (RunAnalyzer)	
Document	DC22 – Entrepreneur Fund Raising	from Mountain Club, CH
Doc.Name	CA01_DC22_Mount_CH_InfoPackforEntrepr_v10	PDF
Date	26 November 2013	
Title	Entrepreneurs instruction w.r.t. fundraising	13 pages
Page	***Title***	***Topic***
_pag001-006	Instructions how to fill the Platform with your venture information	08 FU & 01 VM
_pag007-012	Instructions and example template what and how to present your venture to audience of investors	08 FU & 01 VM
_pag013	Mount – Contact information	08 FU & 01 VM

DC23 – Venture Information Summary - Plan

Case	CA01 – RunAdvisor (RunAnalyzer)	
Document	DC23 – Plan to compile VIS	By PCL
Doc.Name	CA01_DC23_InvProp_VP_MsgComm_Plan_v13	PDF
Date	17 February 2014	
Title	Overview to make Venture Information Summary	12 pages
Page	***Title***	***Topic***
_pag001	Recap of purpose of this document - PCL	01 VM
_pag001-002	Possible VP's	01 VM & 02 SD/VP
_pag002-003	Stakeholder Categories	01 VM & 03 MD & 05 DA & 06 TD
_pag003	Communication plan proposal	01 VM
_pag004-011-	Venture project plan PBS total venture by PCL	01 VM

DC24 – Venture Planning 2014

Case	CA01 – RunAdvisor (RunAnalyzer)	
Document	DC24 – Venture Planning 2014 PBS for TNO	By PCL
Doc.Name	CA01_DC24_Venture_Planning_from_PBS14_v02	PDF
Date	17 February 2014	
Title	Overview of main Products, Milestones and Planning	3 pages
Page	***Title***	***Topic***
_pag001	Products high level overview and Month planning	01 VM
_pag002-003	Detail products and planning	01 VM

DC25 – PE Invision Fact sheet

Case	CA01 – RunAdvisor (RunAnalyzer)	
Document	DC25 – PE Invision Fact sheet	From Invision website
Doc.Name	CA01_DC25_INVISION-Fact-Sheet-en-2013-11-29	PDF
Date	29 November 2013	
Title	PE Invision Fact sheet, who we are	3 pages
Page	***Title***	***Topic***
_pag001-_003	Description of the Private Equity investor Invision and their target market and activities	08 FU

DC26 – Presentation Final Business plan v115

Case	CA01 – RunAdvisor (RunAnalyzer)	
Document	DC26 – Presentation Final Business plan	PCL & JVW
Doc.Name	CA01_DC26_BusiPlan_Overview_v114	PDF
Date	09 October 2013	
Title	Final Business Plan - Overview	13 pages
Page	***Title***	***Topic***
_pag001	Informal Venture management team	01 VM
_pag002-003	Planning and where we are	01 VM
_pag004	Overview of produced documents – Deliverables Done	01 VM
_pag005-007	TNO questions on deliverables and to days answers; presenting RC1 & RC2 XLS	01 VM & 07 FM
_pag008	Future: next steps to be taken	01 VM & 08 FU
_pag009	Add1: Business Development Progr. Roadmap Gate 2	01 VM
_pag010	Add2: Candidate Value Propositions; focus 2014	01 VM & 02 SD/VP
_pag011	Add3: Relevant Competitors	03 MD
_pag012	Add4: Uncertainties	01 VM & 02 SD/VP & 03 MD
_pag013	Add5: Overview of new docu's: BusiDev & Content	01 VM

DC27 – Business Plan Structure, outline v13

Case	CA01 – RunAdvisor (RunAnalyzer)	
Document	DC27 – Business Plan Structure outline, v13	By PCL
Doc.Name	CA01_DC27_BusiPlan_v11_2juli13_Stru.. v13	PDF
Date	02 July 2013	
Title	Outline structure business plan presentation	22 pages
Page	***Title***	***Topic***
_pag001-002	A. Deliverables before, B. Additions, C. Questions 30 Mai13 AS	01 VM
_pag002-003	D. More detailed market research E. Patent position	01 VM & 03 MD 01 VM & 09 LM
_pag004	F. Team Business Development	01 VM
_pag005	G. Business Organization	01 VM & 04 BO & 09 LM
_pag006	H5. Business plan terminology	01 VM & 02 SD/VP & 03 MD
_pag007	Prod Dev. Techn M1 through M7	01 VM & 06 TD
_pag008	H6. General TNO-based (=Tech PusH) Value Props	01 VM & 02 SD/VP
_pag009	H7. VP1, IP	01 VM
_pag010	7.5 Market, 7.6 Costs & Rev	01 VM & 03 MD & 07 FM
_pag010	x.7 Investment, x.8 Risks, x.9 Issue log	01 VM & 08 FU
_pag011	H8. VP2a RA Runcoach	01 VM & 02 SD/VP
_pag012	Market, Costs & Rev, Investment	01 VM & 03 MD & 07 FM
_pag013	x.7 Investment, x.8 Risks, x.9 Issue log	01 VM & 08 FU
_pag014	H9. VP2b RA Community ToBeat	01 VM & 03 MD & 07 FM
_pag015	x.7 Investment, x.8 Risks, x.9 Issue log	01 VM & 08 FU
_pag016	H10 Vp3a KB Comm Physiotherapist	01 VM & 03 MD & 07 FM
_pag017	x.7 Investment, x.8 Risks, x.9 Issue log	01 VM & 08 FU
_pag018	H11 Vp3b KB Comm SportsCoach x.7 Investment, x.8 Risks, x.9 Issue log	01 VM & 03 MD & 07 FM 01 VM & 08 FU
_pag019	H12 any new VP's that comes up	01 VM
_pag020	3. Tabellen Han	03 MD
_pag022	Issuelog	01 VM

DC28 – IP License Terms between NewCo and TNO

Case	CA01 – RunAdvisor (RunAnalyzer)	
Document	DC28 – IP License terms	By PCL
Doc.Name	CA01_DC28_IP_in_LicenseComp_terms_v02	PDF
Date	02 July 2013	
Title	IP License Terms between NewCo and TNO	3 pages
Page	***Title***	***Topic***
_pag001-003	All articles on IP License agreement	01 VM & 09 LM

DC29 – Business & Legal Organizational Structure

Case	CA01 – RunAdvisor (RunAnalyzer)	
Document	DC29 – SmWi Org. Struct	By PCL
Doc.Name	CA01_DC29_OrganizationalStructure_v07	PDF
Date	18 September 2013	
Title	Business & Legal Organizational Structure	4 pages
Page	***Title***	***Topic***
_pag001-004	Organizational Structure, Legal structure, Shareholders	01 VM & 04 BO & 09 LM

DC30 – Review success areas and roadmap Cleton/Berghmans, 19July2013

Case	CA01 – RunAdvisor (RunAnalyzer)	
Document	DC30 – RunAdvisor Review of Venture draft	By PCL
Doc.Name	CA01_DC30_BD_Conceptschetsen_PCL_hor	PDF
Date	19 July 2013	
Title	Venture Review on RunAdvisor Roadmap	2 pages
Page	***Title***	***Topic***
_pag001	Concept Draft by PCL of Roadmap with key players	01 VM
_pqg002	Concept Draft by PCL of Projectorganisation / Venture	01 VM

DC31 – Investors Summit Liechtenstein 20 & 21 November 2013, Overview

Case	CA01 – RunAdvisor (RunAnalyzer)	
Document	DC31 – Investors Summit Liechtenstein	from Mountain Club agenda
Doc.Name	CA01_DC30_Investors_10_Liechtenstein_v02	PDF
Date	21 November 2013	
Title	Overview of event: Investors Summit Liechtenstein	6 pages
Page	***Title***	***Topic***
_pag001-006	Overview, Location, Programm, Company Presentations	08 FU & 01 VM

DC32 – Investor Pitch short, Draft, pg1

Case	CA01 – RunAdvisor (RunAnalyzer)	
Document	DC32 – Investors Pitch short, TOC draft, 1 page	By PCL
Doc.Name	CA01_DC32_InvPitch_TNO_RunAdvisor_Kort_ v02_pg1	PDF
Date	23 March 2014	
Title	Investor pitch short, Draft, page 1	1 page
Page	***Title***	***Topic***
_pag001	Table of Content of short Pitch, draft	08 FU & 01 VM

DC33 – Investor Pitch StoryboardVP2a & VP2b

Case	CA01 – RunAdvisor (RunAnalyzer)	
Document	DC33 – Investors Pitch Storyboard	By PCL
Doc.Name	CA01_DC33_VP_RunAdvisoro_1and2_Salespitch _v04	PDF
Date	5 March 2014	
Title	Investor pitch storyboard	5 pages
Page	***Title***	***Topic***
_pag001	Customer Need or demand, which problem are you solv.	02 SD/VP
_pag002-004	Competitors delivery	03 MD
_pag004	How do we earn money	04 BO
_pag005	How much money do you need and what are you going to do with it: Steps, Plateaus and needed capital	08 FU & 03 MD & 01 VM

Case 02 LogiMedical

DC01 – ProMonitor Program Overview (one shared view)

Case	CA02 – LogiMedical's ProMonitor	
Document	DC01 – ProMonitor Program Summary	By PCL
Doc.Name	CA02_DC01_Prj097_LM_ProMonitor_Summary_v09	PDF
Date	30 September 2013	
Title	ProMonitor Program Overview (one shared view)	1 page
Page	***Title***	***Topic***
_pag001	ProMonitor Program overview as one shared view	01 VM

DC02 – ProMonitor Venture Overview in 3 pages

Case	CA02 – LogiMedical's ProMonitor	
Document	DC02 – ProMonitor Venture Summary in 3 pages	By PCL
Doc.Name	CA02_DC02_LM_ProMonLLvZ)lvPres_Sum_v04a (1)	PDF
Date	08 October 2013	
Title	ProMonitor Venture Overview in 3 pages	3 pages
Page	***Title***	***Topic***
_pag001	ProMonitor, the products	01 VM & 02 SD/VP
_pag002	ProMonitor, the Venture and Funding	01 VM & 08 FU
_pag003	ProMonitor, the overview of the customer process	01 VM & 02 SD/VP

DC03 – ProMonitor New system description PnV

Case	CA02 – LogiMedical's ProMonitor	
Document	DC03 – ProMonitor new system description	By PvN
Doc.Name	CA02_DC03_ProMonitor_PvN_v01	PDF
Date	12 September 2013	
Title	ProMonitor New system description PvN	19 pages
Page	***Title***	***Topic***
_pag001	ProMonitor, Title page	02 SD/VP
_pag002	ProMonitor, TOC	02 SD/VP
_pag003	About LogiMedical	01 VM & 04 BO
_pag004	Process Incidents	02 SD/VP
_pag005	Problem and Opportunity	02 SD/VP
_pag006	Solution goal 1	02 SD/VP
_pag007	Solution goal 2	02 SD/VP
_pag008	Technical structure, Medicine car & Logistics	02 SD/VP
_pag009	Technical structure, ProMonitor as Logistic system	02 SD/VP
_pag010	Technical structure, ProMonitor as Interface tool	02 SD/VP
_pag011	ProMonitor, overview of the customer process	02 SD/VP
_pag012	ProMonitor, goals	02 SD/VP
_pag013	ProMonitor, solution	02 SD/VP
_pag014	Intelligence in distribution	02 SD/VP
_pag015	Track and Trace of distribution means and people	02 SD/VP
_pag016	Verification of products	02 SD/VP
_pag017	Security: Lock systems	02 SD/VP
_pag018	Organizations, task distribution	04 BO
_pag019	Organizations, company structure, funding	04 BO & 08 FU

DC04 – Process flow example without and with monitor system

Case	CA02 – LogiMedical's ProMonitor	
Document	DC04 – Process flow examples	By Jalaco
Doc.Name	CA02_DC04_Procesinrichting_Monitor_JdL	PDF
Date	22 September 2013	
Title	Process flow example with/without monitor	2 pages
Page	***Title***	***Topic***
_pag001	Process flow without monitor, 3.1.1 [author: Hassle]	02 SD/VP
_pag002	Process flow with monitor, 3.1.1	02 SD/VP

DC05 – DFZ Participation presentation

Case	CA02 – LogiMedical's ProMonitor	
Document	DC05 – DFZ Participation presentation	by Ben Dijk
Doc.Name	CA02_DC05_DFZParticip11oktober2012ZVI_BenDijk	PDF
Date	11 October 2012	
Title	Netwerk bijeenkomst zorg innoveren	15 pages
Page	***Title***	***Topic***
_pag001	Four pictures about "Young plant that grows"	08 FU
_pag003	About DFZ as a health insurance company	08 FU & 03 MD
_pag004	DFZ mission	08 FU
_pag005	Challenges in healthcare	08 FU & 03 MD
_pag006	Solutions (as DFZ sees them)	08 FU
_pag007	Solution acc. To DFZ: Innovation	08 FU
_pag008	Goals and ambitions of DFZ	08 FU
_pag009	About DFZ Participations	08 FU
_pag010	Theme's chosen by DFZ Participations	08 FU
_pag011	External environment [author: STEPLE & stakeholders]	08 FU & 01 VM & 03 MD
_pag012	Investment focus	08 FU
_pag013	Investment criteria	08 FU
_pag014	Participations	08 FU
_pag015	Partners in DFZ Participations	08 FU

DC06 – ProMon Concept Process Flow

Case	CA02 – LogiMedical's ProMonitor	
Document	DC06 – ProMon Concept Process Flow	By PCL
Doc.Name	CA02_DC06_LM_ProMon_ProcesFlow_v01_PCL	PDF
Date	26 September 2013	
Title	Main Process Flow with Swim lanes as Stakeholders	1 page
Page	***Title***	***Topic***
_pag001	Picture with high level process overview & swim lanes	02 SD/VP

DC07 – ProMon Project investment budget

Case	CA02 – LogiMedical's ProMonitor	
Document	DC07 – Project investment budget	By PCL
Doc.Name	CA02_DC07_LM_ProMon_BizPlan_ProjectBudget_v03	PDF
Date	26 September 2013	
Title	Project investment budget	1 page
Page	***Title***	***Topic***
_pag001	Investment budget, plateau based	08 FU & 07 FM

DC08 – eHealth Expo: Innovation for health

Case	CA02 – LogiMedical's ProMonitor	
Document	DC08 – eHealth Expo: Innovation for health	Grasped by PCL
Doc.Name	CA02_DC08_eHealth_2014_02_11_Program	PDF
Date	11 February 2014	
Title	Program overview and Innovation Pitches	3 pages
Page	***Title***	***Topic***
_pag001-003	Program & innovation Pitches overview	08 FU & 03 MD

DC09-DC15 – Six presentations with reused and different sheets.
On the LogiMedical ProMonitor case, author made six partly different Powerpoint presentations, each for a different audience and other purpose.
Author assembled a total list of all the sheets used in the presentations, to prevent double mentioning a sheet and stream.

Hereafter author assembled an overview list of the next six presentations:

CA02_DC09_LM_ProMonInvCase_02_DFZ_Part_v05-Rev_JdLt - 25 November 2013
CA02_DC10_LM_ProMonInvCase_02_DFZ_Part_v38 - 10 December 2013
CA02_DC11_LM_ProMonInvCase_02_DFZ_Part_v38_Teaser - 04 February 2014
CA02_DC12_LM_ProMonInvCase_02_DFZ_Part_v38_verkort - 10 December 2013
CA02_DC13_LM_ProMonInvCase_02_DFZ_Part_v55_Teaser - 07 Mai 2014
CA02_DC14_LM_ProMonInvCase_02_DFZ_Part_v65_Teaser - 07 Mai 2014

Hereunder author shows the table with the combined sheets of the six presentations (DC09 through DC14), with the assessed topic what it is about, i.e. to which stream(s) it belongs.

	Assembled by PCL 6 September 2015							
			Different presentations and pages on ProMonitor					
	CA02: LogiMedical's ProMonitor Case	***no pages:***	***15***	***25***	***7***	***10***	***19***	***14***
			DC09	***DC10***	***DC11***	***DC12***	***DC13***	***DC14***
	Topic of sheet	***KVPM Stream(s)***	***v05***	***v38***	***v38Teaser***	***v38Verkort***	***v55teaser***	***v65teaser***
1	Verzoek tot deelname	08 FU	1	1	1	1	1	1
2	..TOC	08 FU		2	1	1	1	1
3	....Thema: Hoe beteugelen we de…	02 SD/VP					2	2
4	....Welk vraagstuk speelt	02 SD/VP					3	3
5	....Probleem, oorzaak en oplssng	02 SD/VP					4	4
6	....ProMon oplossing en voordelen	02 SD/VP					5	
7	......ProMon Oplossing, Visual	02 SD/VP						5
8	....DFZ-P voordeel van ProMon	08 FU					6	12
9	....Wat doet ProMon (3 steps user)	02 SD/VP					7	6
10	....ProMon functies en voordelen	02 SD/VP					8	7
11	......ProMon Oplossing en Voordelen	02 SD/VP						8
12	....Waarom ProMon van LM (markt)	03 MD					9	10+
13	....Business toekomstvasheid	04 BO					10	13
14	....Competitie	03 MD					11	
15	....Competitie perspectief (gartner)	03 MD					12	
16	......Competitie in perspectief	03 MD						9
17	....Business Management	04 BO					13	
18	....Investment, stap, Plateaus	04 BO					14	
19	..Thema: Zorg, Medicijnen, Keten	02 SD/VP		3		2		
20	Promonitor overzicht	02 SD/VP	2	4++		3		
21	..Bedrijf LM	04 BO		5	6	4	18	11
22	..Productmarkt Cmbinatie	03 MD		6				
23	..Probleem	02 SD/VP		7				
24	..Onderzoek	02 SD/VP		8				
25	..Oorzaken	02 SD/VP		9	2			
26	..Oplossing	02 SD/VP		10				
27	Wat opgelost wordt/werking/oplos	02 SD/VP	3	11+		5		
28	Unieke aanpak (Swimlanes) geen pict	02 SD/VP	4	12+				
29	Leverancier andere deeloplos/rood krs	03 MD	5	13+			(11--)	
30	LM unieke posit 1,2,3	04 BO	6	14+			(12--)	
31	..Mtsch BC 1. Mdgbrk, 2 MdGb & ZH opn	02 SD/VP & 01VM bBC		15		6		
32	..Launching custoemrs, 2 st.	03 MD		16				
33	Hoe we geld gn verdnn 1, 2 markt	04 BO & 01 VM bBC	7	17				
34	Ontwikkelkosten 1. Prg, 2 BAU	03MD & 07FM	8	19+	4-		(14--)	
35	..Benodigde Fin P&L 5 jaar	08 FU & 07 FM		20	5+-		17	
36	..Approach, plateaus 5 stuks	08 FU & 01 VM		21	3+	7	16+	
37	..Markt uitrol Fase a tem E	01 VM & 03 MD		22		8		
38	Business Case, 1, 2, 280 mio	01 VM bBC	9					
39	Markt Groei potentie 2023	03 MD & 04 BO	10	18+				
40	Benodigde Financ DFZ Schema	08 FU	11					
41	P&L in schema 2014-2018	07 FM	12					
42	Perfecte fit, no pictures, logos	08 FU	13	23+		9		
43	..Prefecte team/stakeholdermap	01 VM		24				
44	Risk en Mitigation	01 VM	14					

Table 25: By author: Case 02 LogiMedical, the combined sheets of 6 presentations and their streams

Case 03 BEI – Blue Eye Innovations

DC01 – Offer SportivaLife

Case	CA03 – Blue Eye Innovations	
Document	DC01 – BEI offer for SportivaLife	Supported by PCL
Doc.Name	CA03_DC01_SportiveLife_c01_o1_SalesPres_v01	PDF
Date	4 February 2015	
Title	Offer to SportiveLife	10 pages
Page	***Title***	***Topic***
_pag001	BEI Klantwaardeplan	02 SD/VP
_pag002	01 Probleem en Onze oplossing	02 SD/VP
_pag003	02 Uw voordeel	02 SD/VP
_pag004	03 Onze producten	02 SD/VP
_pag005	04 BEI de juiste keuze	03 MD
_pag006	05 Uw Resultaat	02 SD/VP
_pag007	06 Wie zijn wij	04 BO
_pag008	07 uw vraag ons aanbod	02 SD/VP
_pag009	08 Vervolgstap	02 SD/VP
_pag010	09 Prijs en opdracht	03 MD

Case 04 Monty's

DC01 – Monty's Business Summary – Highlights, based on chapter/paragraph titles

Case	CA04 – Monty's	
Document	DC01 – Monty's Business Summary v1.1	Summarized by PCL
Doc.Name	CA04_DC01_MontysBusiSumm_v1.1	PDF
Date	September 2013	
Title	Monty's Business plan Table of Content	19 pages
Page	***Title***	***Topic***
_pag004	I What we are about	02 SD/VP
_pag005	..continued	04 BO & 09 LM
_pag006	II Company attitude	02 SD/VP
_pag007	III Our products	02 SD/VP
_pag008	IV What makes us different	02 SD/VP & 03 MD
_pag009	V The sustainable factor	02SD/VP & 04 BO
_pag010	VI Security Track Records Trials	02 SD/VP & 04 BO
_pag011	VII Sweat Equity	08 FU
_pag012	VIII The market	03 MD
_pag013	IX Potential clients	03 MD & 04 BO
_pag014	X Business strategy	03 MD
_pag015	XI The company	03 BO & 09 LM
_pag016	XII Investor information	08 FU
_pag017	..continued	08 FU
_pag018	XIII Revenues and profit	07 FM
_pag019	Contact	01 VM

Case 05-14 GITR Get in the ring contesters 1 through 10

November 21, 2014 Van Nelle Ontwerp fabriek B.V., 1 Van Nelleweg Rotterdam

The GITR International Final 2014 event is an international pitching contest for start-ups. The final was held on November 21, 2014 at the Van Nelle Ontwerp fabriek at Rotterdam, The Netherlands. The GITR organization recorded the event on video, which was put on their internet page. Author downloaded the video on November 23, 2014 as a case data source, made a partly transcription and analyzed the assertions. The ten final contesters (i.e. cases CA05 through CA14) are Start-ups from different countries who won the regional GITR.

Hereunder author explains briefly how the GITR International Final 2014 event works:
The final has 5 battles, where two startups battle through pitching against each other.
Each battle starts with the introduction of their product, followed by a brief introduction of the company and the person behind it. Then follows a set of four rounds, where they have to pitch (i.e. answer) to pre-defined questions.

1. Team
2. Achievements
3. Business model & Size of the market
4. Financials and Business/Investment proposition

Four invited investors, called Champions, are the jury and pose questions. The Champions choose the winner of each of the 5 battles. The 5 battle winners are invited back and say some words, and then the audience choose the final winner, who wins one mio euro.
The 5 battles and 10 contesters (i.e. cases CA05 through CA14) are:

Battle 1	***Battle 2***	***Battle 3***	***Battle 4***	***Battle 5***
CA05: 6. Spot*on USA	CA07: 8. Cho-Choo baby Moldova	CA09: 2. GoMetro South Africa	CA11: 10. eFishery Indonesia	CA13: 3. Templify Denmark
1:23:30	1:48:26	2:17:20	2:34:42	2:52:16
CA06: 5. Healthy Memory, Bolivia	CA08: 4. Nannuka Greece	CA10: 1. SnappCar Netherlands	CA12: 9. Integreight Egypt	CA14: 7. ScreenDY Morocco
1:24:40	1:50:05	2:18:32	2:35:44	2:54:04

Hereafter, author documents the video parts of the battle that are about their venture, with the focus on the contesters' separate assertions. Then author assess each assertion (the ***Title***) on what it is about and to what KVPM stream (the ***Topic***) the assertion belongs.

Case 05 & 06 [B5-1] 6. Spot*on Sciences, from USA <=> 5. Healthy Memory, from Bolivia

1:23:30
Introduction 6. Spot*on Sciences, from USA

Page	*Title*	*Topic*
Product	Chemaspot is an easy to use device that allows a blood sample to be taken at home by anyone, anywhere, anytime	02 SD/VP

1:24:40
Introduction 5. Healthy Memory, from Bolivia

Page	*Title*	*Topic*
Product	The healthy memory application is designed to improve social care and hospitals, and increase data collection through the use of cloud computing technology.	02 SD/VP

?Could you tell us a little bit about yourself and maybe something over that fine company Because I don't think may people heard the intro from my voice. So maybe you can tell us a little bit more.

About yourself, 6. Spot*on Sciences, from USA

Assert.	*Title*	*Topic*
1	I am <Name>, founder and CEO of Spot*on sciences.	04 BO
2	We make collecting a blood sample very easy and so we bring access to life saving test to everyone	02 SD/VP
3	A few years ago I was talking with my mother and I realize how hard it was for her, to get a simple blood test done.	03 MD
4	With Chemaspot you can take a blood sample at home Simply stick your finger. with the lancet put two drops of blood on it close it up. and sent it in the mail to a lab.	02 SD/VP

?We did hear the introduction but we like to hear more from you and the concept as well.
1:27:15 (25 s)

About Yourself, 5. Healthy Memory, from Bolivia

Assert.	*Title*	*Topic*
1	I am <name>, founder and CEO of Healthy memory.	04 BO
2	Who hasn't had problems understanding with medical descriptions. Even de Pharmacist have problems on their staff sometimes	03 MD
3	We are the solution. Healthy memory is to remind when and how to take your medicine. But it not all for you computer …. Hospital patients,.. pharmaceutical industries.	02 SD/VP
4	We have real concern about the patients by Making sure when to take the medication	02 SD/VP

==ROUND 1: TEAM==

?Great concept, but what about the team behind it, because you are not the only one I think.

Round 1: TEAM, 6. Spot*on Sciences, from USA

Assert.	*Title*	*Topic*
1	We have a dedicated team of ten who worked together for four yours and have decades of experiences in life sciences.	04 BO
2	And produced three patents on our technology.	06 TD
3	Myself I have a PhD in bioorganic chemistry and I have 20 years of experience in pharmaceutical research and product development.	04 BO
4	we also have collaborators globally from universities and health area's	04 BO

01:28:51
?decades of experience as well? Tell us a little more, … something about the team

Round 1: TEAM, 5. Healthy Memory, from Bolivia

Assert.	*Title*	*Topic*
1	our team has including 5 6 engineers, two of them are telecommunications.	04 BO
2	we have an expert in AI, we have a database expert	04 BO
3	We have the best Bolivian graphic designer	04 BO
4	.,.. I am the Servant manager and the .. guy. That is going out to sell you our product	04 BO

==ROUND 2: ACHIEVEMENTS==

Next round: over the achievements. ?Great team, But what have you achieved to date? ?Why should these guys take notice of you and say this is the winner?

Round 2: ACHIEVEMENTS, 5. Healthy Memory, from Bolivia

Assert.	*Title*	*Topic*
1	Healthy Memory has been awarded by the Bolivian national … company for its potential as .. partner in order to improve people's live	04 BO
2	We have worked with the biggest telecommunication firm in Bolivia and we have the honor to represent the ….. university of Bolivia	04 BO
3	Since we have the… telecommunications, … the computers	04 BO

?Your product can change the world, how many achievements, how far along that path are you so far?

01:30:18
Round 2: ACHIEVEMENTS, 6. Spot*on Sciences, from USA

Assert.	*Title*	*Topic*
1	We have received over 2 mio dollars in small business research grants to develop our technology	08 FU
2	We have received many business and innovations awards	08 FU
3	but most importantly, our device is in action around the world, in Africa for hiv and Ebola testing and in Nord America for wellness and research, remote island of Scotland for diabetes, even in the Himalayas for gene typing of snow leopards	03 MD

==ROUND 3: BUSINESS MODEL and MARKET SIZE (25 s)==

?I'd like to understand more about how big this market is. And more so as the market, what is the business model to make money, because we see lot of medical things, I'm sorry, but a lot of them don't have the best business models. So can you convince the champions and the room that there is a real company here?

1:31:21
Round 3: BUSINESS MODEL and MARKET SIZE 6. Spot*on Sciences, from USA

Assert.	*Title*	*Topic*
1	80% of health care decisions are based on a diagnostic test	03 MD
2	But to get a blood sample, we have to drag our buts to a lab	02 SD/VP
3	Have them to pull out of our arm with a big needle.	02 SD/VP
4	Especially hard for the people who needed the most, sick, elderly and small villages in Africa	03 MD
5	With Chemaspot you can take a sample at home, mmm and mmm, multibillion dollar industry markets, including anything that needs a blood sample, for health care, for medical research	02 SD/VP
6	We sell directly to the labs, that produce the test	03 MD

?Wonderful, Very clear indeed. Nice business model over there. I thinks yours has to be better. Tell us a little bit about it.

1:32:01
Round 3: BUSINESS MODEL and MARKET SIZE, 5. Healthy Memory, from Bolivia

Assert.	*Title*	*Topic*
1	Healthy memory has a potential big market, because … pharmaceuticals,… in the spotlight, more patients, all to our GPS systems and doctors will have a real network to interact with their patients	02 SD/VP
2	And they can generate the statistics about their patients behavior	02 SD/VP

==ROUND 4: FINANCIALS and BUSINESS PROPOSITION==

?Stick with you going from that market to look into your financials, so what are the financials so far? Are you making any money and do you have a request towards the champions?

1:32:43
Round 4: FINANCIALS and BUSINESS PROPOSITION, 5. Healthy Memory, from Bolivia

Assert.	*Title*	*Topic*
1	we are from the … of America	02 SD/VP
2	We have the best solution, the best engineers, knowledge, science	02 SD/VP
3	But we need 50 k euros to penetrate the Bolivian market and we also need 250 k euro to penetrate all the surrounding market	08 FU
4	and we give away 20% of our company.	08 FU

?very clear, thank you so much. ….. red corner. Are you looking for a little bit more? We are! Good!

1:33:33
Round 4: FINANCIALS and BUSINESS PROPOSITION, 6. Spot*on Sciences, from USA

Assert.	*Title*	*Topic*
1	We have completely sold out our first lot op 10 k devices	03 MD
2	we have customers over 20 countries including the Netherlands	03 MD
3	and we have a market fit globally	03 MD
4	So what we are looking for is 2 mio dollars to fund our manufacture scale up, customer support	08 FU
5	and we are also looking for collaborators to help us making a huge splash in health care	04 BO

==ROUND 5: WHY YOU SHOULD WIN==

?I would like to give you a final opportunity to convince the champions that you should win and go through to the final round today.so not ladies first this time ……over to Bolivia.
I ‘d like to know why this fine lady should loose and you should win.

01:33:44
Round 5: WHY YOU SHOULD WIN, 5. Healthy Memory, from Bolivia

Assert.	*Title*	*Topic*
1	Healthy market has potential market, but this market is … …..	03 MD
2	HM sells to the hospitals	03 MD
3	and they are really concerned about the patients	02 SD/VP
4	So when the patients leave the hospital, to feel. The ….. really worry about them	02 SD/VP
5	And finally with our database we will be able to help the pharmacies and the pharmaceutical industries to follow up the market	02 SD/VP

? that was a good answer. But why should this fine lady not win?
01:35:22
6. I don’t know.

? do you have arguments to win and the fine young man should lose?

01:35:48
Round 5: WHY YOU SHOULD WIN, 6. Spot*on Sciences, from USA

Assert.	*Title*	*Topic*
1	well we started the company when I realized how hard is was for my mother to get a simple blood sample.	03 MD
2	With h*spot, we are revolutionizing the way we do clinical sciences	02 SD/VP
3	Customers around the world recognizes that is gone make a huge impact on global healthcare	03 MD
4	.., by changing, by making an easy way to collect a blood sample we are bringing access to life saving tests to everyone.	02 SD/VP

?Was my question so difficult? Why should this fine gentleman loose?
01:36:20, 6. Spot*on Sciences, from USA

5	We are directly saving life's especially in the developing countries	02 SD/VP

?I am going to give you one final chance to give a sentence against your opponent.
5. Healthy Memory, from Bolivia

6	Healthy Memory improve the people live all over the world	02 SD/VP

Questions from champions:

1:37:00

Assert.	*Title*	*Topic*
1	If I give you 2 mio what do I get? Spot_On -> 20%	08 FU
2	2. FDA implications? Spot_On -> CE class 1 market	02 SD/VP
3	Is your product finished? HM -> prototype is finished	05 DA & 06 TD
4	Who do you consider your competition: Lot of reminders? HM -> A lot of of them to reminder HM is real concerned for the patients ….	03 MD
5	Concern for interest in the patient. How is this incorporate in your product? How do you show that, in the technology? HM -> HM has good reminder (push alert?) options …….	02 SD/VP
6	Anyone can enter this market? Spot*On -> First to market (first mover)	03 MD
7	How do you control the channel, distribution, one of the big guys can do better? Technology is not new. Spot*On -> Selling directly to customers, distributors	03 MD

Case 07 & 08 [B5-2] 8. Choo-Choo baby, from Moldova <=> 4. Nannuka, from Greece

1:48:26
Introduction 8. Choo-Choo baby, from Moldova

Page	*Title*	*Topic*
Product	Choo-Choo Baby carriers is the perfect baby carrier that is natural, stylish and compact giving active parents a bonding experience with their baby	02 SD/VP

About your company, 8. Choo-Choo baby, from Moldova

Assert.	*Title*	*Topic*
1	I make baby carriers, you can see it, not just hear about it	02 SD/VP
2	This carrier allows you to have to enjoy an active lifestyle	02 SD/VP
3	A healthy spine, a happy baby	02 SD/VP
4	And it got us to the finals of GITR	n.a.

1:50:05
Introduction 4. Nannuka, from Greece

Page	*Title*	*Topic*
Product	Nannuka is the first market place in Greece for finding specialist in child care, providing a secure way for families and experts to find each other.	02 SD/VP

1:50:57
?tell me (4. Nathalie) something about your company.

About your company, 4. Nannuka, from Greece

Assert.	*Title*	*Topic*
1	I am founder of Nannuka and	04 BO
2	today I show how life with kids can become really easy	02 SD/VP
3	80% of the people here today are go parents of the future.	03 MD
4	.. It is a wonderful experience, but it could be really hard especially when you are looking for a trustworthy professional to took care of your child	03 MD
5	Nannuka is an on-line marketplace which will help parents to connect to child oriented professionals, like babysitters, ….. and … and even child psychologist in a save and easy way	02 SD/VP

==ROUND 1: TEAM==

1:51:58
?tell me something about your team.

Round 1:TEAM, 4. Nannuka, from Greece

Assert.	*Title*	*Topic*
1	we are with three mam and entrepreneurs with more than forty years of experience in marketing and business	04 BO
2	We have experienced the problem, we have created the solution and we know how to talk to the audience.	04 BO
3	After all one of us has the biggest parents portal in Greece with thousands of followers.	04 BO
4	In the team we have an advisor	04 BO
5	Then he is the google market places	04 BO
6	After all we would not be here if we had a crazy team of developers and designers, who believe in our dream.	04 BO

1:52:30
?what kind of team do you have? Tell me!

Round 1:TEAM, 8. Choo-Choo baby, from Moldova

Assert.	*Title*	*Topic*
1	Well, we have also have a mom team which is a strange thing	04 BO
2	We have three mams.	04 BO
3	.. I am a baby wearing educator since 2006 and I have three kids and I work for an international baby wearing advocacy	04 BO
4	We stole our textile technology from a factory in Moldova and	06 TD
5	my co-founder also has really good connections with textiles	04 BO & 05 DA

?when did you start your company

4. Nannuka: Five months ago (2014)
8. Choo-Choo baby: In April this year (2014)

==ROUND 2: ACHIEVEMENTS==

?what did you achieve?

01:53:05
Round 2: ACHIEVEMENTS, 4. Nannuka, from Greece

Assert.	*Title*	*Topic*
1	In just five months we have more than 5.000 parents and experts an board.	03 MD
2	We have even as our first revenue just in two months in Greece, we have 10k euro.	07 FM
3	We just got back from a web seminar with the feedback we got from the business commuter ship, that there is a great potential in our dream	02 SD/VP

01:53:40
Round 2: ACHIEVEMENTS, 8. Choo-Choo baby, from Moldova

Assert.	*Title*	*Topic*
1	Well we are a different type of business but we started in April	04 BO
2	We bootstrapping all our initial costs,	08 FU
3	and by now we have two distributors in Romania and in Moldova, two countries for distributors	05 DA
4	We already sold 2.600 worth of carriers with no advertising and this is really great because we have positive cash flow.	07 FM
5	We have one testbed of carriers available, and working on the second model of the basic carrier and on the covers	05 DA & 06 TD

==ROUND 3: BUSINESS MODEL and MARKET SIZE (25 s)==

?How do you make money and how big is this market? Can you start?

01:54:24
Round 3: BUSINESS MODEL and MARKET SIZE, 8. Choo-Choo baby, from Moldova

Assert.	*Title*	*Topic*
1	There is this strange situation with the baby carrier market	03 MD
2	Since there is a lot of awareness about the benefits of baby wearing	03 MD
3	but still you can't just go to any store, a baby merchandise store and buy a good carrier	03 MD
4	So this is what we want to do, because we scale through distribution	05 DA
5	And this market has a 21% growth rate, so everyone with a partner a saw, ……tight together with cc baby carriers	03 MD
6	It is 70 euro retail and 50 euro wholesale	03 MD

?Business model and market. Tell be about it?

01:55:15
Round 3: BUSINESS MODEL and MARKET SIZE, 4. Nannuka, from Greece

Assert.	*Title*	*Topic*
1	Our revenue stream is coming from memberships, from three markets: Parents, Experts and Child ~~oriented~~ care institutions	07 FM
2	Today we are in Greece as it is the market.	03 MD
3	.. Tomorrow we want to go to Turkey, to another European and the Mediterranean.	03 MD
4	Just by getting into Europe we are looking at 65 mio families and even if we go further, you can imagine market is really huge	03 MD

==ROUND 4: FINANCIALS and BUSINESS PROPOSITION==

01:56:04
Round 4: BUSINESS MODEL and MARKET SIZE, 4. Nannuka, from Greece

Assert.	*Title*	*Topic*
1	Today we are self-funded and we have a help of 50 K from our angel investor	08 FU
2	We are aiming at 450 K just to increase and concur Greece and get into 4 markets in the next two years	08 FU & 03 MD
3	With that we will do market research and advertising into Greece market,	08 FU & 03 MD
4	but also create an application and additional services to evolve the product	08 FU & 02 SD/VP
5	For that we are willing to give 15 to 20% for potential investors.	08 FU

?Can you top that? Give your answer.

01:56:34

Round 4: BUSINESS MODEL and MARKET SIZE, 8. Choo-Choo baby, from Moldova

Assert.	*Title*	*Topic*
1	Working on the contract we have now at the moment, we would need around 200 K euro to work on the eastern and European market or 600 K to go to the whole east and west European market.	08 FU & 03 MD
2	And the money would go to advertising and	08 FU & 03 MD
3	raising and growing our distribution network	08 FU & 05 DA
4	Also wholesalers and entry points to other markets would be really great for us, so something like that.	08 FU & 04 BO
5	We were just using what we have in our pocket me and my co-owner.	08 FU

==FREESTYLE, 20 s==

Freestyle: 20 seconds Try to include what you need from people.

01:57:47
Round +5: FREESTYLE, 8. Choo-Choo baby, from Moldova

Assert.	*Title*	*Topic*
1	Well, there is extensive research throwing that baby wearing is very beneficial for both Mam and Baby, from preventing …??. depression, to reducing baby “colic”, to really good baby socialization.	02 SD/VP
2	And by investing in our company you are also investing in a healthy next generation	08 FU & 03 MD
3	. and you will have a lot of money of this because we are a mass market product.	08 FU

?whats your reply?

01:58:17
Round +5: FREESTYLE, 4. Nannuka, from Greece

Assert.	*Title*	*Topic*
1	She provides carriers.	03 MD
2	We provide experts for care and education.	02 SD/VP
3	Who would take care of your child when you go back to work?	03 MD
4	A carrier? No!	03 MD
5	We have a trustworthy solution,	02 SD/VP
6	Not just for the first year of a child’s life, but for many many years after the age of sixteen.	02 SD/VP
7	We believe that by getting and creating a loyal parents community we can then help them anything.	02 SD/VP
8	Are children are our future.	02 SD/VP
9	So if you want to invest in the future invest in Nannuka.	08 FU

Questions from champions

Assert.	*Title*	*Topic*
1	?@nanuka 4. ?How am I going to make money and how much? Nanu-> First of all, our revenue streams are memberships coming from …… markets. In average we have different type of memberships. On average it could be monthly starting from 18 euros for the experts and 35 euros for parents. So if we get let's say 4 markets, 19 mio * 100 for the year, we are talking about in 2 years 19 mio revenue.	03 MD
2	?@CC8. ?Do you consider urgo go a competitor? CC-> Yes they are the biggest player on the market, but at this moment they are available only in the US and some Asian countries. They don't have European distributors yet.	03 MD
3	?@CC8: Margins CC-> I have bad memory on figures	07 FM
4	?@CC8: since you have fabric background, 50 euro seems quite high to me? CC->Yes, but we can use any fabric for the carrier. It is important to have a special weave because if you use a canvas type weave, the basic one, it would cut into your shoulders. So we need a heavy fabric that's quite costly and the weaving is important	06 TD
5	?@4. Nannuku? So your acquisition costs for new customers or for new professionals. How much is that? How to acquire new customers how much costs that? And how to acquire your professionals? How much costs that? And how can you roughly get money out of it? NAN-> Today what we do we are using advertising, AdWords and SEO to get to parents and professionals. We foresee acquisition costs of 5 euro right now.	03 MD
6	?@CC8 Question of champion Nannuka: What does it mean? NAN-> Child care + Family	04 BO
7	?@CC8 Tried Kickstarter: CC-> No	08 FU

Case 09 & 10 [B5-3] 2. GoMetro, from SA <=> 1. SnappCar, from NL

2:17:20
Introduction 2. GoMetro, from SA

Page	*Title*	*Topic*
Product	This Start up is the twitter for transport. The app can textualize a schedules and real time data with crowdsource updates from users in the system.	02 SD/VP

2:18:32
Introduction 1. SnappCar, from NL

Page	*Title*	*Topic*
Product	T It's an online community connecting private car owners with redders in an easy reliable and social fashion	02 SD/VP

==ROUND 0: COMPANY==

2:20:00
Round 0: COMPANY, 2. GoMetro, from SA

Assert.	*Title*	*Topic*
1	So GoMetro is 9292 or google transit needs ways	02 SD/VP
2	But the cities we target are those that don't have a good transport or transport app.	02 SD/VP
3	Because there is no good data available in the cities.	02 SD/VP
4	Like here in Africa, in Asia in South America.	03 MD
5	So what we do is we sent ground teams out into the cities to collect the data ourselves	02 SD/VP
6	We write that into our application and then we turn it over to the users of that city.	02 SD/VP

2:20:46
Round 0: COMPANY, 1. SnapCarr, from NL

Assert.	*Title*	*Topic*
1	SnapCarr is a peer to peer share car community.	02 SD/VP
2	It's an offering similar to eBay.	02 SD/VP
3	However car owners do not put their car up for sale but they are renting it out to neighbors and friends	02 SD/VP
4	I wanted to be an entrepreneur all of my life to make a change, to have an impact	04 BO
5	and this is exactly what we are doing now with SnapCarr.	04 BO

==ROUND 1: TEAM==

Tell me a little bit more about the others, 30s

2:21:18
Round 1: TEAM, 1. SnapCarr, from NL

Assert.	*Title*	*Topic*
1	So we have a leadership team in place consisting of a CEO CMO and a lead developer, lead support and a head of user experience first two co-founders of the company	04 BO
2	The bigger team comes fifteen	04 BO
3	People working on marketing, development and support.	04 BO
4	Are core values are brutally honest, dare to choose and self propellingness.	04 BO
5	And as a team we strongly focus on execution power	04 BO

2:21:51
Round 1: TEAM, 2. GoMetro, from SA

Assert.	*Title*	*Topic*
1	I am CEO I am a civil engineer, I have a masters in transportation and engineering.	04 BO
2	Our team is sixteen highly educated exceptionally individuals, all based in Cape Town	04 BO
3	And we are all motivated to transform the way the world moves	04 BO
4	so that in the developing world we don't have to choose to own or share a car.	02 SD/VP
5	Public transport is good enough thanks to GoMetro.	02 SD/VP

==ROUND 2: ACHIEVEMENTS==

?With that wonderful team there must be a few achievements. So, give us the greatest of those achievements.

2:22:32
Round 2: ACHIEVEMENTS, 2. GoMetro, from SA

Assert.	*Title*	*Topic*
1	In two very short years we have grown to 200 thousand users.	03 MD
2	We are live in seven cities in South Africa with a proven model.	03 MD
3	Two days ago in San Francisco the Global Forum awarded us the basic innovation in a growth market.	04 BO
4	And the world bank has identified us as a startup willing to make a change in Africa.	04 BO

?Maybe you have different type of achievements you would like to share.

2:23:03
Round 2: ACHIEVEMENTS, 1. SnapCarr, from NL

Assert.	*Title*	*Topic*
1	So we have been in the market around for three years now.	03 MD
2	We have proven the model.	04 BO
3	Over 70 thousand users, share close to 10 thousand cars now.	03 MD
4	That adds to 80% of the Dutch car market, making us the market leader.	03 MD
5	We are growing with a rate of 15% month over month and this year we will be doing 2 mio euros in turnover.	07 FM

==ROUND 3: BUSINESS MODEL and MARKET SIZE (25 s)==

?Is there is business model behind all this turnover that could grow. Not just now, but for the future. How big is that market too?

2:23:42
Round 3: BUSINESS MODEL and MARKET SIZE, 1. SnapCarr, from NL

Assert.	*Title*	*Topic*
1	So there are 250 mio cars in Europe and on average they are being used for only one hour a day.	03 MD
2	That's ridiculous.	02 SD/VP
3	With peer to peer car sharing we are bringing the car owner together with the driver, connecting them.	02 SD/VP
4	Making sure that they can share their cars.	02 SD/VP
5	In return for that we charge a fee per transaction	03 MD
6	and our service includes all risk insurance, pay out via our platform, and ……??	02 SD/VP

?Same question. Is there a bigger market, because we have 9292 and it works very well, but I am guessing there is a whole world out there without that.

2:24:23
Round 3: BUSINESS MODEL and MARKET SIZE, 2. GoMetro, from SA

Assert.	*Title*	*Topic*
1	We are focused on a three stage business plan.	03 MD
2	We start with a pact of three users, that's unique in its market, so that it grows,	03 MD
3	we take that user base and we commercialize it initially through location based advertising because they are moving around,	03 MD
4	and then we go forwarded that data and license it to developers, planners, the state	03 MD
5	and we now reaching a point where data sales are exceeding adds sales	03 MD
6	We have proven that for 11 mio users.	03 MD
7	We can generate a mio dollars in revenue per year	07 FM

==ROUND 4: FINANCIALS and BUSINESS PROPOSITION==

Here more about the financials behind both companies and your request towards the champions or the other investors in the room.

2:25:56
Round 4: FINANCIALS and BUSINESS PROPOSITION, 2. GoMetro, from SA

Assert.	*Title*	*Topic*
1	Earlier this year we raised half a mio dollars in angel funding.	08 FU
2	We used that to double our user base and double our footprints in six months.	03 MD
3	We are now are requesting two mio dollars for 20 to 25% of equity for us	08 FU
4	to enter the next twenty markets in the next two years and wrap it up.	03 MD

2:26:22
Round 4: FINANCIALS and BUSINESS PROPOSITION, 1. SnapCarr, from NL

Assert.	*Title*	*Topic*
1	So this investment round we are looking for 3 mio euros in total.	08 FU
2	2 mio we have already closed so we are looking for another mio.	08 FU
3	Preferably from an investor who can also go along in the next round and who brings in more than money alone.	08 FU
4	We will be investing the money to further scale up the Netherlands	03 DM
5	and in our international city by city rollout based on our play book.	03 DM
6	Post valuation we are working with is 10 mio	08 FU

?Gentleman this is where it's get interesting. It is time to give the last reason why you should win and your opponent should loose. You Promised us a battle.

2:27:15
Round Extra: Battle, WHY YOU SHOULD WIN, 1. SnapCarr, from NL

Assert.	*Title*	*Topic*
1	Our BHAG is to have 250 K Snapcars being shared by our platform in 2018. (Big Hairy Audacious Goal)	03 MD
2	We are cash flow break even in the Netherlands,	07 FM
3	We have no more model risk	04 BO
4	And the execution risk we have lowered via our experience in the Netherlands on reaching market equity in Dutch cities	05 DA
5	and the playbook that we have developed	05 DA
6	We are ready.	01 VM

?Please tell the champions and this audience why should be the winner of this battle.

2:28:27
Round Extra: Battle, WHY YOU SHOULD WIN, 2. GoMetro, from SA

Assert.	*Title*	*Topic*
1	Quite simply, we have a very very sticky audience	03 MD
2	They are daily users that don't uses are app weekly or monthly.	03 MD
3	They come back every day because it is really needed.	03 MD
4	We have grown exponentially in the two years that we are up and running,	03 MD & 04 BO
5	and now is the time for us to really hit our 'stratus' and go for goal.	03 MD & 04 BO
6	The opportunity we have now is the fact that our team is really hungry	04 BO
7	and, this is very important, but 'ons staan met ons voeten in de klei'.	04 BO

QUESTIONS from champions
2:30:22

Assert.	*Title*	*Topic*
1	I know you guys are startups but ..**investors are interested in what kind of exit we can anticipate and how long far out that this exit can take place. An exit is an exit, that means I can get my money back with a lot of return.** -> 1S: ?? exit like … Airbnb,	08 FU
2	@GoMetro: ?How do you make your business viable; there are so many cities, hundreds. -> 2G: The key thing there is the platform approach. So what we have done, is we created an almost gamification effort, a super hero program, where users are able to contribute and score points. If you load a bus stop that is not on our platform, your name appears in the app. And everyone who uses the app after that, gets your social credits.	04 BO (bBC)
3	?how **fast did you grow** with this viable company? ->2G: We started mapping now in the last month, with regards to our network, and we have done 600 busses in a week. In terms of getting all the data required from the …	03 MD & 04 BO?

QUESTIONS from Voice (twitter)

2:30:22

Assert.	*Title*	*Topic*
1	?Voice: Snapcar what are the legal implications if someone steals or destroys a car.-> 1S: We have an all-risk insurance in place that covers everything you can think of, including theft.	02 SD/VP
2	?Voice: SnapCar, what is the difference between you and GreenWheels? -> With us, people on their own rent out their cars and share their car with others. GreenWheels owns cars.	03 MD
3	2:32:30 Voice ?Missing stakeholder analyses: Who are their most important enemies/friends. ->2G: City governments are very hesitant to facing disruptions. So they can partner with us and support our growth or they can try and stop us from entering their markets. But on social.. they cannot stop us.	03 MD & 04 BO
4	2:32:40 Voice ?Missing stakeholder analyses: Who are their most important enemies/friends. ->1S: We are in the middle of a network between sharing economy companies, insurance players, car manufacturers and all kind of traditional businesses, that we are actually changing.	03 MD & 04 BO

Case 11 & 12 [B5-4] 10. eFishery, from Indonesia <=> 9. Integreigth, from Egypt

2:34:42
Introduction 10. eFishery, from Indonesia

Page	*Title*	*Topic*
Product	eFishery, a smart feeding system for agriculture that can sense the fish its appetite, providing solutions for overfeeding issues and water quality. That is important.	02 SD/VP

2:35:44
Introduction 9. Integreigth, from Egypt

Page	*Title*	*Topic*
Product	OneShield is a rapid prototyping tool that allows electronic hobbyist to use their smart phone sensors instead of buying extra module likes GPS, GSM or Wi-Fi.	02 SD/VP

==ROUND 0: COMPANY==

?Introduce your company, 25 seconds, go.

2:36:51
Round 0: COMPANY, 10. eFishery, from Indonesia

Assert.	*Title*	*Topic*
1	I am CEO and co-founder of eFishery.	04 BO
2	eFishery is the internet of things for fish farming.	02 SD/VP
3	So imagine you all here is the fish farmers.	03 MD
4	You put eFishery in the center of your barn	02 SD/VP
5	and this device can do three things:	02 SD/VP
6	It can feed your fish automatically,	02 SD/VP
7	it can sense your fish appetite and adjust the amount of food giving fitted to your fish appetite	02 SD/VP
8	and it is connected to your smartphone. So you can check your fish anytime, anywhere	02 SD/VP

?25s to who you are and what you do.

2:37:34
Round 0: COMPANY, 9. Integreigth, from Egypt

Assert.	*Title*	*Topic*
1	Let's say you want to automate your house	03 MD
2	so when you clap your hands, the lights goes on.	03 MD
3	I reckon consumers would by a thousand dollars plug and play product for that.	03 MD
4	But makers, electronic hobbyist, would buy components for only 100 dollars and implement the system themselves.	03 MD
5	We are targeting these guys	03 MD
6	and we enable them to use their smartphone to control the physical objects around them.	02 SD/VP
7	So we have a mobile app and we have a physical device as well.	02 SD/VP

==ROUND 1: TEAM==
I would like to hear a little more about that great team behind Integreigth.

2:38:16
Round 1: TEAM, 9. Integreigth, from Egypt

Assert.	*Title*	*Topic*
1	So we are a group of electronics and computer engineers.	04 BO
2	We have been working on similar technologies for four years now.	04 BO
3	We have built a tech product for the tech market	04 BO
4	and we know how to launch it in these communities.	04 BO
5	We are also backed up by "inno" angel investors who have more than 30 years of experience in the product and business development	08 FU
6	One of them is a PhD from MIT.	04 BO

?let's hear about your team.

2:38:45
Round 1: TEAM, 10. eFishery, from Indonesia

Assert.	*Title*	*Topic*
1	I was only a fish farmer myself before I founded this.	04 BO
2	But we have a board	04 BO
3	I know the market very well, a board of serial entrepreneurs	04 BO
4	And my pharming expert is the agricultural scientist PhD graduated from Gent University in Belgium, that has 17 years of experience in agricultural scientist.	04 BO
5	So we have the team that knows ….	04 BO

==ROUND 2: ACHIEVEMENTS==

?How many achievements have you made with this fine professor from Belgium?

2:39:29
Round 2: ACHIEVEMENTS, 10. eFishery, from Indonesia

Assert.	*Title*	*Topic*
1	By only eight months we already generated revenues more than 130 K US dollar only from six farmers in Indonesia	07 FM
2	And there another mio's fish farmers all over the world	03 MD
3	And we only have six farmers of it.	03 MD
4	And we already even got demon from promising China, Thailand and Brazil	03 MD
5	And we did all of this simply by bootstrapping.	08 FU

?they have been bootstrapping and achieved a lot. What have you been doing in Egypt?

2:40:05
Round 2: ACHIEVEMENTS, 9. Integreigth, from Egypt

Assert.	*Title*	*Topic*
1	So last year we launched a crowdfunding campaign for our product.	08 FU
2	And in 30 days exactly we got a 1.500 paying customers from 55 different countries.	03 MD
3	We were featured by adopted blogs like TechCrunch and Make Magazines who manufactured and shipped on time and our customers love it	03 MD
4	We are now selling on light for Amazon and our official distributors in 14 countries including the Netherlands.	03 MD

==ROUND 3: BUSINESS MODEL and MARKET SIZE (25 s)==

?How big the market can possibly be.

2:40:50
Round 3: BUSINESS MODEL and MARKET SIZE, 9. Integreigth, from Egypt

Assert.	*Title*	*Topic*
1	So in the past 5 years there has been a search in the do it yourself culture	03 MD
2	Thanks to 3D printers and cheap sensors, this started a maker movement.	03 MD
3	The market is so big that this event in the US is called the maker faire	03 MD
4	I checked more than a 120K people in only two days	03 MD
5	. It is a billion dollar market and it has been doubled since the last three years	03 MD
6	And our business model is perfect	04 BO
7	because we sell our product on line	03 MD
8	and we make money out of that and we also monetize from the mobile app itself	03 MD
9	So it is a two way to generate money	03 MD

?Different ways to generate money. You have got those mio and mio of farmers. What is your business model?

02:41:29
Round 3: BUSINESS MODEL and MARKET SIZE, 10. eFishery, from Indonesia

Assert.	*Title*	*Topic*
1	The fish farming is the sector with the highest growth compared to the other sectors of food.	03 MD
2	The market is a 55 bio dollar business, 69% of those are in Asia, the fastest market growth market in all over the world.	03 MD
3	And our business model is just the selling and renting the machine and charge subscription fee for the dashboard.	04 BO
4	It is a huge market with a scalable business model	03 MD & 04 BO

==ROUND 4: FINANCIALS and BUSINESS PROPOSITION==

?It is time to go over to your financials. How much money you are making, what you would like from our fine champions, or the room, or as your ask.

2:42:15
Round 4: FINANCIALS and BUSINESS PROPOSITION, 10. eFishery, from Indonesia

Assert.	*Title*	*Topic*
1	We are bootstrapping so far and we are already sustainable	08 FU
2	But we are sitting on the multi bio dollar industry, that is rapidly growing but under penetrated.	03 MD
3	And that is why we need an upscale	03 MD
4	So we need 500 K US$	08 FU
5	to upscale our manufacturing capacity	05 DA
6	and expand our market especially in the China and Thailand	03 MD
7	And to do this, we need you guys, the investors, that can help us to help the mio of farmers all over the world	08 FU

?show a good investment proposal in integreight.

2:42:59
Round 4: FINANCIALS and BUSINESS PROPOSITION, 9. Integreigth, from Egypt

Assert.	*Title*	*Topic*
1	So far we sold 3 K units generated over a 120 K dollars of revenues	03 MD & 07 FM
2	And we looking to this amount by the end of the year	08 FU
3	as we are having deals going on with retailer distributors off line	03 MD
4	Also we raising a round of fund of 750 K dollars	08 FU
5	to help us to launch a second product that is based on the same technology as our product OneShield.	03 MD

?I'd like to have a statement why your opponent should loose. Let's start with Integreight.

2:43:38
Round Extra: Battle, WHY YOU SHOULD WIN, 9. Integreigth, from Egypt

Assert.	*Title*	*Topic*
1	So you have been thinking about fish, fisher rate,	03 MD
2	but would you rather be the big fish in an exponentially growing market, or not? Right?	02 SD/VP
3	You see, in the gold rush, people who made the most amount of money were not the goldminers	04 BO
4	They were the people who supplied the tools to them	04 BO
5	We look at the internet of things, at the wearable devices	03 MD
6	and our technology, is the hardware API behind these industries	02 SD/VP
7	We are supplying the tools to the people who make the money.	02 SD/VP

?The battle has begun. Why should your opponent loose?

02:44:15
Round Extra: Battle, WHY YOU SHOULD WIN, 10. eFishery, from Indonesia

Assert.	*Title*	*Topic*
1	Fish farming might not be popular in Europe	03 MD
2	But in Asia this is the center of livelihood of mio of people.	03 MD
3	Almost every people in rural area knows at least one fish farmer.	03 MD
4	So it's not about a hardware that make your phone looks skilled, no.	02 SD/VP
5	This is about a technology	06 TD
6	that will change the future of upper culture and the livelihood of mio of people	03 MD
7	And of this moment, I am going to do that.	04 BO

?Champions, it is time for a question.

QUESTIONS from champions

2:45:20

Assert	*Title*	*Topic*
1	?10.Ef: How quickly do you think you can grow this company? -> 10eF: By 8 months by bootstrapping we already generated revenue and we are already sustainable	07 FM of 03 MD
2	-> 10eF: And we got the demon, from Brazil, Thailand and China. And it is a big market, so how fast? Maybe in three years we already concurred Asia.	03 MD
3	02:45:45 ?It is amazing how almost all presenters avoids talk about returns. **I mean, we are investors, We need to know what you plan to give us back**. That's why we put money in. We have a lot of questions about the product, but if we avoid those questions, I'd like to know, **what do you give us back, when?** ?Exit. So what is the potential exit into raise/interest? - 2:46:15 ->9I: We are very scalable so in 5 years we could be turn into a multi mio dollar company. We will give 20 to 25% for 750 K dollars, but that total depends on what is the investor is willing to provide.	08 FU
4	?But the exit is the question. What is that potentially worth in five years time. What would be the return? 2:46:38 ->9I: We are looking to get 100's of mio dollars of revenues in 5 years.	07 FM
5	->2:46:46 ->10.eF: The special of eFishery is the dashboard. With the Dashboard and the data we can know when is the fish gone be harvested and how much and in which part of the world? So in the future we plan to make the ecommerce business that even Amazon and Alibaba cannot do that. Because we know the data from the fish farmers.	02 SD/VP
6	?We want to know money. How much? ->10.eF: We sell the equity for 15 - 20% for 500 K dollar.	08 FU
7	?What is the potential exit ->10.eF: In the fourth year we are already talk to some big customers that want to acquire our company. In the fourth year.	08 FU
8	?What was the bid. For how much do they want to buy you? -> 10.eF: We don't talk about so far.	08 FU

QUESTIONS from champions and Twitter

02:47:35

Assert	*Title*	*Topic*
1	?I think I assume that is one of your products in your pants? ?Why do you believe that it is at this moment your company will be successful and not a year from now or two years from now?	04 BO
2	2:48:05 ->9I: Because we are at the right place at the right time. We established a very very good brand in these communities of the makers and technology geeks, alright?	03 MD
3	->9I: So we provide them with the ultimate tool to prototype fastly their products.	02 SD/VP
4	->9I: And we still have a plan for several products that are coming up for the next year.	02 SD/VP
5	?Last question. Howard? 2:48:26 ?First of all congrates, you are both pretty genius. My question is about eFishery. Will the HQ obviously be in Asia or where do you see, does it matter where you are located? ?Would you be happy to change the HQ location of your business to somewhere else? 2:48:49 ->10.eF: Off course, I would be happy.	04 BO & 08 FU
6	?Canada? USA! He wants to put money in and ask you if you come over. ->10.eF: but the biggest market is in Asia.	03 MD
7	?But still he wants to have you close by, He does not travel a lot. ?**The biggest exit is in the US**.?Are you willing to travel to the US. ->10.eF: Off course, if you are willing to invest on us.	04 BO & 08 FU
8	2:49:25 ?Twitter questions:I have a cat. Will it also do the job for my cat? ->10. eF: Yes even it can do the job for your wife, your children, and your house.	03 MD
9	2:50:05 ?Enrique, you set up a new investment fund, so what kind of questions do you have for this kind of startups? ?I have a question for the guy from Egypt. This Region was named by Tim Row, the founder of Cambridge Innovation center, the largest maker space on earth. ?Why are you not here yet? Innovation quarter (IQ) has a fund of started 28 after one year 200 mio. ->[Author: no answers]	none

Case 13 & 14 [B5-5] 3. Templify, from Denmark <=> 7. ScreenDY, from Morocco

2:52:16
Introduction 3. Templify, from Denmark

Page	*Title*	*Topic*
Product	3. Templify, this startup simplifies the process of managing and sharing business templates in organizations	02 SD/VP

Round 0: COMPANY, 3. Templify, from Denmark

Assert.	*Title*	*Topic*
1	CTO and co-founder of Templify.	04 BO
2	Today many organizations end up in document anarchy, because no one uses the latest corporate templates.	03 MD
3	That's why we built templify.	02 SD/VP
4	We want to make it easy for corporate users to generate documents, presentations and spreadsheets, that are always on brand, personalized and legally compliant.	02 SD/VP

2:54:04
Introduction 7. ScreenDY, from Morocco

Page	*Title*	*Topic*
Product	7. ScreenDy, a Cloud development platform, that help companies to create native and custom mobile applications for iOs and Android.	02 SD/VP

2:55:09
Round 0: COMPANY, 7. ScreenDY, from Morocco

Assert.	*Title*	*Topic*
1	I am the CEO and founder of ScreenDy	04 BO
2	How you know the mobile market is booming?	03 MD
3	That is the number of applications will double in the two next year.	03 MD
4	But there is a big shortage of mobile developer to do the work.	03 MD
5	So who will make the next million applications?	03 MD
6	Think about the 20 mio web developer around the world, that can't make mobile applications.	03 MD
7	We have the solution. We create the world best and mobile application to help them.	02 SD/VP

==ROUND 1: TEAM==

2:56:11
Round 1: TEAM, 7. ScreenDY, from Morocco

Assert.	*Title*	*Topic*
1	So I have fifteen years of experience in the mobile industry.	04 BO
2	I have with me tonight Kyle who is our business developer.	04 BO
3	He has 20 year experience in selling services and products for mobile technology.	04 BO
4	Also I have with me Mark who are our CFO.	04 BO
5	His last position was CFO of British Telecom.	04 BO
6	And last but not least Emmanuel who is one of the most important key person for iOS technology in the company.	04 BO

2:56:47
Round 1: TEAM, 3. Templify, from Denmark

Assert.	*Title*	*Topic*
1	The founding team of Templify has got more than 10 years of experience in template management	04 BO
2	We have 700 client implementations under our belt.	05 DA
3	We have sold more than 600 K licenses for software that we have previously built.	03 MD
4	And one of the people we have brought on to our team is a former sales director of Microsoft Europe.	04 BO
5	This team is a great foundation for…..	04 BO
6	?when did you start the company? -> January 2014	04 BO

==ROUND 2: ACHIEVEMENTS==

?What did the team achieve?

2:57:26
Round 2: ACHIEVEMENTS, 3. Templify, from Denmark

Assert.	*Title*	*Topic*
1	Since we founded the company in January, we raised 2 mio euros in funding.	08 FU
2	We have reached product-market fit and since we launched the product, three months ago, we have on boarded 25.000 paying corporate users.	03 MD
3	And thus we have proved our ability to make corporate wise signups.	03 MD
4	? Can I ask who is crazy to put 2 mio in an early stage company? -> Well we have a good team! ?You are convincing man. It's about the name (Keith), not in the game.	08 FU

?He has 2 mio in his company, early stage. What are your achievements?

2:58:09
Round 2: ACHIEVEMENTS, 7. ScreenDY, from Morocco

Assert.	*Title*	*Topic*
1	So we got 300 K Dollar as first round of investment.	08 FU
2	But with this mining, we can ??? the product and with 500 K while we was testing our platform.	08 FU & 06 TD
3	And also we make a big partnership with Microsoft CGI and IBM, and help them to sell our product for the brokers.	04 BO
4	?the partnership what does it deliver? -> They will help us to distribute to the brokers our products and let it flourish in the ecosystem.	04 BO
	?Did you get any money out of it, like customers already? ->Yes off course	03 MD

==ROUND 3: BUSINESS MODEL and MARKET SIZE (25 s)==

?Denmark, this is model market.

2:59:01
Round 3: BUSINESS MODEL and MARKET SIZE, 3. Templify, from Denmark

Assert.	*Title*	*Topic*
1	Templify is a b2b cloud based software as a service solution,	02 SD/VP
2	with revenue streams coming in from recurrent subscriptions.	04 BO
3	We have a market potential of more than 600 mio corporate users.	03 MD
4	But we only have to address one person in each company, because we do corporate wide signups.	03 MD
5	And we do that through direct sales…	03 MD

?Business model Market. Can you beat it?

2:59:32
Round 3: BUSINESS MODEL and MARKET SIZE, 7. ScreenDY, from Morocco

Assert.	*Title*	*Topic*
1	Our market is actually 28 bio.	03 MD
2	On to next year this market will double.	03 MD
3	We … more than 20 mio web developers all over the world.	03 MD
4	So we give them the platform for free at the beginning and once time they have developed the application, they need to pay one shot costs.	02 SD/VP & 03 MD
5	After that we give them a fantastic tool to develop to ….the life cycle of the application with much ….	02 SD/VP
6	?How much does it costs? ->It costs from 500 to 1.500 US dollar.	03 MD

==ROUND 4: FINANCIALS and BUSINESS PROPOSITION==

?You had 2 mio investment, can you tell me how much equity you give for that or not?
->3.Templify: No 08 FU

?your seeking more money, how much?
->3.Templify: 5 mio euros. 08 FU

?And how much do you seek?
->7.ScreenDY: I need 1 mio. 08 FU

?Let's talk about investment and finance. Investment proposition: Denmark.

3:00:35
Round 4: FINANCIALS and BUSINESS PROPOSITION, 3. Templify, from Denmark

Assert.	*Title*	*Topic*
1	On top of our 2 mio euros investment	08 FU
2	we are currently performing very well on our cash flow generation, giving us a very good runway.	07 FM
3	But we are very ambitious.	04 BO
4	So we expect to raise a serious investment of 5 mio euros within this year,	08 FU
5	to go for global scaling.	03 MD
6	? why did the other investor did not invest more?->They have an option.	08 FU
7	?Did you raise money already a little bit? How much? Before, after CVA?, you have already people pledging? You already have investors pledging.->We are already in contact with potential investors, but if anyone here wants to pick up on that dialog, you are more than welcome.	08 FU

?Investment proposition. Morocco Take it away.

3:01:39
Round 4: FINANCIALS and BUSINESS PROPOSITION, 7. ScreenDY, from Morocco

Assert.	*Title*	*Topic*
1	I need only 1 mio to change the world, to be the mobile disruptor.	08 FU
2	I am able to share 15% of my equity and I need this for three things.	08 FU
3	First, I would like to consolidate my R&D team	06 TD
4	Can I add a super platform performance	05 DA
5	and install my company in the Silicon Valley.	04 BO
6	And then I have an exciting news that I would like to share with you.	04 BO
7	Yesterday my colleague, me, the Secretary Investment of the United States and she proposes him a good deal.	04 BO
8	She proposed us 1?, 2?, 3? in the next month in the silicon valley.	04 BO

?Last battle of the day, Give the audience some pleasure, are you ready? Take it away, 25 s.

3:02:49
Round Extra: Battle, WHY YOU SHOULD WIN, 3. Templify, from Denmark

Assert.	***Title***	***Topic***
1	Office 365 is currently the fastest growing solution from MS to date.	03 MD
2	Every time MS or one of their partners make a sale, we have a potential client.	03 MD
3	So imagine, as a start up, to have MS literally paving the way for our product	03 MD
4	Oh I forgot to mention, that goes for Google drive as well.	03 MD
5	?why are you the better start up?-> Cause we have I think a better scalability and a bigger market.	04 BO & 03 MD

?Why are you a better start up? 25 s Convince the jury.

3:03:30
Round Extra: Battle, WHY YOU SHOULD WIN, 7. ScreenDY, from Morocco

Assert.	***Title***	***Topic***
1	So if this is my battle, I will tell you about a small story.	02 SD/VP
2	Did you remember the GoldRush in the US?	02 SD/VP
3	So many explorer was very excited to find gold.	02 SD/VP
4	One of them did a little for the god.	02 SD/VP
5	But he started shoveling it to the explorer.	02 SD/VP
6	And he became as those who find gold.	02 SD/VP
7	So this is the story of ScreenDy.	02 SD/VP
8	ScreenDY gives to the developer the tools that help him to save their job and to get much more revenue.	02 SD/VP
9	?Why you are better than him?-> Because my model is scalable and I am saving jobs and targeting 20 mio developer worldwide.	04 BO & 03 MD

QUESTIONS from champions

2:45:20

Assert	*Title*	*Topic*
1	3:04:23 ?So Templify, why is this simple feature what you do, for MS or Google to do? They can just wipe you out in one day. ->3.T: Well actually it is not their business model. And MS has have this problem since 1992 and they did not solve it yet. Actually they made it more difficult. So we are in the chain for doing that.	03 MD
2	?On Templify as well: are you working on partnerships? ->3.T: Yes, a lot. That is a big part of our plan to go for scaling to go through a global partner network.	04 BO
3	3:05:06?Question for ScreenDY: I have invested in something similar in the states, called AppCopy. Why is it that your product can be done faster to bring an app, to make an app? ->7.S: I am sure we are the only platform in the world now that can make native, custom and company application, not simple templates, worldwide. Within days, we don't learn any new language for the developer.	02 SD/VP
4	3:05:40 ?Why on earth do you think you will make it? I would think there are a thousand companies a day like yours, not making it. ?Both why are you gonna make it, Denmark. 3:06:00 ->3.T: Well we have been in this business for 10 years. We have proven that we are solving a real problem. And we now that it is a global issue.	03 MD
5	->7.S: I have 15 years of experience in the mobile industry. All what happens today was visible in my eyes, years and years before. So the web developer will lose their job, and I give him a product to save their job and to extend their ?	03 MD
5	?For 7.ScreenDY. What makes you so special when there are hundreds of ways to develop a customer app? 3:07:22 ->7.S: We are so special because we can do ? with drag and drop only. And we can also give to the expert developer a way to call and extend the platform. So today we are able to do 80% of the applications that are in the store, outside the game.	02 SD/VP
6	?Templify have already so many customers and has decent turnover, so that is pretty good. But he burned two mio come on. ?Yes but he is growing fast.Chairman of the business angel network of the Netherlands. Do you have a question? Yes I have. Why should I not invest in your company? Harry Halwegen.3:08:40 ->3.T: That is a hard question. We think we are a low risk, huge upside case. So I will not be able to give you a satisfactory answer to that question, I am sorry	08 FU

Intermezzo, 64 countries events: Partners!! Awards

Case 05-14 Final: B1. Spot on, B2. Nannuka, B3: GoMetro, B4. eFishery, B5. Templify

?2 sentences for each startup:

3:17:18

Round Winner Battle, Rw5: 3. Templify, from Denmark

Assert.	*Title*	*Topic*
1	Over the next few years 600 mio users are going to move to the cloud.	03 MD
2	And currently we are the only solution supporting them.	02 SD/VP
3	Our business model is scalable	04 BO
4	and we have a high entering barrier for competitors.	02 SD/VP

3:18:14

Round Winner Battle, Rw4: 10. eFishery, from Indonesia

Assert.	*Title*	*Topic*
1	Well, people love to invest in chip app and gaming industry.	08 FU
2	But do the people in rural area get the benefit from this innovation? No. The ? is the one? I don't think so	03 MD
3	But even still it does, it is not only the smart investment that also impact for.	08 FU
4	Because this is the innovation that is inclusive and support the human existence.	02 SD/VP
5	So if you be in our side, I am telling you, you are on the right side, because you are on the good side.	04 BO

3:19:02

Round Winner Battle, Rw3: 2. GoMetro, from South Africa

Assert.	*Title*	*Topic*
1	We have the opportunity to be the first African start up to reach one bio users	03 MD
2	We all wanted to see a face who come out of Africa.	04 BO
3	Well tonight you see it, and you see it here in Rotterdam.	04 BO

3:20:05

Round Winner Battle, Rw2: 4. Nannuka, from Greece

Assert.	*Title*	*Topic*
1	We are there in a big market, who everyday gets even bigger.	03 MD
2	We are tapping into a real need	03 MD
3	and we creating a trustworthy solution.	02 SD/VP
4	Our idea is scalable as you can get into new markets but also create new services for the existing markets.	02 SD/VP
5	And lets is be. Happy children and balanced parents create a better society.	02 SD/VP

3:20:39

Round Winner Battle, Rw1: 6. Spot*On, from USA

Assert.	*Title*	*Topic*
1	We started the company when I realized how hard is was for my mother to get a blood test done	03 MD
2	With Chemaspot we revolutionizing the way we do clinical sciences.	02 SD/VP
3	Customers around the world recognizes this is going to have a huge impact on global health.	03 MD
4	By making it easy to take a blood sample, we are bringing access to life saving test to everyone.	02 SD/VP

?What would it mean for you to win this competition today?

R5. (5 votes) 03. Templify, from Denmark:
Happy and proud

R4. (150 votes) 10. eFishery, from Indonesia:
Honored

R3. (50 votes) 02. GoMetro, from South Africa:
This would really help us in the nest 20 markets and …..

R2: (10 votes) 04. Nannuka, from Greece:
The mothers: Proud and happy, our dream come reality

R1: (30 votes) 06. Spot*On, from USA:
Help us to get the word out and find collaborators to

Winner eFishery.

3:31:20 end shot

The Winner of GITR 2014 is eFishery

<End of GITR 2014>

ADDENDUM

Addendum 1: Knowledge Valorization 1 of 3, a first formal exploration, showing the structured playing field, for Avans Hogeschool.

Based on the model IPO (Input, Process, Output), Knowledge Valorization is the **process**, needing **input** and delivering **output**.
Using EFQM author introduces three layers Strategic, Tactical and Operational:
S: The process activities of Government and public organizations are Strategic. They only supply direction and leave it to others to act upon this.
T: The process activities of R&D institutes on valorization, are most on the tactical layer. They supply form and facilities and leave it to others to act upon this.
O: The process activities of businesses and start-ups are at operational level. They have to act operational, otherwise nothing happens.
Based on model “De Leeuw”, the control, –the ‘roof-, is placed on top, representing the boundary conditions to operate within, e.g. Legislation, FDA.
Then the support, -‘foundation’-, is placed on bottom. These are the supportive institutes, companies and specialists who play a support role on the Knowledge Valorization process.

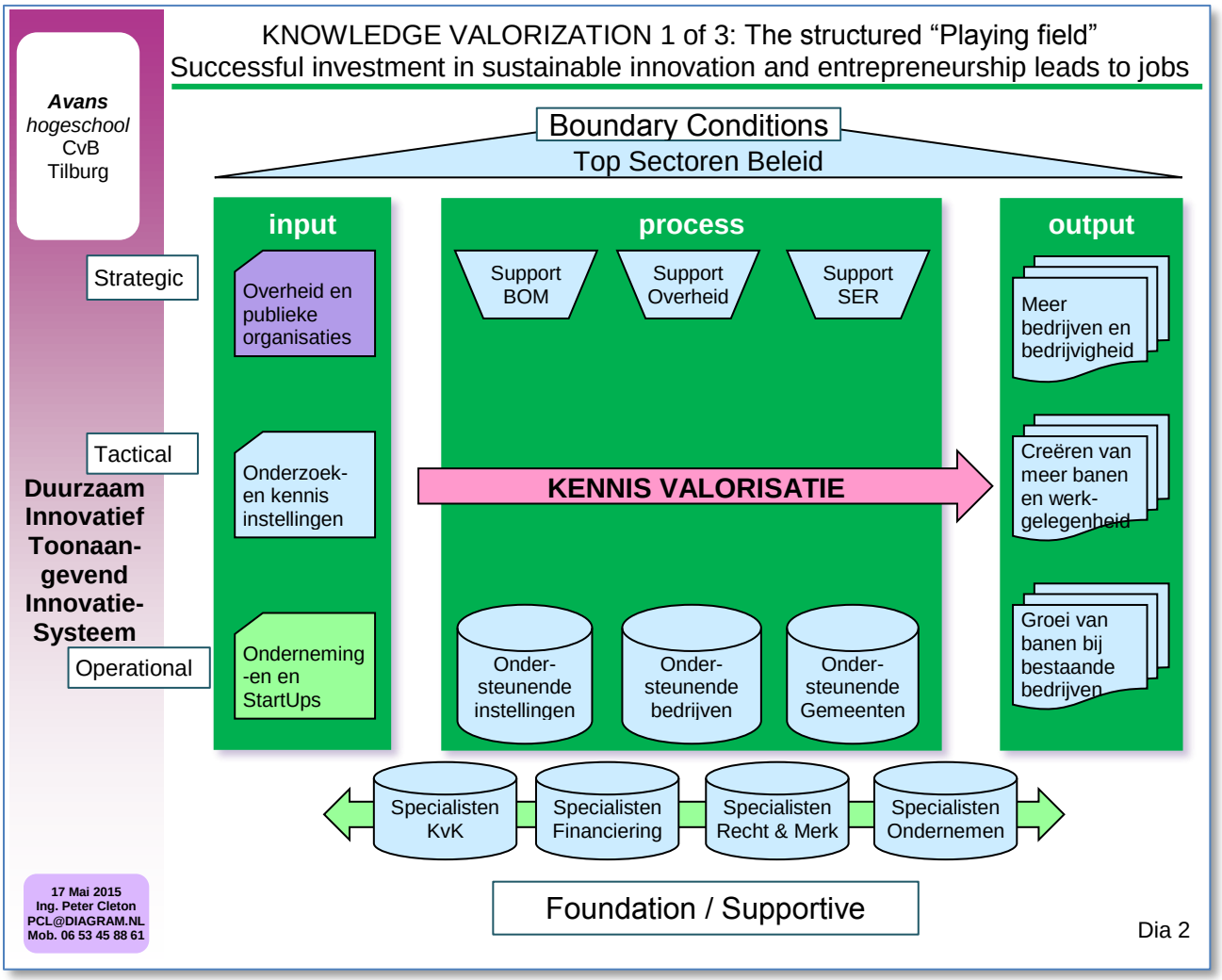

Figure 47: by author: Knowledge Valorization 1 of 3: Environment Avans Hogeschool

Addendum 2: Knowledge Valorization 2 of 3, formal model and the organizational perspective, for Avans Hogeschool.

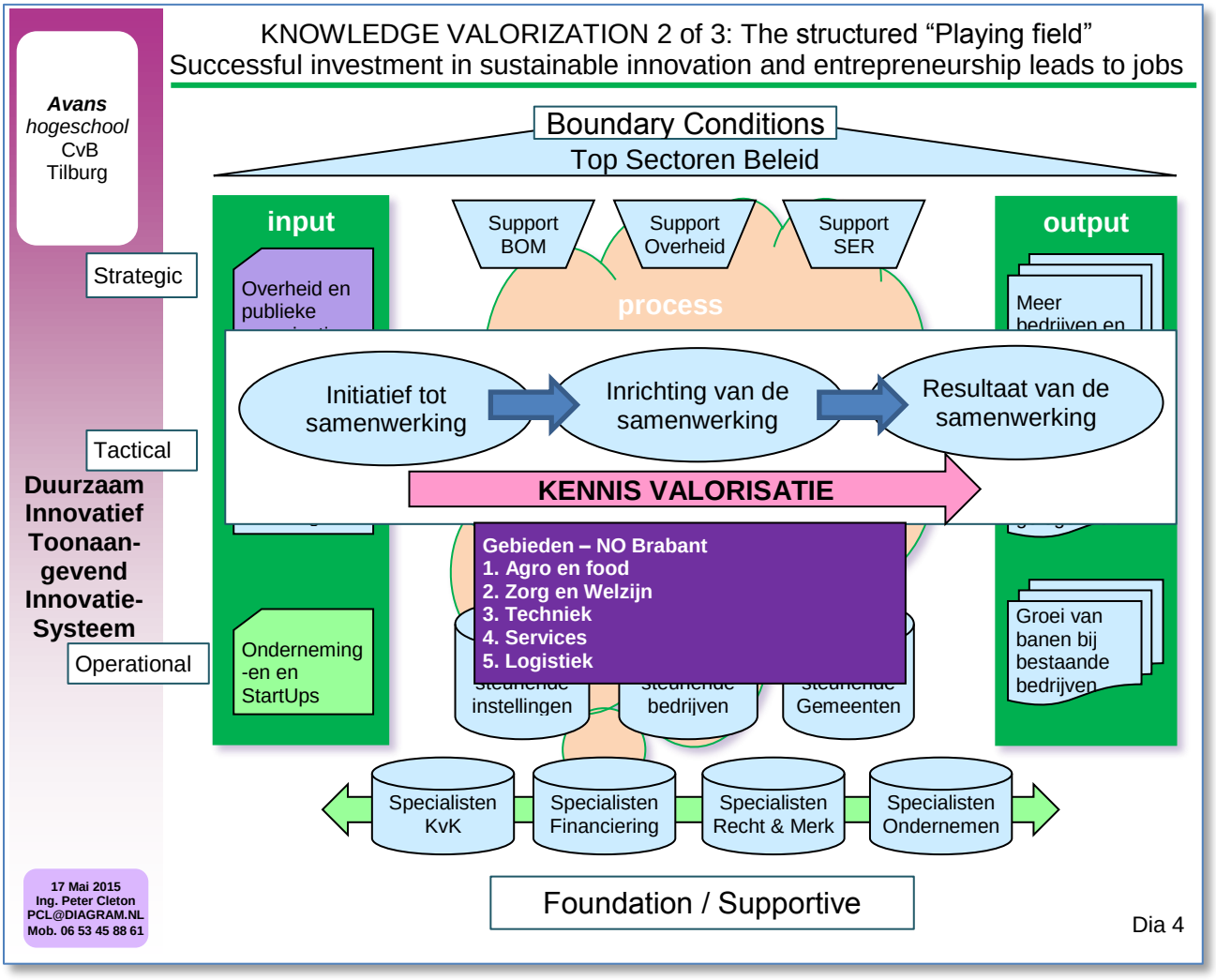

Figure 48: by author: Knowledge Valorization 2 of 3: Environment Avans Hogeschool

Addendum 3: Knowledge Valorization: 3 of 3, the organizational perspective operational structure, for Avans Hogeschool.

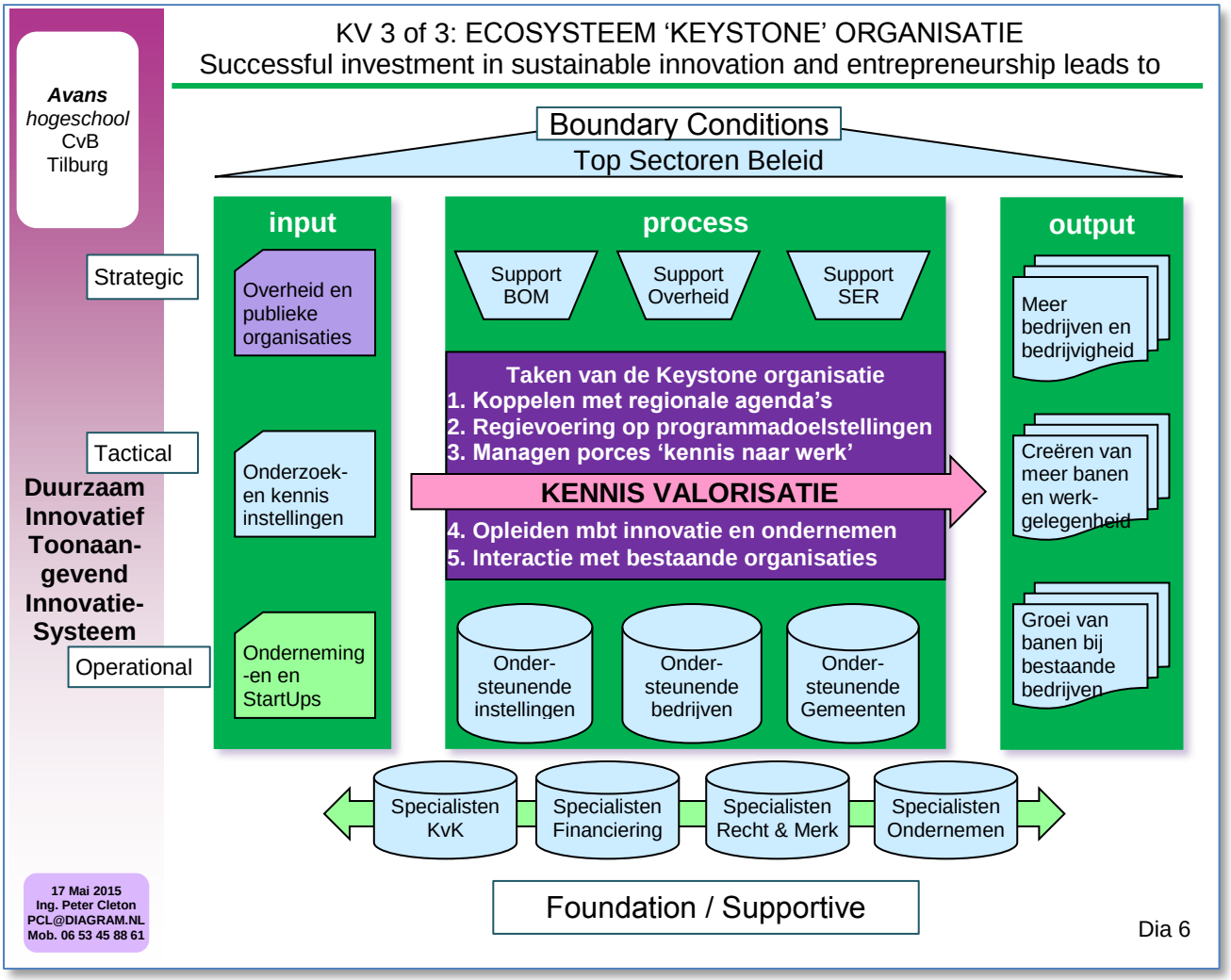

Figure 49: by author: Knowledge Valorization 3 of 3: Environment Avans Hogeschool

Addendum 4: Knowledge Valorization process visualized at inaugural speech of Jan Jurriëns, Lector “Sustainable Strategy & Innovation” for CvB Avans Hogeschool.

Sheet part of the inaugural speech “Van winst naar waarde”, Kenniskring lectoraat “Sustainable Strategy & Innovation”, Mai 2015 held by Jan Jurriëns.

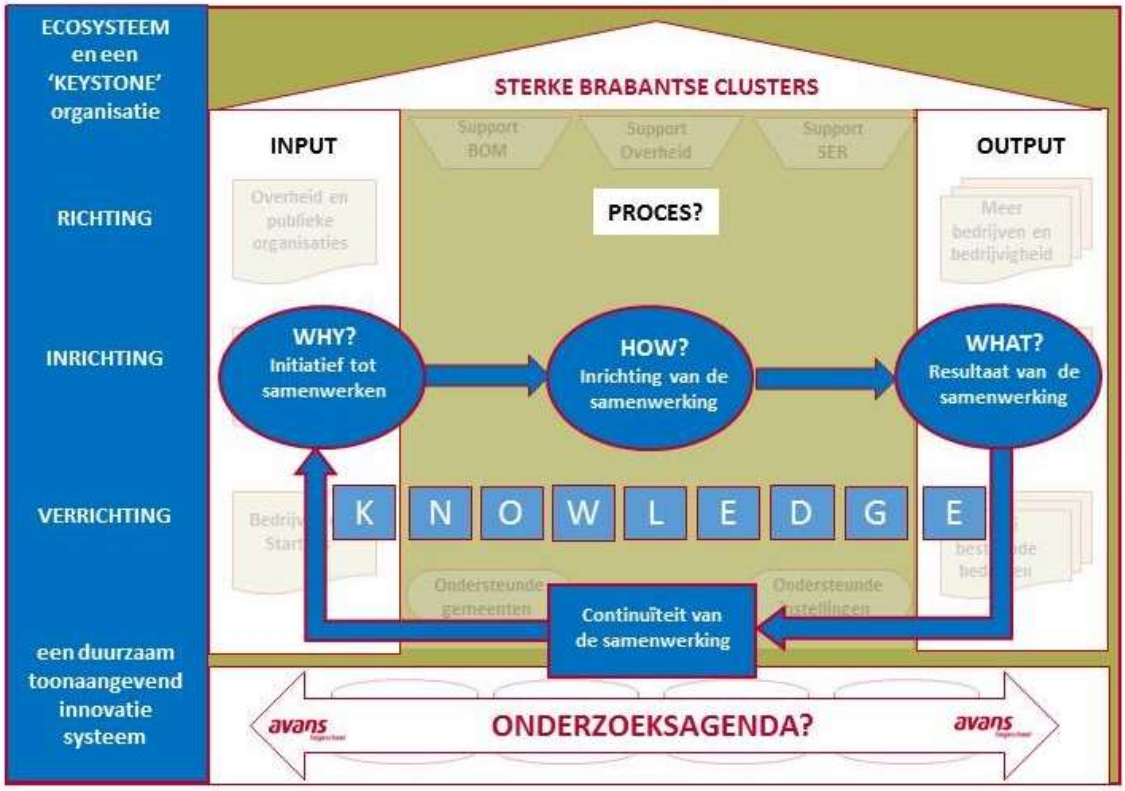

Figure 50: by author: Knowledge Valorization according to Jan Jurriëns

Addendum 5: RunAdvisor Venture: A first highlevel Roadmap of the Valorization process named D3C (Discover, Develop, Deliver, Cash), mapped on a real case.

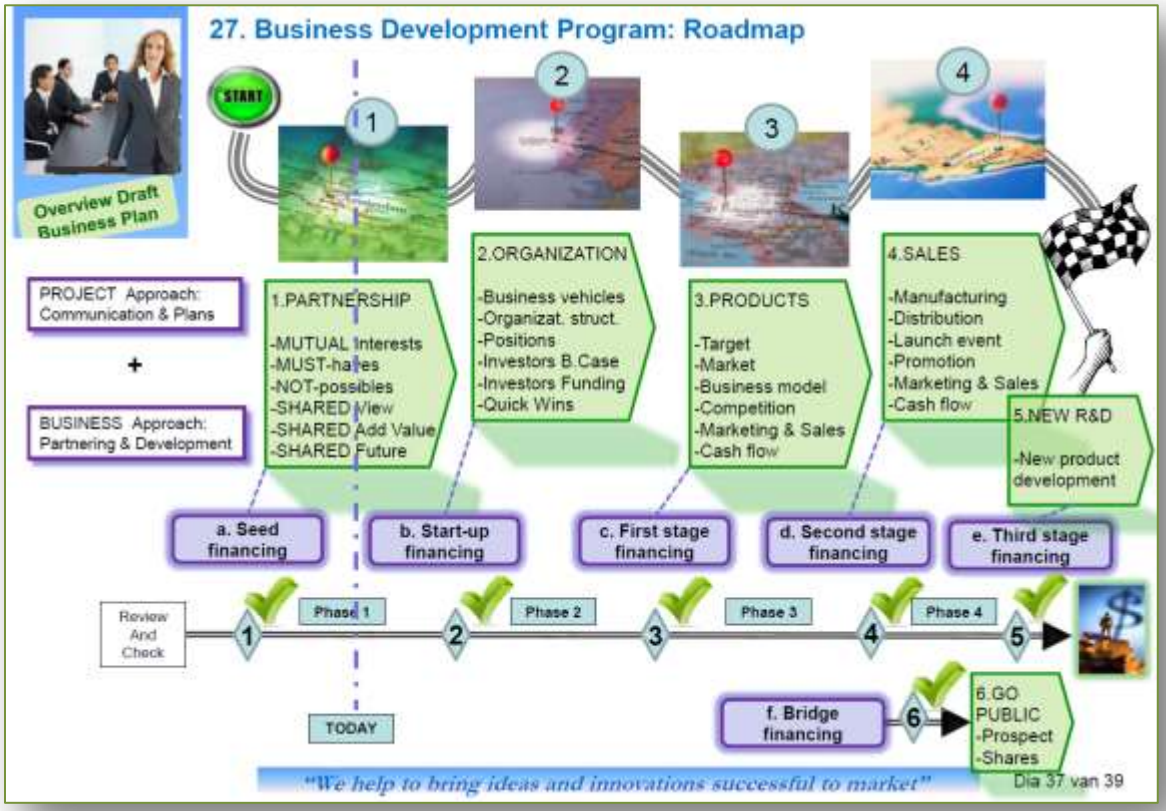

Figure 51: by author: RunAdvisor, first design of a Venture roadmap, named D3C

Addendum 6: RunAdvisor Venture: Investment stage-gate financing approach.

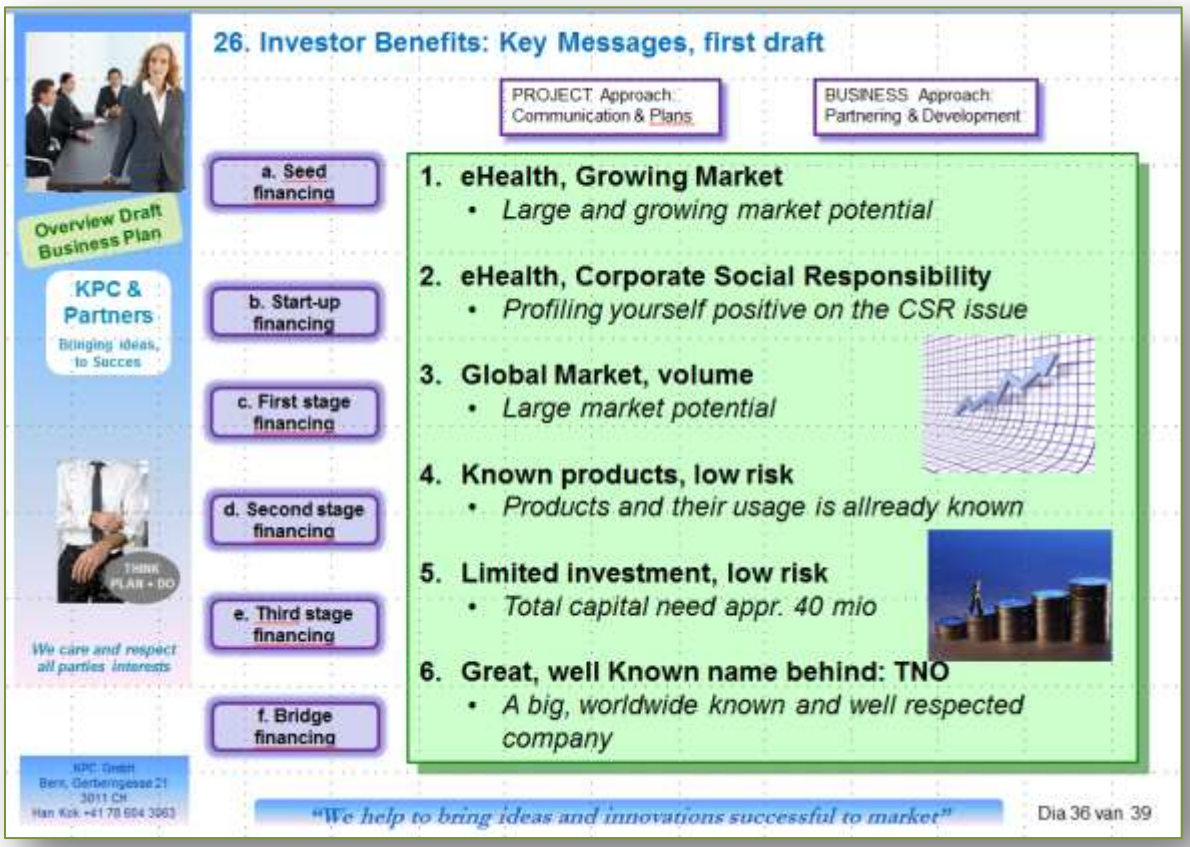

Figure 52: by author: RunAdvisor Venture Funding Roadmap

Addendum 7: RunAdvisor Venture: Supply chain approach for a valorization process and where the focus lies.

The next pictures drawn by author, were used on the RunAdvisor case.

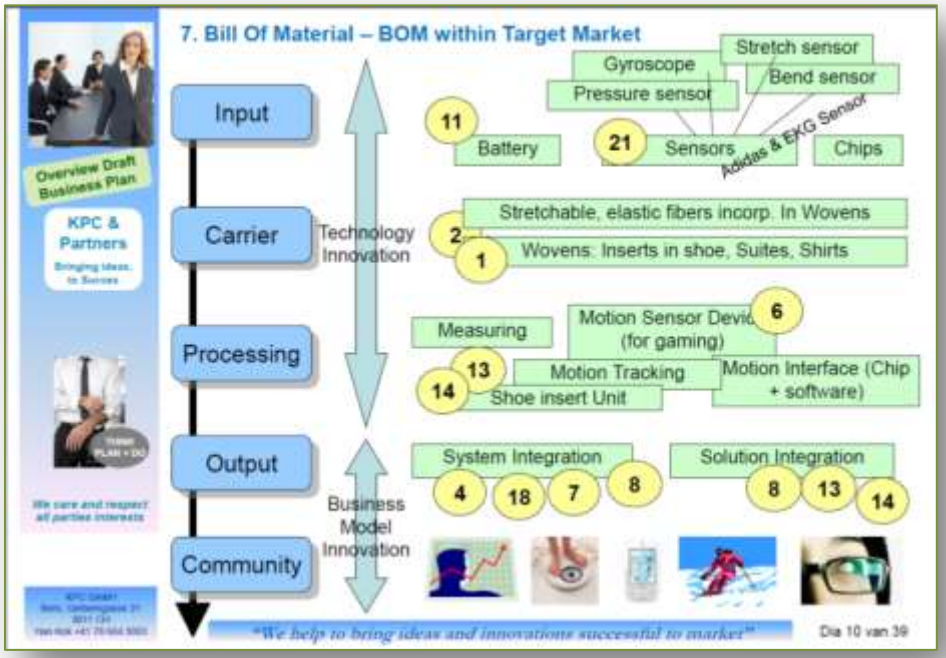

Figure 53: by author: Supplier - Buyer AVC, based on technical Bill of Material

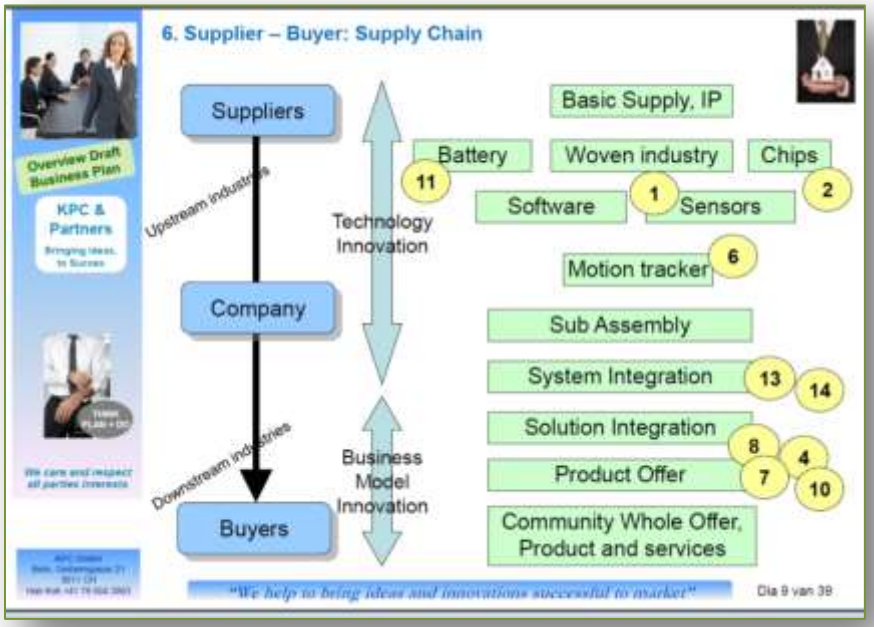

Figure 54: by author: Supplier - Buyer AVC, based on the delivery chain

Addendum 8: RunAdvisor Venture: First sketched design by author of the Knowledge Valorization Process Model, based on RunAdvisor Venture process review by Cleton/Berghmans on 19th July 2013.

Author (Cleton) did a review on 19th July 2013 on the RunAdvisor case with mr. John Berghmans who was a consultant to TNO's venture manager.

The next, during the review meeting, sketched drawing by author is an overview of the process, context and different disciplines of which we agreed, that should be covered in this venture. Author added these in the KVPM streams.

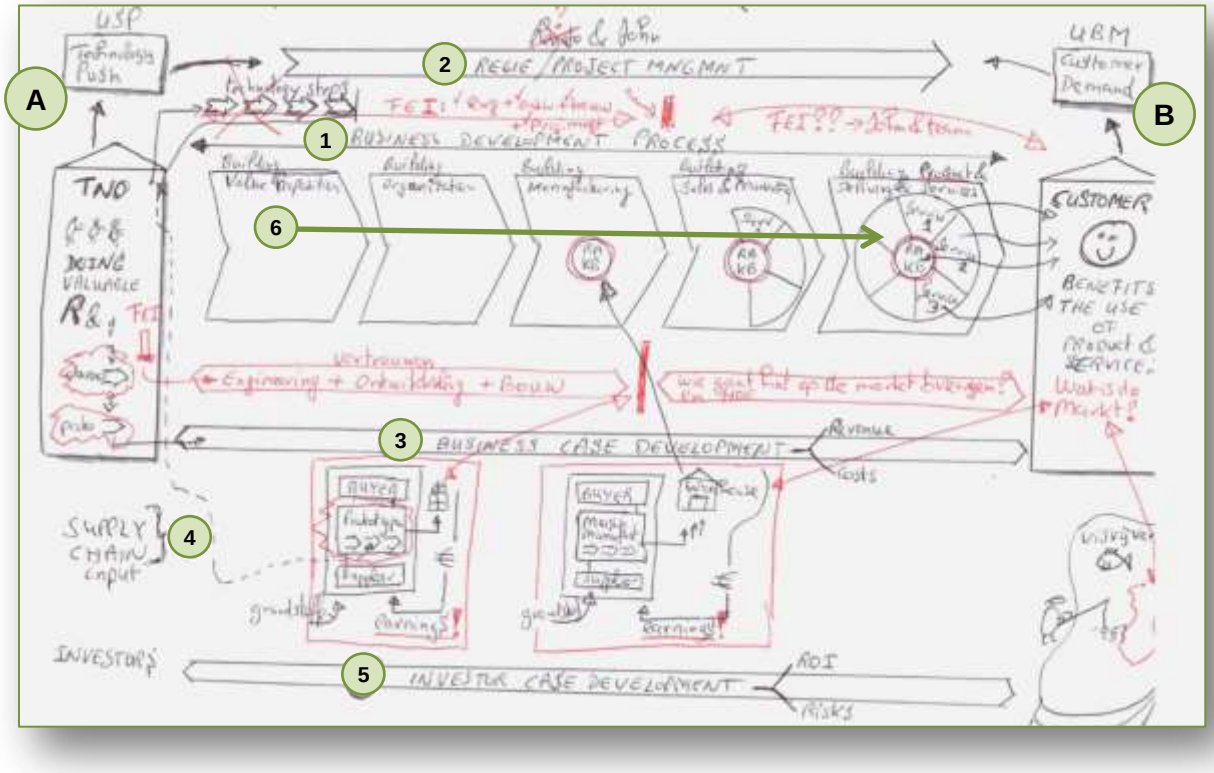

Figure 55: by author: First sketched KVPM Streams design, based on the RunAdvisor venture review by Cleton/Berghmans on 19th july 2013

#nr	***Review conclusions Cleton/Berghmans***	***In this research designed KVPM Streams***
1	Business Development Process	04 BO Business Organizational Development
2	Regie/Project management	01 VM Venture Management
3	Business Case development	04 BO Business Organizational Development
4	Supply chain input	05 DA Delivery AVC Management
5	Investor case development	08 Funding Management
6	Value Proposition development	02 SD/VP Solution and Value Proposition development

We also agreed the development should not be driven by (A) Technology Push by TNO with R&D result, but driven by (B) Customer Demand by the Customer based on his/her needs.

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