
Creating the history
of tomorrow
2019
PRODUCTBEATS

Create the history of tomorrow. Do it today.

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More information is to be found on www.productbeats.com.

We are thankful to all the product experts participating, Alen Zanjko for the design, Matt Towers for interviewing and writing, Tony Gorschek for his value contribution, to all the indivduals participating in creating the extended business model canvas, to all the members in the Product Community for sharing problems and thoughts, to all the members of the Tolpagorni Team over the years that have built Product Thinking.

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> *Product people are shaping the world. We are creating the history of tomorrow, today.*

INTRODUCTION

The Beat of Product Thinking

By Magnus Billgren - Tolpagorni - Sweden

Welcome and Happy Reading!

As we at Tolpagorni surveyed the Product Management landscape in Europe, we discovered many great initiatives and developments but limited opportunities for product professionals to really share and discuss experiences. From the perspective of these products professionals mainly from consulting services, there are few opportunities to explore and expand the discipline with peers. To examine these issues, Tolpagorni decided to bring together a varied array of European product managers to identify key issues and to generate potential solutions. We were fortunate enough to have highly respected professionals join with our team to discuss the state of product management today and to generate ideas for advancing the practice worldwide. As a group, the participants continue to influence the profession. Individually and working with teams, they have helped create hundreds of successful products that have generated billions in revenue.

In July 2019 a group of product management practitioners participated in a two-day summit in Stockholm. As a prerequisite to attend, each participant was asked to present an important area and to discuss it with the group. Collectively, they represent decades of product management experience with small and large companies from Portugal to Finland. Participants came from industry, consulting and academia. This summit was an experimental effort to assemble a diverse group to investigate, enhance, and articulate the key areas of product management today. Finding the beat of Product management. Over the two days, we workshopped, ideated, and discussed current trends and potential issues. In tru e Design Thinking spirit, we diverged and converged on topics including “Next Steps in you Product Management Career”, Beyond Product Management to Solution Management,” and Speed Layers – the secret sauce of Product

Management"'
It wasn't all work; we did take some time to include a boat tour of the Stockholm archipelago and sample some Swedish cuisine. In addition to taking in the scenery, the boat rides provided us with an opportunity to discuss how individuals started their careers and to share what keeps them engaged in their profession. It was a bumpy but fruitful trip. The documentation of the workshop, participants' background information as well as some of the whitepapers submitted are shared in the following pages.

All in all, it was a bold start, a good first foray into forming new ways for Product and consumers of product management services to collaborate, share, and explore what is happening in the profession today. The intention of the summit is to generate ideas that will shape the perception and role of product management in the future.

From our discussions, we learned how to:
evolve enterprise product management with solution management
secure the value in prioritization
build fast and build slow – using speed layers as a tool for organizations and architecture
develop sustainable business models with the extended Business Model Canvas.
create insights with a toolbox

The Summit also helped us see that the Product Management domain is accelerating. New tools, experiences and situations keep emerging at a higher beat. It is an exciting time to be involved in shaping this evolution.

Do you hear the beat? - the Product Beat!

We are looking forward to host another ProductBeats knowledge summit next summer!

Welcome and Happy Reading!

Magnus Billgren, Product Guy
CEO and Founder of Tolpagorni Product Management
magnus.billgren@tolpagorni.com
twitter: @magnusbillgren

P.S. In addition to the knowledge share we also add a paper written by Professor Dr. Dr. Tony Gorshek. He wrote a paper on value, waste and overhead that is really to the point for us product managers. D.S.


When did you last have a brainstorming session on a boat in the Stockholm archipelago?

Dig into some thoughts from the Product Experts Across Europe

In this booklet there are 8 papers relevant for product managers all written by Product Management Experts. They are written independently and based on the author's experience. The experts shared these thoughts and we all discussed them at the ProductBeats™ Expert meeting in Stockholm 2019.

(Except for the piece on Value by Tony Gorschek that was written for Tolpagorni on true Agile Product Management).

The papers range from strategic thinking toward favorite tools. Let us introduce the papers to you:

1. VALUE DRIVEN PRIORITIZATION – Start with the beginning

Daniel Zacarias has met, discussed and trained thousands of Product Managers. They all share one common difficulty; How do I prioritize?

Daniel has tackled this problem from multiple perspective and has come to realize that prioritization methodologies don't bring the solution. You have to start with the Value. Well, we all say that, right. Maybe even your manager. But why is this so hard. In Daniels paper you will get hands on tips in how to do that, prioritize with Value in mind. But even more importantly you will gain a Value thinking

2. AGILE STRATEGY MAP – Strategies for the real world

In a fast-moving arena, we have all embraced Agile thinking to reduce waste and deliver products that are appreciated. Developers all over the world have united in agile development methodologies like SCRUM, DevOps, XP, Agile PM and more. But the problem has been to leverage the agile development thinking into the organization as a whole. One of the challenges is to work with strategy from an agile perspective. Darren Duarte has over the years explored Agile methodologies and has started to implement the Agile Strategy Map. It is not only a new way of developing and visualizing your strategy but it introduces and agile thought to the strategic work. We live in an uncertain environment where things change. The Agile Strategy Map has this as a starting point and not as a predicament.

3. SOLUTION MANAGEMENT – managing complex environments

Many product management models and books start with a blank piece of paper. But in reality, for enterprise product managers that is not the case. Hundreds or thousands of man years have already been invested in the technology and product that you are to manage. In addition, the customer is not always buying a product but a solution. Greg Prickril has made it his quest to evolve and support Enterprise Product Management and organization to tackle this complexity.

In his paper he introduces his thoughts on Solution Management and how it relates to the Product Management.

4. PORTFOLIO MANAGEMENT – defining the scope

For established companies the portfolio management is often considered to be

one of the key activities for reaching sustainable profits. But which portfolios are we to manage and how do they relate to the Product Management activities? Harri Pendolin was one of the Nokia Heroes building the portfolios that conquered the world. In his paper he shares the starting point for managing portfolios. What are the different portfolios we are to manage and how do we do that?

5. SPEED LAYERS– Develop fast, Develop slow

We often talk about accelerating business. Becoming faster. But we also know that things move in different speeds. In the restaurant business it is obvious that developing a menu and recruiting a chef takes a longer time than to cook the food. (Hopefully) The same reality applies for all tech companies. Building a platform or creating a delivery organization has one speed while fixing a small bug goes much faster.

So, if we embrace the fact that things move in different tempo, how are you to work with your product? Magnus Billgren has implemented Speed Methodology in a number of world leading companies releasing the power of speed layers. Magnus takes the thoughts of Michael McGrath and his platform thinking one step further into our fast-moving world by embracing slowness.

6. SUSTAINABLE REVENUES – delivering a greater Value

The valuation of companies on the stock exchange is about anticipating the future revenues. Risks and uncertainty are quickly reducing the value of any stock. What if you could show the sustainability of your business and revenues?

The Product Management arena is a powerful position. We as product managers define our company's future offerings. But how do we work to create a sustainable revenue, that also puts sustainability into the equation. Dr. Petra Färm has together with a group of extra ordinary product managers extended the business model canvas to include sustainability. In her paper she gives hands-on advice in how to create sustainable revenues and include sustainability in your business model.

7. VALUE, WASTE or OVERHEAD

Professor Dr. Dr. Tony Gorschek claims that your work can be categorized into three buckets: You create value, you do the necessary overhead or you develop waste. The core thinking behind agile and lean methodologies is to minimize waste and overhead and deliver more value.

So, if you want to become truly agile you have to focus more on value. Tony is one of Sweden's most published researcher in the world's most prominent paper like Journal of Innovation, HBR etc. And he will provoke to make you think about your contribution to your organization and your customers.

Is his paper waste, overhead or valuable?

8. You cannot develop great products without insights!

We all talk about understanding the customer and the market. But often we get caught in opinionated thinking and discussions. Torbjörn Höjer is a designer by trade and has always focused creating true insights before designing the products. But what tools are relevant to use for product managers in developing the insights needed. Torbjörn has collected ten of his favorite insight models.

A hands-on practical paper giving you concrete discovery models to start working with today.

Petra Färm (Sweden) is happy with the result of the crazy eight exercise.

EVOLVING YOUR PRODUCT MANAGEMENT SKILLS

You can always grow in your role. That is especially true for Product Managers. Tolpagorni together with IBM has developed a Maturity Model for Product Managers. The look at three levels for product managers: Basic, Experienced and High Performing. The product Manager role is quite different depending on the level you are at. And so is the salary. Here are some advice and thoughts in how to grow.

Thoughts for your knowledge growth

- **Domain Knowledge**
  Build true understandings of the domain and ecosystem. Find the logic behind the actors' behaviors.
- **Develop the understanding of your internal stakeholders**
  Map your stakeholders. Define their drivers and get under their skin. You'll be surprised in what you'll find!
- **Grow wider**
  Look at other products and areas. How would you use your product skills in solving their challenges?
- **Specialize**
  Dig deeper in your area. Get know to more about the logic of your products in development, supply chain, sales, business and partners. Connect the areas with one another and identify their drivers. Can you find the patterns?
- **Find the money**
  Focus on revenues and growth. What is need to become 10 times as large as you are today. What are the bottlenecks for growth?

Thoughts on your personal growth

- Stay curious
- Create time for personal development
- Influence the organization to act without you - create freedom to evolve
- Participate in round table events or networks
- Build an external product network
- Go back to science and reflect on the logic
- Reflect on all the things and models you really know
- Go on a leave for 3-6 months. Look at the product with fresh eyes
- Engage, train and speak at the product community
- Read two books on Product Management that challenges your thinking
- Understand the concept of fashion and how it relates to your product
- Look at concepts for speed and value and relate them to your product

EVOLVING PRODUCT MANAGEMENT SKILLS

Professional Advices

- Domain Knowledge
  Building understandings of the domain function and the logic behind the behaviors in your industry
- Develop the understanding of your stakeholders
- Map your stakeholders. Define their drivers and get under their skin. You'll be surprised in what you find!
- Grow wider
  Look at other products and areas. How would you use your product skills in solving their challenges
- Specialize
- Dig deeper in you area. Get know to more about the logic of your products in development, supply chain, sales, business and partners. Connect the areas with one another and identify their drivers. Can you find the patterns?

Advice to keep evolving in your role

- Stay curious
- Create time for personal development
- Influence the organization to act great without you - create freedom to evolve
- Participate in round table events or networks
- Build an external product network
- Go back to science and reflect on the logic
- Reflect on all the things and models you really know
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- Engage, train and speak at the product community
- Read a book
- Understand the concept of fashion and how it relates to your product

HOW TO GET INTO PM

What is the departure point for getting into Product Management

The best way is to start woking with a product supporting the product organization in doing the product management.

Typical entry points are:

- Engineering
  Where you have shown an ability to think further than the technology and an interest in the customer and usage
- Project management
  A role from which you can build an understanding of complexity and delivery
- Support
  A support role will expose you to the customer experience and problems when using your product

And then there is the accidental product manager. You just have the right attitude and drive and is discovered by the product team.

The best experience to show is running a start-up or company. It will have exposed you to the many perspectives of running a product.

What do you need to show to get a product job

- Communication skills
  You need to prove that you can convey your message to many different audiences
- Negotiation
  You are not afraid of negotiations but you do it with a smile.
- Strategic thinking
  You are able to think strategigaclly in operations
- Confidence
  A confidence that you are able to learn
- Self-drive
  You have an ability to identify areas of importance.
- Highly motivated team player
  You are not tryig to do everything by yourself.

Things you should love

- Interacting with customers
- Motivating/Explaining for development
- Listen to others
- Taking decisions
- Business

How to prepare

- Read about the product challenges
- Work with customer interactions, meet customers, get experience
- Have lunch with product people
- Go to product meetups

Magnus Billgren, Sweden, has a hard time trying to hide his enthusiasm over the Age of Product.

Great Books

There are a number of great books in Product management . Below are some that we believe are relevant for product managers to invest time in. Some of them are new and some rather old.

Happy readings!

	FOR WHO
Marty Cagan | ***Inspired*** A great book that gives thoughts and concrete ideas	All
Fosh Leiden | ***Outcomes Over outputs*** Relevant for senior product managers to focus on the right stuff.	Experienced
Geoffrey Moore | ***Zone to Win*** Adapt ways of working according to product life cycle	High Performing
Hans Rosling et al | ***Factfullness*** How to avoid opinion biased decisions	High Performing
Melissa Perry | ***The build trap*** How to avoid delivering features and focus on value.	Experienced and High Performing
Eliyahu M. Goldratt | ***The Goal*** Define arenas for investing, by understanding bottlenecks.	High Performing
James C Anderson et al | ***Value merchant*** Understand Value in B2B	High Performing
Jeff Patton | ***User Story Mapping*** How to write user stories, with clarity of thought	All
Chris Fussell, et al | ***Team of Teams*** How to structure and understand your teams	Experienced and High Performing
Elon Musk | ***Elon Musk*** Inspirational Product thinking	All
C. Northcote Parkinson | ***Parkinson's law*** Learn to avoid waste	All

Patrick Lencioni's | ***The Five Dysfunctions of a Team*** Organizing Product teams	High Performing
Roman Pichler | ***Strategize*** Product Planning and Strategy. Hands on.	All
Sean Ellis & Morgan Bown | ***Hacking Growth*** Growing the sales of existing products	All
Gojko Adzic | ***50 Quick ideas - User Stories*** Hands on tips to improve user stries	All
Matt Lemay | ***Product Management in Practice*** The pragmatic role of Product Management	Basic, Experienced
Kowalkowski & Ulaga | ***Service Strategy in Action*** Strategies for servicies development	High Performing
Jake Knapp | ***Design Sprints*** How to design a product concept in a week. The power of speed	All
Dan Olsen | ***The Lean Product Playbook*** How to run new product development	Basic, Experienced
Michel McGrath | ***Product Strategies*** The power of platform thinking and vector of differentiation	High Performing
Ericsson & Pool | ***Peak*** How to reach excellence in anything and everything	All
Angela Duckworth | ***Grit*** There is no silver bullet but magic in perseverence	All
Sheryl Sandberg | ***Lean In*** How to enable more women in leadership and product management	All
Amy Webb | ***The signals are talking*** How to understand market and how it will evolve	Experienced and High Performing
Richard Rumelt | ***Good Strategy, Bad Strategy*** Rethinking stragey development and what a strategy loks like	Experienced and High Performing

Product Brains in the Stockholm archipelago from left Magnus Billgren (Sweden), Matt Towers (US), Harri Pendolin (Finland), Erika Merz (Germany), Greg Prickril (Germany & US), Claire McBride (Ireland), Daniel Zacarias (Portugal), Petra Färm (Sweden), Darren Duarte (Germany & Australia) and Torbjörn Höjer (Sweden)

Tolpagorni 10 golden principles for successful Product Management

These ten rules are to guide your way of working. All of them are based on research and practical experiences. Each one of the principles unfolds the secret of success. Don't just read them. Take a principle and spend ten minutes, and analyze what it means to you!

1. **Leave the building and identify Patterns.**
2. **Understand how value is created.**
3. **Work in multiple speeds.**
4. **Use your long term thinking to make short term decisions.**
5. **Use fast tools to improve precision.**
6. **Invest in your bottlenecks.**
7. **Insights are built by data.**
8. **Do less, more often.**
9. **Show & Tell - and listen.**
10. **Product thinking is about creating a Sustainable Business**

How data affects product management today. Greg, Erika, Magnus and Harri have identified how!

Conferences to attend

There are quite a few product conferences around the world gathering large crowd of people. Some ar em,ore inspirational than others. While some provide trainings and practical workshop as add ons to the conference. The big ddifference are the number of tracks to choose from. Some conferences aim at multiple tracks to cover all needs. Other Commnference focus on the user experience by offering one-track events. Multi track events will allow you to find knowledge your looking for while one track events will help you build a deeper network and offer a better experience.

UK **Mind the Product**	October 17-18 2019	The biggest product event with multiple tracks and great inspirations	Multi track
Australia **Leading the Product**	October 17 2019	Tools, Inspiration, World class speakers	Single Track
Australia **Leading the Product**	October 22 2019	Tools, Inspiration, World class speakers	Single Track
Belarus **ProductSense**	October 28–29 2019	The leading product event in Russian speaeking world	Multi Track
Sweden **ProductBeats**	November 6-7-8 2019	A tight conference for trainings, inspiration and workshops	Single Track
China **Product Summit**	November 8-9 2019	The leading conference in China	Multi Track
Switzerland **Product Management Festival-Zurich**	November 13-14 2019	A huge conference on product with multiple tracks	Multi track
Portugal **Productized**	November 21-22 2019	2 day conference perspectives and insights on how to build great products	Multi Track
Sweden **ProductBeats Stockholm Week**	March 18-19-20, 2020	The secrets of Product Success and what is happening in the Product Space	Single Track
Germany **Software product management summit**	March 24-25 2020	ISPMA organized for Software	Multi Track
France **La Product Conference**	June 4 2020	Empowering the French speaking Product People community	Multi Track

Post-Its and Sharpies. Have you ever seen a consultant without them?

The Finnish & Swedish battle over the Baltic Sea continues, Billgren & Pendolin.

Agapi Boats have opened up a new way of boating in the Archipelago. A Swedish product going international.

Back to the boats. After workshopping in stable surroundings.

Trainings

The number of professional trainings are evolving. And the quality is continuously improving. There are four types of trainings available in the market:

Product Fast track	Accelerated trainings to get you into the Product thinking
Product Foundation	A solid training program that gives you a perfect stepping stone for accelerating your career
Product Pograms	Programs for product executives and senior product managers
Product Specialist	Area specific trainings in UX, Design, Product Marketing, Product Planning giving you deeper knowledge in an area

FAST TRACK	DESCRIPTION	SUPPLIER
Product Essentials	1-day fast track to product thinking	Tolpagorni
Product Management Fundamentals	1-day fast track into product thinking	Folding Burritos
Seven Tools Product management	eLearning fast track	Edlegio
FOUNDATION		
Certified Product Management (ISPMA)	4-days training, Great toolbox	Tolpagorni
Foundation Level (ISPMA)	3-days end-to-end perspective	Prickril Consulting
Certified Product Management (ISPMA)	University Program	Utrecht University
Product Management	3-days including product marketing	Product Focus
Product Management 2.0	Practical 3-days training	Contribyte
Strategic Product Management	3-days Solid foundation	Blackblot
PROGRAM		
High Performance Product Management	Program for Product executives	Tolpagorni
Product Executive Program	Program for Product executives	Insead
Professional Product management	Program for senior product managers	Tech University Dublin
SPECIALIST		
Design Thinking	eLearning - product & design thinking	Edlegio
Product Management Essentials	1-day Approaching new opportunities	Mind The product
Product Management Foundation	1-day Way of Working	Mind The product
Product Planning	1-day requirements and roadmapping	Tolpagorni
Product Strategy	1-day develop executable strategies	Tolpagorni
Product Value	1-day evolve your product marketing	Tolpagorni

Torbjörn Höjer loves to discuss insight methodologies with Finnish and Australian/ German experts.

Daniel Zacarias, Portugal, has identified the future of coffee breaks with Darren Duarte, Magnus Billgren and Erika Merz.

PRESENTATIONS

Claire Mc Bride

Management lecturer and Product Management program designer at Dublin Institute for Technology

In addition to her academic responsibilities, Claire is an innovation coach for C-level executives in small and medium sized enterprises. Her primary focus has been in the digital technology sector in both software and service. Her effort is to elevate the profession by teaching core skills to product managers and to help companies embed the product management framework in their processes. Her philosophy is to “teach people to fish”; to enable managers to create and design their own contextually appropriate solutions.

Inspirations

Her inspirations come from

- aligning product management with innovation management
- Peer learning
- Blogs, books and Product Camp

"*If you can't describe what you are doing as a process, you don't know what you're doing.*"-W. Edwards Deming

What's happening in Product Management today

The Product Management role is expanding: it is becoming less reactive and more strategic. Product Managers are starting to get a "seat at the table with Venture Capital firm", as these firms realize that Product Managers are providing a strategic value within companies.

Future of Product Management

Claire sees a convergence of Product Management, UX and innovation. She sees product management as becoming more focused intuitive, simplifying people's lives as they engage with new products and services. She surmises that product management will bolster UX by adding configurability into solutions without complicating products. She is concerned that fragmentation of the product management role and the lack of a defined framework for product business will lead to a weakening of the practice.

What's unique

From an Irish point of view, product management is still in its adolescence compared to other European countries. Traditional Irish companies were often not part of R&D: they were more reactive and relied on a top down, do was you are told, approach. The PM function often resided in an external (not Irish) headquarters. It is only more recently that Ireland has been actively building a Product Management community through activities like Product Tank, Product Camp, and meetups.

Tips and tricks

- Figure out strategy and what your product is aligned to
- Understand what customers value and why they value it
- Use the augmented product model as an example of mapping core products, their value, and potential

"*If you can't describe what you are doing as a process, you don't know what you're doing.*"

-*W. Edwards Deming*

Daniel Zacarias

Product consultant

Daniel helps teams to create executable product strategies. It is not just about finding out what to do but also how. Daniel started his career as an engineer learning the HOW of development. To make products that users love and management adores, Daniel added business and UX design to his skillset. He is fascinated by the human aspects of software development in how we can maximize value and minimize waste. He often works with setting up processes and communication channels to help teams implement best practices. He sees his role as making sure people are not wasting time or effort on building the wrong things.

Experience and tools are making a difference

Daniel has extensive experience in the parking industry and education. Most recently, he has been working in the public transport sector. He developed the services to become more customer focused and creating new ways to interact with customers.

Unlike the past, now there are ways for product managers to talk about what product management does. There are new models like Jobs-To-Be-Done that are being developed and shared. The models give product organizations a language to discuss best practices and to create frameworks for the practice.

Daniel is primarily getting inspired by creating products and services that help people's everyday lives. "As a product manager, you are always building and evolving things that affect people."

Future

He is excited about the potential of what we will do when we connect AI, IOT, & ML. Currently, we waste a lot of time trying to figure out these best practices and explaining these practices internally. Daniel looks forward to a future where is easier to teach and practice. As the role is clarified, PMs will be able to spend more time solving problems and less time explaining what product management does.

Product teams will evolve. As tools improve, roles and skill sets will change. Teams may not need as many engineers on a given project and the team mix might change. Teams might become more design or marketing heavy and less engineering focused.

Daniel is concerned about what will happen to privacy and personal space. How will those be preserved? The big tech companies are getting large and Daniel is concerned about how their hegemony will these things.

Daniel senses that Europeans may be more empathic less and revenue oriented companies and may end up creating more people friendly, user driven products.

What's happening in Portugal

Product management is growing quickly so there is a lot of learning and sharing. It is an exciting market where an ecosystem of product managers is being formed. Portugal is small but it is the European link to the +200 million people speaking Portuguese in the world. "We have great development competence but we are still missing capital and experience in rolling out products". Tourism is an important segment in Portugal that drives the service industry. Product Management for services is still underdeveloped not only in Portugal but the whole world. Service Management might take-off faster than product management.

Tips & Tricks

- Keep the strategy simple - focus on execution: Strategy is what we choose to do
- Priorities don't change by themselves. Identify the real reason for change, then embrace or discardthem.

Keep your eyes on the Value.

Darren Duarte

Agile Coach at Contentful

Darren was introduced to product management at a launch party. He discovered that through Agile coaching he could reach out to many product managers to help them grow their practices. He leverages his experience from the Aerospace industry to take a systems level view. His path has been from engineering to product management to Agile consulting.

Interests and inspiration

Darren's focus is people and processes. He works with teams, product managers, and senior level leaders to connect the dots between teams and functions. For example, he might help connect portfolio management with research and design or sales. Darren's education in psychology gives him an experimental mindset with savvy to create hypotheses, to test them, to understand what success looks like, and to measure it.

What's happening in Product Management today

Companies are increasingly recognizing the value in product management, from both a business and technical perspective. This has created a huge appetite for product managers. Dev teams are stepping up to take on more responsibilities, allowing senior product managers to spend more time in the strategic and operational spaces as well as more time with customers and their data. Product managers are gradually leveling up their role.

Future & Product management

Digital disruptions are impacting peoples' lives. Product managers are responsible for evolving products driven by customer empathy. He is excited about 5G technology and how it will change how people consume content and media. Similar to how inexpensive broadband has brought movies, music, etc. into peoples' homes, 5G is going to impact how people live.

Because of 5g adoption product managers will have plenty of opportunities to define engaging and valuable products.

Today just a few university product management courses exist. Product managers come from different backgrounds; in the future, practitioners will build stronger communities and professional networks.

What's happening in Berlin

In Berlin, there is a huge startup scene with a concomitant demand for product managers in early stage companies. Compared to Darren's hometown, Melbourne Australia, the product management community in Berlin is far less mature. The quality and frequency of events like meetups are not yet on par with tech hubs like Stockholm. Berlin's mix of artists, entrepreneurs, and rebellion creates a unique blend that impacts Berlin's business culture. Berlin's startups are about bucking the trends by leveraging diverse cultures and mindsets, forever challenging how teams think and work.

Tips

- Keep learning, stay abreast of changes to the practice, go to unconferences, meetups etc.
- Use data to guide decisions, don't be afraid to say no to a product or idea that isn't right.
- Find a mentor who is 10 years ahead of you, preferably someone outside your company.

Erika Merz

Strategic Product and Portfolio manager

Background

Erika has focused her product management activities primarily in the manufacturing and telecom sectors. She has also worked in early phased startups. From working as a software requirements manager at a media agency, she moved into product management in the telecommunication industry. After years fulfilling product management functions at companies like Deutsche Telekom, she became a certified PM.

Interests and Inspiration

- Working with younger workers and diverse interdisciplinary teams.
- New technology and societal changes that test the limit of what is possible.
- The influence of the continuous deployment in the software industry and boosting the role of product managers.

Future & Product management

With the velocity of change ever increasing, she sees the role of product managers changing in unpredictable and exciting ways. The role of the product manager used to be that of the person keeping track and controlling the processes, the business, and the development. This was especially true in industrial product management. However, with the digital transformation of businesses, the role is changing. Increased competition and the proliferation of startups is accelerating these changes. Now Product Manager must challenge processes, business models and development. A new breed of product manager is evolving within the industry. "Product Managers used to be officers in the Navy but now they also need to think like Pirates!"

Product Managers play a vital role in helping businesses become both profitable and sustainable. To get there, she sees the need to fundamentally change how Product thinks about sustainability in their business. She is hopeful that sustainability will become baked into product management processes and in the mind of all Product managers.

German Product Management

The automotive industry has had a large influence on German industry in general and product management particularly. As traditional industries, German automotive and other manufacturing companies still have remnants of hierarchical organizations and top-down management styles. Agile thinking and digitalization are now changing the game plan.

As the automotive industry is undergoing a revolution so is the German industry. The concept of Industry 4.0 is not just a trend or a buzzword, it is the digitalization of manufacturing. Today the production process is as vital as the product itself. Industry 4.0 does not only bring direct properties to the product but it also brings capabilities for the product to evolve over time. This is changing the role of product managers.

Tips and tricks

- Look at automation as an opportunity for adding creativity in the workplace.
- Foster collaborative relationships not just within companies but also with partner companies potentially even including pairing up with competitors on projects.
- Think like a Pirate - what would they do to grow?

Greg Prickril

Strategic product management consultant – Heidelberg, Germany

Greg is helping organizations deliver products and solutions to the market with strategic purpose by improving the maturity and effectiveness of their product and solution managers. He endeavors to enhance the strategic aspects product management by creating continuously improving end to end solutions. Greg worked as a product manager at IBM, Microsoft and SAP prior to starting Prickril Consulting in 2015.

Interests & Inspiration

Greg is inspired by creative processes. Problems can be solved in many ways. He lives for the moment when he sees people have that "aha-experience", where they poke their head over the cubical wall to look beyond a particular project and see the horizon.

What's happening in product management today

There are three big trends in product management. First, product management are going beyond the product! Product management is becoming more of a problem-solving space; moving into the customer world and identifying the value in usage. Second, decision making is moving beyond the "magical" (opinon based) decisions. Data and facts have entered the stage, and more product managers are leveraging data to make decisions. "The better the knowledge one has of the problem, the better the outcomes." Lastly, product managers focus more on the complete revenues of the product. They see beyond MVPs and initial releases. There is more business management involved in product management today.

Future of product management

Product management will continue to grow but may do so under a new name. While product management is supposed to be an end to end function, it currently lacks authority and accountability. Product Management functions will likely split into two main roles; one role will be someone who owns the product and drives the business, more like a General Manager, and the other role will combine product planning with design and UX.

What is happening in Germany

Many German companies have traditionally been hierarchical; product managers have been given decisions rather than making them. Agile thinking, ever-increasing competition, and complexity are challenging the status quo. Organizations are changing to speed up delivery and achieve end-to-end solutions. The traditional hierarchy is breaking up and as a result product organizations are gaining more control of the business. There is a slow but clear shift in German enterprises. The role of product management in the vast number of family owned businesses still remains a question mark. But there is a huge opportunity in growth for many traditional and risk averse SMEs (Small and Medium-sized companies) in Germany.

Tips

- Focus on problem analysis and define the right problem to solve
- Put the person who understands the product problem in charge of making decisions
- Pull your head out of the box, and look outside your current Product Manager role to see the larger picture.

Harri Pendolin

Lead consultant - helping product companies become better at their business

Harri was working as a developer when he was tapped to become a product manager. He didn't have much of an idea of what product managers do but thought how hard could it be! That was the start of his product management career 20 years ago. And since then he has devoted his professional career to the product management arena. He was one of the product heroes leading Nokia to dominate the mobile market.
Harri can look at problems from a view of the daily work of a product manager and from the view of a strategic CEO. Rather than specific product expertise, he emphasizes his experience across many industries and products including B2B, products, services, and consumer goods. This generalist perspective allows him to approach problems from many different angles.
Colleagues call Harri the "grill master" because he has been known to train new product managers by immersing them in a project, "throwing them on the coals". It has been proven a very successful way of accelerating product management careers.

Interests & Inspiration

Harri is inspired by doing. He is learning new things with each new customer. "*In each case we can decide to become successful. We, as product professionals can escape the old product manager role of just developing what we are told and instead take a fresh approach to every situation.*" Harri not only embraces but emphasizes the entrepreneurial side of product management.

What's happening in product management today

Software is eating the world even in hardware companies and along with Agile, it is accelerating the need to manage the lifecycle of the products in new ways. Companies used to sell a defined product and then sold the next. Now, product are continuously in sales, delivery and development with SaaS and subscription models. Customer experience and satisfaction is therefore becoming more important. Today the product manager role has been extended. The product manager needs to have a continuous horizontal view of all the different functions and be able to identify bottlenecks for success.

As more things are digitized and more and more products appear, the demand for product management skills will increase. If the community doesn't keep apace, the gaps will be filled with UX designers, business analysts and product owners. Those disciplines don't necessarily see the broad view that is vital for long term success.

Future & Product management

Third-party platforms, AI, and more data will add complexity to product management. The more we digitize things, there more opportunities for product managers. We will develop products faster and therefore demand for skilled product managers will grow.

What's happening in Finland

In Finland, honest, transparency, and lack of hierarchy is typical. We have a culture suited for agile thinking. Also, service design is big. Traditionally, Finnish companies have been more engineering-driven. Only recently have they started to become more design and CX (customer experience) oriented. The future for Finnish companies look bright. We have all the building blocks to grow our product business globally, but we are short of high performing product managers that will drive success.

Tips and Tricks

- Invest in Insights: it is one of the most important skills for a PM to understand customer needs
- Develop your leadersip, "manage product: lead people"
- Take ownership of the business strategy

Magnus Billgren

Product Guy and Guru Tolpagorni Product Management AB

Magnus is a Product Guy. His all professional life he has been developing, rolling out, and evolving products. He has created products generating billions in sales. His experience comes from a covering a vast array of products like: fire fighting equipment, telecom infrastructure, cloud gateways, CRM systems, Separators, Excavators, ERP solutions, HR systems, electricity meters, IoT, services and more.
He is the founder of Tolpagorni and a founding member of ISPMA. He is the inventor of product management tools like Value Tree®, PMA™, Product SoundTrack® and Value Development Model. When he is not consulting he is being asked to inspire and train product managers all over the world.

Inspiration & Influences

- Looking at products and understanding the logic of them. Why do they behave as they do?
- Engaging with product teams across the globe
- Participating, absorbing and using research
- Developing products

What's happening product mangement today

Product management is expanding in all dimensions. It is entering into new industries specifically in services and public entities. The Scrum methodology has highlighetd the Product Management role in software companies. Along with product management books, models and & tools, conferences and opportunities for training is exploding. Product management is soldifying into a mature industry.

Future of Product Management

We see more professional product managers. Individuals who have been working in product for multiple companies have really learned the profession of product business. Professional training companies and University programs are adding to the profession by building and sharing knowledge. In many organization we see an increased value in the product management function. Two areas are driving the development of product management; Customer Value and Speed. All companies are trying to scale and increase customer value and they want to roll out products faster. To achieve this, we need to really define what value means and consider new methodologies for measuring it. At Tolpagorni we are working with speed management that encompasses both short and long term thinking.

What's unique in Sweden

Swedish industry is well balanced. Traditional industries like ABB, Scania, Ericsson, Atlas Copco, TetraPak are important as a foundation of the industrial structure. There are also unicorns that have quickly grown to mega stars lika Spotify, Klarna, King, iZettle. Together with the large number of medium sized companies and startups the product industry is well balanced. The Swedish market has an extremely export oriented culture.

In Sweden a number of local tools and models have been developed that are only used in Sweden. ValueModel®, Pulse methodology, modularization methodologies are examples of this. This makes the Swedish products more unique than most. Swedish companies are sustainability oriented. We place a great value in how extensible the products are for long term business success.

Tips and tricks

- Become your own customer for a day
- Visualize your product to grok the logic
- Identify your defining technology? What is the secret sauce of your product that gives you the long term edge?

Petra Farm

Product Strategist at Tolpagorni Product Management AB

Petra comes from a self-described "extreme tech" background. After getting her PHd in Electronic system design from the Royal Institute of Technology, she worked with a variety of industries including automotive, pharmaceutical, and telecommunications. While remaining close to software architecture and development, she sought more responsibility for the whole product lifecycle as she worked her way up the stack from operating systems to applications. When a product management job appeared at Erickson, she seized it and has been in product management since.

Inspiration & Influences

- Solving complex technical problems and communicating product strategies across organizations
- Shuhari – bringing Japanese martial art stages of mastery into product management
- Amy Webb, AJ&Smart, and Parkinson's Law

What's happening product management today

Product management business models are shifting as they move to incorporate sustainability and changing consumption behaviors. In software, the evolution from delivering code on CDs to continuous deployment is having a big impact on schedules and development processes. The move to cloud and subscription business models is creating expectations for continuous delivery of new functionality. Agile is accelerating schedules and intensifying the role of PMs.

Future of product management

The role of product management will become more recognized as a profession. The fundamentals for the role will be codified in practice and professional development. PMs will be able to move more easily between companies and industries as the skillset and broad strategic perspective is better understood. Understanding the business side of development will be a necessary part of the PMs role.

What's unique in the Swedish market

While there is a lot of variation in Swedish companies, decision making tends to be more consensus driven. Organizational hierarchy tends to be flatter than in other countries. Because of that decisions can me made at a lower level within organizations, with less need for long chains of approvals. Petra suspects that this more open decision-making environment is, in part, because employees have more job security and thus are freer to express contradictory opinions without fear of reprisal.

Sweden is an innovative country. For a small country, Sweden has created and grown a lot of companies like Klarna and Spotify.

Tips and tricks

- Know your numbers, get your hands dirty. As a PM, own the solution: no excuses.
- Development as a PM is a progression, when you are new, learn the tools and get help. As you mature as a PM, you need to think outside of the discipline for inspiration and improvement.
- You need to think high and low: take a broad strategic perspective but be ready to be tactical to get things done.

Torbjörn Höjer

Product Guy and Guru Tolpagorni Product Management AB

Torbjörn is an Industrial Designer by heart and education, progressing as Product Manager to be able to follow up on the user needs and values in the development process. He is the designer or Product Manager behind Office furniture, Public transport vehicles, Leisure equipment and Sustainable road transports. Torbjörn have a broad experience from many industries with a wide perspective on Product and the business side of industrial development.

Inspiration & Influences

- Looking at products and undrerstaning the logic of it. Why has it been designed in that way?
- Discussing with product management teams across the globe
- Taking part in research
- Developing new prodcts

What's happen in PM today

Expanding in all dimensions.

Industries into authorities and services

Expansion in software intensive companies

Models & tools are being developed.

It is becoming ann indyustry

Future of PM

New business models will be shaped by this new generation of workers. They will reflect a more entrepreneurial spirit and an accelerated development process. Sustainability will also play a larger role in influencing industry. In moving away from fossil fuel dependencies, supply chains will be disrupted. Product managers will need to anticipate and manage this disruption. Product managers will have to be knowledgeable about which technologies and resources to promote and which to avoid.

Hopefully, product management will become more about managing and not just about product. The role will become more elevated and pervasive in organizations.

What's unique

Swedish decision making is consensus driven. It can seem that in Swedish companies, people are tentative about making decisions. Sometimes being overly cautious when they could just make a decision. The good part of that is that in the decision process, they are very inclusive so when a decision is made it reflects many opinions not just one outspoken person. Thereby being anchored in a large part of the organization.

Tips and tricks

- Have a strong perspective about where a product is going and good plan for communicating that direction
- As a PM, make yourself visible within the organization, build relationships across the org.
- Meet your customers and use that to inform your opinions about the market
- To avoid getting stuck in the tactical realm, it is very important to schedule time to work on strategic issues.

WHITEPAPERS

Daniel Zacarias

Product consultant

Value Driven Prioritization – Start with the beginning

Daniel Zacarias has met, discussed and trained thousands of Product Managers. They all share one common difficulty; How do I prioritize?
Daniel has tackled this problem from multiple perspective and has come to realize that prioritization methodologies don't bring the solution. You have to start with the Value. Well, we all say that, right. Maybe even your manager. But why is this so hard. In Daniels paper you will get hands on tips in how to do that, prioritize with Value in mind. But even more importantly you will gain a Value thinking.

Priority starts at the top

by Daniel Zacarias – Substantive – Portugal

The biggest Product issue

Through my personal blog, anyone who subscribes to the newsletter gets asked the same question: What's your biggest struggle as a Product Manager? I get back all sorts of replies, but by far the biggest issues are about prioritization, in some shape or form.

Having put together a fairly popular resource on product prioritization methods, I would've hoped the situation to be different. But it's not. It remains hard for many product managers. The most frequent issues and sources of frustration are around these basic questions:

- How to decide which are the most valuable things to build?
- How to handle multiple valuable things that should be done?
- How to deal with constantly changing priorities?

Prioritization methods are based upon the notion of Value, but given the sort of questions people struggle with, it seems that it's still ill-defined for many. Why is that?

I believe the main culprits are Mr. Roadmap and Mr. Backlog. Chock-full of Themes, Epics, Releases and Features. Progress bars and Milestones. They're filled with stuff–with "things". And "things" are really hard to evaluate and compare to each other. Things are outputs.

Here's the deal: Value comes from Outcomes, not Outputs. An output is what we see and experience (the features and products we "touch"). An outcome is what we get out of them–it's what we're seeking (and thus, what we value). Until teams stop thinking in terms of outputs, and start framing their work in terms of outcomes, prioritization will always be a struggle. So, how do we tackle the issues mentioned at the outset? How do we use an outcomes-based lens to avoid prioritization problems?

1. How to decide which are the most valuable things to do?

Think about your team's work over the past couple of months. You've likely worked on new features, bug fixes, minor UX improvements, perhaps tackled some technical debt, and so on.

When trying to set priorities people often ask questions like: Is Feature A more valuable than Feature B? How about Bug X vs Feature C? How should we balance technical debt vs our feature roadmap?

Answering any of that is nearly impossible without a well defined notion of the value each of those things create. We're constantly comparing the proverbial apples and oranges because we're looking at their description, their functionality… their output. So the first thing we need to understand is the "types of value" we're providing. Keeping with the analogy, the "kinds of fruit" we're comparing.

Bugs can be valued in terms of quality outcomes like reducing support needs or improving user satisfaction. **Technical debt** can be valued in terms of "future change" outcomes like improved delivery velocity or better platform scalability, for example. **UX improvements** can be valued in terms of incremental optimization outcomes like reducing task completion times or improving particular funnel steps. Finally, **new features** should be valued in terms of major business or customer outcomes that they're aiming to serve (increasing CLTV, supporting a new vertical, compliance on new legislation, etc.).

Thinking in this way means that we need to have clearly defined goals. We need to know what we're trying to achieve (our target goals), but also what we want to maintain (our health goals, borrowing from Christina Wodtke's terminology in her excellent book on OKRs). Then, any piece of work needs to be tied to a goal. That's what defines the "type of value" it creates, and what will allow us to easily compare it to other "things" in that "bucket". Value will then be the measure by which a "thing" impacts its goal, which makes setting priorities straightforward.

Two great ways to frame and communicate the team's work in an outcome-first manner are Asana's "Pyramid of Clarity" and Teresa Torres' "Opportunity-Solution tree" (which can be used together to great effect).

2. How to handle multiple valuable things that should be done?

Although the previous point helps with setting priorities along individual "types of value", it still doesn't tackle what happens when when we're dealing with multiple goals at the same time (as most teams are). That is, how should we balance multiple, simultaneous priorities?

That's the role of a product strategy. My favorite definitions of strategy are the simplest I've found. A strategy is what we choose to do. It's how we apply our resources to achieve a set of goals. In other words, it defines how important each goal is, relative to others. So, that can take a simple shape like a set of percentages (one per goal). How much of the team's time should we spend on our Growth goal? How much on Compliance? How much on Quality improvements?

I find it extremely helpful that the entirety of the team's time is clearly defined, even when that line of work is not managed by the PM (such as technical debt, which should be managed by the engineering organization). It reflects what the team's focused on, and clearly sets expectations to the rest of the organization as to where time will be spent on.

This definition of the product's strategy as the percentage of time to be spent on each goal can then be looked at as the first level of prioritization, useful at any point of planning. Every release or sprint can use it as a guideline. Each type of value is already prioritized based on impact on its goal. Then, all we need to do is take a certain amount of work from each "bucket", in order to hit the balance that is defined by the strategy.

I have to thank Rich Mironov for these ideas, which come from a couple of great articles of his. One is on the concept I just described, and the other on what happens when the strategy is not clearly articulated. Even when we don't know what the current strategy is, we can look back at our recent work, classify it and get the percentage of effort we've spent on each "type of value". These numbers will come as the result of all the micro-decisions we make every day, consciously or not–it's an implicit strategy (which through this exercise has been made explicit).

Having the strategy defined like this is useful as a planning mechanism, but it's also useful as a reflection tool. It forces us to think about where we want to spend our time on. Do we want to work on multiple product goals at once? Which ones? Are we spending too much or too little on technical improvement work? You get the idea.

3. How to deal with constantly changing priorities?

Another big source of frustration for many PMs is the feeling that "people higher up" keep changing their priorities… It makes it hard for them to make meaningful progress and produces a lot of wasted effort. Although this issue is real, it is often either a problem of perception or output-based thinking.

When we feel that "priorities are changing", we need to remember the concepts described thus far and ask ourselves:

1. Is the strategy changing?
2. Are goals changing?
3. Are the features we work on changing?

It's only natural that these things change and move over time, and shouldn't be a source of frustration. It all depends on the level and frequency at which they change. The higher up in the hierarchy of concepts, the more stable things should be: goals and strategy move at a lower cadence than the opportunities, features and ideas that might impact them. When they change too frequently, it's a sign that some kind of short-term pressure is driving the top-level decision-makers, and that's a problem. However, with the structure described here, it's possible to quantify and visualize these shifts over time, so that we can show where the problem is and discuss it with leadership.

Now, when we get to the opportunity and feature levels, frequent change is to be expected, as long as it is in service of our goals. That's our bread and butter–figuring out what works best, what moves the needles we want. However, if we're being pressured by others to add a random feature and to move it up the priority list, that's a problem.

Still, the beauty of framing our work through the outcomes we're aiming for, is that we now have a well-supported, elegant way of saying No. Is this thing you're asking with our mission, vision, value proposition? Does it contribute to our current goals at all? More than what's already in the pipeline? Does it require a large effort? If at any point in this sequence the answer is No, we can justify our answer and prevent that piece of work from creeping in.

Change in and of itself isn't necessarily a problem, and we need to embrace it, when it's the right kind. But when it's a symptom of an organizational issue, we need to understand where it is, and (try to) fix it with the right toolset.

Takeaways

When we're able to frame our work with these principles in mind, setting priorities becomes a much clearer and straightforward endeavor. That's why Priority starts at the top. Everything flows down from our Mission, Vision, Value proposition, and Strategy (which defines the Goals to pursue and how important they are).

Priorities comes from Value, and Value comes from Outcomes.

However, this doesn't come for free. It requires a change in our mindset and in our processes. We need to stop shipping features, and start delivering outcomes. That's our real job as Product Managers.

Darren Duarte

Agile Coach at Contentful

AGILE STRATEGY MAP – Strategies for the real world

In a fast-moving arena, we have all embraced Agile thinking to reduce waste and deliver products that are appreciated. Developers all over the world have united in agile development methodologies like SCRUM, DevOps, XP, Agile PM and more. But the problem has been to leverage the agile development thinking into the organization as a whole. One of the challenges is to work with strategy from an agile perspective. Darren Duarte has over the years explored Agile methodologies and has started to implement the Agile Strategy Map. It is not only a new way of developing and visualizing your strategy but it introduces and agile thought to the strategic work. We live in an uncertain environment where things change. The Agile Strategy Map has this as a starting point and not as a predicament.

Agile Strategy Map

by – Agile42 – Germany

Introduction

Agile Strategy Map is a collaborative framework to design, manage and support strategy execution. The Agile Strategy Map is a way to map and design the changes in an organization in a way that makes the process transparent, incremental, available to everyone, and based on continuous experimentation and adaptation. This framework has been developed by agile42. For more information on the Agile Strategy Map. (https://www.agile42.com/en/all-agile/agile-strategy-map/explained/)

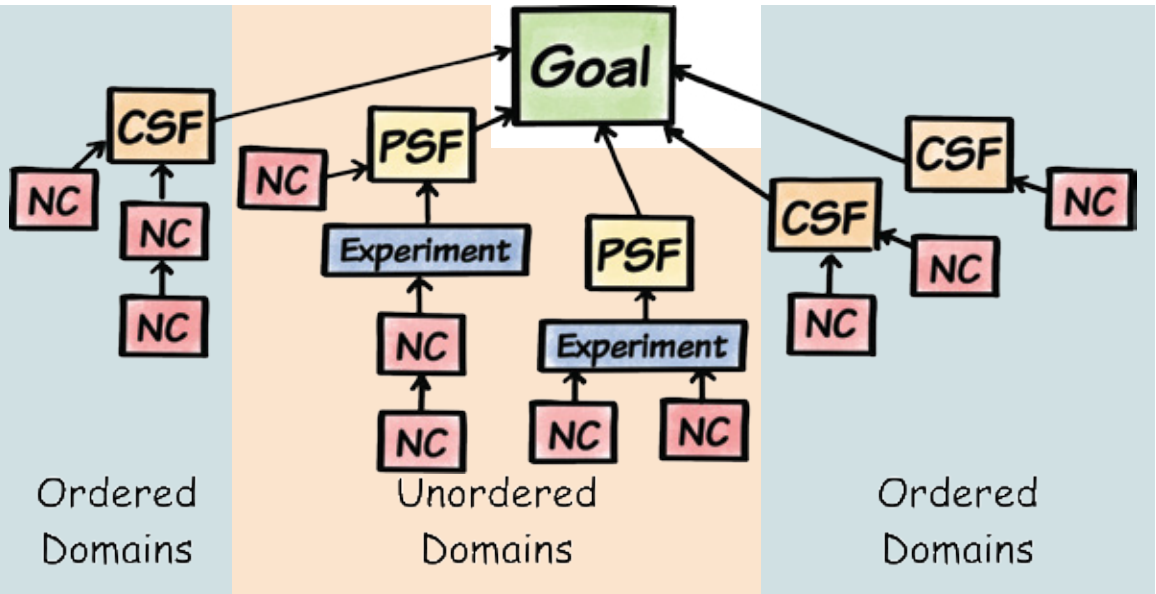


FIGURE - The Agile Strategy map with the five elements: Goal, two types of Success Factors, Necessary Conditions and Experiments. The Success factors are in the ordered domains and unordered domains.

The Agile Strategy Map can be a standalone tool for your organization or it can be used in the context of an approach inspired by the principles of ORGANIC Agility. In this case, it corresponds to the basic principle of validating changes in small increments.

Agile teams deliver in small and frequent increments

One of the strengths of any team or organization working in an agile way is their capability to deliver value in frequent iterations and in smaller increments. This capability has significant advantages compared to a more common “large batch” approach. First of all, it allows teams to go through the problems they will face from top to bottom and deal with all technical and functional difficulties very early.

Moreover, it enables faster feedback loops, which contribute to maintaining focus and directing the team towards what matters to customers and stakeholders. In a nutshell, this means that working with smaller and frequent releases significantly helps reduce business and technical risk, by delivering what the customers expect and constantly ensuring that we are using the appropriate technical approach.

Moreover, the frequent release of value-focused increments also helps mitigate social risk, by fostering the need for collaboration and trust between team members from the early phases, which avoids stress down the line.

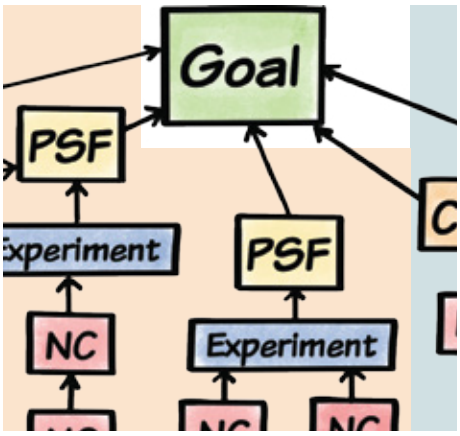
Finally, the frequent involvement of customers and stakeholders allows teams to better control both costs and value delivered and enables better expectation management and an agreement on what to invest in next, reducing cost and schedule risk. These benefits apply whether we are developing a new product or introducing an organizational change.

The Agile Strategy Map and its background

The Agile Strategy Map tool evolved into a framework that can be used in multiple circumstances: it helps with maintaining coherence towards a common goal, aligns everyone on the current state of affairs, and allows us to straightforwardly track dependencies. It also merges strategic priorities with tactical and operational needs, allowing for a more focused approach.

The Goal

The Agile Strategy Map is a real visual map. In principle it is a way to visualize a goal, as well as the success factors and dependencies that are relevant to moving in the right direction. The anchor of an Agile Strategy Map is a Goal, which can be expressed as a specific target, measurable and timed, or simply as a direction towards which to move. It represents the business goal and creates focus for the strategy, orienting all other Elements. Since the Map is also context-specific, the Goal will need to fit the context of where the organization is and where it intends to go. It is also very important for the Goal to be outcome-based, which means that it must be connected to creating value to users, customers, and/or employees. Stakeholder value is a product of the fact that customers and users are satisfied and employees are engaged. If the Goal is a specific target, it is possible to use different techniques to formulate it, such as the SMART checklist. An example of such a Goal can be: “Strengthening our position in mobile services by increasing the number of annual mobile service’s customers by 20% over the next 12months”.



Alternatively, we have in the past successfully used the “Remember the future” technique, which is based on numerous studies in cognitive psychology investigating how we think about the future: “Imagine that you fall asleep now and wake up in 12-18 months. What key changes do you see around that make you happy?” These kinds of questions generate more richly detailed and sensible goals, because it is easier to understand and describe a future event in the past tense than a possible future event, even if neither has occurred. By thinking of a future event as one that has already occurred, we also pave the way for imagining possible factors that will enable or accelerate generating the event.

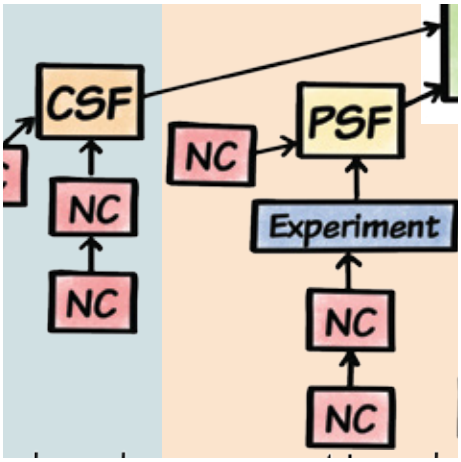
In the case of the Goal as a direction, according to complexity thinking,

it can be expressed and measured in terms of Vector Tracking (as direction and speed of change). The target for the organization can then be the direction and speed of change. For instance: "We want to increase our customer satisfaction 20% faster than it is currently growing, so we will be outpacing out competition and increase our market share significantly".

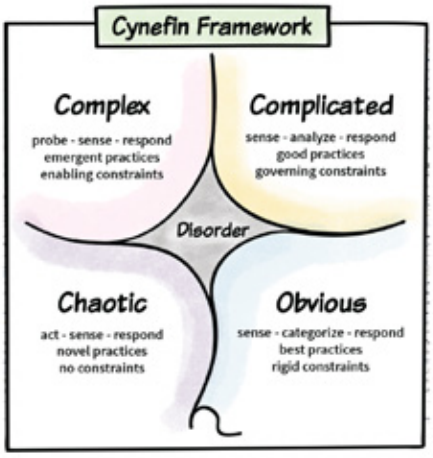
Even if we have defined the Goal, we want a way of reminding ourselves that we should challenge what we are trying to achieve as often as possible, because reality and conditions around us change very quickly. The volatility we are dealing with nowadays is such that it is very risky to base medium- and long-term plans on current situational analysis without planning for continuous adaptations. The Agile Strategy Map process is supportive of continuous adaptations and injections of new insights.

Exploring the existing Landscape

Virtually every organization has some kind of strategy, or at least has a plan to get to some definition of success. We recognize that most organizations have achieved some level of success in the past, whether intentionally or just out of luck. It is important to show appreciation for what the organization has achieved, and identify what has helped the company be successful in the past.



Confirmed Success Factors (CSFs) are an expression of the successful factors that have led the company to its current state and they will provide a picture of the past Landscape and Patterns (to refer back to the concept of the map). These - in line with the ORGANIC metaphor - could be considered like an organism's acquired capabilities, which became part of its DNA as a result of an evolutionary process. The CSFs might be in the form of processes, rules, policies, constraints, approaches, in short everything that is established as a way of working within the organization, as well as established value propositions to existing customers. All these things, learned over time and validated, are assets to the organization, and are probably responsible for a significant part of the overall revenue. Given the defined Goal, we may be able to identify a subset of CSFs that will be enablers for achieving the goal. We want to be clear about focusing on those that we believe to be relevant to the Goal and its specific context. This might seem like a hard decision, but if you want to achieve success you need to focus on what is most important to you and relevant to your business. The term "Confirmed Success Factor" emphasizes that we have attained some knowledge and that this lesson has been retained and consolidated into an organizational asset. A CSF is, then, always in the Obvious or Complicated domain according to the Cynefin framework.



Cynefin provides a way to understand the context we are in and the most appropriate patterns and constraints to be used in it. It assists the decision-making process by identifying different approaches to situational analysis and the decision itself, which depend on the domain we are in at any moment in time. Cynefin defines five different domains: which are divided in three categories: Ordered Domains, Unordered Domains, and Disorder. By definition, the latter is the domain in which we are, when we aren't able to determine which domain, we are actually in. The Ordered Domains are the domains of causality, where the connection between cause and effect is clear. There are two domains in this category:

- the Obvious domain is characterized by known qualities and is governed by rigid constraints (or policies). It is the domain in which Best Practices can be defined. According to the definition of this domain, the situational analysis is self-evident, while the decision-making process is supported by rules, checklists, and defined processes. To ensure that these are followed, regular reviews are scheduled.
- the Complicated domain consists of known unknowns. There are still Governing Constraints and Good Practices, which can be documented and are usable by experts to increase chances of success. Once they are documented, we need to link them to daily work and processes, and maybe, in time, turn them into Best Practices that can be applied by anyone. Till then only experts can use the Good Practices effectively. In this domain the situational analysis needs to be done by experts, who will identify all possible options or alternatives, and will present these for a decision.

A Confirmed Success Factor may be expressed in the following form:

BY <...> WE LEARNED <...> AND THIS HELPED US <...>

As mentioned previously, it represents an acquired capability for the organization that can act as an enabler towards achieving the goal. The fact that the CSF is achieved and known doesn't mean that we won't have to do anything about it. On the contrary, a CSF is like a lever that we can use to enable our organization to achieve success and needs to be oiled and maintained, or it will decay and loose relevance. To maintain and continuously evolve a CSF we require at least one Necessary Condition. This can act as an anticipatory trigger, reacting to or prompting specific events/needs, for example periodically reviewing a policy to check how it's performing against some Key Performance Indicators (KPIs). We can create triggers in the form of Necessary Conditions, connected to the KPIs or to a specific moment in time. The dimension of time is also integrated into the Strategy Map, so if the NCs are connected to a date (likely at some point in the future), they should be placed in the Future column of the strategy map, while still being linked to the relevant CSF. If we are unable to define what is necessary for maintaining the Confirmed Success Factors, this may be a sign that they have not actually been confirmed/validated or perhaps that they are no longer relevant.

Define hypotheses to test explicitly Going back to the Cynefin framework, and looking deeper into the Unordered Domains, or the domains in which it is impossible to determine causality without uncertainty, we can recognize two different domains: Complex and Chaotic. In the Complex Domain, because we do not yet know what we don't know, the path towards validating a Goal is never straightforward. Most of the time we have to understand and analyze our hypotheses and challenge our assumptions in order to figure out our next move. For this reason, the next step in the creation of an Agile Strategy Map is the definition of those hypotheses that might help us move towards the Goal. These hypotheses need to be made explicit, so that dependencies can be made visible through transparency. The primary purpose of declaring explicitly what could be helpful towards achieving the goal, is to identify changes or adaptations that can be used to our advantage. Ideally, we would want to have many alternative hypotheses available, and we shouldn't discard them right away. At this level a good set of 10 to 14 different hypotheses, would provide enough options to explore and avoid focusing only on the obvious ones. Hypotheses can be naive, or even completely stretched: as long as they are plausible and coherent, they are good. These hypotheses are captured using Potential Success Factors (PSFs). The name is a reminder that they are still to be validated.A Potential Success Factor is expressed in the following form:

BY <...> WE EXPECT <...> WHICH WILL HELP US <...>

Given the example of Goal: "Increase by 20% the number of annual mobile service's customers", an example of a PSF can be: "By creating new free services, we expect to attract more people to our platform, which will help

us increase the potential for conversion into paying customers". PSFs are designed to be validated or invalidated through rapid experimentation. After they are validated, they will provide

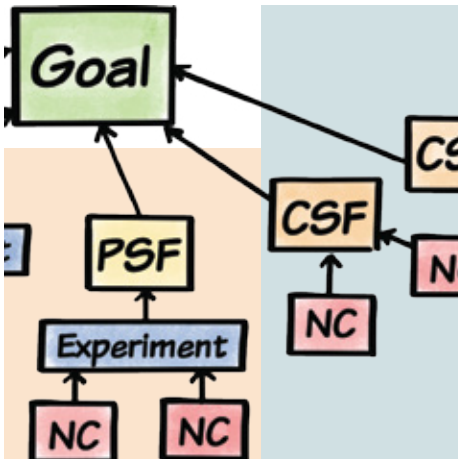
more insight into our strategy and increase or decrease the level of confidence in moving forward in one direction or another. If we feel confident about a PSF then it will eventually be converted into a Confirmed Success Factor (CSF). Once we have defined the PSFs, we visualize them underneath the goal to make them transparent and take full advantage of the visual capabilities of the tool. Since it is important to base decision-making on context, we have to make explicit which kind of hypothesis is described in each PSF: The Potential Success Factors either represent known unknowns (which then means we are in the Complicated domain), or unknown unknowns (in which case we are in a Complex domain).

Decide what to focus on

As we said at the beginning, if we want to be able to focus on small validated changes, we must decide which PSFs we want to work on first. Contrary to a more traditional way, we don't want to actually prioritize the PSFs but rather make them smaller so that we validate their impact on the goal faster and more effectively. Every Success Factor (PSF or CSF) should have a Champion, who will work to build a cohort that can collaborate and focus on moving the PSF forward, and who will remain the Champion if the PSF becomes a CSF. The cohort is what we call an Improvement Squad, as its objective is to improve the organization and the work of everyone involved, not to mention to create results, by exploiting new capabilities or leveraging existing ones.

Identify Necessary Conditions to validate the hypothesis

We need to find ways to validate our hypotheses as fast as possible, empirically, and without relying on assumptions that ultimately increase risk. This can be achieved by designing small, safe-to-fail experiments. Before getting there though, we need to identify what it is necessary in order to be able to define such experiments. What do we need to have in place or deal with in order to be able to validate the hypothesis? These may be things we need to change or implement, or they may be constraints that we must address in some way. These "necessities" will also be captured using Necessary Conditions (NCs) which should also highlight (in the Experiment Canvas capability of the Agile Strategy Map) what could go wrong if they aren't fulfilled. This helps prioritizing and identifying dependencies. Once all the NCs have been fulfilled, we should be able to define one or more experiment(s).



A Necessary Condition may be expressed in the following form:

WE NEED TO <....> OTHERWISE <...>.

Given the example of the PSF above, an example of NC can be: "We need to create at least one additional free service in order to measure increased subscriptions, otherwise we won't be able to understand the impact", or "We need to measure existing conversion rates, otherwise we won't be able to set an appropriate target and measure the increased conversion because of free services". In short, the Necessary Conditions will bring the strategy to a tactical level and allow operational work to start. They help in either validating a PSF, in planning the roll-out of a newly identified CSF, or in structuring the management of an existing

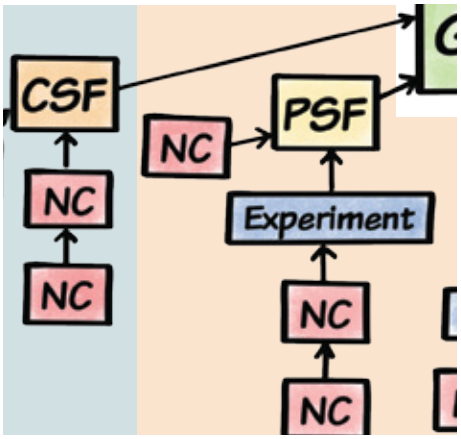
CSF. Relationships between Necessary Conditions and PSFs/CSFs/Experiment Canvases give different meaning to a NC depending on where it is visualized on the Strategy Map. Here is a summary table defining the meaning of each specific relationship.

Strategy Map	Element Position on the Map	Meaning of Necessary Condition
Possible Success Factor (PSF)	Present/Validation	What do we need in order to create an experiment to validate this PSF?
Experiment Canvas (EXP)	Present/Validation	What do we need in order to be able to start this experiment?
Confirmed Success Factor (CSF)	Present/Validation	What do we need in order to make this an asset for the organization? Which training, changes, automation, policies...
	Past/Confirmed	What do we need in order to monitor, measure, and maintain this CSF? Do we need to create any anticipatory triggers?

TABLE – The objects in an Agile Strategy Map

Create safe-to-fail experiments

As soon as you have identified which are the Potential Success Factors you want to focus on, you pull those from the Future/Potential position to the Present/On going position of the Agile Strategy Map and start creating experiments to validate those hypotheses. To get quick feedback and make decisions, the recommended duration of the experiments is 4 to 12 weeks. If we go back to Cynefin and complexity thinking, we can see that experiments in the complicated domain are meant to evaluate possible options, while experiments in the complex domain are meant to let new options emerge. Therefore, for the complicated domain, we run one experiment and validate it.



When dealing with situations in the complex domain, we suggest running multiple parallel experiments, as the context in which the experiments are executed might change quite rapidly. By having multiple parallel experiments, we will be able to recognize recurring pattern(s) across those experiments, identify the possible catalysts that sustain those patterns, and finally validate that what we have identified are actual catalysts by testing those on all the experiments in parallel. This type of approach isn't possible when running a single experiment. The quality of the situational analysis will also be greatly amplified by having multiple different datasets. The recurring patterns might lead to options (the identified catalysts) for which we want to define additional experiments, now in the complicated domain, in order to evaluate the most appropriate one(s). We use an Experiment Canvas, integrated in the Agile Strategy Map framework, to help articulate what the elements we need to know and measure when running an experiment are.

Evaluate and Validate

Collect data at regular intervals

Make sure the Strategy Map is visible to the whole organization and set up a system so that everyone can contribute. There are multiple ways to leverage the collective intelligence and cognitive diversity in your organization. For instance, create a straightforward way for anyone to give feedback on the strategy in terms of Goals, PSFs/CSFs, and NCs. The Improvement Squad discussed in "Roles" is an additional way to involve more people. They can visualize the activities related to the different NCs on a Tactical Board, which is both a way to move from strategy to operations and a very powerful information radiator. Once the experiments have started, you should be able to collect up-to-date metrics regularly. This can happen at very fast intervals, or even in cycles of 1 to 2 weeks. The data should help us understand in which direction and at which speed the experiments are moving (Vector Tracking, as described above), which should allow us to make decisions faster. In complex environments we have multiple safe-to-fail experiments/options for each success factor. Here, we are trying to understand what patterns emerge, so that we can start amplifying the good (those that give us the results we are looking for) and dampening the bad. Occasionally we discover unintended consequences or hidden patterns that impact parts of the organization or factors that we did not consider. We could end up solving additional problems in this way. In complicated environments we gather data and evaluate the options. We can then decide if the Potential Success Factor can become a Confirmed Success Factor and how to close the feedback loop to check on the necessary conditions.

Observe the projects interfering as little as possible

We define amplifying actions and dampening actions before the experiment starts. Note that some experiments might be designed to fail, so in that case the "success conditions" will be about failing. The creation of these conditions and actions provides a set of enabling constraints with triggers to action, which helps create a safe-to-fail environment for the experiment team.

Validate the results and learnings

While experiments are running - particularly in the Complex Domain of Cynefin - we have to constantly monitor the emerging patterns. To be sure they are actual patterns, we need to evaluate their stability and validate their repeatability by identifying which enabling constraints can reproduce them. These constraints can take the form of catalysts, which can both amplify the effects of positive patterns, as well as dampen the effects of negative ones. Will these catalysts help to reproduce the positive effects we have observed during the experiment? How could we transfer those learnings and benefit to the organization as a whole? The answer to these questions will help us make decisions about whether to roll out the learnings or not. Remember that we are talking about a Success Factor, which should be leveraged to achieve our goal, so if we are unsure about it, then there is no benefit to rolling it out.

Engage with all relevant stakeholders

Engage with all relevant stakeholders and parties in the organization to initially set up the Agile Strategy Map and to understand the implications of a roll-out. Make sure all necessary preparation is complete before roll-out, so that the transition to the new system is as quick as possible. Use the stakeholders to support the transition and engage with all involved to increase acceptance and reduce resistance.

Roll out the change

By supporting everyone involved, finding out fast what works and what doesn't, and providing support where problems arise, you will make your roll-out smoother and more effective. In this phase it is very important to handle all impediments promptly by ensuring through frequent meetings that they are removed as fast as possible to maintain momentum. After adopting the Agile Strategy Map with dozens of clients, we came to appreciate it also as a powerful Enterprise and Leadership Coaching Tool: the outcome is important, but the conversation is even more important. The impact in terms of sense of ownership and momentum determined by leaders co-creating and collaborating around a common goal greatly increases focus on the business goals, and offers unique opportunities to coach the leadership team towards becoming a more resilient organization.

Greg Prickril

Strategic product management consultant – Heidelberg, Germany

Solution Management – managing complex environments

Many product management models and books start with a blank piece of paper. But in reality, for enterprise product managers that is not the case. Hundreds or thousands of man years have already been invested in the technology and product that you are to manage. In addition, the customer is not always buying a product but a solution. Greg Prickril has made it his quest to evolve and support Enterprise Product Management and organization to tackle this complexity. In his paper he introduces his thoughts on Solution Management and how it relates to the Product Management.

Managing Complex Digital Solutions in the Enterprise

by Greg Prickril- Prickril Consulting – Germany

Executive Summary

Product management has evolved as a discipline that is considered indispensable in most technologically-oriented product companies. However, rather than taking products to market individually, many organizations take complex combinations of offerings, referred to in this white paper as "solutions", to market and are finding that traditional approaches to product management are insufficient to ensure sustainable leadership in the markets they serve. The Internet of Things (IoT) and other offerings like "cyber-physical systems" have forced many software vendors to develop and integrate not just different offerings, but different offering types, e.g., hardware and software, including those developed by third parties.

In this white paper, we'll define what a solution is and contrast its management with that of a product. We'll also introduce a robust definition for a role called "solution management" which is responsible for defining solutions, getting them to market and driving a successful business based on them.

This paper is intended for executives and product leadership in product and solution companies as well as professionals who find themselves managing solutions, even though "product" may be a prominent part of their title. We'll talk about the key challenges facing "solution-oriented" organizations and suggest a path to transition from a traditional product mindset into one that recognizes the criticality of solutions in solving complex, enterprise problems.

Case: Eagle Eyes

Eagle Vision, Inc.[1] is a provider of urban video surveillance solutions. Their flagship solution, EagleEyez, combines powerful video cameras connected by a secure network to a command and control (C&C) center, where safety operators use a sophisticated software application to facilitate responses to safety issues automatically detected by software monitoring the cameras' video streams (video analytics). First responders like police can use a mobile app to communicate via voice, images and video with the command and control center while responding to events.

Eagle Vision would like to enhance traditional "fixed" video cameras with cameras mounted on unmanned aerial vehicles (UAVs, a.k.a. drones) as the basis for a mobile video surveillance capability. The constituent parts of the EagleEyez solution, examples listed below, must evolve together quickly to capitalize on this compelling market opportunity:

[1] *Eagle Vision is a fabricated company based on Prickril Consulting's experience with multiple global solution-oriented organizations.*

1. **Video analytics** must evolve to compensate for a camera that is not fixed (a very difficult conceptual and computational problem)
2. The **command & control** application must evolve to show the location of drones and display their video feeds
3. The **first-responder app** must display UAV feeds and provide first responders limit control of drones, e.g., return to base.

Each of these offerings has a product manager responsible for its evolution. Based on requirements coming from customer-facing disciplines like sales and consulting, these product managers must coordinate the development of their offerings to incorporate functionality required to support UAV surveillance.

Enterprise Solution Development Challenges

Like many solution-oriented organizations, Eagle Vision faces the following challenges with respect to managing the EagleEyez solution.

1. Lack of Offering Roadmap Alignment

To solve complex market problems, a solution's constituent offerings must evolve in unison. Coordinating the development of these offerings, including products and services, tends to increase the size of the dependency matrix between offerings resulting in substantial strategic and operational challenges. Chief among these challenges is a decrease in time-to-market caused by the development schedule of the "long pole" (the offering that takes the longest to become market-ready). Convincing product groups to contribute to the success of solutions, often to the perceived detriment of their own product business, can also be a massive challenge. For EagleEyez UAV-enabled solution to be successful, changes to the product roadmaps of the video analytics, responder app and C&C software must be aligned and coordinated. The video analytics group has a backlog of partner requirements that is different from the UAV-related requirements.

2. Coherent View of Development Progress

When development on a solution's constituent parts is spread among teams that are distributed organizationally and geographically, it is often very difficult to ascertain a clear picture of overall development progress and thus manage stakeholder expectations regarding solution scope and delivery schedule. Eagle Vision's management and product managers have difficulty understanding the status of development related to delivering UAV capability because engineering is distributed among 2 business units and 3 locations. Getting status updates from product managers often takes several days and still fails to paint a complete picture.

3. Lack of Clear Investment Rationale

Although suboptimal decision-making can occur in any organization, solution-oriented organizations face special challenges as solution teams vie for development capacity from product and services teams. Without a clear business-oriented decision-making process, e.g., a portfolio process, decision-making can stagnate and become seemingly arbitrary, resulting in development investments that frustrate product and solution teams and fail to maximize business returns. The complexity of solutions may also result in "local optimization" within solution groups at the expense of broader organizational objectives. Eagle Vision's executive leadership team must now intelligently allocate development investments among offerings in their portfolio, ensuring that the strategic vision represented by UAV-enablement is sufficiently funded.

4. Counterproductive Contention for Resources

Often a product of deferred or unstructured decision-making, contention for resources, especially engineering resources, can cause internal rancor among solution delivery and product development groups, resulting in inefficient communication and "micro" decision making, lowering morale and eventually compromising business performance. Eagle Vision has suffered from morale issues related to fierce, product team-level competition for the best engineers as well as centrally managed functions such as quality and UX.

5. Difficulty Pricing Competitively

The complexity of differing pricing models among a solution's constituent offerings can make pricing solutions profitably very difficult. Offering development organizations may be incented based on offering-specific revenue measures which may be difficult to "tease out" from an accounting perspective based on a solution purchasing contract. Also, some customers may compare costs offering by offering, requiring "asymmetric" discounts among constituent offerings and complicating the sales process by distracting buyers from considering the overall solution value and price.

Many of these challenges can be addressed or mitigated by empowering a discipline at the solution level analogous to product management at the product level. In the following sections, we'll suggest a new discipline called 'solution management" that can help organizations manage and even overcome these challenges.

What is a solution?

The term "solution" is used commonly but imprecisely in the tech industry. To provide a precise definition, we must first consider a taxonomy of "offerings", i.e., "things" developed by a vendor to be sold to a market. In our experience, very few organizations have a clear taxonomy describing the types of offerings they take to market. Far from being an esoteric or academic exercise, analyzing the nature of what you offer to market is critical in terms of defining associated accountabilities for the development, delivery and overall business success of these offerings.

The Offering Taxonomy

Below, we offer an "offering taxonomy" providing a small set of simple definitions and making important distinctions between offering types. Having a clear taxonomy helps not only align efforts on the part of various disciplines at the vendor (virtually all of these terms are overloaded!), but makes an offering portfolio more consumable to the markets it serves.

Type	Description	Comment	Examples
Offering	Anything offered by a vendor to the market (usually for sale)	Offering is a blanket term for the terms defined below.	See definitions below
Asset	A good developed for a specific customer (physical or virtual).	Sometimes called a "bespoke offering" or "project asset".	Custom billing system "Best of breed" integration project
Product	A good intended to be consumed in essentially the same form by multiple customers.	Types: hardware[1], software, data/content.	Photoshop Quickbooks Headphones Network router
Service	Doing work on behalf of a customer	Contrast with "product".	Consulting, education, commercial paper shredding
Solution	Multiple offerings (products, services and other solutions) assembled to solve customer or market problems	An aggregate concept often required to solve complex market problems.	SAP ERP implementation (software + services) Airport communication system (radios, network hardware, software, implementation services)

The offering types in the taxonomy are differentiated on the basis of material differences in how they must be managed throughout their life cycle. Of particular interest are the the differing skills and knowledge required by those accountable for the success of each of the types of offerings. For example, product management has evolved as a discipline accountable for maximizing the business value of products throughtout their life-cycles. However, we should not assume that a competent product manager will be skilled in defining services such as consulting or education services.

Types of Solutions

Some complex problems lend themselves to solutions comprising constituent offerings that can be assembled and taken together to market. These **market solutions**, those defined prior to being taken to market and designed to address the needs of multiple potential customers, differ from **bespoke solutions**, those assembled to meet the needs of a single customer. In this paper, we will focus primarily on market solutions as the similarity of the solutions life-cycle with the product life-cycle is an essential concept in terms of the management discipline we'll define.

[2] *Some hardware contains "embedded" software. Since the software is not purchased separately, we consider the hardware a single product offering rather than a solution.*

We'll focus on complex solutions addressing complex problems, often comprising tens or even hundreds of offerings. We refer to organizations that derive a significant proportion of their revenue from delivering solutions to market as **solution-oriented organizations**.

Although solutions come in all shapes and sizes, in this white paper **our primary focus will be on on solutions incorporating significant digital technology aimed at "enterprise scale" problems, particularly market solutions**, like these examples:

- Urban surveillance solutions comprising video cameras, network equipment and command and control software supported by implementation and maintenance services
- Airport communication systems comprising radios, high-availability networks, software applications for air traffic controllers and system design consulting services
- Utility grid management systems comprising sensors and data fusion software
- Automotive testing solutions comprising physical testing equipment with embedded software, analytics software and services for test development and execution.

Why create market solutions?

The rationale for creating market solutions is essentially the same as that for creating products:

- Standardization reduces development expense over time, increasing vendor profitability
- The market perceives superior quality and predictability from standardized offerings
- Parts of the market prefers holistic solutions from a single vendor to "best of breed" solutions they must integrate themselves (or pay to have integrated)

Although the rationale for product and solution development is similar, defining and managing solutions requires a set of skills that are often not required or simply not as critical as those required to manage individual products.

Solution Management is Not New…

The role of "solution management" and related roles like "solution specialist" and "solution architect" exist today. However, unlike the product management-like role with end-to-end functional accountability for solutions that we propose in this paper, solution managers today are often delivery-oriented, tasked with managing development of custom ("bespoke" as opposed to "market") solutions for specific customers or delivery of market solutions as part of a customer project. These solution roles analyze customer project requirements and then work with development teams "back at the lab" to fulfill these requirements. This "arm's length" relationship with the engineering teams leads to difficulty coordinating the roadmaps of the constituent offerings and a reactive or tactical approach to development, which in turn increases time to market, increasing project risk and lowering project margins.

As in the case of products, direct, ongoing engagement with engineering (and other internal stakeholders) is required to ensure that the solution development stays on course, solving real market problems. Managing the evolution of solutions from a delivery perspective also tends to result in solutions that meet customer needs at the expense of evolving market needs, resulting in solutions that are perpetually attempting to catch up to competitive offerings and organizations that are reactive instead of pro-active relative to the market.

Solution Management Accountabilities and Activities

Solution management can be thought of as a superset of product management in terms of responsibility and activities. Solution managers should have end-to-end accountability for the success of the solution, although, much like product managers, they tend to have little explicit authority.

Key Similarities with Product Management

These solution management activities are analogous to product management activities but at the solution, rather than the product level:

Defining the Solution Strategy and Roadmap

Solution managers must define a strategy for the evolution of the solution and define a roadmap demonstrating delivery to the market based on a solution vision. Because solutions tend to be B2B oriented and address complex problems, the product roadmap is particularly important to customers and prospects, who need assurances that their business plans, which may extend 5 years and beyond, will be supported rather than disrupted.

Defining Business Objectives and Tracking Business Performance

Solution managers work with executive leadership, sales and marketing to define business performance objectives and are responsible for monitoring relevant metrics and taking corrective action as necessary.

Analyzing Markets and Customers

Solution managers must understand the markets they serve, the needs of their customers and must balance these sometimes-opposing forces. Some complex solutions address “niche markets” comprising a relatively low number of potential customers, e.g., airport security solutions, blurring the line between “customer” and “market”.

Managing Market and Customer Requirements

Solution managers are responsible for identifying and articulating market and customer requirements with enough specificity to allow product groups to implement the corresponding features. Requirements management at the solution level can be extremely complex as requirements may often be defined in detail in requests for proposals (RFPs) and must be expressed as a hierarchy, i.e., solution requirements being mapped to product requirements.

Solution Management and the Organization

Although an exhaustive discussion of how the solution management function fits in the overall organizational context is beyond the scope of this paper, it is worth noting that, as is the case with some products, some solutions reach a level of complexity that requires a solution management team. For example, Eagle Vision may decide to name a "head solution manager" for the entire EagleyEyez solution with a small team of direct reports focused on key aspects of the solution, e.g., hardware, software, UAV management.

It is also important to acknowledge that a solution orientation will impact other product disciplines. The marketing organization, for example, must understand and accept the offering taxonomy, assigning accountability and creating the appropriate messaging and collateral at the solution level. Engaging with marketing early in the process of adopting a solution focus can avoid unnecessary inter-function friction and inefficient and ineffective go-to-market efforts, resulting in faster time-to-market for the solution.

Important Differences from Product Management

Although similar in many ways to product management, solution managers deal with challenges that are specific to managing solutions or must be faced at a scale that is rare when managing products.

Knowledge of Different Product Types

To be effective, solution managers must understand the life-cycle and development peculiarities of both software and hardware products as well as the definition and delivery of services. Understanding the rigors or manufacturing can be a challenge for SMs who have traditionally managed software products, for instance. Complex offerings serving adjacent markets may necessitate creation of various "platforms", which bring their own challenges from a management and implementation perspective.

Stakeholder Management (Breadth and Depth)

The breadth of offerings included in a solution, the overall cost of development and reliance on third parties such as ecosystem partners make stakeholder management more complex than that required for many products. The need to actively manage important stakeholders may leave solution managers with less time to manage requirements and do functional product definition. For large solution, a small team of solution managers may be required (just as complex products may be supported by a team of product managers).

Tracking Financial Business Metrics

Monitoring the business performance of solutions can be difficult or, in some cases, virtually impossible. For example, to track revenue at the solution level, the accounting systems must be configured appropriately. Unfortunately, ERPs and other backend systems cannot track financial information at the solution level, leaving

product managers to cobble together a coherent picture from a myriad of products, including difficult to track discounts.

Deep Knowledgeable of Solution Delivery

Complex solutions often require lengthy, complicated implementation projects. Some of these projects are driven by ecosystem partners. Solution managers must be keenly aware of implementation requirements, ensuring that the entire solution life-cycle at the customer is adequately supported, e.g., installation, upgrade, troubleshooting.

The Benefits of Solution Management

When implemented properly with the appropriate empowerment, solution managers can help solution-oriented organizations thrive in the markets they serve. Some of the key benefits are:

Foresight to Anticipate Market Needs

By assigning a solution manager to market solutions and requiring that they develop a strategy and roadmap for their offering, the organization can break out of a reactive mindset, identify opportunities in the market and be among the first to deliver solutions that address them.

More Efficient and Coherent Alignment of Roadmaps

Solution managers engage closely with product teams, developing relationships based on the definition of their role that help them communicate requirements and get commitment from product teams that are included in the products' roadmaps and are delivered to the market

Improved Pricing and Business Performance Monitoring

With a single role managing the life-cycle of the solution, pricing can be rationalized more logically and organizational and system changes can be modified to provide a clearer picture of solutions' financial metrics.

Coherent Status on Solution Development

Defining and delivering solutions to market as part of a holistic program improves transparency into development status, making it easier to manage stakeholder expectations and improving collaboration and communication between constituent offering development teams.

Solution Management and Product Management: Better Together

The solution management role does not in any way replace the product management role. Canonically, products comprised by the solution will continue to require dedicated product managers. The relationship between solution management and product management depends primarily on how the product is taken to market. There are two relevant delivery modes:

1. Solution-only products which always go to market with a solution or solutions
2. Mixed-delivery products go to market independently and with a solution or solutions

In the solution-only approach, solution managers become product managers' primary stakeholder, with PMs working to fulfill market requirements defined by the associated solution managers. In mixed-delivery mode, product managers must balance the needs of solution management with those of the broader market they are serving. Engagement with solution management as a stakeholder creates unique challenges for product managers.

Product Management Challenges in the Solution-oriented Organization

Product management becomes more complex in a solution-oriented organization in that PMs have a new, important stakeholder to manage: the solution manager. If multiple solutions incorporate a product, affected product manager must prioritize development priorities between them. This need for constant prioritization can place the product manager at the center of a "battle" for development resources and leave them feeling resentful at their plight. Even in the best of cases, a responsible PM needs support from the organization to ensure the appropriate business decisions are made, thus avoiding suboptimal returns on development investments.

In the case of products that continue to go to market outside the context of a solution, product managers must prioritize requirements between the product's market and customers and those of the solutions that incorporate them. This more complex prioritization matrix requires careful consideration of the associated business cases in light of organizational and offering strategy.

The Profile of a Solution Manager

The profile of a solution manager is very similar to that of a product manager with far greater emphasis on the following areas:

Understanding highly complex market problems

Large solutions require understanding the complex problems they address and the many customer stakeholders the solution addresses, e.g., economic buyer, decision-maker, end user. Solution managers often require deep domain experience that requires years to acquire. Professionals acting in a solution management capacity (even though they don't have the title), often come from the delivery organization, where they've spent time helping customer implement complex solutions.

Discipline to resist strong pressure from a small customer base

In markets with just hundreds or fewer customers, this installed base can wield an unhealthy amount of power, driving a customer/market investment ratio that is at least suboptimal and, at worst, not sustainable. Successful solution managers are constantly assessing development investments in terms of their impact on the customers they have versus the customers they would like to have.

Ability to create compelling business cases and influence stakeholders

Solution-oriented organizations tend to have complex decision-making practices, as solution vie for limited development resources from product groups. To generate sustainable success, solution managers must understand the investment decision-making process, e.g., portfolio process, and actively engage with stakeholders to ensure the levels of investment they need to execute on their solution roadmap.

Partnering

Solutions may require partners to contribute offerings to the solution, offer integration with the solution or provide necessary services like education. Managing relationships with third parties, particularly those whose offerings are to be used in the solution, often constrained by contractually-defined obligations, can be a critical skill for solution managers. At scale, solution managers should be liaising with a dedicated partner or ecosystem management organization.

Solutions and Scaling Agile

The discipline of solution management as described in this paper is highly compatible with Agile scaling approaches, particularly the Scaled Agile Framework (SAFe). SAFe describes a solution as the outcome of a "value stream" and talks about functional ownership at both the solution and product levels. Organizations leveraging SAFe can benefit from many of the concepts introduced in this paper, e.g., the offering taxonomy, to complement the SAFe body of knowledge and help ensure the success of their SAFe implementation.

Moving Beyond Product Management

This paper's central thesis is that solution-oriented organizations benefit from the clear definition of solutions as an offering type and from a functional role accountable for solution success, analogous to the widely accepted role of product management as it relates to products. Moving the organization toward a solution-management mindset is not a trivial undertaking. In this section, we'll suggest a logical progression of activities for assessing the need for the solution management role and finally implementing it in as non-disruptive a manner as possible.

1. Adopt an Offering Taxonomy

Proposing an offering taxonomy and getting buy-in is a critical step in generating broad understanding of the nature of your organization's offerings and sets up a discussion regarding the appropriate accountability for their success. If you don't have a taxonomy, consider starting with the one proposed in this paper, adapting where critical. To maintain a functional, commercial perspective, try to avoid using technical terms like "system" and "component" to describe offerings.

2. Create an Offering Inventory

Once you've defined offering types in a taxonomy, create an inventory of your organization's offerings, assigning each to one of the types. Aligning the entire organization on this inventory is likely to be much more lengthy and complicated than you might expect, but is hugely valuable in terms of aligning effort around them.

3. Assess Solution-oriented Pain

Refer to the Challenges Section of this paper and brainstorm the specific pain felt by members of your organization and their stakeholders regarding the management of your organization's solutions throughout their life-cycle. Collect data and anecdotes to support and quantify the pain you identify. Inability to clearly articulate the pain and its impact on the organization will make advocating for change much more difficult.

4. Pilot Solution Management

The next step to adopting solution management is initiating a pilot to learn how to integrate the approach into your organization's development approach. The solution manager should create a strategy and roadmap for the solution and actively engage with impacted product managers. Some organizations begin solution management roll-out with a new solution with smaller scope than mature offerings.

After a successful pilot, you should do a detailed retrospective, collect learnings and then define solution management as a role throughout the organization by getting executive buy-in, creating formal HR positions and upskilling solution managers.

A Helping Hand

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Glossary

asset	A good, virtual or physical, created for a single customer (not intended to serve a market)
bespoke solution	A solution assembled to meet the requirements of a single customer. See solution.
good	An offering comprising a virtual or physical thing
market solution	A solution created to meet market needs and defined before being taken to market (although it may be heavily customized upon delivery).
offering	A good or service offered for consumption to a market by a vendor
offering taxonomy	A classification of the "things" developed by a vendor for sale to customers or a market, e.g., products, services
service	Work that is performed on behalf of a customer
solution	An offering comprising other offerings
solution management	A professional discipline accountable for maximizing the business value of solutions throughout their life-cycle
solution-oriented organization	An organization that derives a significant proportion of its revenue from selling solutions

Harri Pendolin

Lead consultant - helping product companies become better at their business

Portfolio Management – defining the scope

For established companies the portfolio management is often considered to be one of the key activities for reaching sustainable profits. But which portfolios are we to manage and how do they relate to the Product Management activities? Harri Pendolin was one of the Nokia Heroes building the portfolios that conquered the world. In his paper he shares the starting point for managing portfolios. What are the different portfolios we are to manage and how do we do that?

Portfolio Management in technology companies

by Harri Pendolin – Contribyte - Finland

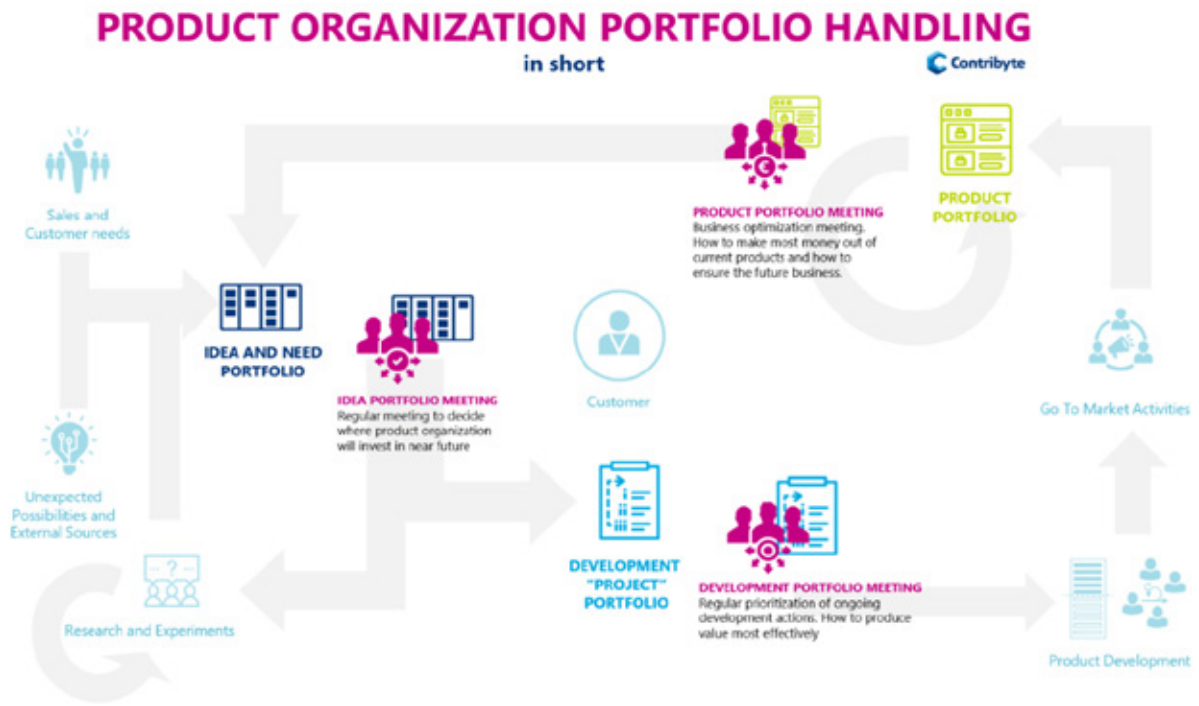
The term "portfolio management" is one of those expressions which have multiple meanings in companies. For companies delivering technology products and software the portfolio thinking is vital for continuous success. To leverage portfolio thinking there is a need to establish a workable definition. Product and service organizations always have at least three portfolios, although few organizations actually manage them separately. However, as the portfolios have very different purposes, they should be managed separately with different tools and priorities.

Types of Portfolio Management

Different decision-making processes are needed in the different stages of business and lifecycles of products and features. Every organization has at least three types items that can be called portfolios:

- Idea and Opportunity portfolio
- Development Project portfolio
- Product portfolio

Product and service organizations always have these three types of portfolios – whether they want that or not. The portfolios have different time horizons, financial drivers, different stakeholders. Hence, the portfolios need different ways of managing them. The steering systems of the best organizations have been built around portfolio management, which means that these organizations are able to maximize the advantages offered by their products, services, and product development.



The Portfolio management have three concrete Areas. Above an example of relations. Portfolios are interlinked but needs different management processes. Above an example of relations. (1) Idea Portfolio generate (2) Project Portfolio. Project portfolio upgrades (3) Product Portfolio. The Product Portfolio generates Ideas of improvements.

Idea and Opportunity Portfolio – Investing in the Future

Many organizations use the term "portfolio management" when they actually refer to new ideas, customer requests and market needs they may want to develop. For example, Portfolio Kanban is a tool for this type of portfolio management. One reason for this is probably that this type is the only portfolio used in the popular SAFe model.

The central purpose of idea and need portfolio management is to make investment decisions concerning the priorities of product development, or, in other words, to improve the organization's future competitivity. Business cases and related tools, such as the Lean Business Case Template and the Business Model Canvas, can be used to support decision making. However, some decisions may require testing and research in addition to business cases. These types of decisions require a different process than those that can be directly productized.

The inputs for the idea and need portfolio can come from any source. We have divided these sources into four categories: improvement of existing products, sales and customer needs, research and tests, and unusual sources. The improvement of existing products can mean either small improvements or larger processes where the product is replaced with a new one. Sales and customer needs can involve responding to the requests of customers or understanding the market on a broader scale. Research and tests can create possibilities through tests that have been authorized by the organization. The unusual and outside sources include new market opportunities outside the organization's current sector.

Development Project Portfolio – Prioritizing and Managing Product Development

The development portfolio refers to the new products or features that the product organization is currently working on. Such terms as the product development organization's backlog or project portfolio can also be used. This does not mean that the organization only focuses on completing projects according to the waterfall model. Development portfolio management is the foundation of the agile development of the organization. All features that are worked on or waiting to be released belong to development portfolio management.

Development portfolio management is the most essential tool to ensure efficient product development. In the product organization, nothing can be as useless as creating features that are too complex or unwanted. Development portfolio management does not have to be centralized: it can be led by teams, product owners, or product managers. The most essential thing is to ensure that this work is seen and let people know about the decisions that have been made.

Development portfolio management is often poorly handled in organizations. People tend to think that starting a project means that it is worth following through. Continuous learning and prioritization are the basic concepts behind a winning organization. Creating new features is a continuous learning process. The best organizations continuously test the features with their clients, and even the mediocre ones can at least learn something new about technology during the development process. Learning serves no purpose, however, if it is does not lead to decisions and changes. Prioritization is a must. You can be 100% certain that not all planned features or parts of these features are worth completing. This is the most effortless way to enhance the product organization's productivity.

Product Portfolio – Identify the Successes, Discard the Unprofitable

The product portfolio is the source of the company's cash flow. The product portfolio includes the released products and features which create revenue for the organization. Product portfolio management is the most essential tool to ensure the company's success in the near future, i.e., the following 0–24 months. The product portfolio might have sources for ideas that can be used later on as well, but these new ideas should be first analyzed and prioritized in the idea and need portfolio.

One of the best-known product and service portfolio management tools is the growth-share matrix introduced a while back by the Boston Consulting Group. In this chart, products are put into four categories according to their market shares and growth rates: cash cows, stars, question marks, and dogs. These categories help the organization to decide whether to invest in or kill the product. It pays to remember that the further investments do not necessarily include product development, as they can be, for example, investments in marketing or sales. For many, killing a product is the hardest part. Few organizations are able to say "no" to the client, meaning that some products are kept alive artificially for too long.

Of course, the BCG growth matrix is not the only tool that can and should be used in product portfolio management. For example, digital services might require a very different measurement system compared to traditional physical products. Each organization should find their own measurement systems for their products and services to ensure that their product portfolio is efficient enough for the strategy and market.

Three Portfolios – the Three Most Important Tools Along with Strategy

Organizations that do not manage three separate portfolios – the idea and need portfolio, development project portfolio, and product portfolio – are not in charge of their organization's future. Some organizations should divide their portfolios into smaller parts: for example, the development portfolio can be managed by product areas. For the organization to be a winning one, it should at least manage these portfolios using different methods and forums. This is due to the fact that the objectives as well as the decision-making cycles and models of these portfolios are very different.

Magnus Billgren

Tolpagorni is inspired by speed thinking in product management

Speed Layers– Develop fast, Develop slow

We often talk about accelerating business. Becoming faster. But we also know that things move in different speeds. In the restaurant business it is obvious that developing a menu and recruiting a chef takes a longer time than to cook the food. (Hopefully) The same reality applies for all tech companies. Building a platform or creating a delivery organization has one speed while fixing a small bug goes much faster.
So, if we embrace the fact that things move in different tempo, how are you to work with your product? Magnus Billgren has implemented Speed Methodology in a number of world leading companies releasing the power of speed layers. Magnus takes the thoughts of Michael McGrath and his platform thinking one step further into our fast-moving world by embracing slowness.

Speed Layers a concept to Develop Fast – Develop Slow

By Magnus Billgren - Tolpagorni Product Management - Sweden

Products Strategies often fail

At Tolpagorni, we've made it our business to develop product strategies, advising companies on how best to navigate the road to success. Over the years we've created and driven strategies throughout a number of diverse industries – and in that time, we've seen it all. We've seen the roadmap with unlimited resources. The suicidal sales-driven strategy. The PowerPoint Dream strategy. The passive run-me-over strategy. And many, many more.

With every new strategy we see, however, the more we ask ourselves the same questions. Why is it so hard to create a product strategy? What is the thinking behind successful strategies? And, most importantly, how do we create a strategy that we can effectively execute upon? Now, after years of experience devising hundreds of strategies for hundreds of businesses, we've set about to answering those questions. And we approach it from a time and speed perspective.

Our Hypothesis: Work with SPEED LAYERS

We believe there is a place for a new way of looking at strategy, products and organizations. We call it Speed Layers. It is a concept for creating a strategy and managing products and organizations. It builds the capabilities needed in today's accelerated environment by using a speed perspective.

REALITY CHECK and our CHALLENGE

All companies in the technology intensive world are being challenged. "Innovate or Die" is today's mantra. The markets are shifting and new technology is being developed. Agile development models have drastically altered the arena for creating products and services. The speed of change is increasing in all markets. It is not a matter if a shift will occur but instead how and in what pace the shift is happening.

The new challenging situation cannot be dealt with by using the old school management and strategy models. To address the challenges alternative perspectives are needed. Perspectives allowing incremental yet radical innovation. Perspectives enabling short term monetization while pursuing investments in new core technologies for long term success.

Most products have a vey complex environment. There are deliveries to be made every day. There is a daily development being done for securing long term business. We need to position the product in the ecosystem and sales that needs to be closed today. There are multiple development teams working on platforms, data, features and operations.

Business decisions are hard to make in this complex arena. We struggle to create business cases on core technology development where the obvious revenues are impossible to foresee. We enter a long business decision process for development we should have done yesterday.

In many organizations we try to establish one way of working. One way of doing product management, one way of running projects, one way of evaluating investments. This strive for one common way of working might make it easier for management but it creates tons of waste in organizations.

Introducing the concept of SPEED LAYERS

What would happen if we were to look at the strategy, product and organization from a speed perspective? It changes everything. We can quickly identify that there are layers in work where different speeds are needed. All those issues you need to handle like bugs, sales opportunities, new technology, a new market entry, recruiting new personal, setting up a new partnership etc. can be placed in different speed layers.

Each speed layer shall receive its unique priorities, ways of working and decision-making process. We want to have speed in execution on sales activities and bug fixing and a strategic evaluation on implementing a new technology platform. And they need different financial evaluation models and decision making.

Speed layers establish an outcome driven organization and relevant ways of working. It will minimize waste in the organization and increase your value delivery.

Speed layers are of course different in different organizations. We have worked with 2,3 and 4 speed layers. Most common is a three-speed-layer model. A typical set up for the three layers can look like this:

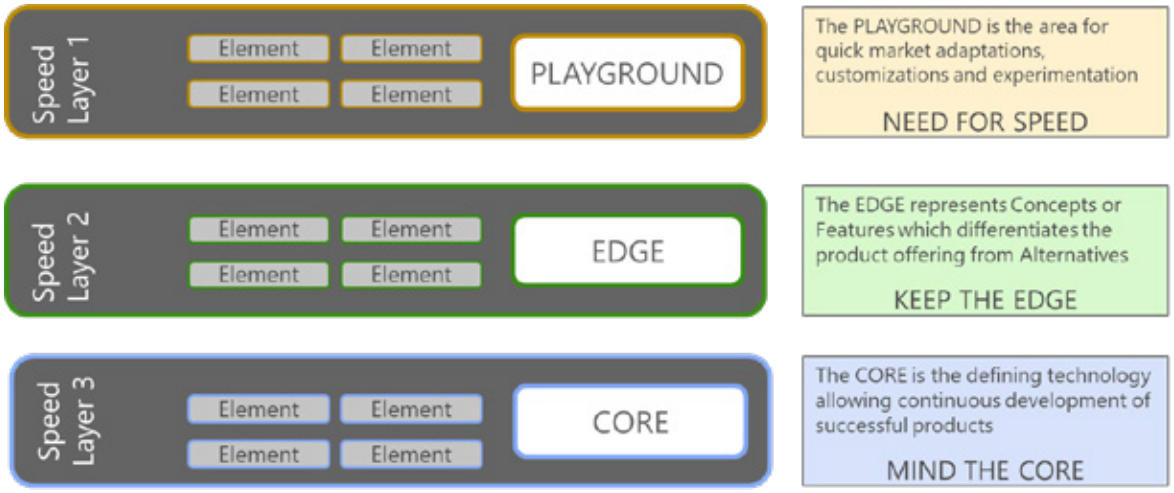


FIGURE - Each layer consists of multiple elements. The three layers have different goals and drivers that defines the pulse and speed of the layer. That will result in different perocesses and way of wortking in the layers defined.

- **Speed Layer 1 with the Playground**
  Speed layer 1 is about high speed execution. It is often driven by deliveries and customer interaction. The Playground defines the rules of engagement within the deliveries. It defines customization level and in what areas.
- **Speed Layer 2 with the Edge**
  Your differentiation in the market is often defined by the work you do in speed layer 2. The differentiation or the Edge as we sometimes call it must be continuously replaced since your competitors will copy it.

- **Speed Layer 3 with the Core**
  The core of the product is what drives your long-term success. It is the part of the product where you create the sustainable vector of differentiation. The area where you always will be better than all the rest.

The different speed layers shall have their own way of working, KPI: s and financial models.

Speed Layer a Starting Point

Below is an example of principles applied for the different layers. The example can be used as a starting point for establishing rules for the Speed Layers:

SPEED LAYER 1 with Playground

The Speed layer 1 is often driven by the customer behaviors and how you deliver the product. We all know that we need to respond quickly to customer demands and accelerate deliveries.

#	Rule	Rational
1	*Encapsulated with clearly defined interfaces*	*Increase speed* *Ecosystem enablement*
2	*No design for reuse*	*Avoid technical debt* *Speedy*
3	*Fast feedback loop*	*Fast updates* *Secure value delivery*
4	*Developed solutions and knowledge shall be shared*	*Building long term competitiveness with short term projects* *Identify patterns*
5	*Continuous evaluation of whether solutions shall be moved, and redesigned, to other Speed Layers*	*Leverage good solutions* *Keep it Manageable*
6	*Financial evaluation is made on the individual delivery*	*Short decision process* *Easy evaluation*
7	*Defined available resources (or prioritization logic)*	*Short decision process* *Business Commitment*

FIGURE - Typical rules and rational for Speed Layer 1 with the Playground. This layer is often driven by deliveries and has a very high speed.

Speed Layer 2 – with EDGE

Speed layer two is often driven by the Edge of your product.

What is it that gives your product an advantage over the competition in the market? How do you ensure that you're always a step ahead? Having an edge in the marketplace is vital, which is why 'Edge' is a fundamental layer in your product. You may know 'Edge' by different names such as USP (Unique Selling Point), differentiator, or value offering, but whatever you call it, it always needs to have the same two characteristics:

1. Continuous evolution. Your 'Edge' must be constantly upgraded, updated and redeveloped in order to stay fresh and current. Bear in mind that your competitors will always seek to emulate you, and so in order to stay ahead of the pack, innovation and progress are of key importance.
2. Continuous value. Your 'Edge' needs to offer significant value to your customer, and so in order to differentiate yourself from your competition, you need to always be reevaluating the level of value you offer. Pay special attention to the area of resonating focus, and keep your edge sharp.

#	Rule	Rational
1	*It shall clearly differentiate from the alternative*	*Drives sales* *Protect core* *Ecosystem enablement*
2	*The EDGE shall be exchanged continuously*	*Competitors will copy your EDGE* *Stay ahead*
3	*The EDGE shall be possible to Demonstrate*	*To visualize value delivery* *Customer feedback*
4	*Everything in Speed layer 2 is not the EDGE*	*EDGE means best*
5	*Requirement Management shall consider applicability in other speed layers.*	*Ruthless prioritization* *Leverage projects* *Sound Product Architecture*
6	*Financial investment is business case and budget driven for multiple customers*	*The investment shall generate sales* *The EDGE is not customer driven*
7	*The EDGE shall be actively used in Marketing*	*Reason to exist*

FIGURE - Typical rules and rational for Speed Layer 2 with the Edge. This layer is often driven by the market and is where you secure your competitive edge.

Speed Layer 3 with CORE

Inspired by the work of PRTM and Michael McGrath, who referred to it as 'defining technology', 'Core' is the singular component of a product that allows for the development of sustainable differentiation. Rather than being limited to a single technology, 'Core' is a continuous skillset or tool that is difficult for competitors to copy, and facilitates the process of constant product redevelopment. Sometimes it is an algorithm, sometimes a modular system, and sometimes a process or production. Whatever its form, however, 'Core' can never be customized and must continuously be invested in for the sake of business success. As such, it is the most critical element in any product strategy, and must never be ignored.

#	Rule	Rational
1	*It shall be difficult to copy*	*Builds barrier of entry* *Protect CORE* *Ecosystem enablement*
2	*Enable you to continuously develop new profitable products, Ddelivers sustainable vector of differentiation*	*The DNA of your portfolio* *Your product leadership*
3	*Defines the life cycle of Speed Layer 3*	*Changing the CORE is painful* *Jeopardizes the business if done wrongly*
4	*The integrity of the CORE must be protected from customization – identify CORE Significant Requirements (CSR)*	*There can be only one variant of the CORE*
5	*No business case - a ticket to compete*	*Doesn't directly generate money* *Strategically driven* *Contiuous evolution of the CORE*
6	*Area for building knowledge and IPR*	*Shall be continuously evolved and protected* *Build Dev team*

FIGURE - *Typical rules and rational for Speed Layer 3 with the CORE. This layer is often driven by technology and sustainable differentiation that is hard to copy.*

Conclusion

Speed is pivotal in strategy execution. Using the concept of Speed Layer helps organizations to establish a relevant decision mechanism. Hence, assisting us in executing a strategy. Speed layers also bring capabilities into the product. It allows prompt response on customer demands and also sustainable revenue streams. The concept can be used explicitly designing your strategy, product architecture and organization.

References

The Speed Layer thinking is a perspective and a model. It has been used in multiple cases by leading companies and focuses on a pragmatic strategy and product development. The model is developed by Tolpagorni after years of driving Product Management consulting and research. It is inspired by thought leaders such as Michael McGrath, Rich Mironov, Geoffrey Moore, Prof Dr. James Anderson, Prof. Dr Tony Gorschek as well as Rock Star Jonatan Stenson. The Conway's Law has been a trigger in developing the concept as well as the SERT program at Blekinge Tekniska Högskola.

Petra Farm

Product Strategist at Tolpagorni Product Management AB

Sustainable Revenues – delivering a greater Value

The valuation of companies on the stock exchange is about anticipating the future revenues. Risks and uncertainty are quickly reducing the value of any stock. What if you could show the sustainability of your business and revenues?
The Product Management arena is a powerful position. We as product managers define our company's future offerings. But how do we work to create a sustainable revenue, that also puts sustainability into the equation. Dr. Petra Färm has together with a group of extra ordinary product managers extended the business model canvas to include sustainability. In her paper she gives hands-on advice in how to create sustainable revenues and include sustainability in your business model.

Extended Business Model Canvas for Sustainable Products

by Dr. Petra Färm - Tolpagorni Product Management – Sweden

Business Model Canvas for Sustainable Product Development

It is quite clear for most of us that we will need to reduce product footprint for this world to survive and be a peaceful just place for all of us. As product people we have great influence (perhaps even greater than we think) and we should use it to create products that are built, sold, used, recycled in a way that supports sustainability. All our decisions through-out the life-cycle of the product should consider both financial aspects as well as environmental and ethical. To facilitate this process, we have together with product manager friends and colleagues extended and enhanced the Business Model Canvas. The business model is one of the most widespread tools for Products and is used for visualization of the product's business model. Our guiding star in the work with the enhanced business model canvas has been the 17 sustainable development goals set by United Nations to transform the world.

The extended business model canvas

The business model canvas is updated with a top bar mirroring the bar with Cost structure and Revenue streams at the very bottom. It consists of two boxes one for Footprint structure which in some sense is the cost your product is inflicting on its surroundings. The second box is for Sustainability streams, it contains how your product is contributing to a better environment and society, i.e. how your product including the way you build it, sell it, destitute it, maintain it helps achieving the 17 sustainable development goals. Or in other words how your product is creating revenue streams for the world.

FIGURE - The extended Business Model Canvas with Footprint Structure and Revenue Streams

Footprint Structure

The term footprint is used to refer to the impacts your product has on the environment, users and non-users. It should consider economic and social factors as well as the consumption of resources. The resource analysis is made from a cradle-to-grave perspective.

FIGURE – The concept of Craddle to Grave is to be used when analyzing the Footprint and Streams

It is important to remember that a software only product still requires hardware, electricity, facilities etc. For example, the explosion of data is requiring an equal growth in number of servers. Other examples include:

- Water consumed in production
- Electricity when in use (e.g. for SaaS offerings)
- Health of your workers, developers, support team
- Non-user impact (e.g. traffic accidents due to Pokémon Go)

Sustainability Streams

The sustainability streams are the short- and long-term positive impacts your product and/or service is creating on the environment, on society, users or non-users. Perhaps your product is creating decent work opportunities on remote sites by installing and supporting tech equipment with trained local personnel.

Another example is to extend the product life cycle by robust high-quality design and trying to keep the greatness in the product so that we minimize waste.

Interlinked

As in the original business model canvas the boxes are interlinked and affect each other. So, when you updated your business model with, for example a new Key Partner, you need to consider how this impacts your footprint structure and sustainability streams. And vice versa, when you add a new sustainability stream you need to consider what need to be changed in the rest of your model to make it happen. Will you have to change the channels you use? What we sell? Number of hours in takes us to produce the product?

The Business Model canvas

The Business Model Canvas (BMC) is a strategic management tool to quickly and easily define and communicate a business idea or concept.

It is a one-page document which works through the fundamental elements of a business or product, structuring an idea in a coherent way.

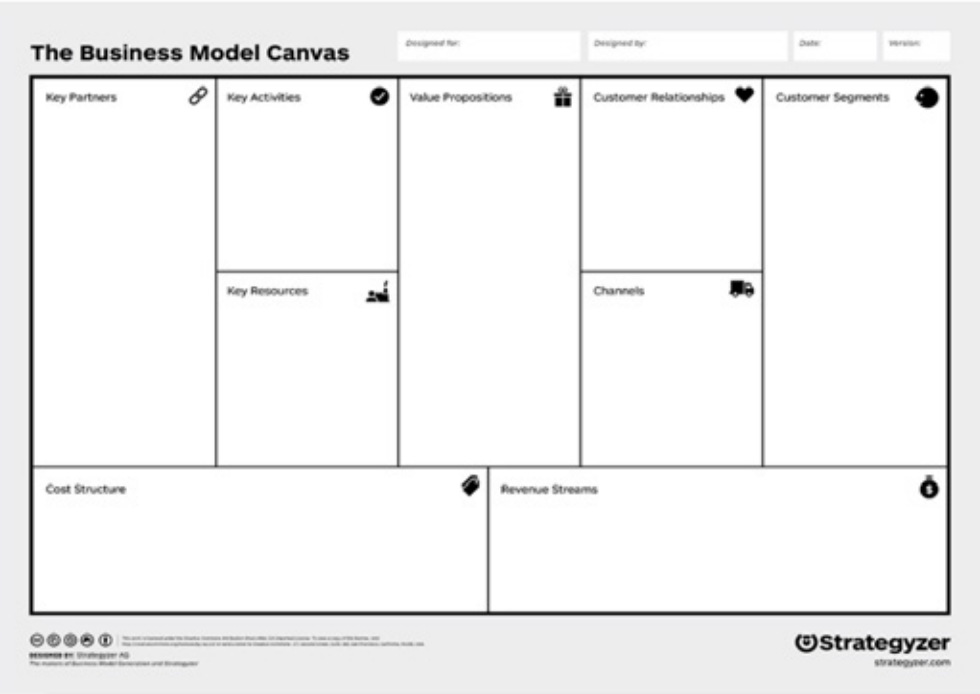


FIGURE - The original Business Model Canvas by Strategyzer

The right side of the BMC focuses on the customer (external), while, the left side of the canvas focuses on the business (internal).

Both external and internal factors meet around the value proposition, which is the exchange of value between your business and your customer/clients.

The Sustainable Development Goals

The 17 sustainable development goals include environmental targets like Life under Water and Life on Land, but also goals like No Poverty and Zero Hunger. There are also ethical goals for equal opportunities and gender equality. Each of the goals have a subset of specific targets. It might be difficult to target all of the goals with your product and therefore you might have to select a few to focus on.

1. No Poverty
2. Zero hunger
3. Good health and well being
4. Quality education
5. Gender equality
6. Clean water and sanitation
7. Affordable and clean energy
8. Decent work and economic growth
9. Industry, innovation and infrastructure
10. Reduced Inequalities
11. Sustainable cities and communities
12. Responsible consumption and production
13. Climate action
14. Life below water
15. Life on land
16. Peace, justice and strong institutions
17. Partnerships for the goals

FIGURE - The 17 Sustainability goals by UN

Consider the following when selecting an area to work with:

- Where does your product have the largest footprint
- Which goals are in the circle of influence for your product
- What in the world would you like to change

To understand goals deeper you can also look at the sustainability KPIs developed by the UN. The UN list of goal indicators for the Sustainable Development Goals can be found here:

https://sustainabledevelopment.un.org/content/documents/11803Official-List-of-Proposed-SDG-Indicators.pdf

Examples of product KPIs for sustainable development:

- Number of support cases solved locally (relevant for tech products sold in development countries)
- Electricity consumed by data storage (both for servers and cooling)
- Product recycling rate
- Non-user impact (e.g. pedestrian accidents with self-driving cars)

Conclusion

Most of us are building products supporting the UN sustainability goals. But we can become better in understanding how. We can by already in the business planning connect business with the sustainability goals. It is time to focus more on sustainable products, to consider the environmental impact and ethical stand your product has when making business decisions.

This should not be a game of comparison; we should all strive to continuously improve our products impact on sustainability, step by step will make them better. Let's show some grit.

References

UN 17 Sustainable Development Goals

Business Model Canvas

Quantis – Product Footprint

Tony Gorschek

Blekinge Tekniska Högskola - Sweden

Value, Waste or Overhead

Professor Dr. Tony Gorschek claims that your work can be categorized into three buckets: You create value, you do the necessary overhead or you develop waste. The core thinking behind agile and lean methodologies is to minimize waste and overhead and deliver more value.
So, if you want to become truly agile you have to focus more on value. Tony is one of Sweden's most published researcher in the world's most prominent paper like Journal of Innovation, HBR etc. And he will provoke to make you think about your contribution to your organization and your customers.

Is his paper waste, overhead or valuable?

VALUE-BASED PRODUCT AND SERVICE DEVELOPMENT

By Prof. Dr. Tony Gorschek – Blekinge Tekniska Högskola - Sweden

Whether you are a product manager planning and predicting, working as a technical architect or developer, or managing teams, there is one concept you use and hear others use all the time - and that is Value. You probably read a lot, listened to a bunch of consultants and experts presenting models on how to measure or focus on Value - and you are probably just as confused today as you were before the experts. I know I was when I started to study this area. But I am getting ahead of myself, please allow me a short introduction. I am a research scientist that works as an applied empirical researcher. This basically means that I don't sit in my office inventing problems and solutions that no-one except academics read. I work embedded with industry partners and try to solve long-term challenges that enable improved efficiency and effectiveness of product and service development in real companies. My background is in engineering and technology, and my interest in Value started early in collaboration with Volvo, Toyota, and ABB, but later became a focused effort in collaboration with Ericsson where we developed a way of working that concretely uses "Value" as a base for product planning, but also operative lean and overall Value-based engineering. I am not going to discuss Value as a fluffy concept, rather present a pragmatic view of three concepts; Value, Waste, and Overhead, as they are interrelated and can not be separated. My take on this is based on years of research and practical gritty implementation of Value-based product development often in conjunction with introducing lean and agile (the real kind) in a dozen companies or so.

VALUE, WASTE AND OVERHEAD

A lot of people are discussing and using the concepts of Value and Waste. However, very few specifically define the concepts. This is especially troublesome as Value and Waste are mission critical concepts for any activity being done in any organization - whether you develop software products or run a hospital and buy information systems. What any organization or individual wants to do is to maximize Value, and at the same time minimize Waste. That is it, simple right? Well... to do this, we need to define the concepts and then use them, and this is where it gets a little trickier.

VALUE

Let's start with Value. Value consists of many types of sub-values, ranging from easily recognizable customer value(s), but also covering internal values, like architectural value and value of technology. In essence, anything that is done in a company (activity), or developed for a product or service (e.g. a feature), should add some type of Value, otherwise what is the point?

Let us take a couple of examples. Adding a biometric identification feature to a car (replacing the key) can be seen as adding Value. Value sub-types like for example, customer usability value and customer reliability value and customer hedonic value for the "car product" increases as people might find the new feature a good one. These three values are examples of so-called external value types that are increased for the "car product" by the feature "biometric identification". This is simple enough.

Now, there are value types that also reside in the internal engineering and delivery of a product or service (so-

called "Internal Value perspectives"). Taking our example, if the biometric feature was developed and released in a way that made a mess in the product structure (through e.g. breaking APIs, suboptimal code that is hard to maintain, dependent on black-box technology, etc.), this also affects the overall Value. Specifically degrading the sub-value type architectural value of the overall product. So, adding a feature to a product can result in adding some value(s) and decreasing other value(s) - at the same time. The realization that any decision you take will influence multiple sub-values, always and that influence can be both positive and negative - at the same time - is critical in understanding and using Value as a concept.

As an example, the discussion of technical debt, which is often well recognized, is a direct result of value degradation, specifically internal Value and often the sub-type Architectural Value. Thus one can see Value degradation as a debt you owe given that you in most cases choose to introduce it as a consequence of resource, time and/or financial pressure when planning and developing products or services. The important thing overall with Value is not that Value should always increase, all types, rather that you should have knowledge about what Value impact (positive and negative) your decisions incur.

WASTE

How does waste come into this? Well, looking at a simplistic view of Lean for example, anything that does not add Value is per definition Waste. This is of course an oversimplification. Anything that does not add Value is either Waste or Overhead. Let us be concrete immediately.

I add a biometric feature to my car product. And let's assume that all customers hate it. Well, then no value was added (actually the customer value types decrease) in this case. So then the entire effort is Waste? Hold on, yes and no. It depends. If I, as for example a product manager, could have predicted that the biometric feature was a bad idea before developing and releasing it, then yes, all effort, time and work put on the feature can be seen as Waste.

OVERHEAD

However, if I could not predict this then it should be seen as Overhead and not Waste, Overhead can often be seen as "the cost of doing business". The differentiation between Waste and Overhead is actually quite easy. Anything you do that could be done "better" creates Waste. This is why continuous delivery (faster iterations) to customers (or part of a test group for example) as proposed in many agile methodologies has the potential for fast input thus avoiding longer gaps in intelligence gathering to figure out if an effort is Value adding or not.

ARE MEETINGS VALUE, WASTE OR OVERHEAD?

Let's take an additional everyday example. Meetings. Going to a meeting can create Value (a good idea comes out of the meeting), it can be Overhead (needed for e.g. coordination), or it can create Waste (going to a meeting that does not give anyone present anything). Figuring out the line between Waste and Overhead is the really hard part, but trying is often good-enough. For example, have you had a project that was running - then you realized that this was an overall bad idea and that the project should be stopped/canceled? If you stopped it as soon as you came to the realization then there was no Waste, rather the entire project was necessary for you to come to the realization that it was indeed a bad idea… However, if you delayed stopping the project for any reason, e.g. that you already spent so much money you can't just stop it…, then any time/effort expended post-realization should be considered as Waste.

A more technical example can be seen in refactoring activities, for example, architectural refactoring. Is this Overhead or Waste? It depends. If you refactor parts that then are easier to use for future development efforts, then it is Overhead. But, if you refactor items that are to be discontinued anyway, it can be seen as Waste.

Overhead does not produce Value per-see but enables Value creation. Waste are activities that consume time, money, space of any kind of resource, without producing any type of Value.

REMOVING OVERHEAD CAN CREATE WASTE

"So, we want to add as much Value as possible, remove all Waste, and minimize Overhead." This is often the reaction when discussing the area with engineers and managers. The critical thing is, however, to realize that Overhead cannot be minimized. Every organization, all functions within and all product development efforts are actually dependent on Overhead to work. Overhead is the oil that lubricates the gears of Value creation, and if there is Overhead that is not necessary it is per definition Waste. Think of it like this. If you remove Overhead and Value creation is not slowed or made harder, then you removed Waste. If, on the other hand, you remove what you perceive as Waste, but it turns out Value creation takes a hit, then you removed (necessary) Overhead. We have seen this recently, and especially in the early days of the "agile revolution" where documentation, specifications and other such items and activities was often seen as "the old way" and many practices of this type were discontinued. Down the road it was often realized that the compensatory mechanisms in "agile" did not fully replace all practices discontinued. A trivial example was the inability of the product (management) organization to monitor and efficiently plan and prepare for releases of a product as newly-agile teams stopped release documentation, and also did not follow a controlled plan - but used team decisions to develop optimally. The point is not that we need documentation, the point is that we need to be careful not to remove Overhead in the belief that it is Waste. Well, ok, but surely you want to minimize or make Overhead effective? The answer is surprisingly no, no you don't. If you have an activity (or item or similar) that is Overhead, if you can remove parts of it with no consequence to Value creation, then you per-definition are removing Waste. Keeping this distinction between Waste and Overhead is critical as a starting point in any improvement and "leanification" initiative.

ONE PERSON'S WASTE IS ANOTHER PERSON'S OVERHEAD

In any non-trivial organization, things are too complex for one person/role to have a complete picture of what is going on. A developer might in some cases from a team perspective identify items that are complete Waste (say keeping an architectural description up to date for every release) in the belief that F2F or informal and indirect knowledge transfer will keep everyone in the loop. This might be true, but as the saying goes "assumptions are the mother of all mistakes".

So we should keep everything, just in case someone needs it? No, definitely not. It is actually better to remove things, slowly, and stop first when someone notices. Jokes aside, this is a good method. But using methods like Value Stream Mapping in combination with defining team and organizational APIs should be a part of continuous management and organizational development on all levels, especially in agile environments. In fact, if you do not constantly work with waste removal you are per definition not agile or lean. End.

ARE YOU "AGILE" - REALLY?

Having Waste around hinders you from creating Value. Thus all agile environments should actively and constantly identify potential Waste, do what they can to make sure it is not Overhead, and remove it. This is a perfect activity for retrospectives for example, but need to be institutionalized (for lack of a better word) in the entire organization as a never-ending and constant activity. I have seen organizations with no traditional agile practices at all being super "agile", and I have seen many organizations using a lot of agile practices not being "agile" at all. Being "agile" or "lean" is not dependent on using a cookbook approach, even if that can give positive effects. Rather, it is about identifying that everything changes all the time, both for people, organizations, products and customers. In this dynamic environment, the pursuit should be creating Value, and to do so you use whatever practices, methods and tools you need. Waste is the enemy of Value creation - thus removing it is per definition enabling agility.

Torbjörn Höjer

Product Guy and Guru Tolpagorni Product Management AB

You cannot develop great products without insights!

We all talk about understanding the customer and the market. But often we get caught in opinionated thinking and discussions. Torbjörn Höjer is a designer by trade and has always focused creating true insights before designing the products. But what tools are relevant to use for product managers in developing the insights needed. Torbjörn has collected ten of his favorite insight models.

A hands-on practical paper giving you concrete discovery models to start working with today.

Know your customers – build Insights

By Torbjörn Höjer - Tolpagorni Product Management - Sweden

Stop the Waste

Empathizing with our customers, by using our own empathy to truly get into the mind of our customers, is the foundation for all the Product activities. The study of our customers, to understand their behaviors and foresee their needs, has shown to be a key to successful products. As a Product Manager, you need to know your customers, be curious of how they do things and what their wishes are. Not to blindly follow their specific requests, but instead use the knowledge and insight to form your vision for development of existing or future products.

When the understanding of the customers and the vision for our products is put on hold, the risk for failure increase. And if you start development based on the wrong hypothesis, you spiral down the wrong solution, fed by the feedback on your hypothesis and solving the wrong customer problem.

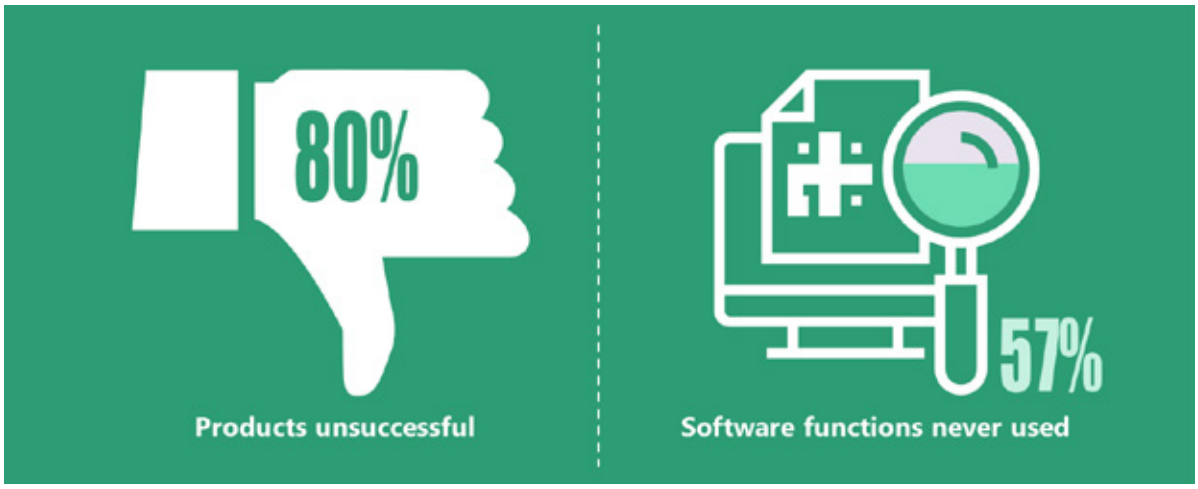


FIGURE - There is an enormous waste in developing products that are not used by the customers.

In fact, many companies talk about an 80% failure rate for new products, where they don't meet the intended success. And MIT once found that 57% of software functions are never used*. This means not only huge amount of capital waste, but also that a large part the hard work and passion we as Product Managers and our development teams put into committing to the Product and the work to develop it, marketing and training our sales force, is for no use. If we could only use that time and energy to create something valuable for our customers instead.

Observation tools

These are a collection of tools to maintain the continuity of collecting Customer Data, feeding Product Management with relevant information to base the strategy and Product work on. To create Insights. You can

use one or more tools, but not all tools in the same process. Carefully chose the tools which suits the current situation.

Quite often, the Five Whys model is a good start.

Interviewing techniques

1. Five Whys model
2. Four dimensions response model

Empathy methodologies

3. User interviews
4. User Observations
5. Personas
6. Empathy mapping

Implementing insights

7. Value Tree
8. Target Market
9. Driving Forces
10. Insight Matrix

Interviewing techniques

1. Five Whys model

Finding the root cause or opportunity. The method has been around since the middle of last century and it basically advice to ask "Why" five times until you reach the root cause of the problem, or the core of an opportunity. It's very commonly used in optimization for performance and process, but it also very useful for understanding customer behaviour, especially with the type of products that require heavy customer interaction.

The best way to start using this model is by formulate a clear problem statement and then keep asking "Why" until you reach the root of the problem.

2. Four dimensions response model (say, do, think, feel)

A generic response framework. The Four dimensions model is a frame work which you can combine with almost all the other methods to create a deep understanding of not only what the customers say, but more importantly

- what they actually do with your product, how do they really use them?
- What are their thoughts about your product, and what matters to them most?
- And finally, to know how your customers feel when experience your products and what are their triggers?

Finding the answer to these questions you will create a deep and solid insight about your customers.

FIGURE - Don't just do surveys get under the skin of the customer with four-dimension response model.

Empathy methodologies

3. User interviews

Gain customer insights. User interviews is a fundamental part of customer understanding. Quantitative methods can be done through standardized interviews or focus group and it can be a solid beginning of understanding the users. Either conducted by the company team or outsourced through specialized companies.

For a genuine understanding of the user's pains, emotions and behaviours we need to use the Qualitative method through individual interviews and open-ended-questions giving us stories. The number of users can be relatively small, for a defined target market context it might take only five interviews to reach good insights.

4. User Observations

Gain behavioural insights. To avoid the risk of influence or adaptation to User interview questions, we can observe their behaviour. As we do not only want to understand their relation to a certain product or problem. We want to understand the context in which they act, major pains and opportunities, adjacent products and who else is involved in the situation? These are questions we are able to find out easier through the observations rather than the interviews.

User observation can be done in a structured way, creating an observation situation and documenting results, or unstructured in which you just give the users starting point and then monitor what happens.

The environment for the observation can be a controlled environment or in a normal life setting (home, work, etc.) which lets the user be more open regarding their interaction with the product. Shadowing is another approach, mostly used to analyse user buying behaviours and it considered challenging to implement but often rewarding due to surprising findings.

When observing don't analyse the information or jump to conclusions until the experiment ends. Through proper documentation of the observations to analyse the behaviour later. The observations are also often followed up with user interviews to add clarification etc.

5. Personas

Individual level analysis. Personas is an individual level analysis tool which comes in many forms such as e.g. user personas, buying personas and company personas. Personas is a fictional archetype of customers, described from a selection of characteristic that you choose depending on the decision that you need to make or the insight you want to create.

Personas can be long term characters for the business or project specific. However, we use personas it's important that we ask ourselves

- Who are we creating value for?
- Why will they buy from us?

6. Empathy mapping

Framework for behaviours and drivers of user needs. Based on these four dimensions in the previous method, you can map those inputs, responses and observations from customers into an Empathy Map. But also, environmental context as what they see and hear from others when using our products. By that you can map their Pains and Gains. It's then easy to compare user impression and focus on behaviours.

It's a collaborative tool which teams can use to gain a deeper insight of their customers, much like a user persona, an empathy map can represent a group of users, such as a customer segment. The empathy map was originally created by Dave Gray and has been gaining popularity with the agile community.

Empathy mapping is a useful tool of documenting and analysing what the customer has been expressing through the Four dimensions response model and other methods. In this way the information collected through the empathy stage is summarized which will help in defining a clearer problem.

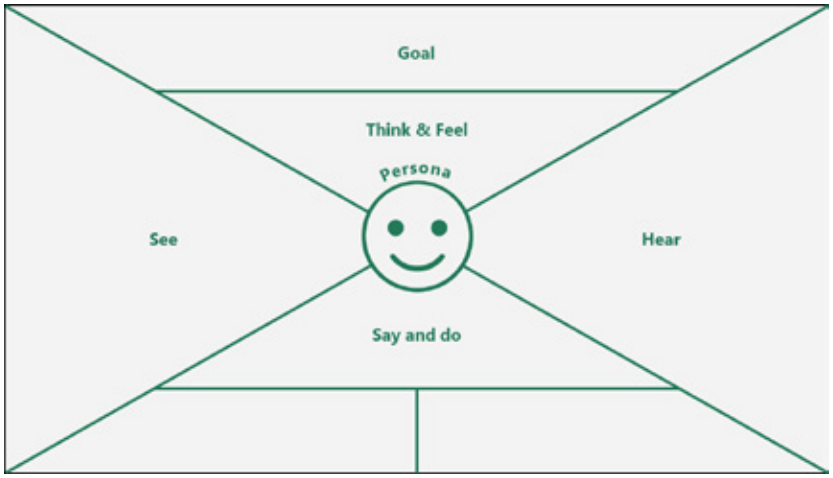


FIGURE - The empathy map is a way of defining the users together with your product.

Implementing insights

7. Value Tree

Value structure for deeper customer understanding. A systematic approach to discover and define product values and their interrelationships to help Product Management understand their customers better. It's used to structure the knowledge you already have about your customer, and consider this knowledge for the development of your customer target markets.

Then defining all your product advantages and put them in various layers in the value logic, (value, concept, feature and realization). And through all that you will discover your product values, and also some hidden values. To do that you can use the Five Whys model to work up the logic from a technical view. Or break down from a customer view.

8. Target Market

Delivers a good contextual market overview. This model allows Product Managers to put their customer understanding into context and also gives a generic understanding of the market. It is a Tolpagorni model optimised to use existing information for fast and accurate results. Since the market is a moving target, you need a model which can be applied fast or you will miss your target.

Start by identifying a number of existing and potential customers, and map which product value you want to generate toward these customers. By looking at patterns in the map you can define target market candidates which later can be verified and described further.

	Phase		Activity
Segmentation	Identify customers	1	Identify up to 30 individual customers (representing different segments) also using any corporate segmentation if available.
		2	Divide the individual customer in High, Medium and Low groups based on their potential to buy (need at least 5-10 with High potential to get critical mass).
	Define Target Markets	3	Rate the individual customers with High potential against Core product values.
		4	Use the matrix to recognize common high rating patterns for different individual customers and sort them into groups.
		5	Define 3-5 Target Market Candidates, Values and the customer variables discovered.
Validation	Verify Target Markets	6	Research market to validate size of the defined target markets and to analyze attractiveness and competition. If too small, go back to step 2. Analyze the potential of the Target markets. Measure the potential to yield growth in sales and profits. Analyze the market via Commercial Attractiveness and Competitive situation.
	Describe Target Markets	7	Identify characteristics for each Target Markets and describe type of customer.
		8	Describe non-segments that should not be approached.
		9	Define the main role for initial contact for each target market

FIGURE - The target Market Process developed by Tolpagorni is an extremely fast model suitable for product managers with limited time. It defines where to focus.

9. Driving Forces

Market movement. To understand where your customers and market are heading, we use the Driving forces model. It's used for forecasting what the future market demands will look like, which leads to the change of the customer drivers and behaviours in the future.

We can analyse the forces through two environments. The Micro environment forces can be described by the well-known Porter five-forces model, through studying the suppliers, alternative solutions, customers and potential solutions.

The macro environment is focusing on the main aspects, for example economic, political and environmental. Keeping in mind the forces that influences these aspects are definitely influencing your target market as well.

Where there are forces there are also counter forces limiting the development for the other forces affecting the market. On top of all this there is also the time spirit to take in account, perhaps affecting our customers in a non-logical direction depending on the current movement.

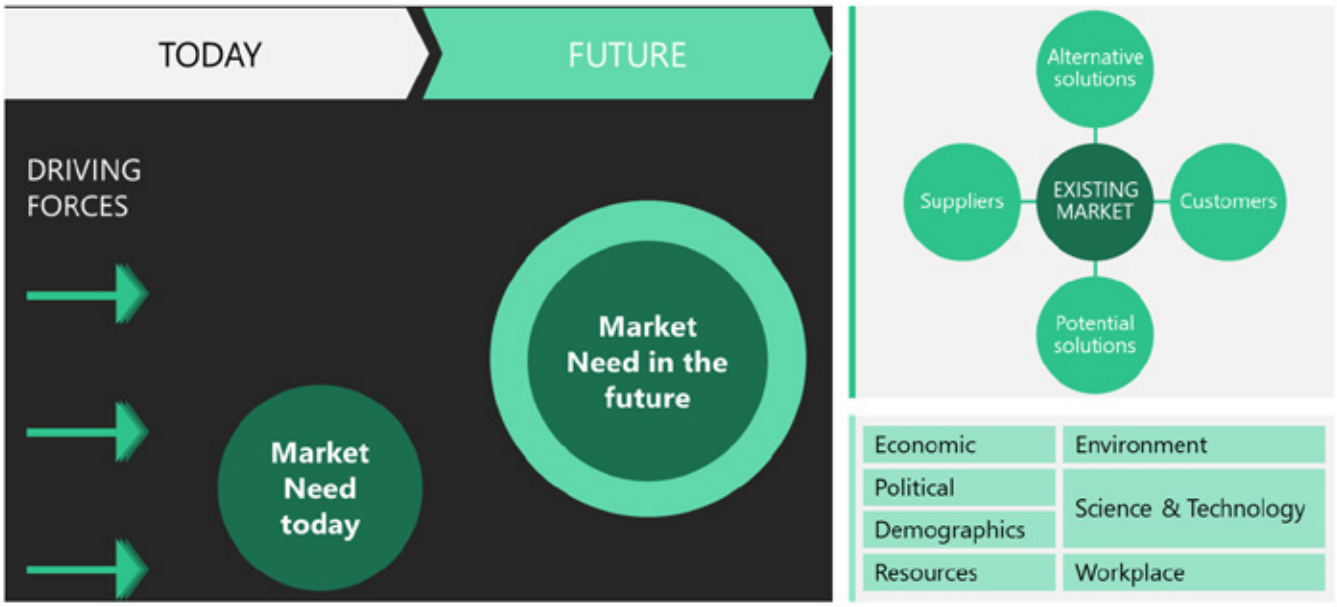


FIGURE - Driving forces is a methodology evolved by Tolpagorni to predict the future and develop for the future not the past.

10. Insight Matrix

Usage of insights over time. The Insight Matrix is an overarching framework that can help you structure the sometimes quite comprehensive work of building insight. The matrix helps you combine the time perspective with the development and usage of insights.

The Three Horizon model have been developed by McKinsey, where horizon one represents the current core businesses with a focus on improving performance to maximize the remaining value. Horizon two is where

Product Managers can make a great contribution, focusing on emerging opportunities that may generate substantial profits in the future but that could require considerable investment. Horizon three contains ideas for profitable growth for the long-term perspective, small ventures such as research projects, pilot programs, or minority stakes in new businesses.

Time, as noted on the x-axis, should not be interpreted as a prompt for when to pay attention. Companies must manage businesses along all three horizons concurrently in order to guarantee its long-term survival.

Having these horizons in mind when empathizing with our customers will let us succeed in making an impact that lasts and successful products.

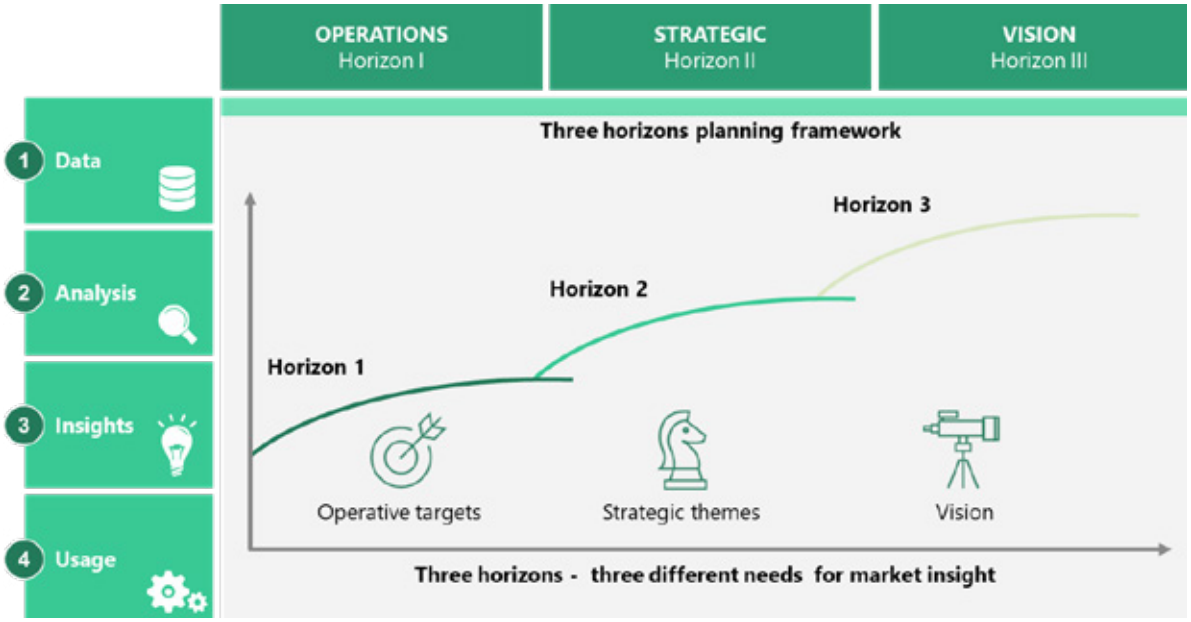


FIGURE - The three-horizon model is as powerful and simple to plan for the future. A tool developed in the 70s by McKinsey and still very useful.

Think about

The selection of tools is not intended to be used at all times, rather you choose a set of tools to apply for the specific use case or situation based on the type of customer, product or problem to investigate. Since Empathizing is a continuous work, you might have well-defined problems to base your research on.

All stages of development benefit from being continuous work and often in parallel to feed each other. In for instance Design Thinking, the five stages are sometimes in sequence and some are in parallel but they are all applied to the specific situation of customer, product or problem.

When selecting the tools to really get to know your customers, we have been focusing on getting the most out of the interaction with or observation of the customer. But the documentation of the results is equally important to be able to communicate the findings with your organization, from development to sales, but also to top management and other decision makers you depend on. Thus, getting the full benefit of the work you do.

Your Empathizing should result in clear statements for

PROBLEM

- What is the user problem – really

TARGET MARKET

- Target Customers & Values
- Personas

VALUES

- What is the Core User Value?
- How do we create Value Logic?

INSIGHTS

- Behaviors
- Drivers
- Context

Documentation

Video is often a good way, and a minimum need, to document your meeting with the customer where you in studying the sequences afterwards can find behaviors you weren't able to detect in the actual meeting. You can also use forms, apps, surveys or other text-based formats, online or physical. Even eye-tracking and screen recording can be useful in certain situations as well. If text-based formats only show the collected data, you need to combine such documentation with your own observations and conclusions.

Conclusion

There is a myriad of available tools for Empathizing. From many years of experience and the current state for Product Management, we find these tools relevant for Product Managers to use in a fast pace environment. With continuous releases, financial demands and generally under a heavy work load, there is a need to use efficient tools to cope with continuous Empathizing.

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- Insight Matrix by Tolpagorni

The echo of the spoken product wisdom left them speechless? Claire McBride, Harri Pendolin, Matt Towers, Daniel Zacarias, Greg Prickril and Petra Färm.

ProductBeats™ is about creating and finding the pulse and Zeitgeist of Product Management. The continuous work by the ProductBeats™ experts build and share knowledge to the product community. We believe in building products for the future that are profitable, loved and sustainable. We embrace the the history and the challenges for the future and see them as a natural part in creating cool products.

During the creation of this book no jokes on people from Skåne were expressed, neither did we eat Swedish Surströmming or herring, but we did discuss the state of the world and role and responsibility we as Product People play in shaping it.

We can, shall and will build products that are profitable, loved and sustainable. By solving problems worth solving.

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