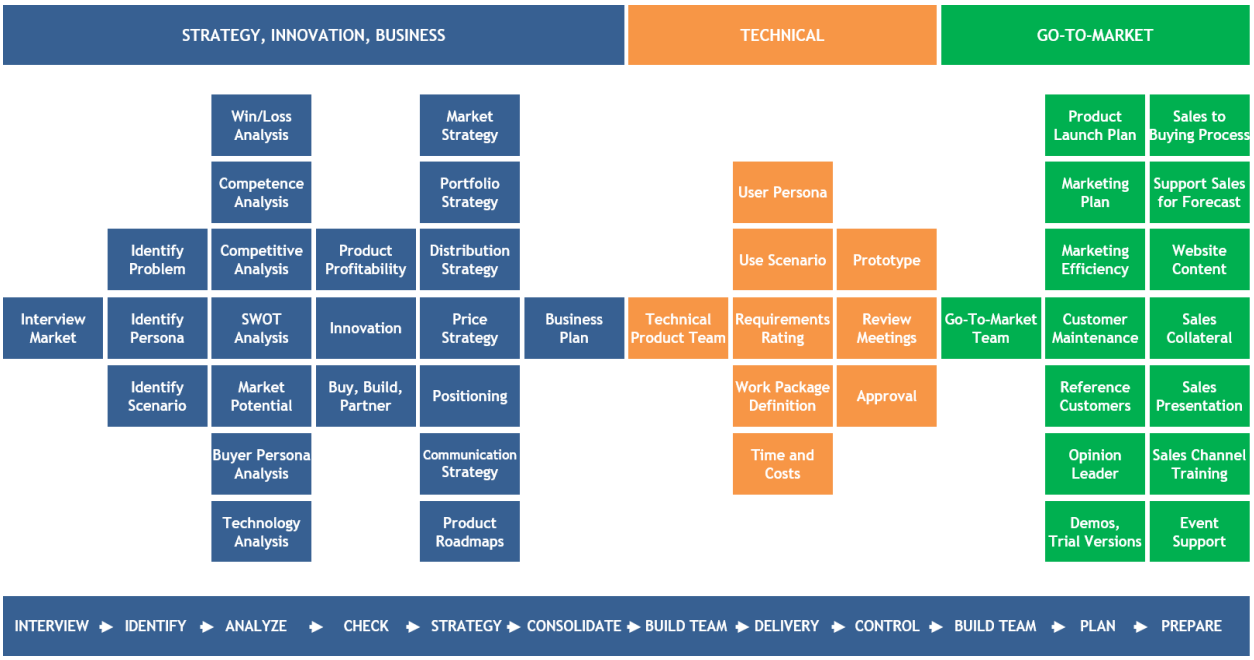
Technical Product Management

according to Open Product Management Workflow ™



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PREFACE

This book is designed to help you understand your everyday work as a Product Manager, to show you the individual work steps, the need for them and their relationships with each other so that you become a professional manager of your product.

In order for you and your colleagues to have a common understanding and ensure that you as a team also speak the same language, we would be really pleased if you would hand this book around free of charge.

This book will be used as a textbook within the framework of our Product Management training, in which we teach you in accordance with the Open Product Management Workflow ™ method and according to the teaching principles of the Flipped Classroom.

The following textbooks are available:

- Strategic Product Management
- Technical Product Management
- Successful Go-To-Market

Important: *The "Technical Product Management" and "Successful Go-To-Market" textbooks require you to have previously read the "Strategic Product Management" textbook. Strategic Product Management is the preparatory work, it provides the fundamental knowledge and the results which are then processed further in Technical Product Management as well as in Successful Go-To-Market.*

www.pro-productmanagement.com/books

DOWNLOAD OPEN PRODUCT MANAGEMENT WORKFLOW ™

So that you are always able to understand all the steps, it is recommended that you download Open Product Management Workflow ™, print it out and add it to your learning materials.

You can download Open Product Management Workflow ™ here:

www.pro-productmanagement.com/opmw

DOWNLOAD FREE PRODUCT MANAGEMENT DASHBOARD FOR JIRA - SOFTWARE

As an additional teaching aid, you can use the Product Management Dashboard for JIRA, the software for Product Managers, free of charge. The software provides you with an even simpler, step-by-step, practice-oriented traceability of the course material, as it is also based on the Open Product Management Workflow ™ and contains a complete sample product. A full license for you as product manager is already included in the software, so that you can continue to use the software for your daily work after learning.

You can find out more about the free download and the Product Management Dashboard for JIRA at the end of the book or on the website:

www.pro-productmanagement.com/software

THE COURSE TEACHING METHODS - FLIPPED CLASSROOM

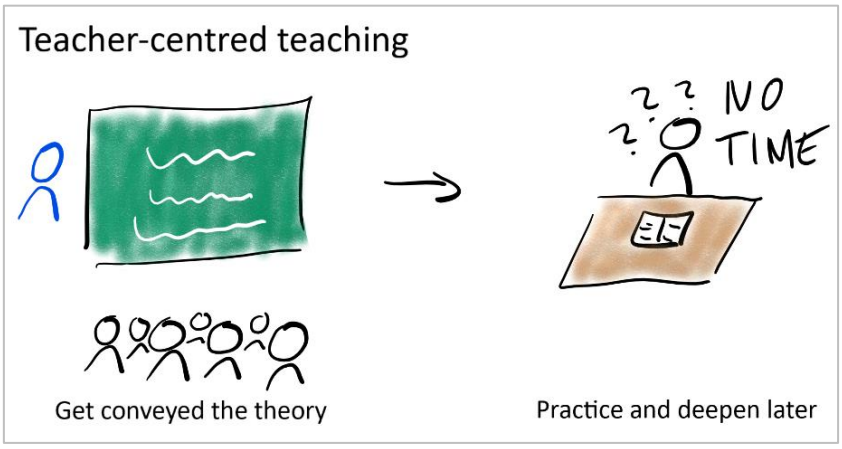
"The course has taught me a lot, I'm impressed by the Open Product Management Workflow method, but and I now really have to have more interviews with customers to practise this and much more." This is what participants have said again and again over the last few years upon finishing our training course.

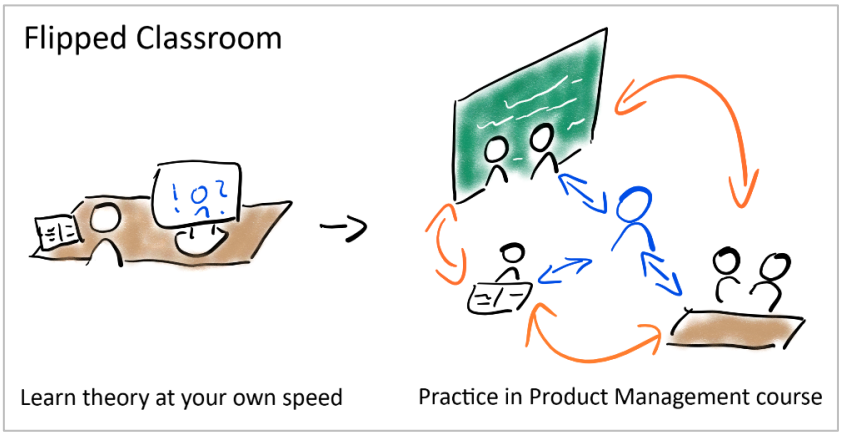
Since Product Managers are pulled straight back into normal working life after the training, from experience there is little time for them to practise and expand on what they have learned. We have therefore considered how we can help participants to spend the time we have together during the course to help them to get even more practice.
The solution is the Flipped Classroom teaching method.

FLIPPED CLASSROOM, INSTEAD OF TEACHER-CENTRED TEACHING

Instead of teacher-centred teaching, the theory is to learn things yourself in peace and quiet and then to practise their practical implementation during the time you are all together on the course - that's the idea behind the Flipped Classroom teaching method and how we convey our teaching content.

Trainees work at home and assimilate the theoretical principles at their own pace. They then get to practise them in the classroom using different methods and tasks and the trainees receive individual support. The trainees move from a passive role into an active one. As such, the trainees reach the highest level of the teaching methods as the learning content is optimally consolidated and the participants are immediately capable of implementing them in their daily work.





BENEFITS FOR YOU AS A PARTICIPANT

For you as a participant, Product Management training based on the Flipped Classroom teaching method offers the following benefits:

1. You as a trainee can learn the theory at your own speed and in peace and quiet since you can read our textbooks long in advance of attending the course because there are freely available copies.
2. During the course, as a participant you will not be bombarded with new ideas, but rather your questions will be answered and you will strengthen and deepen the knowledge you have previously acquired.
3. The use of the tools needed for Product Management is learned during your time on the course.
4. The implementation of the Product Management activities will be carried out jointly and under professional guidance.
5. As a participant, you are immediately able to incorporate the new things you have learned into your daily work, since your confidence in your own actions will be strengthened.
6. You save time on time-consuming, expensive reworking.

BENEFITS FOR YOUR COMPANY

The following benefits for your business result from Product Management training based on the Flipped Classroom teaching method:

1. You save time and money because you don't have to free up time for your employees to learn the theoretical material, nor pay for their study time.
2. You save money because you pay only for the time in which we work with the participants.
3. With your investment, you will get colleagues who are both trained in the theory and practice, who use their Product Management tools and who have achieved results which are necessary for the manufacture and marketing of successful products.
4. You benefit immediately from your Product Managers' modified working methods as your colleagues can get started immediately after the course without them having to carry out time-consuming subsequent work on the teaching content.

What can you expect before the course and during the course?

Before the course:

(1) You can download our textbooks which are available free of charge and accessible on our website
(2) We will provide you with a schedule
(3) You can acquire the theory in peace and quiet and according to your own schedule
(4) Write down any questions that we will then answer in the course
(5) Prepare yourself beforehand for the tasks and familiarise yourself with the material

During the course:

(1) Questions about the understanding of the theoretical knowledge are answered
(2) Products are developed together
(3) Situations from the everyday working life in Product Management are implemented using practical exercises
(4) Product Management tools and their uses are learned
(5) Participants are supported right away and will get direct feedback

LEARNING OBJECTIVES TO MAKE THE VERY BEST OF YOURSELF

For each course and for each topic there are defined learning objectives, i.e. it is clearly defined exactly what the participants should have mastered by the end of the course. This is the only way that it can be individually determined for each participant where potential for their own optimisation lies.

The learning objective that stands above everything is:
The participants are familiar with all the steps and can use the corresponding tools that are needed to produce a market-driven product, as well as market this product and control its success.

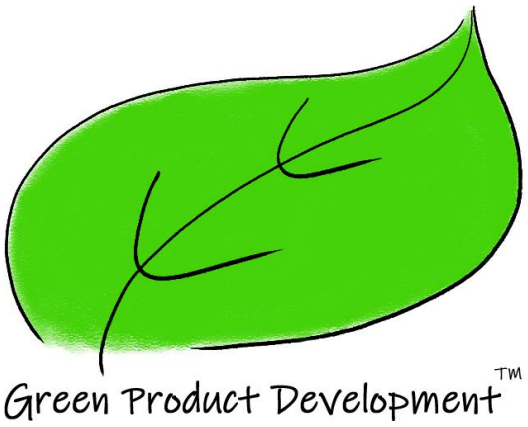
Examples of learning objectives for individual topics from strategic product management:

a) Participants can explain the importance of market orientation
b) Participants can identify the tasks of the PMs and compare them with the current state
c) Participants can identify interfaces with which they work and show who they have to pass which information to and in what form

PRODUCT MANAGEMENT AS AN ECOLOGICAL AND ECONOMIC OPPORTUNITY

Imagine developing innovative products that are sustainable and save a lot of resources such as raw materials, materials, energy, water, labor and time.

Imagine that you need only 50% of the previous time for development and marketing and at the same time your company becomes up to 31% more profitable.



All the tasks you need to do are clearly defined and many of them are automated or can be done in minutes using the Product Management Dashboard, our product management software.

What else you need to do: *talk to your customers, conduct interviews*.

This way you develop products that are sustainable because you solve problems that are widespread as well as satisfy real needs of customers. At the same time, you avoid costly, time- and resource-consuming misdevelopments. And incidentally, you'll make your business up to 50% faster and 31% more profitable.

Product management has the ecological future of all of us as well as the economic future of your company in its hands.

You have this future in your hand.
Get started today with Green Product Development™.

We provide you with the tools and training to do so.

Hint:
All of this also applies to existing products and can be applied there as well.

INTRODUCTION

Please note: *Before you read "Technical Product Management", it's very important that you have read and understood the "Strategic Product Management" book, as the knowledge and the results from Strategic Product Management are dealt with further in Technical Product Management.*
Many problems in Technical Product Management can be traced back to the lack of preparation from the Strategic Product Management. So if you want to be better on the Technical Product Management side, please first delve into the Strategic Product Management.

Even when I, Frank Lemser, was studying Business Information Technology, I always had the feeling that there was a conflict within me. On one side, there was this business administration specialist who was all about business management with its wonderful tools; On the other side, there was this computer scientist who liked information technology, where everything is logically structured and interconnected.
The business management professors were not able to get across to us students how the results, which were obtained with the help of business management tools, could be transported into everyday working life. They told us just as little about how the results related to each other and what dependencies and interactions there were - something which didn't sit well with the computer scientist in me.

Over the course of the years, I have repeatedly and intensively grappled with this problem. In the course of this, I have come to the realisation from experiences from my working life that many of the problems that exist in Product Management, as well as because of it, result from the unstructured recording and transfer of information.
Consequently, the image of an assembly line came to me, on which you place ordered information at the front and the individual departments receive the relevant pre-assembled information. All other departments could then use the pre-assembled information at their work station and install their part in the product. At the end, a clearly arranged product would exist which customers need and which has generated few discussions and little pain within the business.

In addition to the image of the assembly line, I developed the idea of a funnel into which all information on the product is collected at the beginning, and then prioritised in line with market requirements to then be sorted to land on the appropriate part of the assembly line.

From the images of the funnel and the assembly line, we have now created numerous tools, the Open Product Management Workflow, these textbooks and our software for Product Management to simplify the daily work for you and all other Product Managers, so that you save time and a lot of hassle and create products that other people want to buy.

When I began in Product Management at SUSE Linux in 2000, I was really lucky that some of my colleagues were able to explain to me what Product Management actually is. Most Product Managers who I meet tell me that their responsibilities are not really clear and that they see themselves as a "Jack of all trades".
There is often just one position created in a company which is then called Product Management. When you start working there and ask what you should actually be doing, everybody around you just shrugs their shoulders around and says: "Just get on with it." So, you start to improvise and feel your way around.

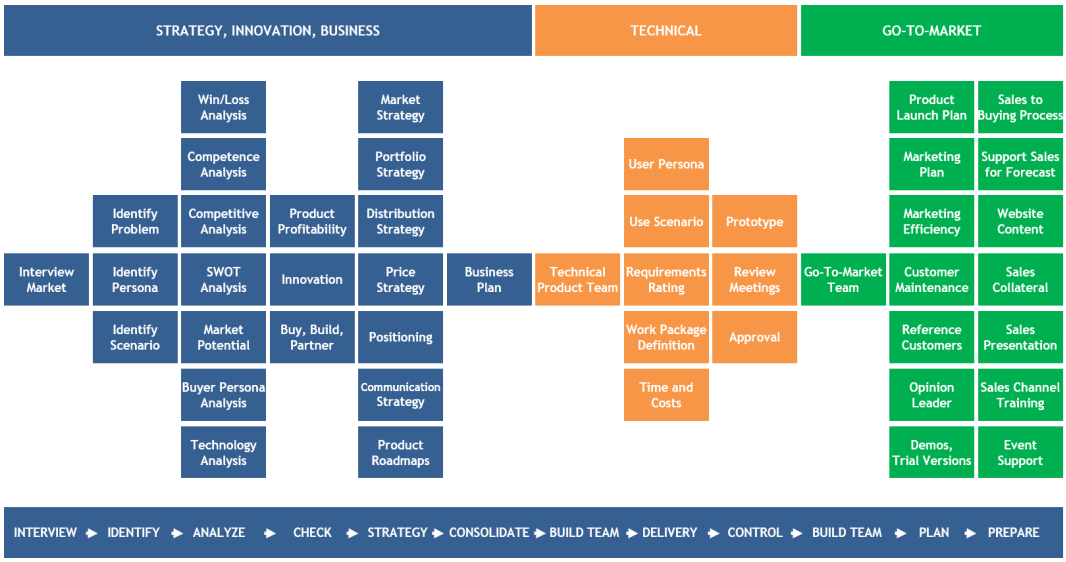
The “Technical Product Management” section according to Open Product Management Workflow deals with the following topics:

- Technical Product Team: Who belongs to it and who does what?
- Creation of user personas
- Importance of user scenarios
- Requirements Rating based on market facts
- Definition of work packages, taking into account dependencies
- Assessment and documentation of time and costs
- Advantages and differences of pretotyping and prototyping
- Review meetings and technical release of products

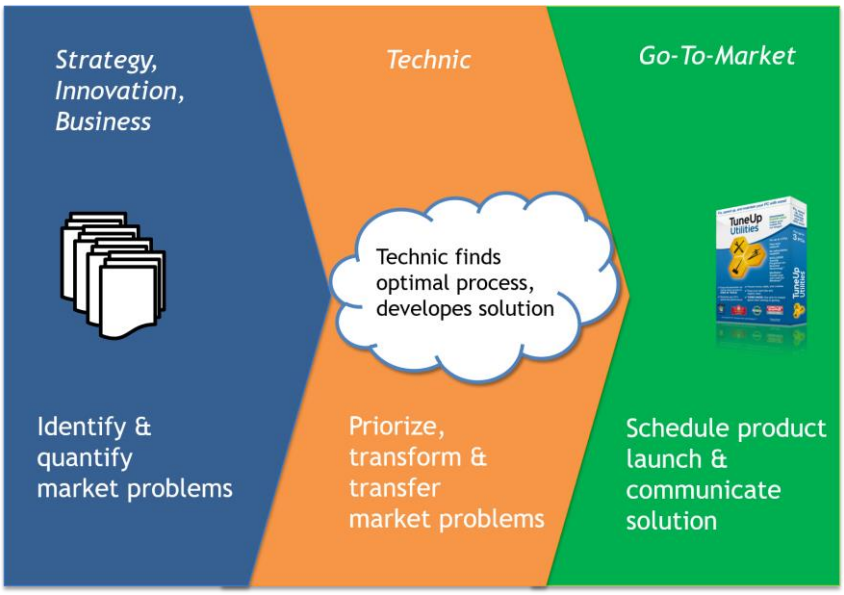
In the “Technical Product Management” section we will also use the Open Product Management Workflow method, which we developed, to show you step by step the tasks that need to be done in Technical Product Management. As in the "Strategic Product Management" section, you will learn how to apply our Product Management tools that you receive in our Product Management training.

You can download and print Open Product Management Workflow from our website, so that you always know which point we are explaining.
Download Open Product Management Workflow:

www.pro-productmanagement.com/opmw



The following image is a simplified representation of how the three parts of Strategy/Innovation/Business, Technical and Go-To-Market build upon each other.



The experience we have had over many years have shown us again and again that the field of Technical Product Management is very time-consuming and that many Product Managers spend most of their working hours on it.
Time and again we experience the fact that the discussion about what should come in the next product can take several weeks and involve many important as well as well-paid executives in the company. Nevertheless, after this costly phase, it always comes to this typical situation:

- Management and Sales try to interfere with a feature or the preview of the next version
- Sales can't sell anything until the new version is finished and discusses delaying the next version
- Project Managers complain that the requirements are constantly overturned
- Developers explain that the requirements are not specific enough

Product Managers tell us again and again that they feel that they have no real control over the project and that their product will seemingly never be ready.

Over the years we have observed and experienced the following:

- Customers and many departments in the company impose requirements on the product, but Product Management struggles to consolidate and evaluate them
- There are very long lists of requirements
    - The answer to the question: “What does the product have to have?” is emotive, takes a lot of time and combines numerous resources
    - In which order must requirements be processed? Here, too, emotional and time-consuming discussions take place.
- Product Managers write long and detailed specifications, design user guides as well as interfaces, create a wide range of models
- Development emphasises again and again that the time and cost estimation is very difficult because:
    - There are inaccurate specifications
    - Projects are changed again and again
    - There is not enough staff
- Sales and Marketing regularly ask: “When is the new product coming?"
- Quality Assurance always want to know: “What shall we actually test?”

A member of the Management Board of a software company once told us the following:

“We have developed an excellent software technology that can do everything. Unfortunately, we don't know which markets we can sell it to.”

A Product Manager from the mechanical engineering sector said:

“As a manufacturer of machines, development failures for us are much more expensive than software development and yet we don’t have an evaluation system which we can use to evaluate the requirements in line with the market, so we keep on making costly mistakes.”

Product Management colleagues from the electrical industry told us:

“Our portfolio has grown so large that we ourselves and our customers have lost sight of the overview of the individual products. Sales demands certain functionalities for individual customers and hopes to be able to sell the product to other customers. However, this mostly remains applicable to this one customer.”

... And above all there is the question: Are there solutions that help Product Management?

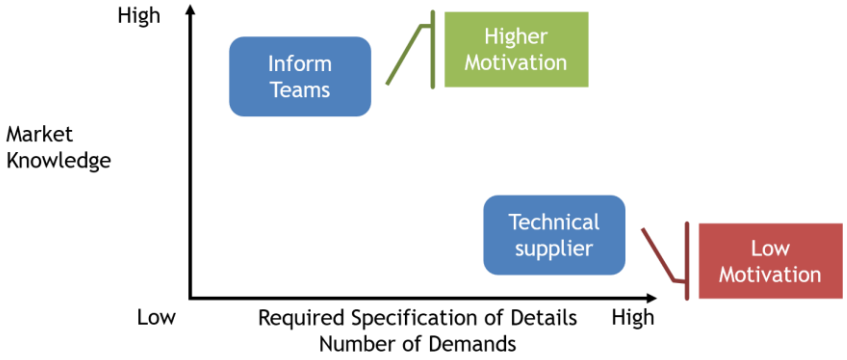
The simple answer is: Yes there are.
The prerequisites for the functioning of the solutions that we introduce in the course of this book are created in the strategic part of Product Management according to Open Product Management Workflow.

Therefore, at this point, here is a brief overview of the tasks of Strategic Product Management:

- Conducting interviews with each type of customer
- Identifying and quantifying problems, scenarios, personas
- Analysis of the market
- Review of the business
- Derivation of strategies as well as the market message
- Consolidation of all results and creation of a decision proposal
- Preparation of market information, informing the business as well as the teams

Just on that last point about informing colleagues from other departments - many Product Managers have a few shortcomings. You can score some real points here if you present your colleagues with experience and results from the market, show them which direction things are travelling in, what their vision is and what should be the goal of their joint work.

Especially in the case of colleagues from the Engineering departments, it's important for them to know the vision, the bigger picture behind the product, so that they make every effort with these goals in mind.
You also make your own life much easier by doing this because if the knowledge is shared with colleagues, you will receive even fewer demands for details.
Another positive effect that you get through the sharing of knowledge is the higher motivation of the team.



If you ever speak to successful company founders, most of them will tell you that product development at the beginning was simple and less complex. As it was, for example, for TuneUp, whose two founders Christoph and Tibor developed a product to optimise Windows.

Practical example:
Christoph and Tibor began the development of their PC tune-up software at a time when numerous computer magazines published hundreds of tips every month on how to make Windows faster. These tips were far too difficult for most of their friends, acquaintances and neighbours to implement. The two therefore began to develop software with which it was possible to use all these tips to get Windows to run faster with just a few clicks. In the beginning, development of the software was quite simple because Christoph and Tibor only had to come to an agreement with each other. Later, as the product successfully established itself on the market and the company grew to around one hundred employees, development became ever more complex.
Christoph and Tibor now had to perform the duties of Managing Directors, meaning that they couldn't work on development at the drop of a hat. Also, contact with the market was gradually lost, which is work that Product Managers should now have undertaken.
At the beginning, Product Management acted without market facts since they only worked at their desks. As such, they simply thought up what should be included in the new product. It was thereupon that questions frequently came from Development asking them what was meant. In some instances, smaller undesirable developments occurred with which Product Management were not happy because they were not what they had in mind. After several lengthy discussions, documents were then introduced which described in detail what the Engineers should implement, and which helped Development to cover their backs against the criticism on the part of Product Management.

We find exactly such documents again and again in numerous companies, such as product concept catalogues, functional specifications, market requirement documents, product requirement documents, specifications etc. These are often created for similar reasons as we saw in the practical example above.
The main reason for this "over-documentation" is a Product Management department which just works at their

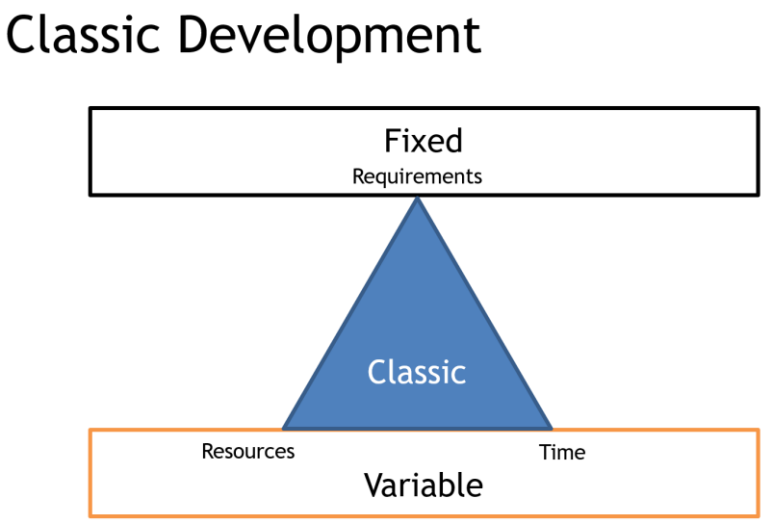
desk and isn't proactive on the market, which doesn't have conversations or conduct interviews with customers and which also don't bring any market facts into the company.

A further reason for the "over-documentation" also lies in the type of development process the engineers use. In practice, there are numerous development processes such as:

- Agile
- Lean
- Scrum
- Spiral Model
- The V Model
- Waterfall
- etc.

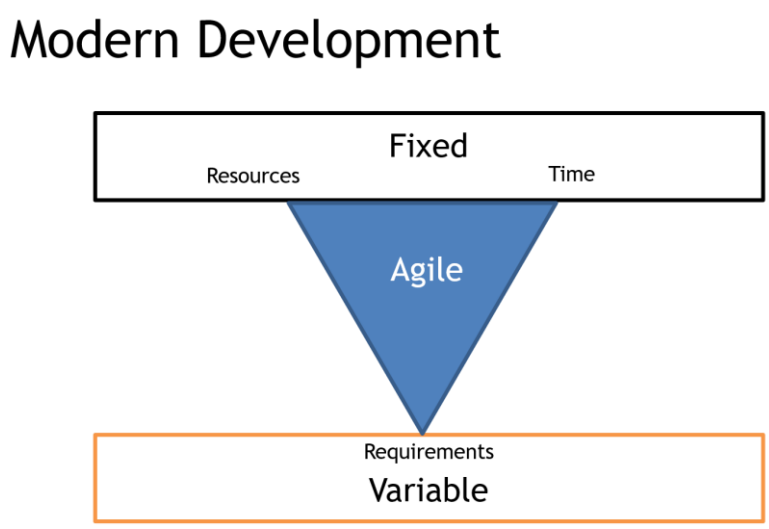
In the classic development processes such as waterfall, for example, Product Management begins by using the market problem as input information. This is transformed into the requirement which then generates the specification and, ultimately, the product is created. All the steps from the market problem, to the requirement, to the specification and ultimately to the product always follow on from one another, i.e. the flow of information runs only in one direction. Feedback information is not provided for in this process. As such, you only find out at the end whether what was entered at the beginning leads to the correct result for the customer at the end.
If the result is not as desired, you start again from scratch by defining the requirements from the problem and then coming to the specifications.
This process always therefore specifies the requirements, which in turn means that you only have resources and time as variables. Thus, you either extend the time for a project or increase the resources. As long as these resources are purely machines, this can work. If you want to deploy more employees on the project, management and communication become more complex at the same time, i.e. still more time will be required at the end.

A major drawback of conventional processes is the detailed documentation, since it is exactly described in the specification what is to be implemented how.



Modern development processes such as Agile, for example, are structured as follows from the point of view of Product Management: The market problem, consisting of problem, persona and scenario is transformed into a market requirement. This gives rise to a so-called story, which the Engineers implement.
Apart from the fact that, a small story about a persona is written from the market problem, modern development processes have the advantage of an information flow which is able to flow in both directions. Should the result not fit at the end, you just go one step back and examine the story again. If there were uncertainties in the story, the respective market requirement should be looked at. If the market requirement was not clear, you have a look at the problem and the associated interviews. Should there still be questions here, there is still the possibility to speak to the customer once again.
Once you have found where the confusion came from, you can adjust the respective step. With the modern development processes, we can therefore align the requirements at any time and respond flexibly to changes.

One of the biggest advantages of modern processes is the reduced documentation, because as such we as Product Managers pass along the market problems and market requirements as a small story consisting of a problem, persona and scenario, and these can be easily transformed into an appropriate form for the Engineers.
The Engineers also get greater freedom through these processes to find solutions for their own ideas, which in turn motivates them even more.



For you as a Product Manager it is not important which development process your Engineers use, but you should understand it. Which process is actually applied is their decision.
Please don't interfere with your colleagues' work, but leave them to organise among themselves and even come to the resulting decisions themselves.

PRODUCT MANAGEMENT IN THE ORGANISATION

Where should Product Management be placed in the organisation and why? This is a question which we are frequently asked.

Before we answer the question, we need to know something more fundamental to get a common understanding. Jeff Bezos, CEO of Amazon Inc., once said:

"If we have a good quarter it's because of work we did three, four and five years ago. It's not because we did a good job this quarter."

Which department in the company is measured when we measure the work from the last quarter?

If you thought of Sales, then you're confirming your and our experience from practical experience.

In Jeff Bezos' quote, which department did the work three, four or five years ago which has now led to the success?

Did you think of Product Management? Then we agree with you.

The work and the actions of *Sales* are usually based on the *short-term*.
Work done by *Product Management* on the other hand is usually oriented to the long term, since it is concerned with the analysis of the market and the resulting strategic planning for the next three, four or five years. After the planning, Product Management is tasked with the implementation of this planning. Eventually, Product Management provides Sales with its findings as support.

This scenario shows how opposite Sales and Product Management are and the sequence in which they work.

So, let's come back to the initial question: Where should Product Management be placed in the organisation and why?

The easiest way to answer this question is to sit and think about the following questions and answer them quietly on your own.

1. What happens if Product Management sits in the Sales organisation?
2. What happens if Product Management is pegged on to Engineering or Development?
3. What is the result when Product Management is located in Marketing?

We will work through the answers together with the participants in our seminars. Over the years, the following conclusions have taken shape:

Product Management in the organisation
Advantages and disadvantages for the allocation to different departments

Sales

Advantages	Disadvantages
+ Good customer contact	- Often shared role with a focus on selling instead of strategy
+ Selling points are known	- Many individual customer solutions
+ Market (and product) knowledge	- Large product portfolio
	- Focus lies on existing customers
	- Focus is on market launch date and less on strategy

Engineering

+ Many ideas	- No customer contact
+ High level and deep product knowledge	- If there is customer contact, customer is consulted on-site and a solution developed instead of listening to pick up on problems
	- Products are developed outside of Engineering
	- Without market facts
	- Very technical communication
	- Product specification instead of problem, solution and product description
	- Often more individual solutions

Marketing

+ Direct customer feedback	- No customer proximity
+ Customer dependence	- Less listening
+ Communication is the focus	- Simple arguments are communicated at first, instead of problems that have been solved
	- No technical understanding
	- Little product knowledge
	- Focus on market launch dates, marketing campaigns, instead of controlling the product

Management of the company

+ Support	- There may be no acceptance of other departments in team work
+ Acceptance in the company	
+ Neutrality and 360° view of product, customers, market, finances	
+ Product Management has its own budget like other departments	
+ Neutrality towards all other departments	

As you can see from the above table, advantages and disadvantages are clear.
One recommendation which results is:

Ideally, Product Management is best directly 'pegged on' to the Management of the Company, as every other department is, incidentally.

Product Management is a central function in a company from which almost every department needs something. Product Management can provide a lot, and has to provide a lot, if the product is to be successful.

Product Management can raise the company to the next level and have a boost effect.

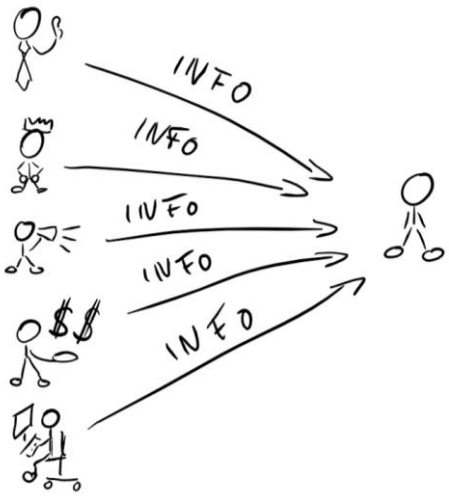
In order to do that, it's vital that:

1. The Product Managers know what they have to do to produce market-oriented products
2. The Product Managers have mastered the necessary tools
3. There is a budget, as there is for any other department, which is used for:
    a. Travel to customers, conferences and trade fairs
    b. Special tools such as software, models
    c. Further training
4. The responsibilities within Product Management are defined, and are divided if necessary
5. Product Managers are directly affiliated to the Executive Management, just like any other department!

THE PRODUCT MANAGEMENT DILEMMA OR HOW PRODUCT MANAGEMENT SHOULD BUILD THE FUTURE WITH A HAMMER AND CHISEL

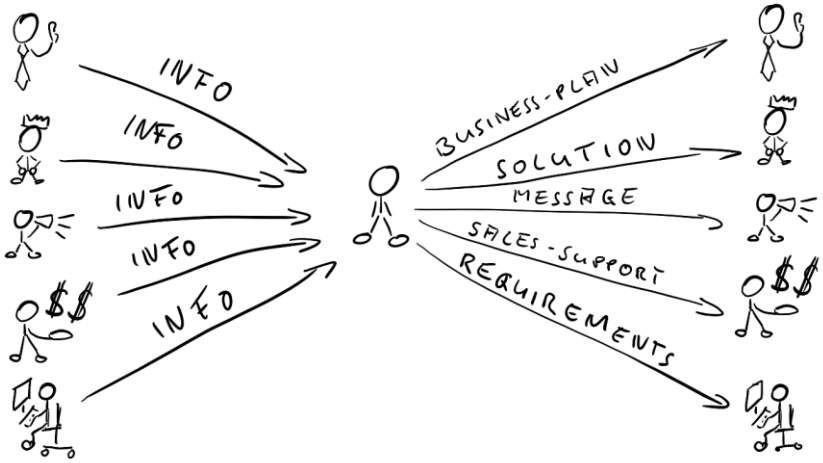
When you start as a Product Manager, you have a job where often barely anyone in the company knows what you actually do or what your responsibilities are.
You are completely on your own.

Suddenly, you've got colleagues from all directions with information from the Management, from Marketing, from Sales and Engineering coming to you and the customer, who is king, is also being passed on to you.



At some point you get the feeling that everyone is just chucking their stuff at you.

At the same time, everyone wants you to create order from all this information and then to compile it in such a way that they can then reuse it themselves.



So, the Management expects a decision proposal and a business plan.
King Customer hopes that his problems will be solved.
Marketing wants a market message that customers understand and that illustrates the unique added value.
Sales want materials and selling points which will assist them in doing business as easily and as quickly as possible.
The engineers want to have the requirements prioritised, so that it results in a market-driven product which they can then develop in peace.

Not only that, but we are at the beginning of our job as a Product Manager and haven't received an exact job description or even at least training from which we could learn our role and get the tools that would be able to help us. No. We are just expected to get on with it, using Word and Excel as our tools - our hammer and chisel - to bring order to all the information so that all our colleagues and customers get what they need. With Word and Excel we have to hammer and chisel product strategies and as such help to shape the company's future.

Product Managers today still work with hammers and chisels, i.e. with Word and Excel, to create the products of the future as well as to design the long-term company strategies.

All other departments today use special tools to make their work more efficient, time-saving and to complete it successfully.

SoFor exampleSales have a CRM (Customer Relationship Management) System and/or ERP (Enterprise Resource Planning), i.e. SAP or a similar system to supply the best services.
The accounting department also uses ERP and accounting systems for a more efficient organisation of its work.
Engineers and Developers use CAD systems, development environments for software, project planning software etc. as their tools. Customer Support uses a ticket system order to be more effective.

But ask your manager if the following points are expected from you as a Product Manager:

- To consolidate information from customers, Sales, Management, Engineering, Customer Support, partners and to then prioritise these at the end
- To collect and evaluate market information from the competition, the analysts and from studies
- To carry out various business analyses and bring their results together
- Identify risks and opportunities
- Derive proposals for strategies from the market
- To deliver decision proposals that are based on market facts so that bad investments can be avoided
- To sort market and product requirements such that they lead to a marketable product
- To create a market message which Marketing can communicate such that customers understand it, Sales can close sales faster and sales costs are reduced
- Control the product's success using KPIs and, if necessary, introduce the right measures
- Set up and implement the go-to-market with launch plan, marketing plan
- Create marketing and sales materials including web pages or provide the content

If you have asked your manager and you have found many commonalities with the instances above, you can point out once again that you currently only work with a hammer and chisel - Word and Excel - to fulfil all of these complex tasks.

You might have experienced one or the other points before. In numerous discussions with Product Managers over the years, we have learned:

- The completion of Product Management tasks using Word and Excel is very time-consuming
- Several Product Managers working together on one product is not possible today with Word and Excel
- The consolidation of all the information about the product in one central location is difficult and a great deal of effort is needed for this
- Working on several products at the same time is usually chaotic
- Word and Excel are suitable only to a limited extent for the management and the merging of all the information that a Product Manager receives and has to evaluate
- Conducting analyses and the merging of the analysis results are possible but incredibly time-consuming
- The review and evaluation of product requirements means a lot of time has to be invested
- All documents about the product for sales, marketing, engineering, customers, etc. are spread everywhere and it takes a lot of time to find the right one.
- It is unclear what all needs to be done for a successful Go-to-Market.
- Whether our marketing efforts are successful is unclear.
- (The list could go on)

As we work as Product Managers ourselves and are often at different companies, we have faced these exact problems outlined above. That's why we initially developed the tools for Product Management for our work - which are also available to you.

1. Product Management Dashboard® is a product management software that provides a fully automated Open Product Management Workflow™, with clear tasks.
2. Product Management ToolBox™ as about 25 Word and Excel templates, which you will receive and learn in the corresponding trainings.

PRODUCT MANAGEMENT TOOLBOX™ – TOOLS FOR WORD AND EXCEL

In our textbooks, we repeatedly refer to documents and tools. These tools are part of the Product Management ToolBox™, which consists of about 25 templates for Word and Excel.

These tools have been developed to enable you in product management to perform all the necessary tasks for successful economic and ecological product development as easily as possible. You will learn how to use these tools and how their interaction works in the respective course.

IMPORTANT: The software**, the Product Management Dashboard®, completely replaces the Product Management ToolBox™**, i.e. the Word and Excel tools. The software automates and accelerates the work in product management significantly, even compared to the Word and Excel tools. If you do our training with software, then these tools are irrelevant for you, because you already learn the most modern tool for product management.

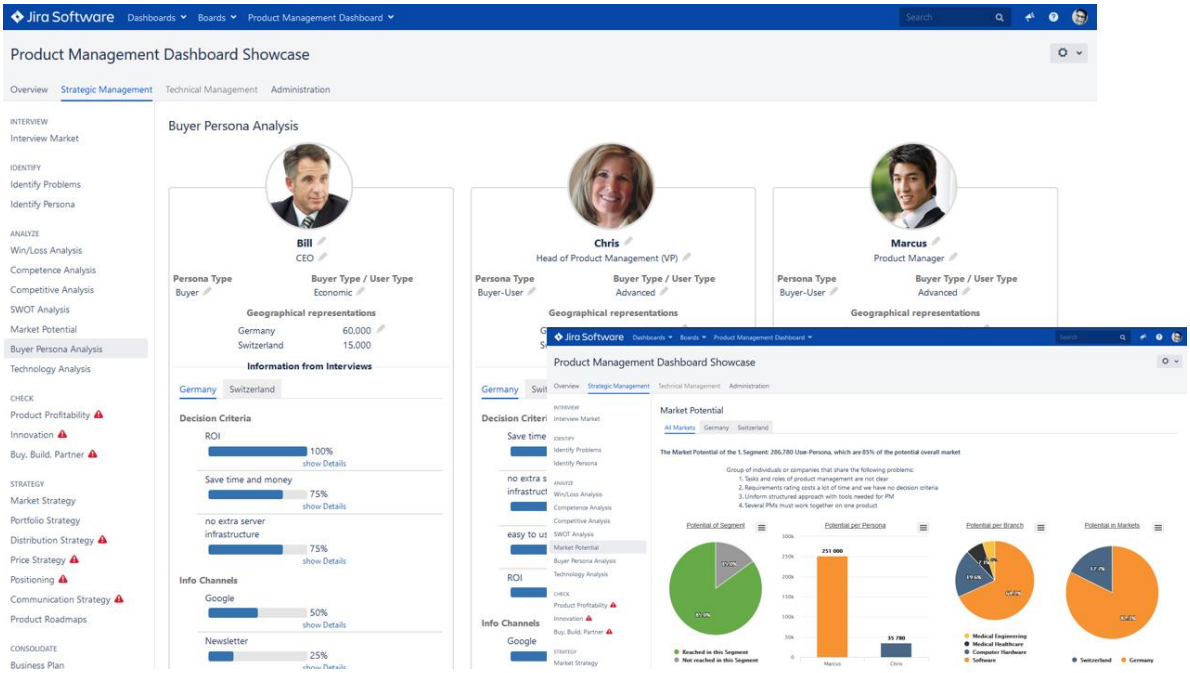
USE FREE SOFTWARE AS PRODUCT MANAGER

In order to work faster as a Product Manager, to have clear tasks as well as a red thread in product management, all tools are now combined as software in the Product Management Dashboard for JIRA. Now there is one place where all product information from different sources is consolidated. Many things such as analyses are done automatically, which makes the work in Product Management faster and 100% market-oriented.

USE PRODUCT MANAGEMENT DASHBOARD® FOR JIRA IMMEDIATELY FREE OF CHARGE

Manager in an orderly manner and professionalize it in line with the market, you can download the Product Management Dashboard for JIRA free of charge in addition to the textbooks. A free license of the full version for a Product Manager is already included in the product, so that you can start immediately.

More information about the free download and the Product Management Dashboard can be found at the end of the book or on the website www.pro-productmanagement.com/software.



THE TECHNICAL PRODUCT TEAM, TASKS AND ROLES

Product Managers never have time.
Most Product Managers will agree with this sentence. In practice we experience again and again that they spend a lot of time doing things because they take on numerous tasks in the Technical Product Development.

Let us look first at what rough tasks there are in Product Development.

- Conducting interviews, and identifying and quantifying problems, personas and scenarios
- Conducting market analysis
- Prioritising and communicating requirements
- Reviewing and controlling the efficiency of the development
- Analysing requirements
- Developing product design and user concepts
- Definition of technology, specifications or writing stories
- Formulating technical solutions
- Creating product documentation
- Reviewing and reporting product and quality

Which of these tasks do you currently do?
We experience time and time again that Product Managers do many of the above tasks.

1. This is too much for one person, because in doing so the strategic parts of Product Management are neglected.
2. Product Managers are not usually specialists in design and user concepts. These tasks should lie with the technical specialists.
3. The analysis of the technology decision requires a lot of time and in-depth expertise, as well as the comprehensible specification for Engineers, which will always lead to more detailed questions. Is that really your job?
4. Product documentation and quality inspection take a lot of time. For a minimum level of quality, these tasks should be taken on by specialists.

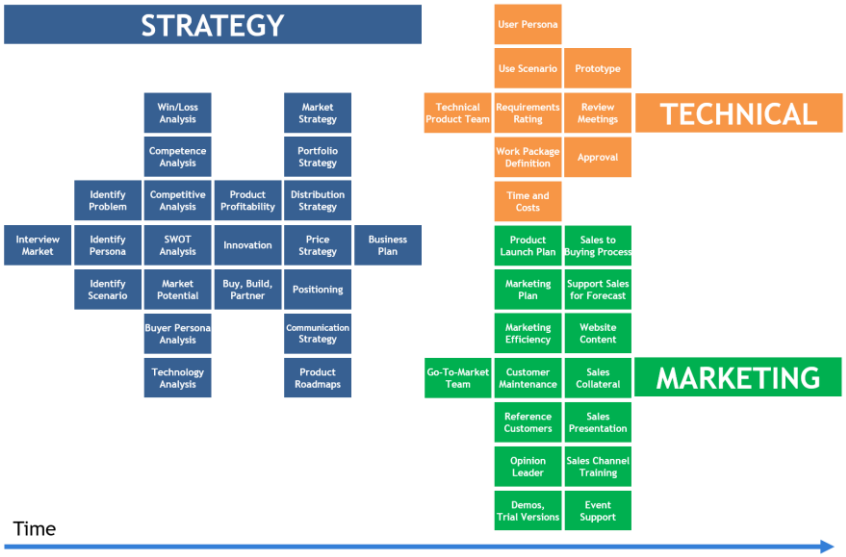
As you have learned in the “Strategic Product Management” section, neglecting the strategic work in Product Management leads to:

- Long product development, numerous discussions
- Bad investments
- Increased development and sales expenses
- Delayed and costly time-to-market

A Product Manager therefore has to take charge of the Strategic Product Management in an in-depth manner. If tasks for Product Development are added to that, this person is already overloaded which leads to things not being done.
At this point, please also do not forget that there are still tasks to be done for the Go-To-Market.

The recommendation therefore once again is:

Strategic Product Management and Go-To-Market can be done by one person because in this way the market knowledge gets directly to the colleagues from Sales and Marketing. One person is needed for the Technical Product Management who takes on these tasks.



Let's come back to product development.

If the Product Manager doesn't do these tasks alone, and finds out that many of his colleagues want to be involved in the product development at an early stage, then he should use this situation in a positive way and form a "Technical Product Team".

"Experienced Product Managers know that they don't manage any products, but that it is a very important task to form, inform and manage virtual product teams."

The "Technical Product Team" can be made up as follows, and the corresponding tasks should be taken on by the respective team member:

The strategic Product Manager:

- Is a market expert, communicates the facts
- Conducts interviews
- Identifies and quantifies problems, personas, scenarios
- Carries out market analyses
- Reviews and controls business and product success
- Derives strategies
- Creates decision proposals
- Plans and directs the Go-To-Market and implements it with the Go-To-Market Team

The technical Product Manager or Product Owner:

- Is the interface between market and technology
- Transforms problems into requirements (market requirements)
- Writes market requirements or stories
- Prioritises and communicates requirements
- Consults with customers and colleagues
- Is *not* a representative of the customer
- Has as his primary objective: to review and monitor the efficiency of the development
- Approves release for the technical product

The Project Manager in development department:

- Leads product development as a project
- Leads the development team within the development department
- Plans resources and times in development for the project/product
- Responsible for meeting deadlines
- Can provide information on project status and coordinates with Technical Product Manager or Product Owner
- Responsible for planning, control and cost compliance within development department
- Overall responsibility for ensuring the function and quality of the technical product

The Product Architect or Senior Development Engineer:

- Forms the bridge between Product Management and Engineers
- Analyses the requirements
- Designs solutions for technical problems
- Defines technologies, models and specification
- Performs calculations for statics, currents etc. for example, and derives components, materials as well as forms from them

The Concept Developer (UX) or Designer:

- Determines the appearance and operation of the product
- Develops the product design
- Designs user concepts from user behaviour
- Analyses the requirements (market requirements), develops prototypes/mock-ups
- Writes specifications
- Works closely with Technical Product Manager/Product Owner, Product Architect/Development Engineer and Engineers

The Developer/Technician or Engineer:

- Develops the technical solution
- Creates the product
- Tests the modules
- Removes the errors
- Writes the internal documentation

The Technical Writer:

- Draws up instructions
- Writes technical documentation
- Ensures that customer-specific content can be understood by customers
- Is responsible for ensuring that quality of content and layout is right
- Is responsible for deadlines

Quality Assurance and Quality Management:

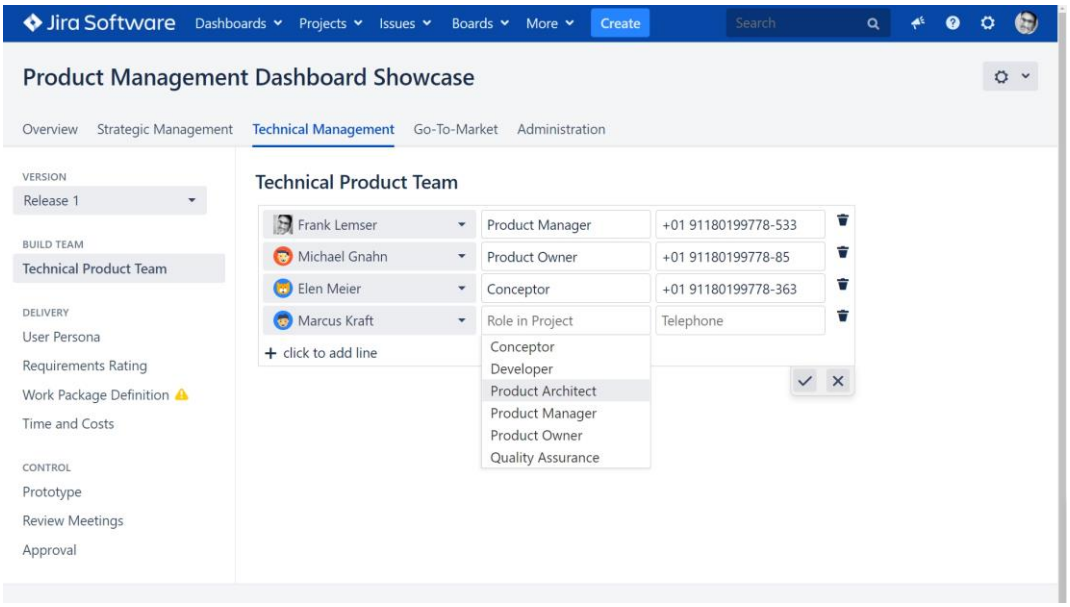
- Checks and ensures product quality
- Is responsible for the test processes and (beta) programmes
- Tests whether (market) problems are solved in the scenarios
- Ensures that the testing of the requirements and scenarios is possible
- Checks whether the product meets the requirements

There are companies that already have a similar structure in their organisation. All it takes to do this is usually only the awareness of Product Management to take the lead and to form the team.
In other companies, some of the team members named above are not there. So what should you do if you, for example, don't have a Product Architect or a Concept Developer/Designer?

- Is there a Senior Engineer who can take on the tasks of the Product Architect?
- Does a staff member already perhaps have a qualification and could take on one of the tasks?
- Can the company employ someone?
- External agencies can also be used for Concept Developers and Designers.

Let's briefly summarise:

1. Due to the large number of tasks, the help of a team is needed which you as a Product Manager forms, informs and manages.
2. It is advisable to separate the roles and tasks of the Strategic Product Manager and a Technical Product Manager.
3. If the roles and tasks don't exist, these roles can be created and the tasks can be transferred over to them. Otherwise, as previously experienced, Product Management will neglect the strategic part with well-known consequences.
4. Only when you act as a team can you win the race.



Manage Technical Product Team: So that you can contact your Technical Product Team at any time, keep the contact information for everyone in one place, in the Product Management Dashboard the #1 fully automated agile workflow-based Product Management software.

Only if you work as a team …

… you can win the race!

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USER PERSONA - DOCUMENT T1

We already dealt with personas in the strategic part of Product Management. There, we developed the Buyer Persona in order to convey the 4Ps of the marketing mix in a more understandable way in everyday life.

We follow a similar approach with the User Persona. With this, we describe for whom we are developing the product. The User Persona reflects the market experience of the Concept Developer/Designer and of Product Management. The Concept Developer/Designer and Product Architect develop solutions to the problems of personas. For this reason, the User Persona should be developed in collaboration between Product Management, Concept Developer/Designer and Product Architect.

The following objectives are to be achieved with the User Persona:

- Time saving by simplifying communication
- Should enable us to develop empathy
- Reflection of the stereotypical user behaviour
- Creation of a common understanding for a user group
- Help with design decisions

You may also remember our statement for the User Persona:

Solve problems for the User Persona.

As well as the one for the Buyer Persona:

Explain the added value for the Buyer Persona.

There are personas, such as our Claudia Persona (Document T1) for example, which we use for our example product SelfBackup, who are both a User Persona and a Buyer Persona of a product.
Because there can be overlaps, you should develop the User Persona in the team together with the Concept Developer/Designer and Product Architect.

The Strategic Product Managers alone are responsible for the development of the Buyer Persona, since they can derive strategies with their help, such as sales and communication strategies. The Buyer Persona also helps during the entire Go-To-Market. You will get more detailed information on this persona in the "Strategic Product Management" section.

What information is important for a User Persona?
Let's take the Claudia persona first for our SelfBackup example. As you might remember, Claudia needs a solution to regularly, automatically and wirelessly back up her photos. Claudia wants to simply open her laptop and automatically back up photos as well as other data. She doesn't understand anything about special technologies, such as NAS for example.

First of all, we have the following information about our Claudia persona:

- She studied for a BA in Economics
- She works in Project Management at Deutsche Telekom
- She uses a laptop
- She takes photos on holiday and at parties
- She uses her computer privately for:
    - Photo editing and management, design of photo albums and photo gifts
    - Social networks, email, Office

Is the above information enough for you to determine any level of expertise?

Does the following information help you to fine-tune things further for Claudia?

- Shoe size 38
- Lives in Bamberg
- Drives a VW Golf
- Likes to go on beach holidays

Or are these unnecessary? Please decide for yourself.

A User Persona should always include the following general information:

1. Name
2. Photo
3. Demographic information: gender, age, marital status …
4. Education, profession, (technology) skills, level of expertise
5. Background: family, hobbies, likes, dislikes
6. Goals, desires, expectations (of the product)

In order for the User Persona to be quickly understood and also used, the following should be kept in mind during their creation:

a) Only as much information as necessary
b) Improve and expand information if it becomes necessary
c) A maximum of 5 different personas, as otherwise the overview is lost and the communication becomes too complex

Now we want to talk about what is meant by the Level of Expertise, which has been mentioned several times.

In which two groups is the technical knowledge around the product most frequently discussed during product development?

Most of the discussions will be held by these two groups:

(1) Beginners
(2) Experts

The reasons why this is so, are simple.

(1) The “Beginners” group often get in touch with Product Support because they have questions about the use of the product.
(2) The “Experts” group also get in touch with Product Support and with Sales, because they often want specific features which are currently not included in the product.

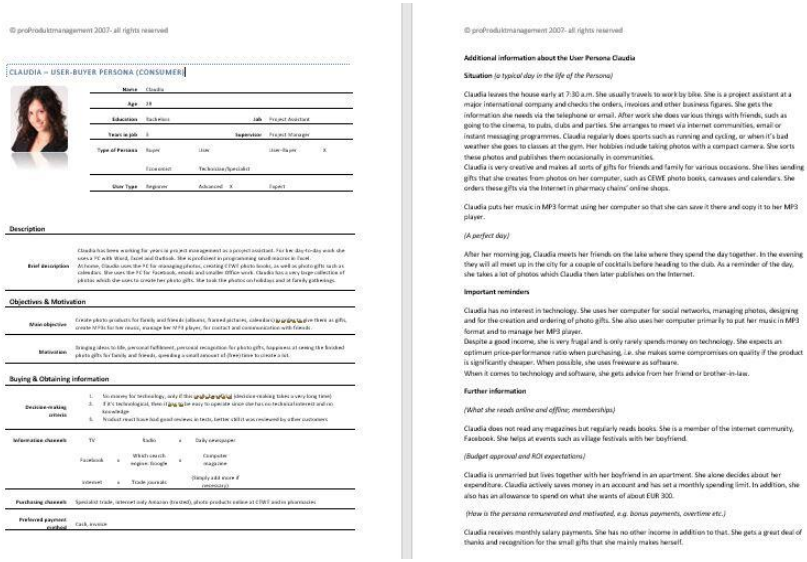
Unfortunately, the “normal users” are often forgotten in the discussions about the user behaviour. This group uses the product without having to contact Support because they get to grips with the product and the existing functions are sufficient.

If you compare the distribution of customers in the three groups, you will notice that the normal users are predominant.

This insight is easily illustrated in a diagram. On the x-axis (x=0 -> infinite knowledge of product) going towards the right you have Beginners, Normal Users and Experts. On the y-axis (y=0 -> infinite users) you plot how often the respective users appear. This results in a curve similar to the Gaussian distribution curve (bell curve), whereby the Normal Users are located under the apex of the maximum.

The Level of Expertise, within the personas, describes the belonging to one of the three groups Beginners, Normal Users and Experts.

As an example of how a User Persona can look, you will receive our Claudia Persona as Document T1 for our "Technical Product Management" training. Claudia is a User-Buyer Persona and therefore a little more detailed.



CLAUDIA – USER-BUYER PERSONA (CONSUMER)

Description

Objectives & Motivation

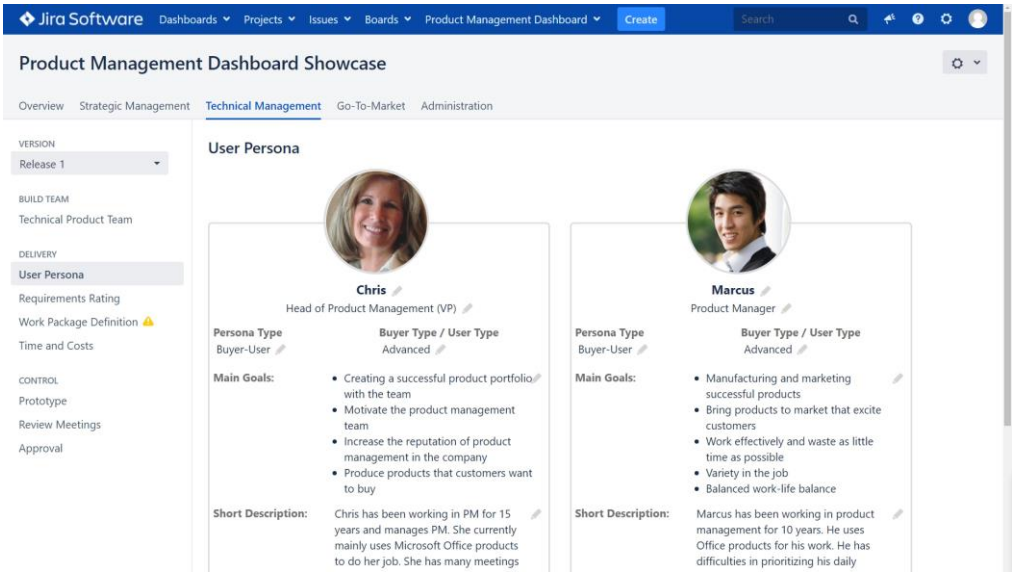
Buying & Obtaining information

Additional information about the User Persona Claudia

Situation (a typical day in the life of the Persona)

Important reminders

Further information



In the Product Management Dashboard, the user persona can be stored centrally for all to see.

USE SCENARIO

Experience of recent years has shown time and again that the transfer of requirements to the Engineers is very time consuming. In retrospect, there are many demands on the part of the Engineers which leads to the problems described above.

One of the causes of the problems is the understanding of the Engineers of the requirements placed on them. When two people are talking, they don't always mean the same thing, even if they are talking about the same thing. Or, in other words, your idea of the colour blue is guaranteed to correspond to a different colour value than the one we mean when we speak of blue.

We are caught in a dilemma:

a) If we specify the requirements too inaccurately, this leads to uncertainties with the Engineers
b) If we specify the requirements too specifically, which obstructs the abilities of our "Gyro Gearloose", this restricts them too much.

The above-mentioned modern development processes attempt to counteract this dilemma.

We Product Managers also have the possibility of changing a lot of our work in order to reduce the efforts in communication, regarding the requirements for the Engineers.

Let's have a look at an example. Product Managers receive information for new products or product enhancements from different sides. For example, the following "anonymous problem" lands on a Product Manager's desk:

Anonymous problem:

- A customer wants a backup system, a data backup
- The backup should be performed regularly and automatically

As a Product Manager, you pass these requirements on to the Engineers and you get the response: "I don't care, I can't put myself in their position. Just tell me exactly what I should do."

Suppose that you have conducted some interviews on the market and used our interview protocol for them, which is available in the "Strategic Product Management" course. As I have just described, you encounter a similar problem. The problem can be personalised based on the interviews so that further information can be supplied:

Personalised problem:

- Claudia would like to back up her images
- The images should be backed up on a regular basis, every hour and automatically

Scenario:

- Claudia has a laptop with Windows
- When she opens up her laptop, the backup of the images should start automatically
- Plugging in a USB hard drive is too cumbersome for her
- She does not understand technologies such as NAS and finds this too complicated to set up

The Engineer will now say: "That's an interesting problem that I would like to solve for Claudia."

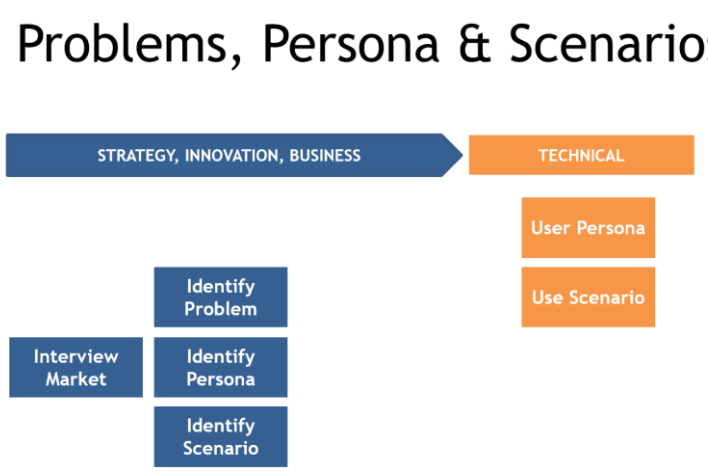
The problem was expanded on through information about the persona and above all through details which better describe the issue - the scenario.

The scenario explains:

- The experimental setup
- *Which problem* exists
- *When* the problem occurs
- *How often* the problem occurs

Through the scenario, information becomes more easily transportable, because it describes exactly what one has experienced on the market. It gives the Engineers, the “Gyro Gearlooses” in the company, enough freedom to find a suitable solution.

The following graphic illustrates this: you get all the information you require for a personalised problem with personas and a scenario from the interviews, which is something we discussed in detail in the "Strategic Product Management” course.
All information obtained from the Strategic Product Management can therefore also be reused in the technical part.



The Use Scenario answers the questions:

- Why is it that the persona encounters the problem?
- Which situation does the problem present itself in?
- How does the persona circumvent the problem?

These findings also in turn help the Concept Developer/Designer:

- With questions about the design, you can find answers in
    - the persona
    - the Use Scenario

For colleagues from Quality Assurance, the Use Scenarios offer the following advantages:

- Use scenarios are excellent sources for testing
- It can be tested exactly whether the problem which occurs for a persona in the scenario described has been solved

This is exactly the reason why colleagues from Quality Assurance should be included in the “Technical Product Team". If Quality Assurance are included in the scope of requirements for the combination of problem, persona and scenario at an early stage, then they can focus and start with the development of the test scenarios in good time.

To conclude, we would like to clarify once again by telling you what we repeatedly come across in practice or what we are often asked: What is the difference between Use Scenario and Use Case?

(In German, Use Case is known as Anwendungsfall.)

Definition of Use Case:

The Use Case describes how a persona uses the product in order to achieve their goal. The focus is therefore on *how* someone uses the product.

Definition of Use Scenario:

The Use Scenario describes which problem a persona has if they want to achieve a specific goal. The focus here is on *when* and *what* problem occurs.

REQUIREMENTS RATING

Please note: For the next chapter, we require that you have previously read “Strategic Product Management” according to Open Product Management Workflow ™, as this chapter builds on this knowledge.

Once in the cycle of each product, Product Managers look at the huge quantities of requirements and already know how exhausting the days and weeks to come will be.

Huge Excel lists with 2,000 things which are required for the product. Customers, Sales, Management, Engineering, Technology and Sales Partners - a certain functionality is important for the next product for every single one of them.
But who is right? Which things are most important? How can you comply with each one and what reason can Product Management give if a functionality is not developed? Do the functionalities all fit together and do the customers really need all that?

Product Managers have a critical look at these and other questions when it comes to assessing and deciding the list of requirements of what is to be developed by the Engineers. Teams consisting of Product Management, Project Managers, Product Architects and other colleagues work for days and weeks in order to make this decision.

It should be clear to everyone at this point that a lot of money is invested here, in addition to time, because the decision-makers are often well-paid employees in the company.

However, experience shows that the products created at the end are often not 100% appropriate for the market, or are only appropriate for a small group of customers and the actual target group has only partially been reached.

Practical example:

Marcus, a Product Manager at an internationally-active company, told us that he needs 4-6 weeks for the requirements rating of his product and must also hold numerous meetings with the heads of the engineering department Nevertheless, Marcus is more and more uncertain whether or not the right features are being put into his product.

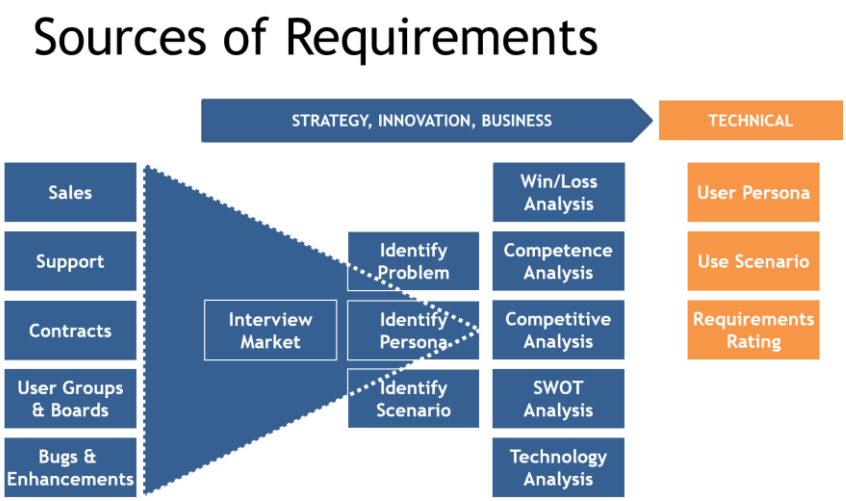
In another organisation, we saw for ourselves how the Senior Management took part in a meeting about the requirements rating for a week and played an active role. The entire decision-making process took more than 4 weeks, since ultimately other departments wanted to cast their vote.

In these companies, there are usually several causes for such a time- and money-consuming requirements ratings.

1. Product Management themselves have conducted no interviews and have little knowledge of the market
2. There is no procedure which brings all requests from a variety of sources into one uniform format in order to allow an assessment
3. A scheme and the criteria for a market-oriented assessment of the requirements are missing

You have already learned in the "Strategic Product Management" section what to do in order to change the first point.

You can solve the second point by bringing together all of the requirements into a uniform and similar format.



To do this, you will receive Document T2 "Product Enquiry" from us. This Document T2 is structured similarly to our Interview Protocol. Additionally, the question has to be answered as to who takes on the costs for the development. This can be a customer, a technology partner or the company if a problem is mentioned frequently and therefore one of the market-relevant target groups lies behind it.

A solution for point three - a scheme and the criteria for a market-oriented assessment of the requirements - is covered in the following section.

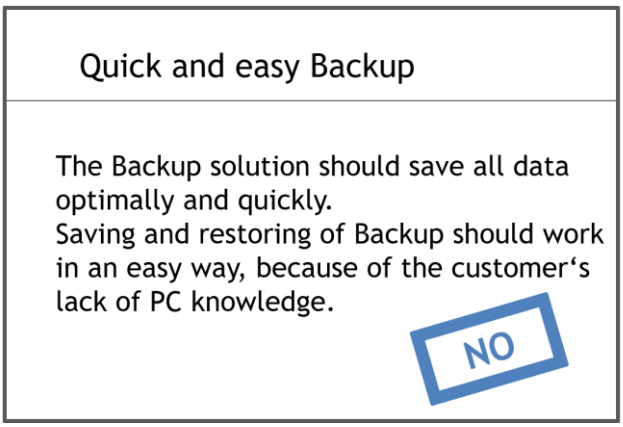
In practice, a format that is frequently used to pass a requirement to the Engineers is the so-called story card or the requirements map (Document T3). We also see product concept catalogues, functional specifications or requirements documents again and again.

For the rest of the course we will use the story card or requirements map - Document T3. You can easily include this form in your documents. Our Document T4 offers another detailed and classic form of a requirements description.
In addition, we've provided a new and more modern form (Document T3), since it is becoming more and more popular in practice.

In order to convey the process clearly, let's use our example product SelfBackup for our Claudia Persona.

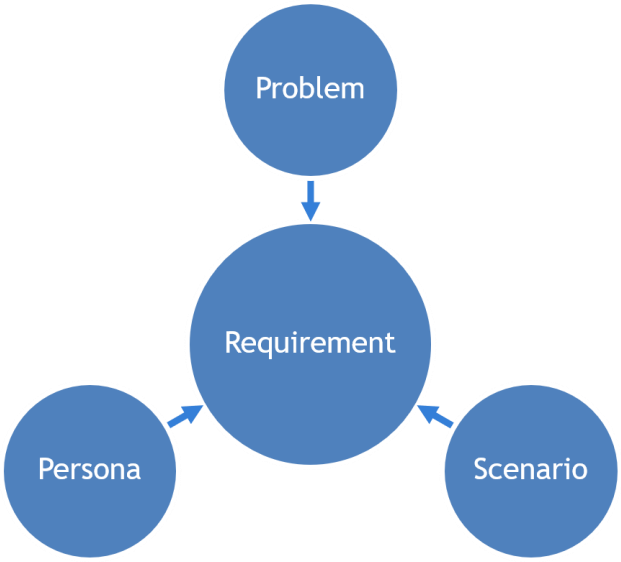
So, we start with a typical requirement which we frequently encounter in a similar form in practice.

Typical Requirement Format



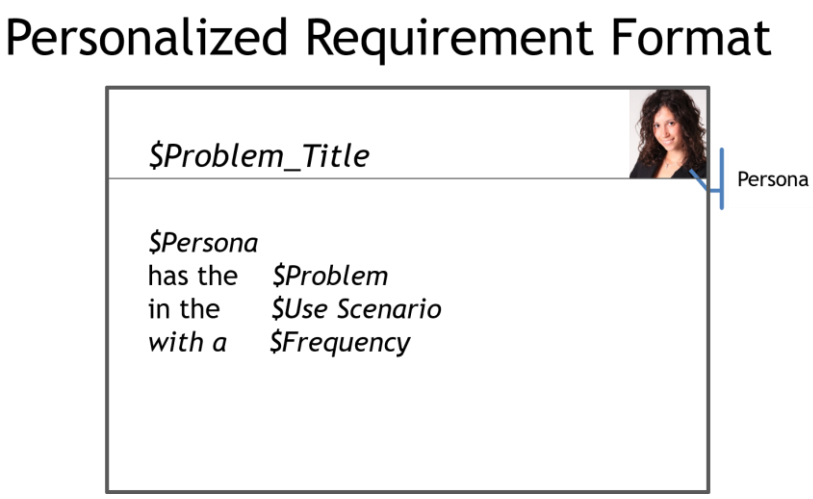
If you pass on this requirement in such a way, then your colleagues from the product team can't really do much with it as there is a lack of information for the Concept Developer/Designer, for example. In addition, it is also a very unspecific format. What does "optimal" or "simply" mean?

As you have already learned, we have to personalise the requirement.



Our requirement is made up exactly of the already identified parts - problem, persona and scenario.

We include these in our map:



As we have already mentioned, such maps are also called story cards in practice, because a short story is told using the following format:

Persona has the problem in the Use Scenario with a frequency.

The values are inserted for persona, problem, use scenario and frequency which were determined in the interview protocols or disclosed in the business proposals.

First, let's start with the persona and the problem:

"Claudia would like to run backups. Because she doesn't understand the setup, she can't do it."

Then we add the use scenario in:

"Claudia needs a guided selection of the folders that she wants to back up."

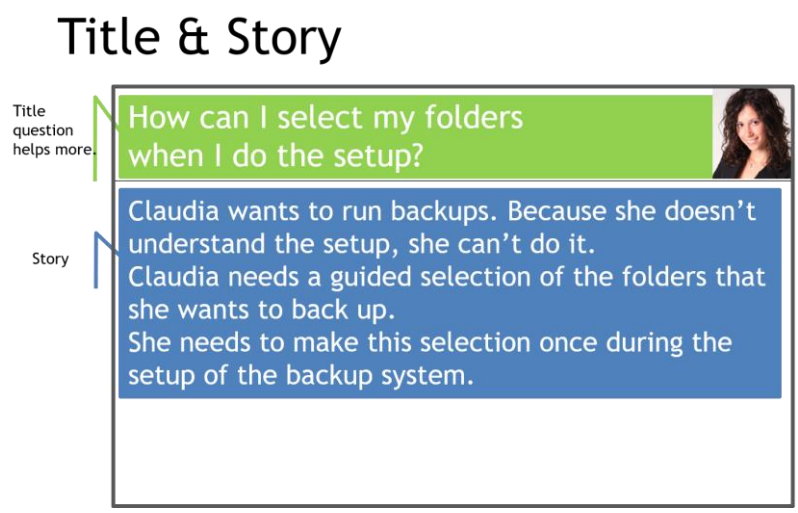
Now we answer the question, "How often does Claudia have the problem?" and record the value for the frequency:

"She needs to make this selection once during the setup of the backup system."

A descriptive, meaningful title must be found at the end that allows you to surmise what the story is about when reading it.

Tip: In practice, a question used as the title has proved successful, because the question implies exactly what the content of the story is.

Our map now looks like this:



You may have wondered why we use the frequency to create our map. This is, for example, required by colleagues who create the concept and/or the design. It plays a role in the use of products of which functions are to be used how.

Examples:
Have a look at your email programme:

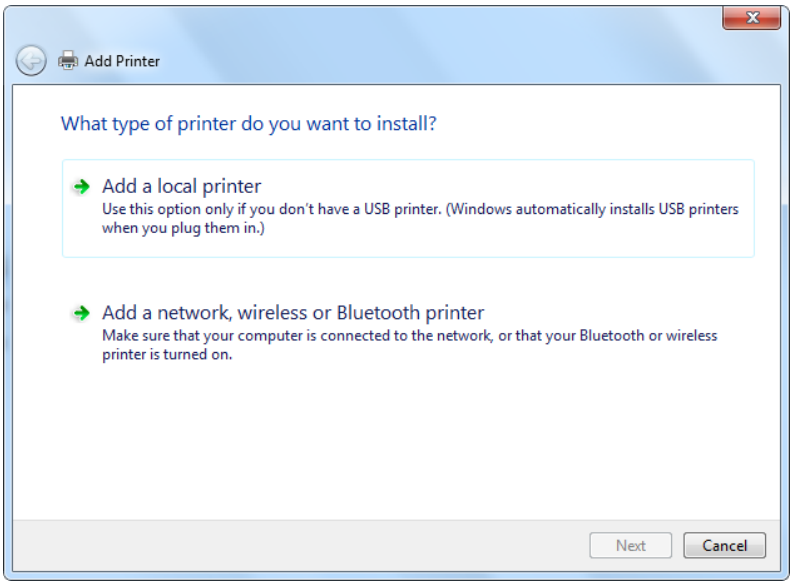
All the things you have to do more frequently, such as:

- New email
- Delete
- Reply

You can get to directly with a click of the mouse.

Similarly, in cars with radios with built-in sat navs, you find frequently used functions can be accessed directly, such as the "Home" button in the Ford Galaxy, for example. At the push of a button, the built-in sat nav calculates the route from your current location directly to your home, whose location is stored in the system. Since “home" is often driven to, the Concept Developer/Designer at Ford decided to make this function directly accessible.

If functions are only used once or are rarely used, they can be accessible via other channels. In this way, the Concept Developers/Designers at Windows decided to help users with a 'wizard' when setting up a printer, since it is done only very rarely and several steps are required.



In an example about the entertainment system of a car, the function for pairing a mobile phone with the entertainment system is not directly accessible, because this step is only very rarely used. But here you would also add the Use Case in several steps.

As a result, it has become clear why our colleagues need to know how often a problem occurs. We would now like to draw your attention to a further point which is of importance for our colleagues.

Requirements that always need time for requests, or have unintended results, are unspecific in their content and meaningless, because they contain words such as:

- The best, most efficient, most perfect and all other superlatives
- User-friendly, simple, understandable
- Flexible
- Large, small, thin, thick, narrow
- Maximum, minimum, optimum or other "um" words
- Fast, quickest possible, immediately, as soon as possible
- Scalable
- … etc.

What exactly do these words mean? We each imagine something different for each of these terms.

Do you think a car that goes 200 km/h is fast?
Then ask Formula 1 driver Sebastian Vettel and he'll tell you that it is a slow car from his point of view, because his car goes at 350 km/h.

Specify your description with:

- Numerical values, for example:
  - Fast = in 0.5 seconds or fast = 250 km/h
  - Scalable = manage up to 100,000 items
  - Quickest possible, immediate = indicate the minimum accepted value
- Compare to well-known things, for example:
  - Thin = like a *current smartphone*
  - User-friendly, simple = like the operation of the A44 washing machine from manufacturer X

There needs to be more clarity and understanding of requirements so that they are comprehensible for others. If you provide the Engineers with detailed information, that helps them to better understand the problems and information.

With precise and context-related information:

a) You decrease the number of demands, which in turn saves time and money
b) You reduce the likelihood of development failures
c) You increase the possibility that the solution is clearly communicated

You provide information and, if necessary, background and context for requirements, resulting from:

- Legal and statutory requirements
- Standards e.g. industry standards, production standards, safety standards
- Localisation and internationalisation
- Certificates and certification framework
- Interfaces and adaptability
- etc.

Particularities and exceptions (Edge Cases) should always be justified because this creates understanding and avoids long discussions. Make sure that you haven't fallen into the trap of being a typical "worrier". First, go ahead and discuss the question: Would the persona really do this?

On the topic of linking interviews, requirements, specifications/stories, at this point we would like to give you the following advice: It is a good idea in the requirements to always refer to the interviews which were taken into account in the requirement. Also in the specifications or stories, always provide a reference to the requirement from which they arose.
These references allow you to clarify ambiguities. If a specification/story is not entirely understood, a look into the requirements will provide more clarity. If there is still uncertainty, you can look into the respective interviews and, if necessary, you can also ask the customer or interview partner directly.

Once you have taken into account all of the points, you can now proceed to the question of which are the most important and absolutely have to be processed. Not an easy decision when you have a stack of 2,000 requirements.
Now begins the time when, usually in time-consuming meetings, there is the wrangling over the things that absolutely have to be in the product, because it is obvious to everyone that time is limited and it's impossible for all 2,000 requirements to be developed.

This is how the dog-eat-dog struggle begins.

- The Management demands
- Sales says it's essential for the customers
- Technology partners cannot continue "without" it
- Engineers know that you'll only be ready for the future with this technology
- Customers need this because otherwise...
- ...and Product Management had a vision where it should go with the product

The Product Manager is now a referee between all the parties. They must mediate, will be mobbed and have to tackle it all. And their powerful tools to help them assess the large pile of 2,000 requirements are…?

In our training courses, we ask participants about the assessment criteria for their requirements or their requirements rating. According to which criteria do you determine the sequence according to which the engineers develop the requirements? Frequent statements include, for example:

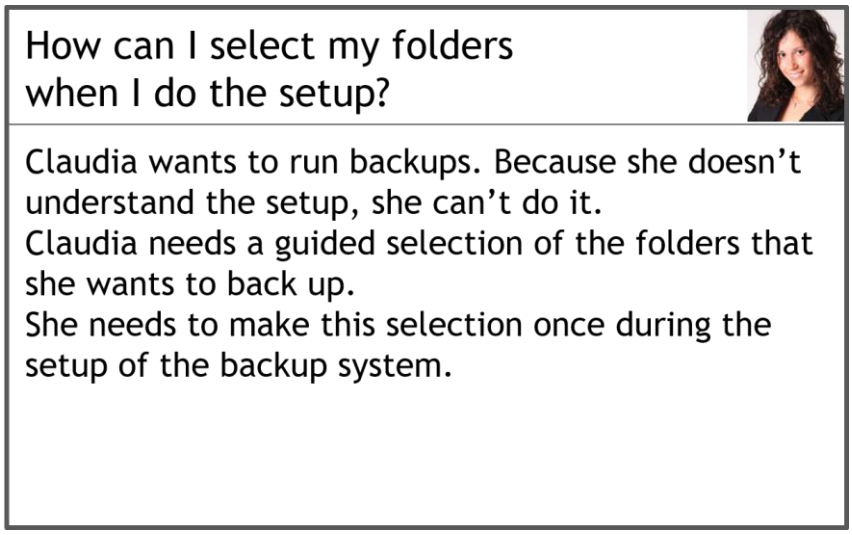
- Development time
- Effort, cost
- If a competitor has this function, then we need this too
- How much money will this function make for us?
- How many customers will we gain with the function?

Please answer each individual question:

a) Will we get a 100% market-oriented product with this?
b) How can you determine the size for each of the 2,000 requirements?
c) Is the effort for the determination of the size for all 2,000 requirements worth it?

What could the fact-based criteria be with which a market-oriented product is created that customers want to buy?

Let's look at our example product SelfBackup and the requirement that we already created.



Is there any possibility from your point of view to compare this requirement with others and thus to evaluate it?

In our opinion it is not possible to find a suitable criterion.

What information do we have now that is based on market facts and which we can use as criteria? Take a look at the Open Product Management Workflow and consider it once more.

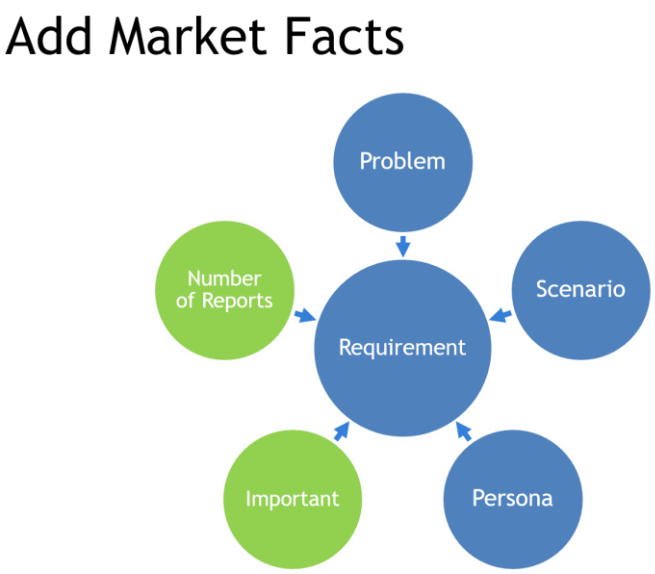
It seems to us the easiest way is to use the number of reports, that is, how often a problem was reported. This value is easy to detect and is based on market facts. It is now possible to sort the 2,000 requirements.
Is this sorting enough for us for future-oriented and market-oriented products?

Let's take our well-known requirement for the SelfBackup example.
Suppose that we were already offering the SelfBackup product and had already sold 20,000 units.
30 responses came from buyers saying that they prefer green instead of red for the button colour.
At the same time, we received 22 reports from interviews with people like Claudia, for our example requirement "How can I select the folders during the setup?".
If we had gone according to the sequence of the number of reports, the engineers would only have had the chance to change the colour of button before they dealt with Claudia's problem.

Is this ok?

Will we win new customers for our product in such a way? Can we increase sales by doing this?

There is still one criterion missing that assesses the importance of a requirement.



How can we objectively determine the importance of a requirement? Remember, the goal is to win new customers and boost sales.
Was there a point in the course of our explanation where the dependence of customers on sales was outlined? Take a look in the "Strategic Product Management" section.

There, you will find the explanation of the different types of customer and their relationship to revenue and time.

According to this, which type of customer would our Claudia persona correspond to in the example requirement?

Did you also come to the conclusion that Claudia is a potential customer? Then your result is correct.

Let's once again have a look at how important it is to find a solution to the problem from the point of view of each customer type.

A solution is important, because otherwise …

a) ... as an *evaluative customer* I won't buy the product.
b) ... as a *potential customer* I lose time and/or money.
c) ... as a *customer* it's difficult for me to achieve my goals.

The evaluative customer looks straight at the solutions and compares them. If we don't fulfil the requirement, then they won't decide to go for our solution, but for a different solution.
For the potential customer, there is currently no solution and they lose time and/or money. If we solve their problem, they will buy the product in the future.
Existing customers have already purchased a solution and their problem has already been solved. It's now about optimising the solution for them. However, it does not necessarily mean that they will pay for it.

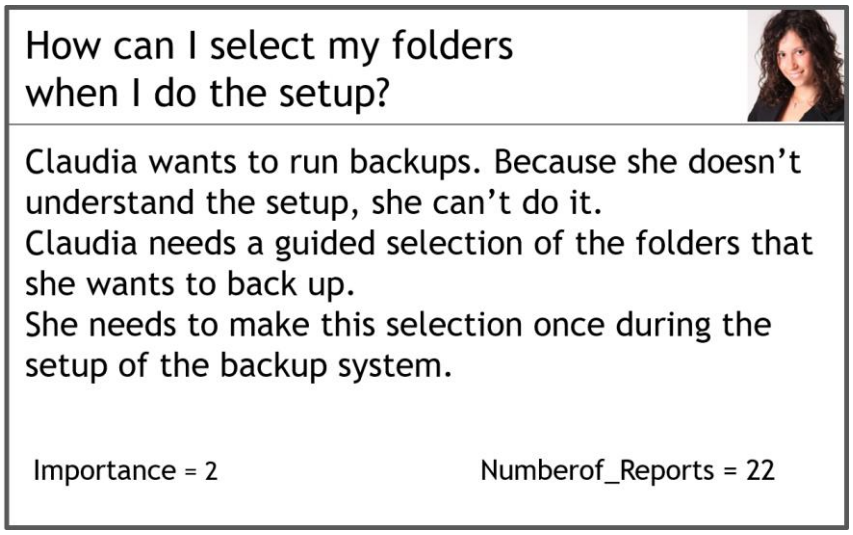
If we use our knowledge about the customer types in relation to the revenue and time, we can establish a weighting in the following order: Evaluative customers, potential customer and (existing) customers. We now know that there are also contractual obligations which must be fulfilled, as otherwise we would have to pay fines. This results in the following weighting for the importance, based on market facts:

9999	Contract:	We have a contractual obligation
3	evaluative customers:	Key purchasing criterion
2	potential customers:	Loses time and/or money
1	(existing) customer:	Difficulties in achieving goals, need for optimisation
0	any:	"Nice to Have", not in the target segment

For the calculation of the priority of requirements, a formula can now be established:

$$Number\ of\ reports * Importance = Priority$$

The example requirement now looks like this:



Another option for weighting, can also be done with the following points:

9999	We have a contractual obligation and management wants it
3	We are losing a lot of business
2	Our competition also has that
1	There isn't such a product on the market at the moment
0	"Nice to Have", not in the target segment

Are they based on a reality you've experienced? Would these therefore not be practice-oriented?

We are losing a lot of business:
What did you learn in the "Strategic Product Management" section about why you can lose business? Is it always down to the functionality or are there other things?
Have a look in the win/loss analysis chapter.

It's the same for our competition:
Who is telling us that Product Managers from the competition are out in the market and not just developing things at their desks?
Remember the example from the "Strategic Product Management" section in the chapter about competitive analysis, about how a company wanted to recreate a feature that the market leader had. Where, luckily, a Product Manager switched from the market leader to work at the company and told them that this feature was not used by customers but that the implementation had taken up a lot of time and money.

There isn't such a product on the market at the moment:
There may be several reasons why there isn't such a product currently on the market. Here, it must be carefully investigated and analysed why this is the case.

These points are therefore not objective and fact-based. We are best sticking to the points according to customer types.

You will also find the criteria in the training documents (Document 5) which you receive from us as part of the "Technical Product Management" course.
Additionally, you will also get the Requirements Rating Scheme (Document T6) as well as the example Requirements Rating Scheme for the SelfBackup example product.

Requirements Rating Scheme

Title	Persona	Importance	#Reports	Priority
Run wireless Backups	Claudia, Peter	9999	1	9999
Run Backup automatically after opening Laptop	Claudia, Peter	3	22	66
Backup of newest data must always be done	Claudia	2	31	62
How can I select my folders during the setup?	Claudia	2	22	44
How can I setup the Backup?	Claudia	2	19	38
Save several versions of data	Claudia, Peter	1	16	16
Clear PC's harddrive	Claudia	0	15	0

Of course, the columns of the Requirements Rating Scheme (Document T6) can be expanded if needed or can be customised to your liking. You may possibly still need the following or similar additional information:

- Comment
- Market segment
- Stakeholder
- Strategic objective
- Source
- ... etc.

When expanding the rating scheme, you should always ask the question of what you want to achieve with the information.
Too much information sometimes also makes the schematic diagram confusing and too complex.

As you can see, our example has already been entered in the schematic diagram and all requirements sorted according to their priority, which we calculated using our formula.

$$Number\ of\ reports * Importance = Priority$$

Important:

1. All requirements should be recorded, because only then can you give information when requests are made by Sales, for example, about when and if a feature will be included in the next product. Only by continuously recording the requirements can you show colleagues how many requirements rated higher based on objective facts.
2. Caution! The value 9999 is reserved as a higher priority for contractual obligations and requirements from the management. Please only use this if there is really no other way. Otherwise, the objective prioritisation according to market facts will be lost.

Of course, the formula for the calculation of the priority can be adjusted according to your own needs, because there may be other prioritisation criteria in the company:

- Usability U
- Costs *C*
- Strategy *S*
- Vision *V*
- Competition *C*
- Time *T*
- … etc.

Before any further criteria are introduced, their objectivity needs to be reviewed. You should also always answer the question: “How can I use this criterion to determine each requirement objectively?”

You can then create your own formula for the priority:

$$Number\ of\ reports * Importance * (1 + F1 + F2 + \ \ldots\ + Fn) = Priority$$

F1 to Fn are your criteria and correspond to the value you have selected.
In the following example, the value for a criterion = 1:

$F_1 =$ Usability U
$F_2 =$ Costs C
$F_3 =$ Competition Cn
$F_4 =$ Time T

$$Number\ of\ reports * Importance * (1 + U + C + Cn + T) = Priority$$

Title	Persona	Importance	#Reports	B	K	W	Z	Priority
Run wireless Backups	Claudia, Peter	9999	1	x	x			29997
Run Backup automatically after opening Laptop	Claudia, Peter	3	22	x	x			198
Backup of newest data must always be done	Claudia	2	31	x	x	x		248
How can I select my folders during the setup?	Claudia	2	22		x		x	132
How can I setup the Backup?	Claudia	2	19	x	x		x	152
Save several versions of data	Claudia, Peter	1	16	x	x	x		64
Clear PC's harddrive	Claudia	0	15			x		0

For our example requirement "How can I select the folders during the setup?", it results in the following calculation after the introduction of the new criteria, if the values for

Costs C =1
Time T = 1

are:

$$22 * 2 * (1 + 1 + 1) = 132$$

Through the introduction of the new criteria, a new priority results for each requirement. Therefore, a different order results and it must be re-sorted.

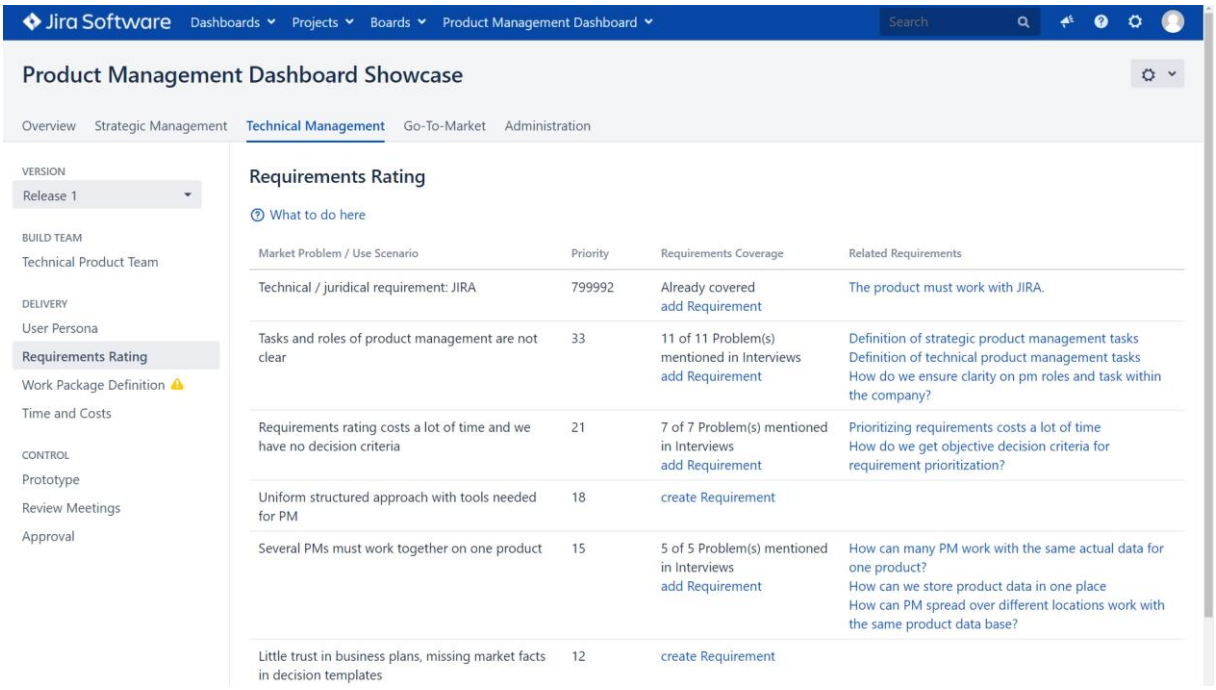
Practical tip:
Please start your Requirements Rating Schematic Diagram with the simple formula:

$$Number\ of\ reports * Importance = Priority$$

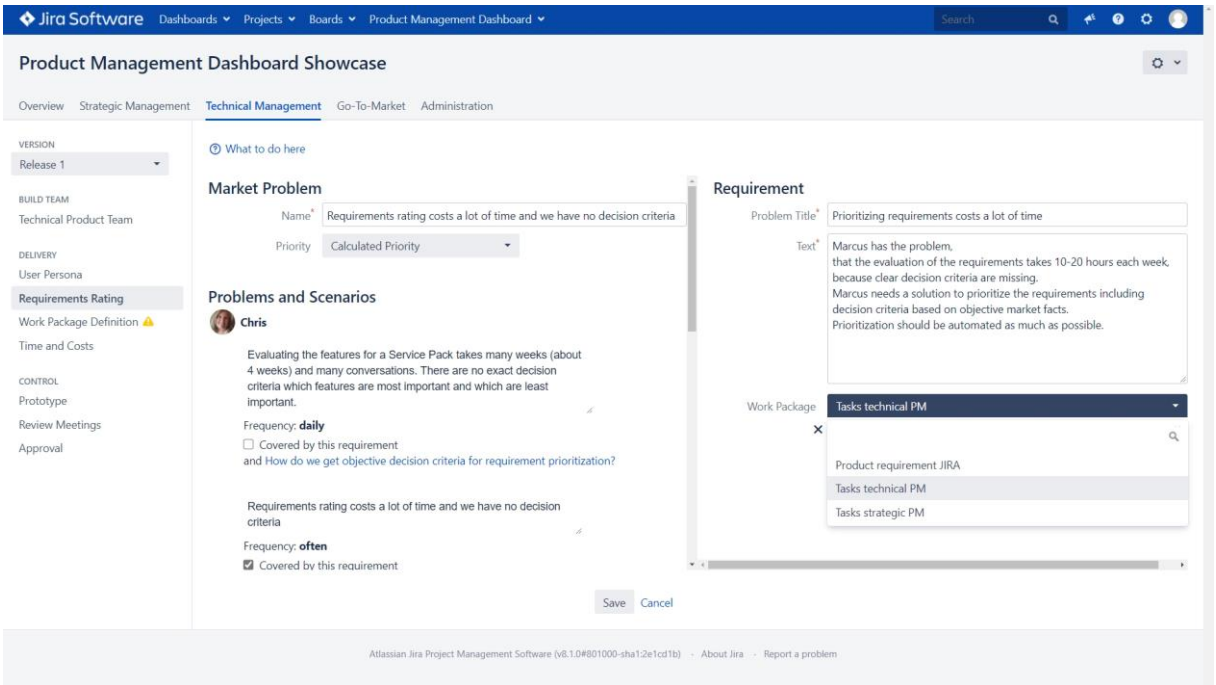
Only when this formula is not sufficient should it be considered with which criteria it can be expanded. It's always worth remembering that all 2,000 requirements also have to be evaluated according to the new criteria. This can again very quickly lead back to the initial situation that personal opinions count instead of objective market facts and figures.

It is important to work together as a team to find a Rating Schematic Diagram which fits in with the strategies and the business.

A Rating Schematic Diagram based on market facts overrules personal opinions.



Save many hours of working time per week and have requirements prioritized automatically, 100% market-oriented, strategically and legally, with the help of Requirements Backlog Prioritizer™. Mandatory requirements of customers, laws, standards etc. are taken into account. Requirements can be manually given maximum priority if required.



Increase quality of requirements: Since you always have several customer interviews at your disposal, you can develop more precise content requirements that are better understood by the development team. 100% transparency and traceability for the entire technical-product team, by linking the interviews with customers, through the requirement to the task for development.

DEFINITION OF WORK PACKAGES (WORK PACKAGE DEFINITION)

After all requirements have been prioritised and given to the Engineers, the development begins. The nervousness of the team as a whole is increasing, because the planned completion day is getting closer. Suddenly, the Quality Assurance team reports that some Use Scenarios do not work because essential features are missing. Such situations occur quite frequently, which is confirmed again and again by participants in our training courses.

Practical example:
I, Frank Lemser, also came across this kind of thing during the course of my role as a Product Manager at SUSE Linux.
Our team developed a SUSE Linux server for small businesses, which provided access to the internet. The system was to automatically connect to the Internet via the ISDN line which was widely used back then. Subsequently, emails could be retrieved and sent or things done on the internet.
The project went very well and the whole team was satisfied. Two days prior to the date of completion, the Project Manager informed me that the internet connection would not work over ISDN. Until then at SUSE they were used to Development always delivering on time. So the Project Manager naturally suggested: “But we can still deliver and then deliver the missing connection via ISDN afterwards.”
I just asked: “Will that work? We only have one product launch. Why shouldn’t we deliver 100%? ISDN is a main feature.”
We then decided as a team to deliver later. If customers and the press had noticed that one of the main features of the product didn’t work, then the rest of our work would also have been in vain.

How can it come to such situations?

1. If we purely consider the requirements according to their priority, working through them from high to low priority, no dependencies and interactions are taken into account.
2. As we often have a specified time, i.e. a fixed delivery date, all requirements can never be worked through. As such, at a certain point, the lower priority requirements are simply "cut off".

As a result, only 70% to 80% of the desired functionality then results.

Our goal is, however, to deliver a 100% market-oriented product.

To do this, we must consider a number of things and define so-called work packages. All work packages have one thing in common: Each work package itself solves a problem 100% and offers 100% functionality.
So although there will be different sizes of packages, at the end we will have a product which works and which solves a market participant’s problem.

Work packages can be put together according to the following criteria:

- Target persona
- 100% problem solution for a persona with the work package
- Consideration of possible dependencies, interactions
- Functional stages of the product, e.g.:
    - Part 1/ Installation
    - Part 2/ Configuration
    - Part 3/ Operation

In the Requirements Rating Schematic Diagram we have added a Work Package column and each requirement is classified according to the above criteria for a work package.

For our SelfBackup example product, it looks like this:

Work Package Example

Title	Persona	WorkPackage	Importance	#Reports	Priority
Claudia only uses it, when 100% of work package is completed. *See example: Requirement Rating Scheme, Column Use Scenario*					
How can I select my folders during the setup?	Claudia	Installation	2	22	44
How can I setup the Backup?	Claudia	Installation	2	19	38
Save several versions of data	Claudia, Peter	File storage	1	16	16
Save space when Backup (incremental)	Claudia	File storage	2	7	14

The comment: *See example: Requirements Rating Scheme, Use Scenario column*, refers to the Requirements Rating Scheme document with the SelfBackup example which you will receive in our training.

As you can see, the individual requirements of our example product are assigned to the respective work packages.

Let's take a look at the installation work package.
The following requirements have been assigned to the installation work package:

- How can I select the folders during the setup?
- How can I set up the backup medium?

Only if these two work packages are completed can Claudia back up her photos. It's of little use to Claudia if she can select the folder to back up but she can't specify a medium (hard disk, USB stick) where these are to be backed up.
It is also true if we turn the situation around. What use is it to Claudia if she can specify the medium (hard disk, USB stick) but she can't however select the data to be backed up.

After the requirements have been assigned to the work packages, a new prioritisation arises. You add up the priorities of the individual requirements which are contained in a work package and, as such, receive an overall priority for each respective work package.
In our example product, there is an overall priority of 82 for the installation work package. For the file storage work package, there is an overall priority of 30.
The installation work package should therefore be processed before the file storage work package.

For our example product, SelfBackup, the work package sequence is as follows:

Rate and Sort Work Package

- Add Priorities of Work Package
- Sort Packages by Sum

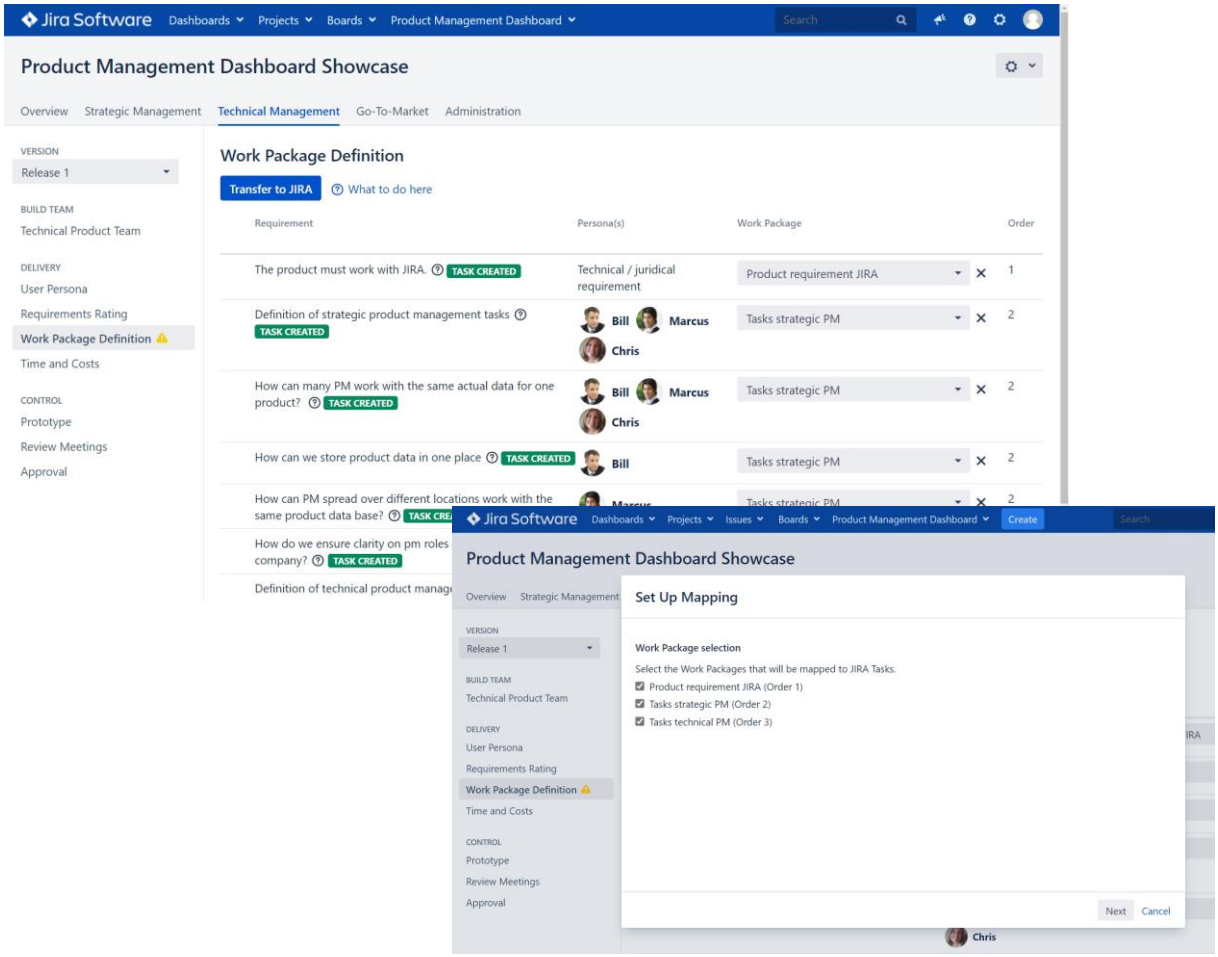
Work Package	*Total-Priority*
Wireless Backup	9999
Automatic Backup	128
Installation	82
File Storage	30

Work Package	Work Package Order
Wireless Backup	1
Automatic Backup	2
Automatic Backup	2
Installation	3
Installation	3
File Storage	4
File Storage	4

There are work packages that require more time for the development than you have. In such cases, these are divided amongst several iterations.
For example:
The automatic backup work package is too large for this iteration. Therefore, you divide it up and deliver it according to the priority:

1. “Claudia wants to automatically back up as soon as her laptop is opened.”
2. “Claudia wants to always back up the latest data.”

It is important to note: only when 100% of the work packages are finished can the solution to the problem be communicated.



Deliver 100% market-driven products and functionalities to customers, taking into account all dependencies and interactions. Requirements are linked to work packages. Transfer them directly to development.

TIME AND COSTS

The ultimate goal for the Technical Product Manager or Product Owner is the cost-effectiveness of the product within the context of the development and manufacture, i.e. the cost-effectiveness of the development effort must be guaranteed.

Before the development begins, the Technical Product Manager/Product Owner must therefore assess with the Technical Product Team which development costs can be expected.

Practical example:
In a company that we have assisted for a long time, the following situation occurred.
The Technical Product Manager with his team had estimated the costs for the individual work packages according to small, medium, large and huge costs. The Management were then informed about which solutions and features the product would contain.
A work package was estimated to be of medium cost by Development. Throughout the course of the project it turned out, however, that its development would require considerably more effort and time. A few days before the planned completion date, it actually became evident that completing it by the deadline was impossible. Three days before the scheduled date, the Technical Product Manager divulged the delay to the Management who were incredibly annoyed about it and who then severely reprimanded the entire team for it.

As a result, the team, and especially the Engineers, always classified all work packages for all subsequent projects as having large costs.

What was actually the problem? The wrong estimation? No, something like this can always happen again, because nobody is perfect.
It wasn't the change that was the problem for the Management, but the surprise they got due to the short notice.

This example shows that estimating is difficult because there are always such questions as:

- What is large?
- What is small?
- How long does large take?
- Are the Engineers covering their backs?
- Can I trust statements?
- How much trust do the Engineers have in their own estimation?

The example also shows that a pure estimation according to small, medium, large and huge is not sufficient. Information is also needed in order to increase confidence in the estimation of the work packages. To achieve this, it is recommended that Engineers classify things according to their own confidence.

Confidence in the Engineer's own estimation	**Meaning**
High (H)	We have already done something exactly like this. We know how long it takes and it will not change.
Medium (M)	We have already done something similar to this. There is a 50% chance that something will change.
Low (LO)	We have no experience with something like this because we have never done this before. It is very likely that something will change.

Another criterion is the assessment of how difficult a work package will be. Among other things, which person is needed for the development of this work package plays a role.

Difficulty of the work package	**Meaning**
High (H)	Senior Engineer is required
Medium (M)	Engineer with experience is required
Low (LO)	Junior Engineer can do that, or we can outsource it

Three criteria result from this, which provide a higher level of security for the estimation and assessment of the work packages so that there are no surprises at the end.

- Size of the work packages: small (S), medium (M), large (LA), huge (HU)
- Difficulty: low (LO), medium (M), high (H)
- Trust: low (LO), medium (M), high (H)

The following assessment results for our example product:

Work Package	Work Package Order	Size	Difficulty	Trust
Wireless Backup	1	HU	LA	LO
Automatic Backup	2	H	M	M
Automatic Backup	2	H	M	M
Installation	3	M	LO	H
Installation	3	M	LO	H

The wireless backup work package is assessed as follows:

- Size of the work package: huge
- Difficulty: high
- Confidence in the Engineer's own estimation: low

How do you feel? Surely not very good. It's clear that there is a lot of uncertainty in this work package, that is, it will probably not be ready by the scheduled end of the project.

How do you feel about the installation work package?

- Size of the work package: medium
- Difficulty: low
- Confidence in the Engineer's own estimation: high

We're certain you feel better about this statement, because you know this work package will definitely be finished.

In summary:
Explain to the Technical Product Team from the outset why these other criteria are needed, these can then also be assessed. As such, there will be fewer surprises and Management is informed in a timely manner.

After the assessment, the work packages are transferred to the Engineers. A few tips for “Transfer poker”:

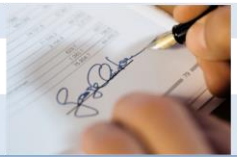
- Inform the team about the goal, the vision and the top problems
- Better to estimate costs instead of time, as that is much easier
- Focus on the top work packages, so the team only has to assess these instead of all 500
- Provide enough detail
- Pursue the objective: deliver 100% of a work package

As you already know from your experience as Product Manager what Development can do, don’t give them the list with the 2,000 requirements. You’ll just scare the Engineers with that. The top requirements and the top work packages give a realistic and manageable list. Ultimately, the Engineers will deliver more this way because a smaller list boosts their sporting ambitions in terms of: “We’ll be able to do that little bit too.”

An estimation should be documented and then be signed off as an entire team. For example, your Technical Product Team may sign the estimation.

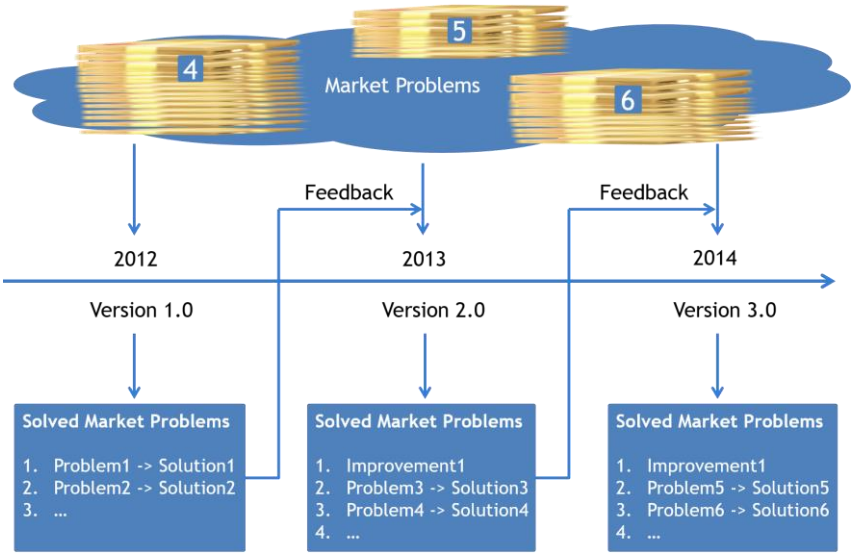
Document Estimation

Work Package	Work Package Order	Size	Difficulty	Trust	Effort	Will be Done	Is Done
Wireless Backup	1	HU	H	LO	35		
Automatic Backup	2	H	M	M	21		
Automatic Backup	2	H	M	M	21		
Installation	3	M	LO	H	14		
Installation	3	M	LO	H			
Data Storage	4	LO	M	H			
Data Storage	4	LO	M	H			



Please note: we have deliberately not written units behind the figures for the costs, because the unit depends on the engineers’ development process. In classic development processes, it can be man-days or weeks. The more modern processes have Story Points as a unit (Agile Development), for example.

All non-completed work packages, which are of course still unresolved market problems, go back into the pool of market problems. At the next iteration, requirements may be added and must be compared with the newly added problems of the market.



As already stated at the beginning of this chapter, one of the most important tasks of the Technical Product Manager/Product Owner is to ensure the cost-effectiveness with respect to the development effort. For this and for the general overview of the project, they use their own key performance indicators, or KPIs for short.

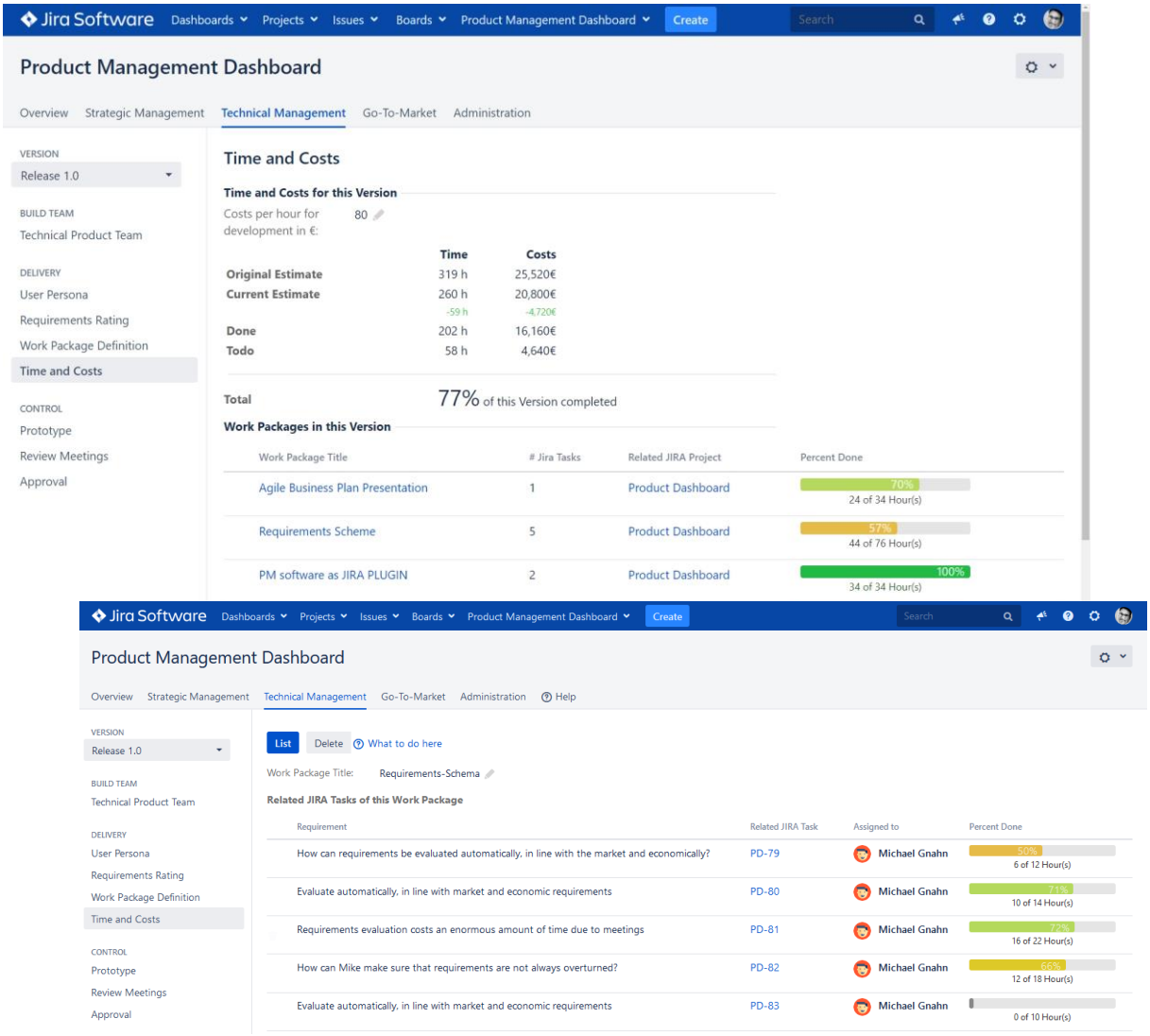
The first task is to determine which KPIs are necessary. Here are some examples:

- Waterfall: Costs in man-days per work package
- Agile: Story Points, Velocity
- Costs per work package
- Total cost planning, development, documentation, quality inspection
- The number of open and resolved errors
- Costs for user testing, beta programmes …

Furthermore, always check:

- Are we going outside the framework?
- How are we against plan vs actual?
- Have we got checkpoints for a timely alarm?
- What are our actions to be taken when the alarm is triggered?

The KPIs as well as the points must be checked on a regular basis. If critical things are reported to Management in a timely fashion, there are no more sudden surprises and the entire team can work together to find a solution.



Full overview ProjectTracker™: You always have an overview of development progress, costs, times, the plan and deviations. You develop products faster because you can react much faster to deviations from the plan, because you have an overview of everything down to individual JIRA tasks.

PROTOTYPE AND PRETOTYPE

The prototype is being used today to present a simplified test model of a product.

Protos comes from Greek and means "the first". Typos also comes from Greek and means "prototype" or "archetype".

A prototype can outwardly conform to the final product. It can also, depending on the type, show the technical functionality and be tested. On the one hand, the prototype tests suitability and, on the other, acceptance. The prototype is an essential step in the design framework and is not only used in technical contexts.

Prototypes are known, above all, in the automotive industry. At car shows, they present studies but also prototypes over and over again, based on which of the car's many characteristics are being tested.

The use of prototypes has many advantages:

- Requirements can be clarified and verified on an ongoing basis
- The risk of failure is reduced and thus money saved
- Helps to check and, if necessary, adapt the features and also the design
- Unintended interactions between components can be detected earlier
- The degree of completion is easier to verify

There are various levels and differences in prototyping for the different types of testing:

- Design prototype
  - Do the design, aesthetics, ergonomics fit?
- Geometric prototype
  - Dimensionally accurate model
- Function prototype
  - Does everything work?
- Technical prototype
  - Identical to final product for testing

The various prototypes are used for example in the automotive industry.

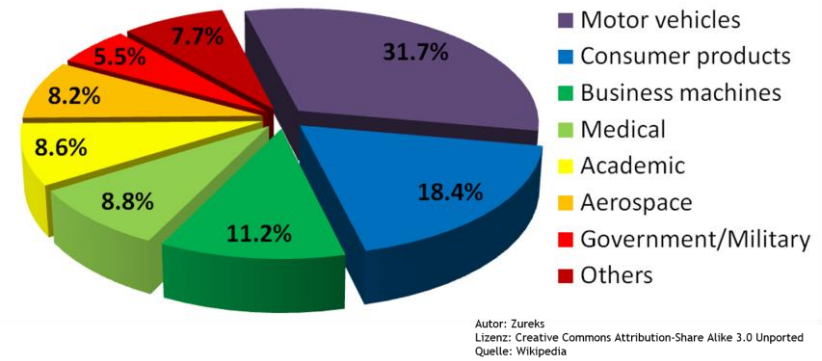
Does the design fit?
Design prototype: conceptual model for review of aesthetic and ergonomic features

Test in the wind tunnel
Geometric prototype: dimensionally accurate model for first assembly and usage tests and for the specification of the (material) requirement profile

First test car
Function prototype: prototype which demonstrates functional properties of a component that have already been identified as crucial and that will subsequently go into serial production

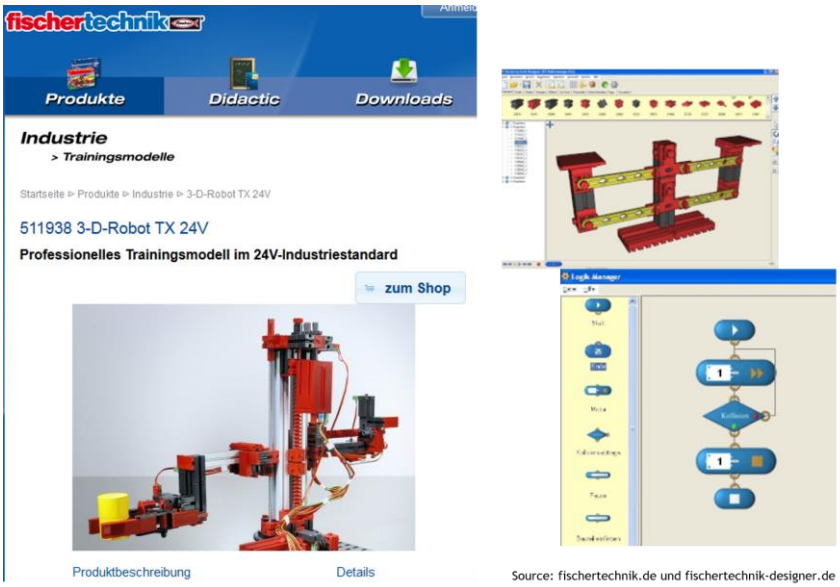
Pre-production model
Technical prototype: experimental model largely identical to the end product

Prototypes are used worldwide in various industries.



Autor: Zureks
Lizenz: Creative Commons Attribution-Share Alike 3.0 Unported
Quelle: Wikipedia

An interesting phenomenon has developed in mechanical engineering. In recent years, engineers have increasingly been using toys made by Fischer Technik to simulate assembly lines and robots as prototypes. Today, Fischer Technik offers a special product range for simulation, including software.



Source: fischertechnik.de und fischertechnik-designer.de

There are also prototypes in the field of software development that need to be tested. When it comes to interfaces and click masks, we talk about so-called mock-ups or mockups.
They can be used to help test how the user gets along with the structure of the interface or the click mask. For the first tests there is often no functionality behind it. This has the advantage that the effort for the Engineers is very low and the design can be quickly adjusted accordingly.
Incidentally, the Concept Developer/Designer is responsible for the mock-ups and testing.

In order to test the design and usability, the persona should be taken into account or be involved for whom the product is being developed, i.e. the User Persona that we have already discussed in detail in this book.

There are also disadvantages in the use of prototypes, which you should be aware of.

Disadvantages of prototypes:

- Seduce you into not gathering the requirements correctly or documenting them correctly
- Significant slowdown of the development process possible
- Creation of additional costs for building the prototypes
    - Can be offset by doing less rework on the final product

It is therefore advisable to carefully weigh up whether prototypes are actually an option and whether the resources, such as architects and designers, are even available in the company. Be aware that this is an additional step but also one which could save a lot of money.

The Product Development Institute and APQC found in a study:

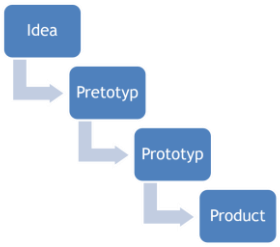
“More than 50% of all new products are failures.”

In addition to good preparatory work in strategic product management and possible prototypes, there is yet another method for avoiding failures - the so-called pretotype. The prefix ‘pre’ means prior to or before. With regard to our explanation of the word ‘prototype’, which we could use for the word archetype, the pretotype means ‘before the archetype’.

The idea is to ask in the first step if you would even use this product yourself, before you have money invested in its development. This is done by creating as simple a "thing" as possible and pretending to use it for a while as you would use it.

Practical example:
In the early 2000s there was a product called Palm. The Palm was one of the first electronic organisers which you used with a special pen. Although you had to learn a custom font for the handwriting recognition software, you could then manage tasks, contacts and appointments, as well as create reminders. It was almost a precursor to today's smartphones.
Since the development of such a device was very time-consuming and expensive, the inventor designed a pretotype using the simplest of means. This consisted of a rectangular block of wood that he stuck paper to which represented the user interface. He simulated the input of information with a small wooden pencil. Then he used the glued wooden block every day as he would use the genuine product. As such, he was able to check and find out for himself whether and for which things he could use the planned product in his day-to-day work. In this way he produced real market evidence.
The product was a success in the 2000s and everyone who was important, or wanted to be, had a Palm.

The pretotype is arranged in the work process as follows:



Before you manufacture an expensive prototype, you can cost-effectively test first of all whether there is a need for the product at all and whether it can work.

Note:
Make sure you build the right thing with the pretotype before you build the real thing.

When you categorise pretotype and prototype in the Open Product Management Workflow, then the pretotype is found right at the very beginning of the strategic part, because it provides and supports the market evidence. The prototype, on the other hand, is found in the technical part of the Open Product Management Workflow, since all market facts will need to be reviewed before its development begins.

Pretotyp vs. Prototyp

Pretotyp

- Would I use it?
- Would other people buy and use it?
- Does it solve a market problem?

Prototyp

- Can we build it?
- Will it work?
- What size/price and how energy-efficient will it be?

The benefits of the pretotype are:

- Offers real market evidence
- Reduces discussions
- Decreases risk and reduces bad investments
- Can be created quickly and cost-effectively
- Is a first conceivable and tangible "thing"

REVIEW MEETINGS

Once the project is then in the development phase, it is important for you as an initiator and (Product) Manager of the Technical Product Team to have an overview of the entire project. To do this, you initiate regular meetings with your team mates.

The aim of these meetings is to give the entire team the same information about the status of the project. Each member of the team reports on the current status of their part of the project. If problems are raised that cannot be solved by one person alone, it is your task to clarify how this can be accomplished within the team.

It is precisely at this point that you appreciate your role as Product Manager, emerging as a professional manager of the product and the product team in which you stand up for the team and its common success.

Here you can develop, among other things, the recognition that so many Product Managers repeatedly demand.

Recognition cannot be demanded, it must be earned over a long period of time.

The status meetings should include the following items as fixed points on the agenda and must be clarified:

- Is the project within the framework?
  - Plan vs actual
  - Have checkpoints for an alarm been given?
- Does the product comply with the requirements?
  - Will the required standards be met?
  - Has Quality Management tested all Use Scenarios?
  - Progress of the tests with customers
    - Use
    - Function

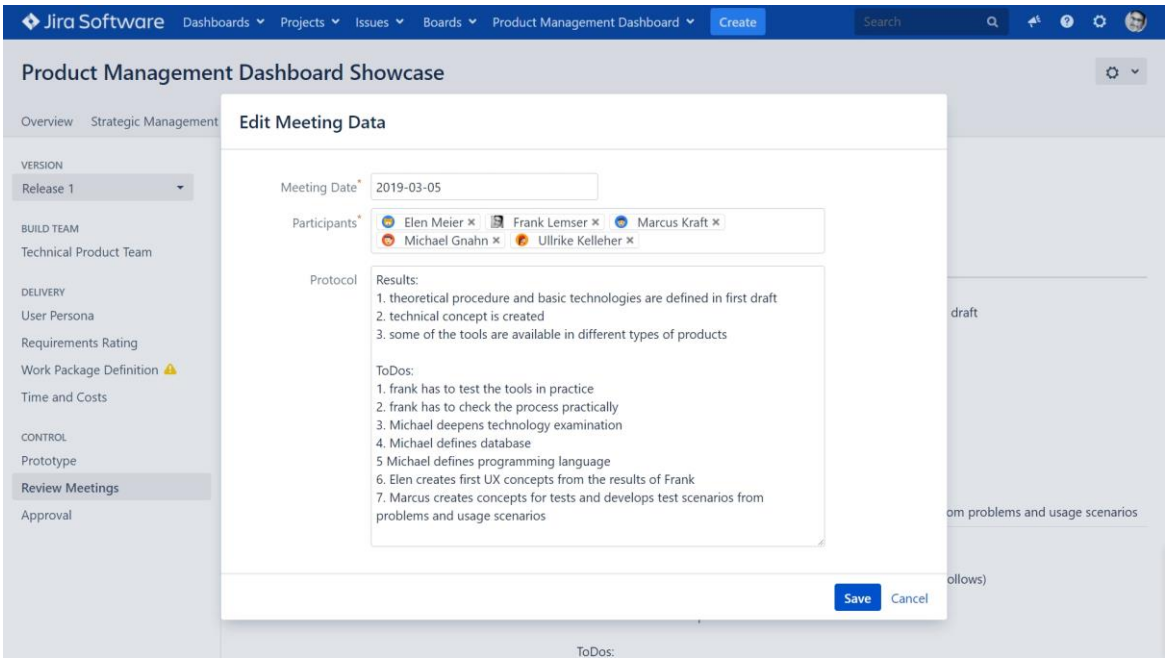
As soon as a delay emerges, the team should consult together to determine if and how the plan changes and adjust it. Thus, for example, you can reduce the number of pre-release versions or Release Candidates in order to still reach the planned completion date.

Important!
Always document the current status and communicate in case of problems and delays in a timely manner.

Document Status

Work Package	Work Package Order	Size	Difficulty	Trust	Effort	Will be Done	Is Done
Wireless Backup	1	HU	H	LO	35	?	no
Automatic Backup	2	H	M	M	21	yes	no
Automatic Backup	2	H	M	M	21	no	no
Installation	3	M	LO	H	14	yes	yes
Installation	3	M	LO	H	14	yes	yes
Data storage	4	LO	M	H	6	yes	no
Data storage	4	LO	M	H	6	jyes	no

You can see the intermediate status of our example product SelfBackup in the above table.



More transparency, centralized tracking of meeting results in seconds, through centralized meeting minutes.

APPROVAL

In the last status meeting for the project you conclude and release the final approval together with your Technical Product Team.

The final decision, however, is made by the Technical Product Manager or Product Owner.

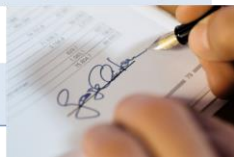
Before the final approval, the following should be clarified:

- Does the product solve the problems experienced by each persona?
- Problems solved per persona
- Finished work packages and requirements
- Does the final product comply with the requirements?
    - All required standards are met
    - Quality Assurance has tested all Use Scenarios
    - Tests with customers were successful
        - Use
        - Function

Once these points are clarified, the final approval can be issued by the entire Technical Product Team. It is a good idea to document the final status of the project.

Finale & Release

Work Package	Work Package Order	Size	Difficulty	Trust	Effort	Will be Done	Is Done
Wireless Backup	1	HU	H	LO	35	yes	yes
Automatic Backup	2	H	M	M	21	yes	yes
Automatic Backup	2	H	M	M	21	no	no
Installation	3	M	LO	H	14	yes	yes
Installation	3	M	LO	H	14	yes	yes
Data storage	4	LO	M	H	6		
Data storage	4	LO	M	H	6		

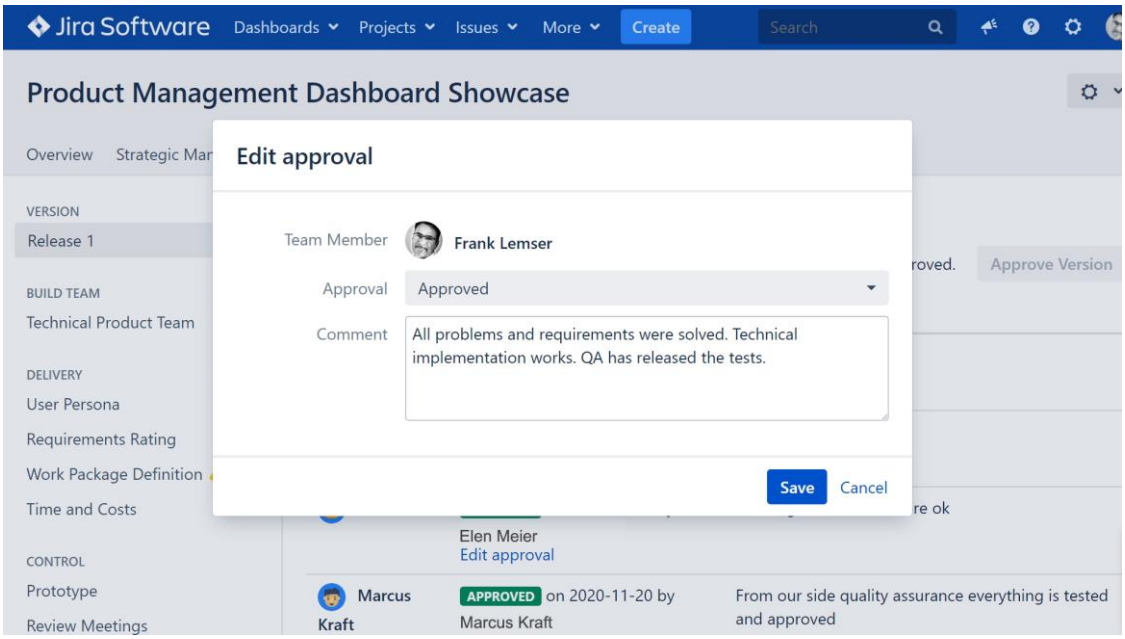


After the completion of the project, it is recommended that the entire Technical Product Team gets together in order to do the preparatory work for the improvement of joint cooperation.

- What went well?
- What hurdles were there?
- Where is there potential for optimisation?
- What do we want to do better?

This type of approach has also proved its worth over many decades in other areas, in sailing for example. Here, the skipper and their crew get together after a day's sailing to discuss similar points in the de-briefing session.

Teams which understand the personas and their problems develop products that customers want to buy.

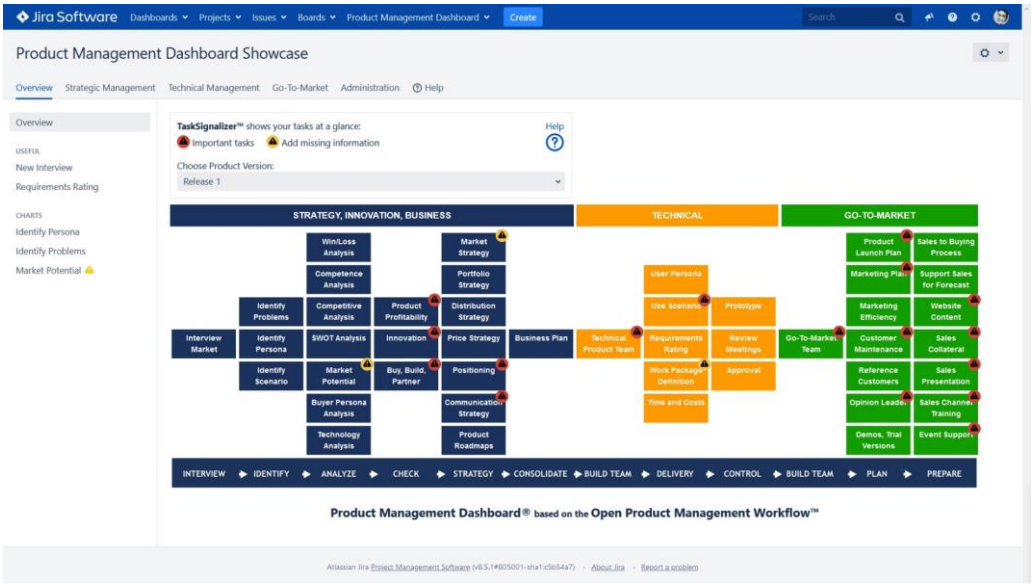


Product release by the team: For more transparency and stronger team identification, everyone in the technical product team approves the product for their area.

PRODUCT MANAGEMENT DASHBOARD® - PRODUKTMANAGEMENT SOFTWARE PLUGIN FOR JIRA®

Your business will be up to 50% faster, 31% more profitable by:

- 100% market-driven & strategic product management, development and marketing
- Clear tasks & responsibilities through fully automated agile Open Product Management Workflow™
- Uniform and structured working as a team with a tool for strategy and technology
- Get in only 2 hours your strategies & Agile Business Plan™ as PowerPoint
- Automatically prioritized requirements backlog with Requirements Backlog Prioritizer™
- Find in seconds all product materials and info in the Product Materials Library™
- The entire product development and marketing in one system from strategic to technical product management, development and marketing



CLEAR TASKS & RESPONSIBILITIES

Become faster through clearly defined tasks and responsibilities for Strategic Product Management, Technical Product Management and Go-to-Market.

FULLY AUTOMATED AGILE WORKFLOW AND DATA-POOL

Your strategies, development and marketing fully agile and 100% market-driven with the Agile Business Plan™. Fully automatically prioritized requirements backlog and all information, documents and materials for a successful Go-to-Market in one place.

ALWAYS KNOW WHAT TO DO WITH TASKSIGNALIZER™

You can see at a glance whether changes have occurred and what needs to be done thanks to the visual cues of TaskSignalizer™

Unique advantages for Product Management:

Become up to 50% faster and 100% market-oriented in Product Management with clear tasks and a unified, structured approach to automated strategy & engineering tools with the help of the Product Management Dashboard for JIRA.

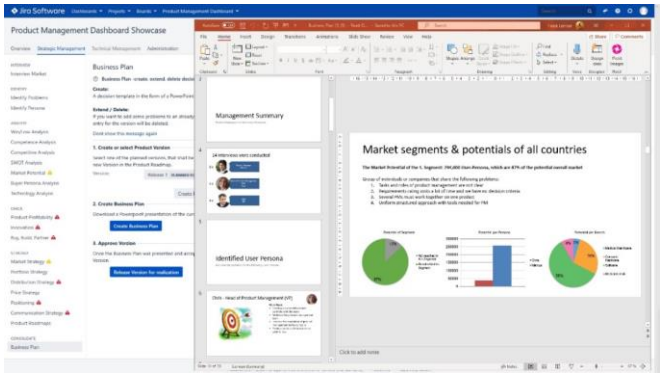
- Get 100% market data based strategies and the Agile Business Plan™ as a PowerPoint including management summary in 2 hours.
- Prioritize all requirements automatically in 1 second based on strategy, customer benefit, revenue and time
- Product Management teams can work together on one or more products
- You will find all information about the product in seconds, because everything about the product is in one place
- Consolidation and automatic evaluation of all ideas and market information from a variety of sources such as customers, Sales, Management, Technical, Support in one central location
- 100% facts, less discussions due to automated support for strategy derivations and the creation of business plans
- Direct transfer of market requirements as product requirements to Development in one system, Development-JIRA®
- View the overall project status at any time from the strategy to the technology through JIRA as a common point of reference
- Estimate the development effort and costs for development in a system & receive direct feedback

Unique advantages for Management:

Increase the average annual effectiveness per Product Manager by 500 hours, get 100% strategic and market fact-based business plan through a structured and market-oriented approach with the Product Management Dashboard.

- 1 click and compact business plan incl. management summary received as PowerPoint, 100% based on market facts
- ROI in 1.5 hours for your organization using the Product Management Dashboard (per month)
- Avoiding bad investments and increasing corporate success through long-term strategic product planning
- Various sources such as sales, product management, management or technology can dump ideas and market information into a funnel which automatically evaluates the information
- Reduce meeting time, fewer discussions, but make more confident decisions with more market facts
- No costs for additional server infrastructure or administration since everything runs on the JIRA project management software
- The entire product development takes place in one system, from strategic and technical Product Management to production
- In the long term, knowledge remains understandable for everyone, even when employees leave the company, because all knowledge is documented in a transparent way

All colleagues can store conversations or interviews with customers on various products. Various evaluations of the interviews are made by the system.



STRATEGIC PRODUCT MANAGEMENT

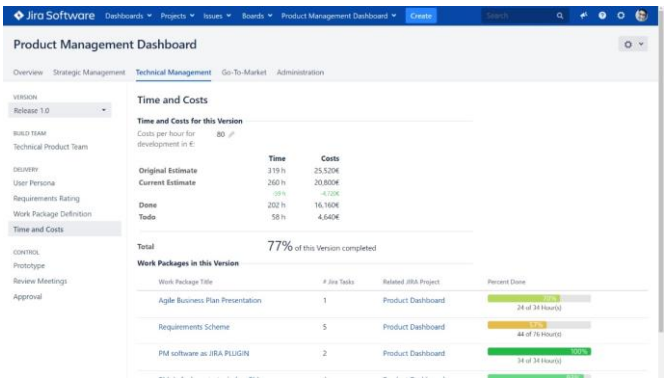
Become market-driven, react immediately to market changes with the automatic alert system for analyses and strategies and make your strategies fully agile.

GET IN 2 HOURS YOUR AGILE BUSINESS PLAN™ INCL. POWERPOINT

Get your 100% market fact based Agile Business Plan™ as PowerPoint in 2 hours, with market potentials, all strategies, prices, costs, market-message and strategic roadmap.

STRATEGIC ROADMAPS™ IN SECONDS BASED ON FACTS

With just a few clicks, you can create a fact-based Strategic Roadmap™ that your management understands.



TECHNICAL PRODUCT MANAGEMENT

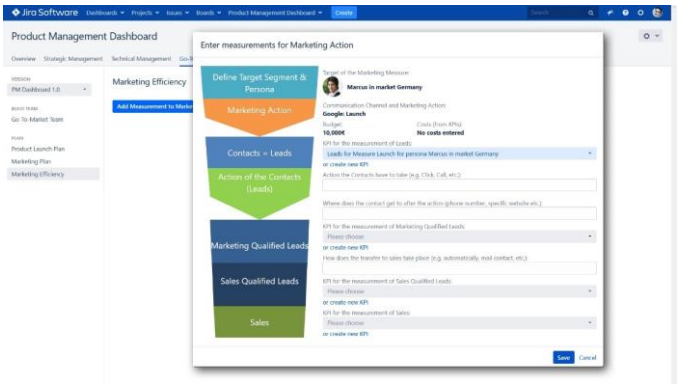
Team management, User-Persona, automatically prioritized requirements, project status, time & cost overview and workpackages handover to JIRA in one place.

REQUIREMENTS BACKLOG AUTOMATICALLY PRIORITIZED

Save weeks and get your requirements automatically 100% market-driven and strategically prioritized with the Requirements Backlog Prioritizer™.

FULL DEVELOPMENT OVERVIEW PROJECTTRACKER™

You always have an overview of development progress, costs, times, the plan and deviations.



GO-TO-MARKET & MARKETING

Create your product launch plan and marketing plans as a team in minutes. Save time and money by improving their efficiency based on 100% market data.

ALL MARKETING & SALES MATERIALS IN ONE PLACE - PRODUCT MATERIALS LIBRARY™

Save hours of time for searching, because all marketing and sales materials can be found immediately in the Product Materials Library™.

1 CLICK: SALES & CHANNEL TRAINGS PRESENTATION

Save weeks and get your sales presentation and sales channel training presentation in 1 click.

MORE ECOLOGICAL, FASTER, MORE PROFITABLE, MORE SUSTAINABLE

Imagine developing innovative products that are sustainable and save a lot of resources such as raw materials, materials, energy, water, labor and time.

Imagine that you need only 50% of the previous time for development and marketing and at the same time your company becomes up to 31% more profitable.

All the tasks you need to do are clearly defined and many of them are automated or can be done in minutes using the Product Management Dashboard, our product management software.

What else you need to do: *talk to your customers, conduct interviews*.

This way you develop products that are sustainable because you solve problems that are widespread as well as satisfy real needs of customers. At the same time, you avoid costly, time- and resource-consuming misdevelopments. And incidentally, you'll make your business up to 50% faster and 31% more profitable.

Product management has the ecological future of all of us as well as the economic future of your company in its hands.

You have this future in your hand.

FREE DOWNLOAD, LICENSE AND EXAMPLE INCLUDED

You can download the software, the Product Management Dashboard for JIRA, free of charge and start it immediately, because it already includes a full license for a Product Managers. Also included is a complete sample product, the Product Management Dashboard Showcase.

www.pro-productmanagement.com/software

MORE INFORMATION

Detailed information about the Product Management Dashboard can be found on the website:

www.pro-productmanagement.com/software

and the associated subpages.

FURTHER SUPPORT FOR YOU

If you would like to carry out training in your company or require support for your Product Management department, simply get in touch with us.
Furthermore, you can also get support for the following topics:

- Coaching & Mentoring
  - Your Product Managers are accompanied throughout their day-to-day work in order to put what they have learned into practice
- Broaden, practise and implement your topics in workshops, e.g.:
  - Conduct and evaluate interviews as well as Win/Loss analyses
  - Derive strategies and product positioning
  - Create business plans & business cases
  - Technical PM including requirements evaluation
  - Plan and implement Go-To-Market

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