



Lecture: Modern Project Management in ICT

Prof. Dr. Harald Wehnes



Agenda

Presentation of the solutions of Task 3 (< 2 minutes)

Health situation

4.1 Environment and stakeholder management

- **Result: Stakeholder analysis**

4.2 Agile Project Management

4.3 Scrum

4.4 Objectives

Task 4: Stakeholder Analysis (pptx)

Research Tasks “PM in VN”

Homework: Task 3

Finish “Story Map and MVP”:

Team_n-Task_3.pptx

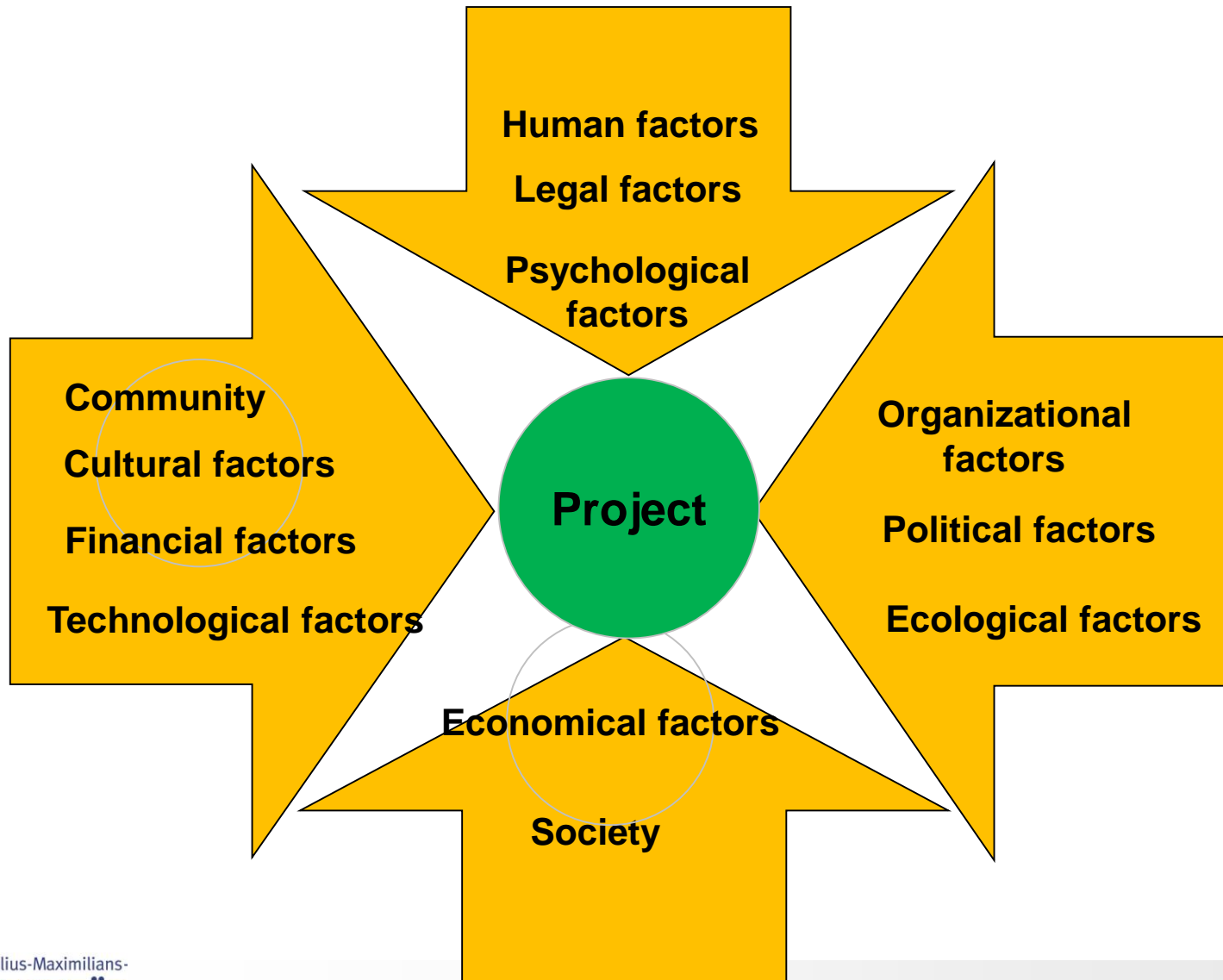
Upload of the presentation by the project manager of day 3!

Deadline: 12th March, 8:00 am

Presentation by the project managers of day 3
tomorrow morning (duration < 2 min)

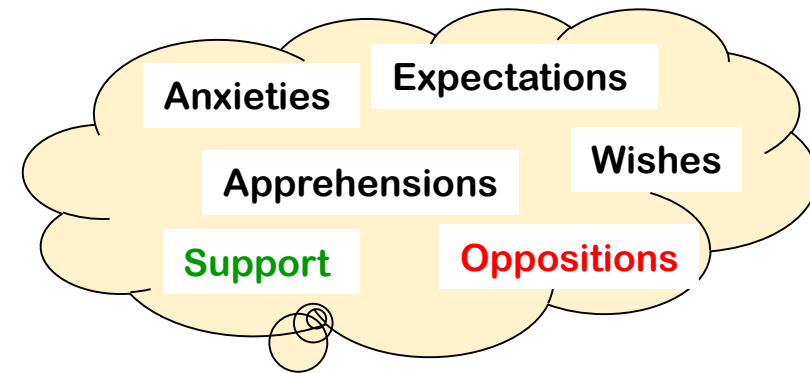
4.1 PROJECT ENVIRONMENT & STAKEHOLDER MANAGEMENT

Project Environment is important: There are a lot of influences on the project



Stakeholder

The individual factor is highest priority!
Projects are done by humans
for humans



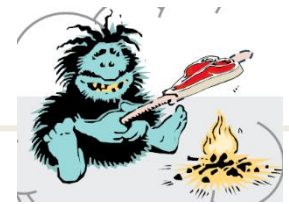
Stake:

Claim, interest, expectation or requirement

Stakeholder (Interested Parties):

Individual, group of people or organization, who ...

- **take part** at project
- **interested in** the project progress or results
- **affected** by a decision, activity, or outcome of the project
- can **influence** the project result or project progress



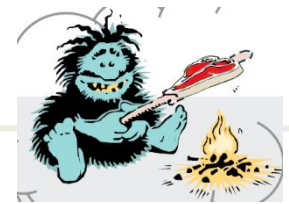
*Who are promoters?
Who are opponents?*

Purpose of stakeholder management:

Realize in advance,

- who will support the project and
- who has resistance to the project (**conflict potential**)
 - ⇒ appropriate steps for project acceptance

Categories of Stakeholder

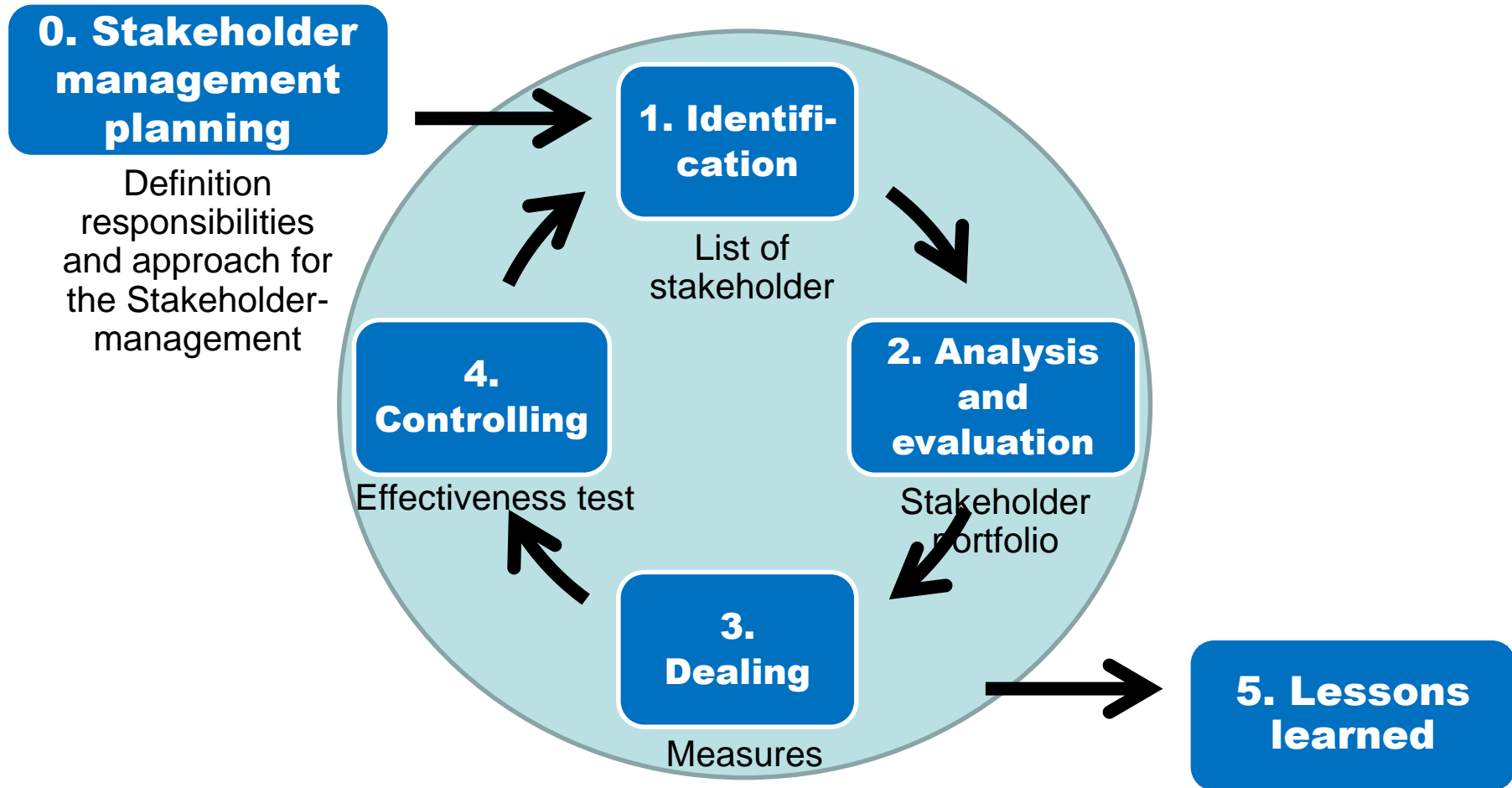


- ▶ **Interest/Affectedness** by the project objectives or outcome
 - **Degree of impact:** low – medium – high
 - **Type of impact:** positive – negative
 - ⇒ Attitude towards project
 - **Type of Attitude:** positive – neutral – negative
 - Support / oppositions
 - **Promoters:** Project proponents
 - **Opponents:** Project opponents

Conjectures / Facts

- ▶ **Power/Influence** to the project
 - **Degree:** low – medium – high

The stakeholder management process ensures an efficient interaction with the stakeholder



1. Stakeholder identification

- ▶ **Run a workshop** (key questions will help)
 - *Which persons are affected by the project?*
 - *Who can influence the project?*
 - *Who could be against the project?*
 - *Who could support – with which expectations – the project?*
 - *Who could have reservations (fears, apprehensions) regarding the project?*
 - *Who else could provide information regarding the project?*
- ▶ **Typical stakeholder are customer, sponsor, project team, project office, or anyone who needs project information to make decisions and/or contribute to project progress**

Result



Example: Stakeholder identification

#	Stakeholder (person or group)	Attitude to the project (+, -, 0)	Expectations (+) Fears (-)	Degree of impact (low, medium, high)	Type of impact (+, -)	Power/ Influence (low, medium, high)	Strategies / Measures
1	customers, users						
1.1	Teenager	+	+	high	+	medium	Raise awareness
1.2	Researcher	+	+	medium	-	high	Persuade for testing demo
1.3	Advertise com.	+	+	high	+	medium	Offer advertise deal
1.4	Software com.	+	+	high	+	medium	Persuade for financial, technology
1.5							
2	project team members						
2.1	Designer	+	+	h	+	m	Look for profesional, offer good payment, bonus
2.2	Marketter	+	+	h	+	m	Look for profesional, offer good payment, bonus
2.3	Web security	+	+	h	+	m	Look for profesional, offer good payment, bonus
3	other interested parties						
3.1	Maintanance	0	+	low	+	low	Look for profesional, offer good payment, bonus
3.2	Co-operation party	0	+	medium	+	medium	Stay neutral
3.3							

Workshop „Stakeholder identification“

Identify three (3) important stakeholder of your project

Template-Stakeholder.xls

Process time: 5 minutes

#	Stakeholder (person or group)	Attitude to the project (+, -, 0)	Expectations (+) Fears (-)	Degree of impact (low, medium, high)	Type of impact (+, -)	Power/ Influence (low, medium, high)	Strategies / Measures
1	customer, user						
1.1							
1.2							
1.3							
2	company that fulfills the project contract						
2.1							
2.2							
2.3							
3	members of the project team in its roles						
3.1							
3.2							
3.3							
4	suppliers and subcontractors						
4.1							
4.2							
4.3							
5	society and others						
5.1							
5.2							
5.3							

Stakeholder identification

Team	Stakeholder	
1	people group (the age,salary)	
2	App users	
3	Young people	
4	General Consumers	
5	Customer	
6	Consumers	
7	App users	
8	Place owner,	
9	Investor	
10	Doctor	
11	Government	
12	Web developer	

2. Stakeholder analysis

Analysis for each stakeholder

- **Attitude** to the project: positive +, neutral 0 or negative -
- **Expectations (+) / fears (-)**
- **Degree of impact (interest/ affectedness):** high, medium, low
- **Type of impact:** positive (+) or negative (-)
- **Degree of power (influence)** to the project: high, medium, low

#	Stakeholder (person or group)	Attitude to the project (+, 0, -)	Expectations (+) Fears (-)	Degree of impact (low, medium, high)	Type of impact (+, -)	Power/ Influence (low, medium, high)	Strategies / Measures
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2	project team members						
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3.1	Maintanance	0	+	low	+	low	Look for profesional, offer good payment, bonus
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3.3							

Workshop „Assumed Expectations and Fears“

Stakeholder	Expectation	Fear
Marketing Manager		Product design does not meet customer requirements
Component Supplier		He might not receive the order for serial production
CEO	New customers for the company	

Task: Expectations and fears of one stakeholder of your project

Stakeholder analysis

Team	Stakeholder	Expectations	Fears
1	Elder people	the elder: expect easy to use	cost and reliability
2	App users	Straight-forward user interface, up-to-date traffic information, Quick response time	price, ads
3	Young people	unique design of their own	bad quality printing
4	General Consumers	Ease of use, payment	Worrying about their Privacy
5	Customer	Easily take care of their pet properly	bad service
6	Consumers	good and healthy products , suitable price	pressure of the market
7	App users	better feature, affordable	wrong knowledge, personal data leakage
8	Place owner,	The app users increases, combine with some other bussiness, increase user trust	Complicated app, few users
9	Start-up CEO	The application can help to manage the company easier and effective	
10	Doctor	customer satisfaction; save time; reduce stress; guarantee user' data	too many patients at a time, low accuracy
11	Government	resources	
12	Web developer	deliver fast and accurate information	wrong informations, slow response website

3. Stakeholder measures



Develop strategies, measures and activities for

- **reducing resistances (fears)**
- **strengthening support**

-

Measures to reduce the resistors

- **Strive for win-win situations** – especially when they may have a strong influence
- Try to find compromises with them
- Pro-contra-arguments work out; develop “messages”
- Honest and clear communication
- Possible participation in the project work

+

Measures to strengthen the supporters

- **Complete information of the supporters**
- Build personal wire / good relationship
- Inclusion of opinion leaders and multipliers

Stakeholder matrix complemented by measures

#	Stakeholder (person or group)	Attitude to the project (+, -, 0)	Expectations (+) Fears (-)	Degree of impact (low, medium, high)	Type of impact (+, -)	Power/ Influence (low, medium, high)	Strategies / Measures
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5.2							
5.3							

Example: Stakeholder measures

#	Stakeholder (person or group)	Attitude to the project (+, -, 0)	Expectations (+) Fears (-)	Degree of impact (low, medium, high)	Type of impact (+, -)	Power/ Influence (low, medium, high)	Strategies / Measures
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3.2	Co-operation party	0	+	medium	+	medium	Stay neutral
3.3							

Stakeholder measures (actions): Examples

▶ Project meetings

- Personal meetings
- Reporting
→ exchange of information

▶ General meetings

- Panel discussions
- Workshops
→ how presence

▶ Project reports

- Reporting plan
- Document plan
→ documentation of project progress

Project presentation contents:

- Why are we doing it?
- Benefits
- Objectives
- How to reach our goals?
- Discussion & questions

Example (2019)

#	Stakeholder (person or group)	Attitude to the project (+, -, 0)	Assumed Expectations (+) Fears (-)	Interest/ Affectedness (low, medium, high)	Type of impact (+, -)	Power/ Influence (low, medium, high)	Strategies / Measures
1	customer, user						
1.1	Doctors	+	(+) Help doctors with high accuracy, stress reduction.	high	+	high	Update frequently for more easier interaction and bug fixes.
1.2	Patients	+	(-) Not really trusted in AI, believe in real Doctor.	medium	+	high	Hold more conferences in order to show demo product with the highest results.
2	company that fulfills the project contract						
2.1	Hospital	+	(+) Reduction of treating time.	high	+	high	Release free trial versions for some early co-operation.
2.2	Medical central	+	(+) Reducing the burden of medical staff.	medium	+	low	Release free trial versions for some early co-operation. Guarantee the performance.
3	members of the project team in its roles						
3.1	R&D Manager	+	(-) Need more pre-processed data which is not available.	high	+	high	Spend a huge budget to find good raw data.
3.2	Marketing Manager	+	(-) The preconception is human want to be treated by real doctors. Hard to convince them.	high	+	high	Spend a huge budget to have advertisement on TV.
4	suppliers and subcontractors						
4.1	HUST	+	(+) More and more AI start-ups can develop in order to bring the AI technology into everywhere of our country.	high	+	medium	Accept training of after-graduated students.

Stakeholder measures

Team	Stakeholder	Measures
1	Elder people	- Design friendly UI (User Interface), - Having a Customer Service Hotline, - Introduce a 6-month warranty
2	App users	two week trial Premium version and no ads
3	Young people	1/ free charge for the first time when design with chosen artist 2/ Refund policy
4	General Consumers	Giving 50 free ordering vouchers for 50 firstly registered users in some specific areas.
5	Customer	give the customer discount or voucher
6	Consumers	discount 10% for the total bill to attract costumers
7	App users	Care about user feedback , -Give some voucher discount for premium registration, -make app easy to contact ours or others
8	Place owner,	make induction video, point accumulation to get discount, reduce money for the first use.
9	Start-up CEO	highest access permission-clear management instructions
10	Doctor	give users free trial version; focus on the quality cure of doctors; more bonus for treating more patients
11	Government	give free trial version to get opinion and feedback
12	Web developer	high demand with good salary and workplace

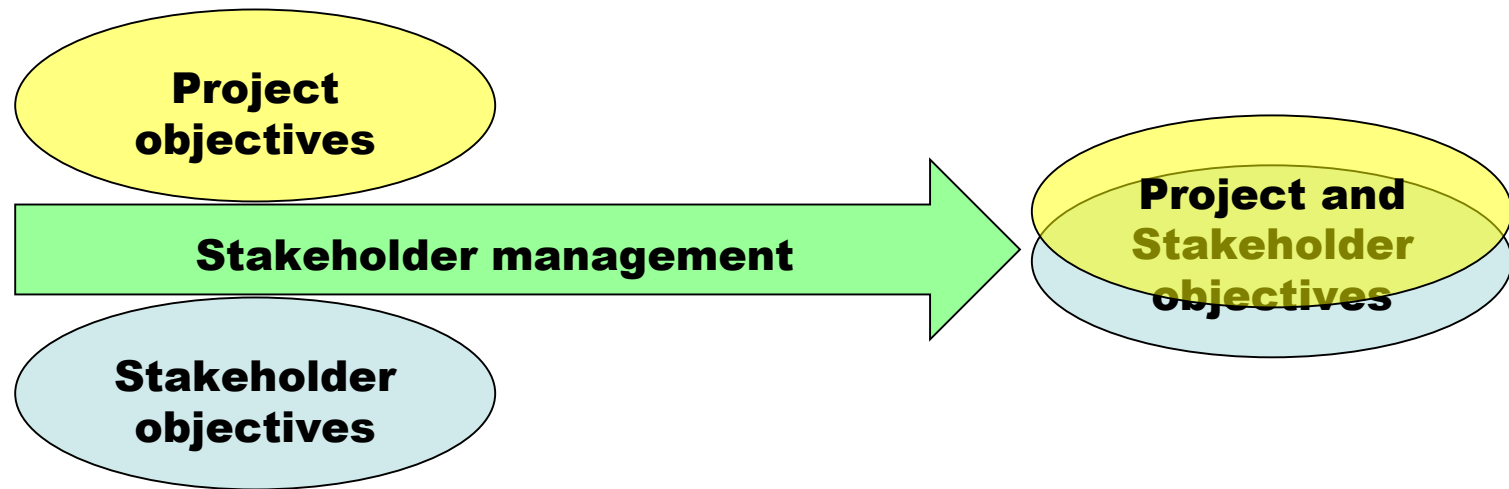
4. Controlling



- ▶ **The results of the Stakeholder analysis is kept internally (within your project.) They are not made public to outsiders!**
- ▶ **Stakeholder identification and analysis are carried out several times during the course of the project**
 - Stakeholder identification und analysis represent always just a snap-shot in time
 - Appropriate moment for a new viewing / new evaluation:
At the beginning of a new project phase
 - Controlling-Questions
 1. *Have the carried-out measures/actions been successful?*
 2. *Are there new stakeholder?*
 3. *Has there been an essential change of the stakeholder positions?*
 4. *Which new measures have to arranged?*

Tips from the practice

- ▶ **There are more Stakeholder than you can imagine**
→ An intensive identification process of the stakeholder avoids unpleasant surprises while project progress. It increases the chances of project success significant.
- ▶ **Create win-win-Situations!**
Be creative!
- ▶ Integrate important wishes and interests of the stakeholder into the objectives of the project



Task 4: Stakeholder Management

1. Stakeholder analysis for the five (5) most important stakeholder

- Attitude to the project: positive (+), neutral (0) or negative (-)
- Expectations (+) / fears (-)
- Degree of impact: high, medium, low
- Type of impact: positive (+) or negative (-)
- Power (influence on the project): high, medium, low

Stakeholder measure:

one **measure** for each stakeholder with “power/influence” = **high**

Template: Stakeholder_matrix.xls

Homework: Task 4

1. Optimize “Story Map and MVP”
2. Stakeholder management
 - 5 Stakeholder: analysis and measures (only for stakeholder with “**power/influence**” = high)

**Upload of the presentation `Team_n-Task_4.pptx`
by the project manager of day 4!**

Deadline: 13th March, 8:00 am

Presentation by the project managers of day 4 tomorrow morning

Research Tasks: Project Management in Vietnam

1. Large-size **historical projects in Hanoi** (result, duration, costs)
2. Large-size **actual projects in Hanoi** (result, duration, costs)
3. Large-size **historical projects in VN** (result, duration, costs)
4. Large-size **actual projects in VN** (result, duration, costs)
5. **Industry sectors** where project management is applied in VN
6. VN **portals** with job offers for project managers
7. VN **universities** that offer **project management (degree) courses for students**
8. **Books** about project management in Vietnamese
9. **Skills** of project managers (analyze some pm job offers)
10. **PM organizations and groups** in VN
11. **Tools for project work**
12. **Tools for virtual communication**

Presentation of the results by the team members: 16 & 17 Mar 2020

Deadline for Upload: 16th March, 8:00 am

Schedule

Online (Room D08 – 502)

09.03	10.03	11.03	12.03	13.03	16.03.	17.03	18.03	19.03	20.03
9:20-11:50 Lecture	09:20-11:50 Lecture	09:20-11:50 Lecture	09:20-11:50 Lecture	09:20-11:50 Lecture	09:20-11:50 Lecture	09:20-11:50 Lecture	09:20-11:50 Final Presentations	09:20-10:50 Exams (2 x 45 minutes)	
13:20-15:20 Lecture	13:20-15:50 Lecture	13:20-15:20 Lecture	13:20-15:50 Lecture		13:20-15:20 Lecture + PM in VN I Teams 1-6	13:20-15:50 Lecture + PM in VN II Teams 7-12	13:20-15:20 Preparation for Exam		14:00? Cere- mony
Project work in teams	Project work in teams	Project work in teams	Project work in teams	Project work in teams	Project work in teams	Project work in teams			

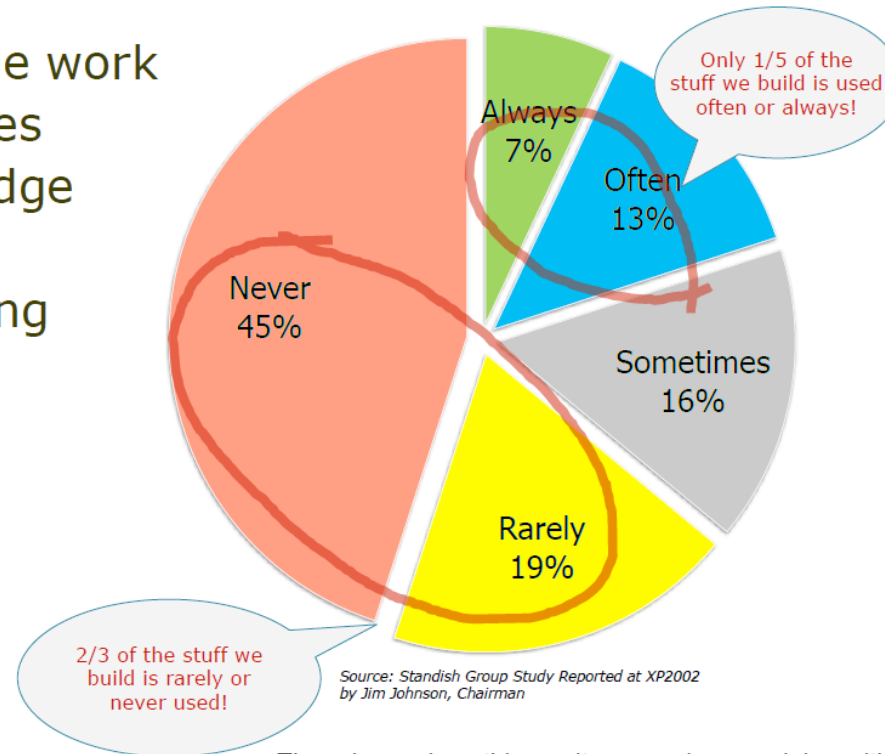
4.2 AGILE PROJECT MANAGEMENT

Motivation

The 7 Wastes of Software Development

Features and functions used in a typical system:

- Partially done work
- Extra features
- Lost knowledge
- Handoffs
- Task switching
- Delays
- Defects



There is surely nothing quite so useless as doing with great efficiency what should not be done at all.

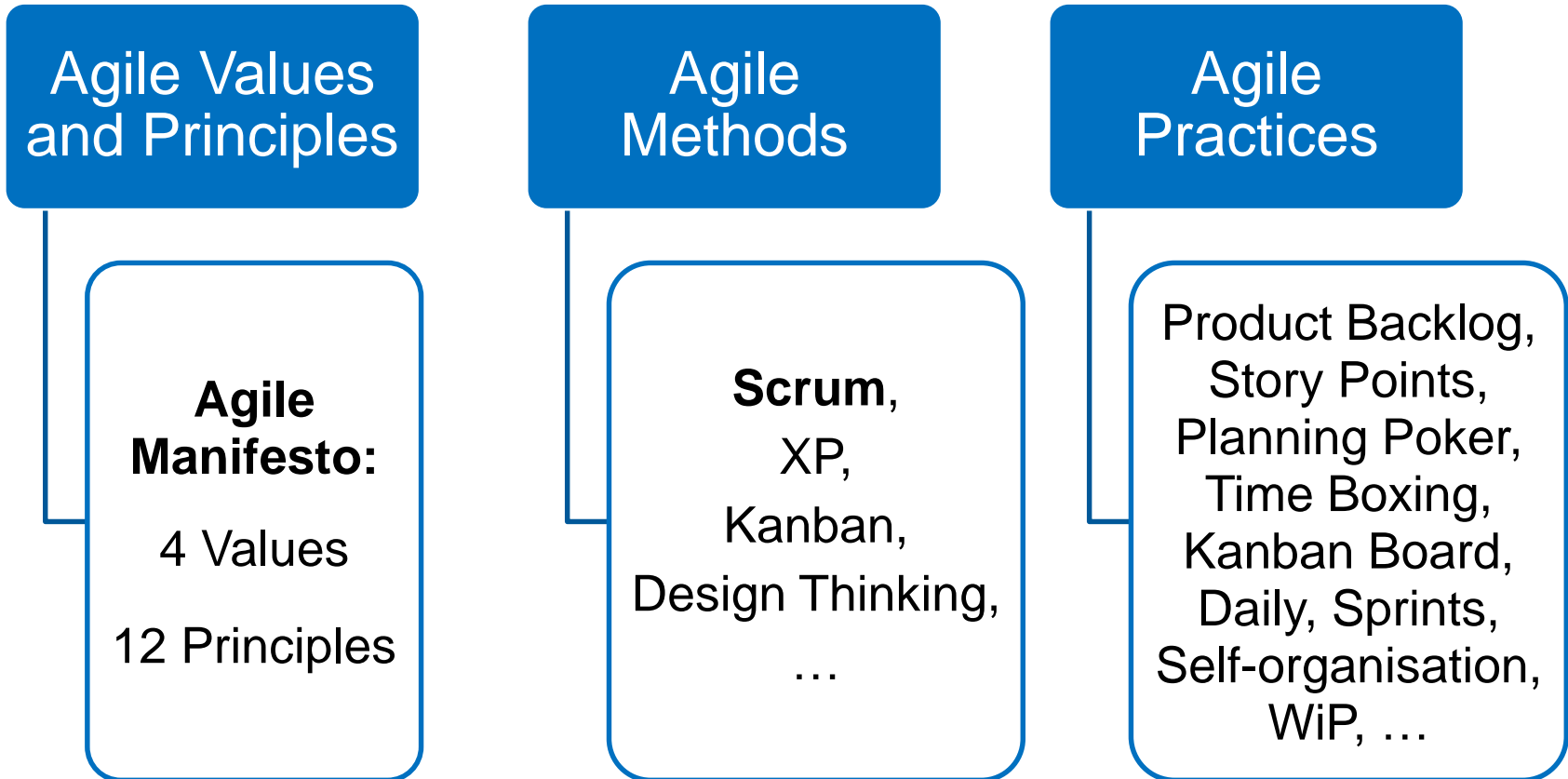
Peter Drucker

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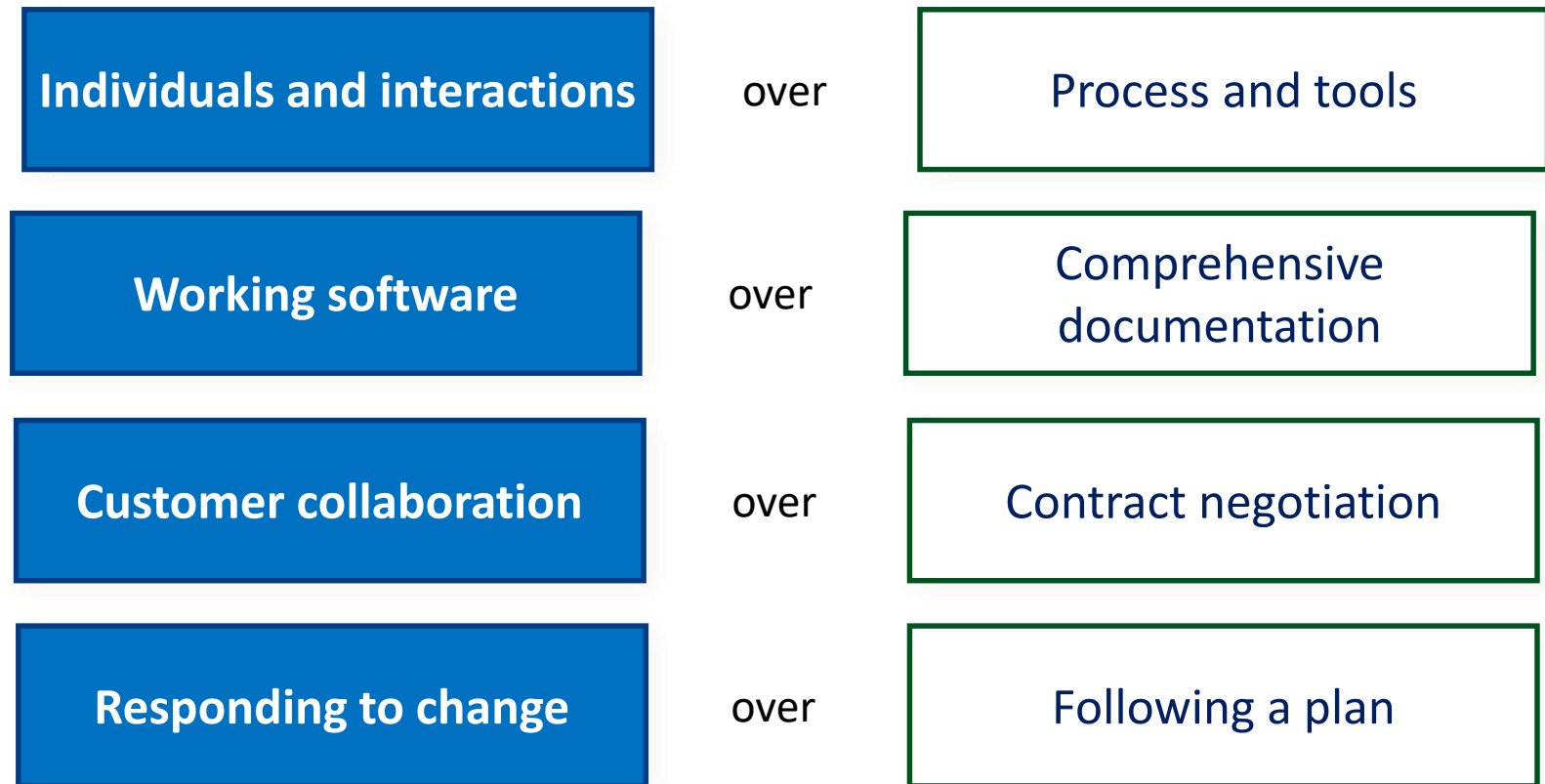
Jeff Sutherland

Quelle: <http://www.scruminc.com/wp-content/uploads/2014/10/CSMjstv18a1.pdf>

Agile Procedure Model



The Agile Manifesto (2001) – a statement of values



Kent Beck, Mike Beedle, Arie van Bennekum, Alistair Cockburn, Ward Cunningham, Martin Fowler, James Grenning, Jim Highsmith, Andrew Hunt, Ron Jeffries, Jon Kern, Brian Marick, Robert C. Martin, Steve Mellor, Ken Schwaber, Jeff Sutherland, Dave Thomas

Source: www.agilemanifesto.org

A wrong understanding of agile project management



Source: <http://dilbert.com/strip/2007-11-26>

1. Our **highest priority** is to **satisfy** the **customer** through **early** and **continuous delivery** of valuable software.
2. **Welcome changing requirements**, even late in development. Agile processes harness change for the customer's competitive advantage.
3. **Deliver working software frequently**, from a couple of weeks to a couple of months, with a preference to the shorter timescale.
4. **Business people** and **developers must work together** daily throughout the project.
5. **Build projects around motivated individuals**. Give them the environment and support they need, and trust them to get the job done.
6. **The most efficient and effective method of conveying information** to and within a development team is **face-to-face conversation**.

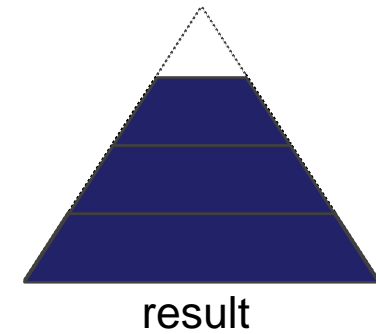
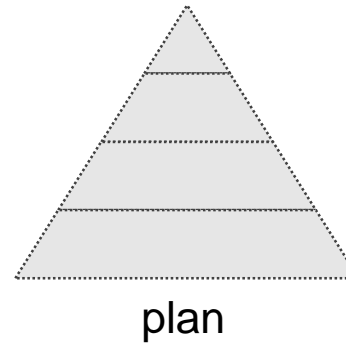
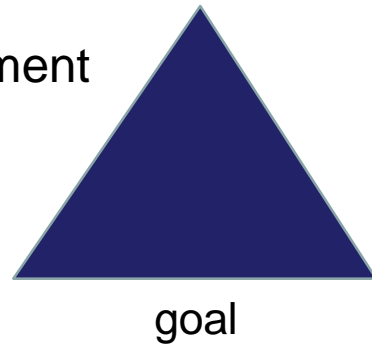
Source: www.agilemanifesto.org

7. **Working software is the primary measure of progress.**
8. **Agile processes promote sustainable development.** The sponsors, developers, and users should be able to maintain a constant pace indefinitely.
9. **Continuous attention to technical excellence and good design enhances agility.**
10. **Simplicity** – the art of **maximizing** the amount of work not done - is essential.
11. The **best architectures, requirements, and designs** emerge from **self-organizing teams**.
12. At **regular intervals**, the **team reflects** on how to **become more effective**, then tunes and adjusts its behavior accordingly.

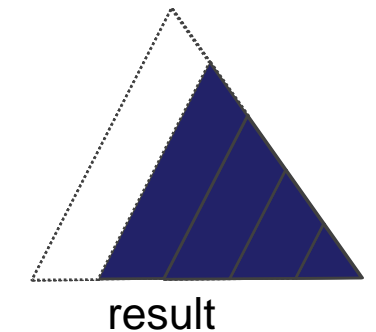
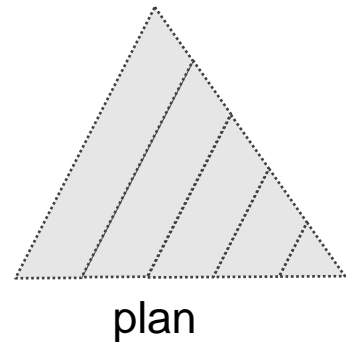
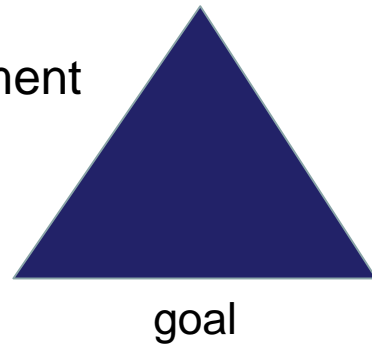
Source: www.agilemanifesto.org

Principle of the small pyramid

Traditional
Project Management



Agile
Project Management





In **rugby** a **scrum** is a **means** of restarting play after a minor infringement. It involves up to eight players from each team, known as the pack or forward pack, binding together in three rows and interlocking with the free opposing teams forwards.

4.3 SCRUM

Reference document

The Scrum Guide™

The Definitive Guide to Scrum:
The Rules of the Game

November 2017



Jeff Sutherland

Ken Schwaber

Developed and sustained by Scrum creators: Ken Schwaber and Jeff Sutherland

<http://www.scrumguides.org/>

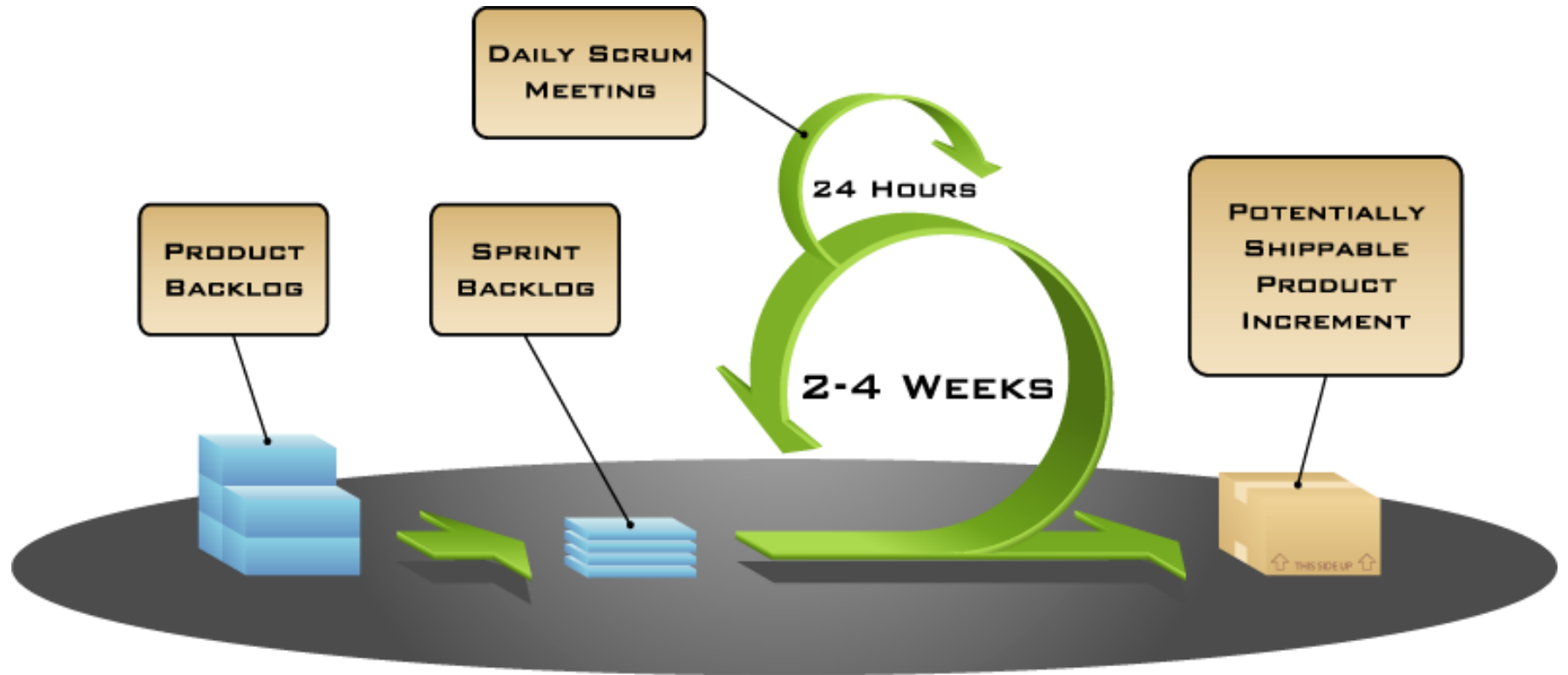
Last version: Nov-2017

19 pages

Scrum in 100 words

- ▶ Scrum is an agile framework that allows us to focus on **delivering the highest business value in the shortest time.**
- ▶ It allows us to rapidly and repeatedly inspect **actual working software** (every two weeks to one month).
- ▶ The business sets the priorities.
Teams self-organize to determine the best way to deliver the highest priority features.
- ▶ Every two weeks to a month anyone can see **real working software** and decide to release it as is or continue to enhance it for another sprint.

The Scrum process

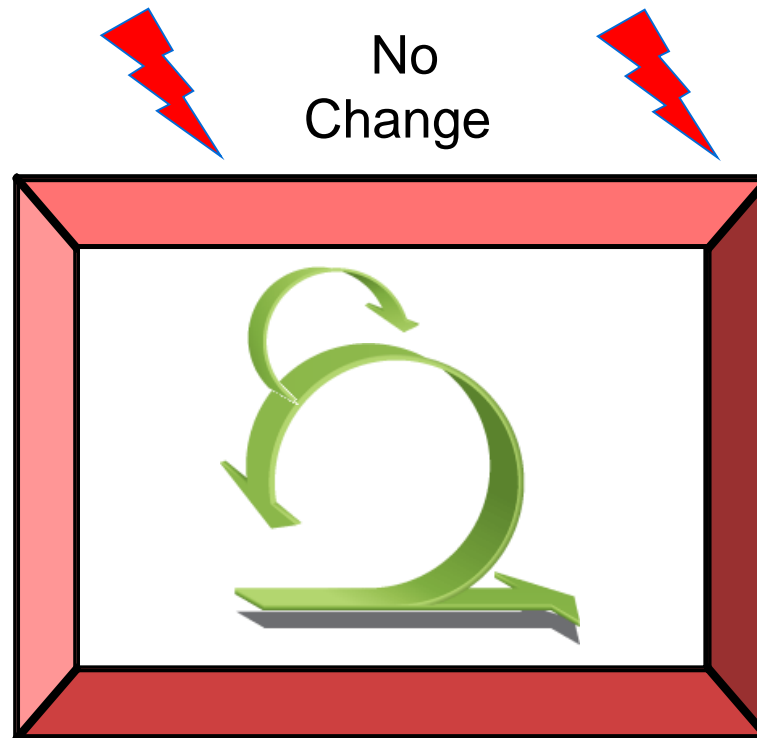


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Sprints

- ▶ Scrum projects make progress in a series of “sprints”
- ▶ Typical duration is 2–4 weeks or a calendar month at most
- ▶ A constant duration leads to a better rhythm
- ▶ Product is designed, coded, and tested during the sprint

No changes during a sprint



Plan sprint durations around how long you can commit to keeping change out of the sprint

Scrum framework

Roles

- Product Owner
- Scrum Master
- Team

Ceremonies

- Sprint planning
- Sprint review
- Sprint retrospective
- Daily scrum meeting

Artifacts

- Product backlog
- Sprint backlog
- Burndown charts

Scrum framework

Roles

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- Sprint backlog
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Product owner

- ▶ Defines the features of the product
- ▶ Decide on release date and content
- ▶ **Be responsible for the profitability of the product (ROI)**
- ▶ Prioritize features according to market value
- ▶ Adjust features and priority every iteration, as needed
- ▶ Accept or reject work results



The Scrum Master

- ▶ Represents management to the project
- ▶ **Responsible for enacting Scrum values and practices**
- ▶ Removes impediments
- ▶ Ensure that the team is fully functional and productive
- ▶ Enable close cooperation across all roles and functions
- ▶ Shield the team from external interferences



The Scrum team



- ▶ Typically 5-9 people
- ▶ Cross-functional:
 - Programmers, testers, user experience designers, etc. Members should be full-time
 - May be exceptions (e.g., database administrator)
- ▶ Teams are self-organizing
 - Ideally, no titles but rarely a possibility
- ▶ **Teams are responsible for the sprint results**
- ▶ Membership should change only between sprints

Scrum framework

Roles

- Product owner
- ScrumMaster
- Team

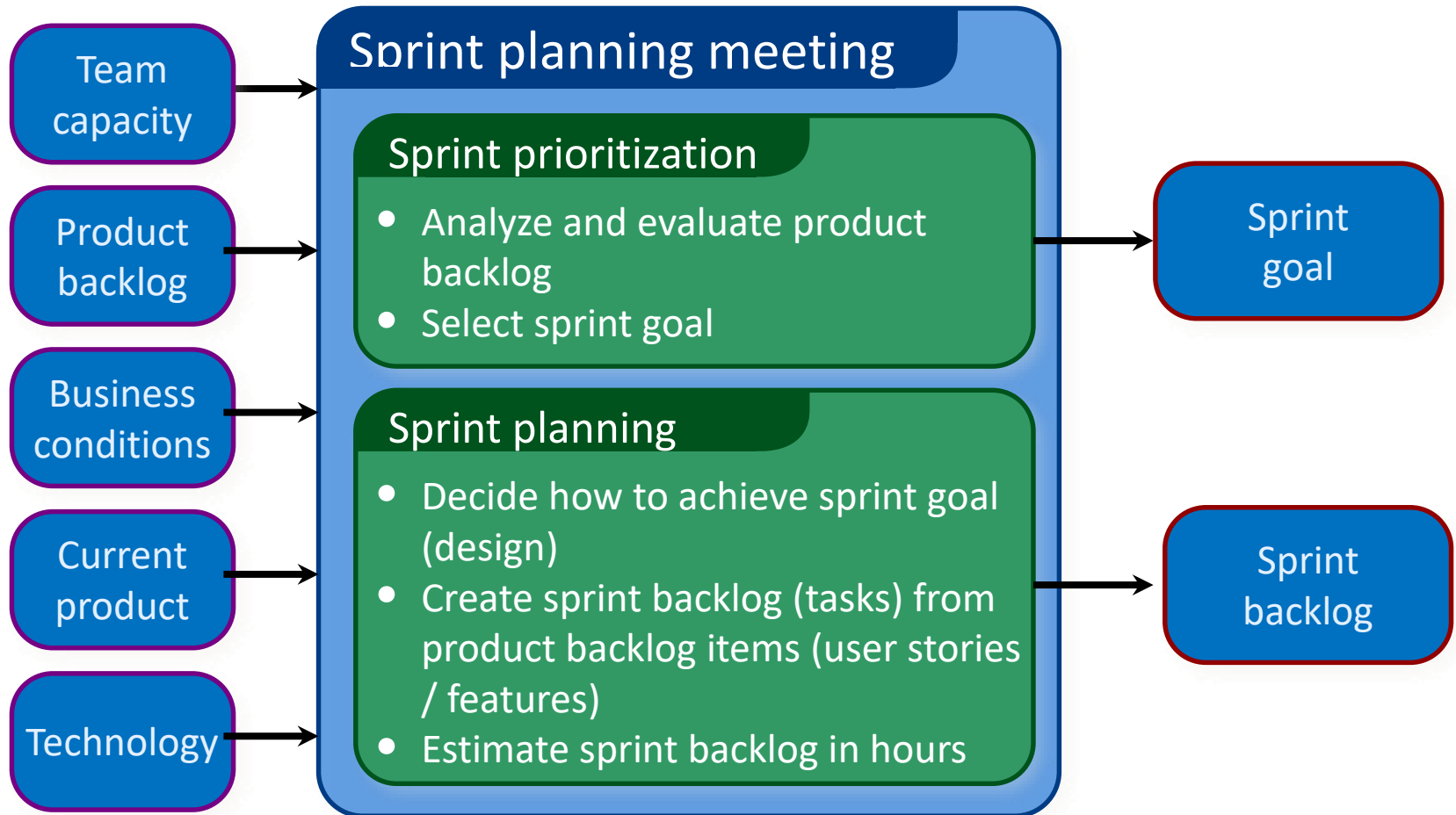
Ceremonies

- Sprint planning
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Artifacts

- Product backlog
- Sprint backlog
- Burndown charts

Sprint planning meeting



Sprint planning

- Team selects items from the product backlog they can commit to completing
- Sprint backlog is created
 - Tasks are identified and each is estimated (1-16 hours)
 - Collaboratively, not done alone by the ScrumMaster
- High-level design is considered

Business requirement:

- As a vacation planner, I want to see photos of the hotels.
























Code the middle tier (8 hrs)
Code the user interface (4 hrs)
Write test fixtures (4 hrs)
Code the foo class (6 hrs)
Update performance tests (4 hrs)

The diagram illustrates the process of breaking down a business requirement into specific tasks. A grey box on the left contains the requirement: 'As a vacation planner, I want to see photos of the hotels.' A blue arrow points from this box to a larger blue rounded rectangle on the right. This rectangle lists five tasks with their estimated durations: 'Code the middle tier (8 hrs)', 'Code the user interface (4 hrs)', 'Write test fixtures (4 hrs)', 'Code the foo class (6 hrs)', and 'Update performance tests (4 hrs)'.

Managing the sprint backlog

Scrum Task Board Template

Company name

Stories	To Do	In Progress	Testing	Done
 <p>This is a sample text. Replace it with your own text.</p>	 <p>This is a sample text. Replace it with your own text.</p>  <p>This is a sample text. Replace it with your own text.</p>  <p>This is a sample text. Replace it with your own text.</p>  <p>This is a sample text. Replace it with your own text.</p>	 <p>This is a sample text.</p>  <p>This is a sample text.</p>  <p>This is a sample text.</p>	 <p>This is a sample text.</p>  <p>This is a sample text.</p>  <p>This is a sample text.</p>	 <p>This is a sample text. Replace it with your own text.</p>  <p>This is a sample text. Replace it with your own text.</p>
 <p>This is a sample text. Replace it with your own text.</p>	 <p>This is a sample text.</p>  <p>This is a sample text.</p>  <p>This is a sample text.</p>  <p>This is a sample text.</p>	 <p>This is a sample text.</p>  <p>This is a sample text. Replace it with your own.</p>	 <p>This is a sample text.</p>  <p>This is a sample text.</p>	 <p>This is a sample text. Replace it with your own text.</p>

The daily scrum

► Parameters

- Daily
- 15-minutes
- Stand-up

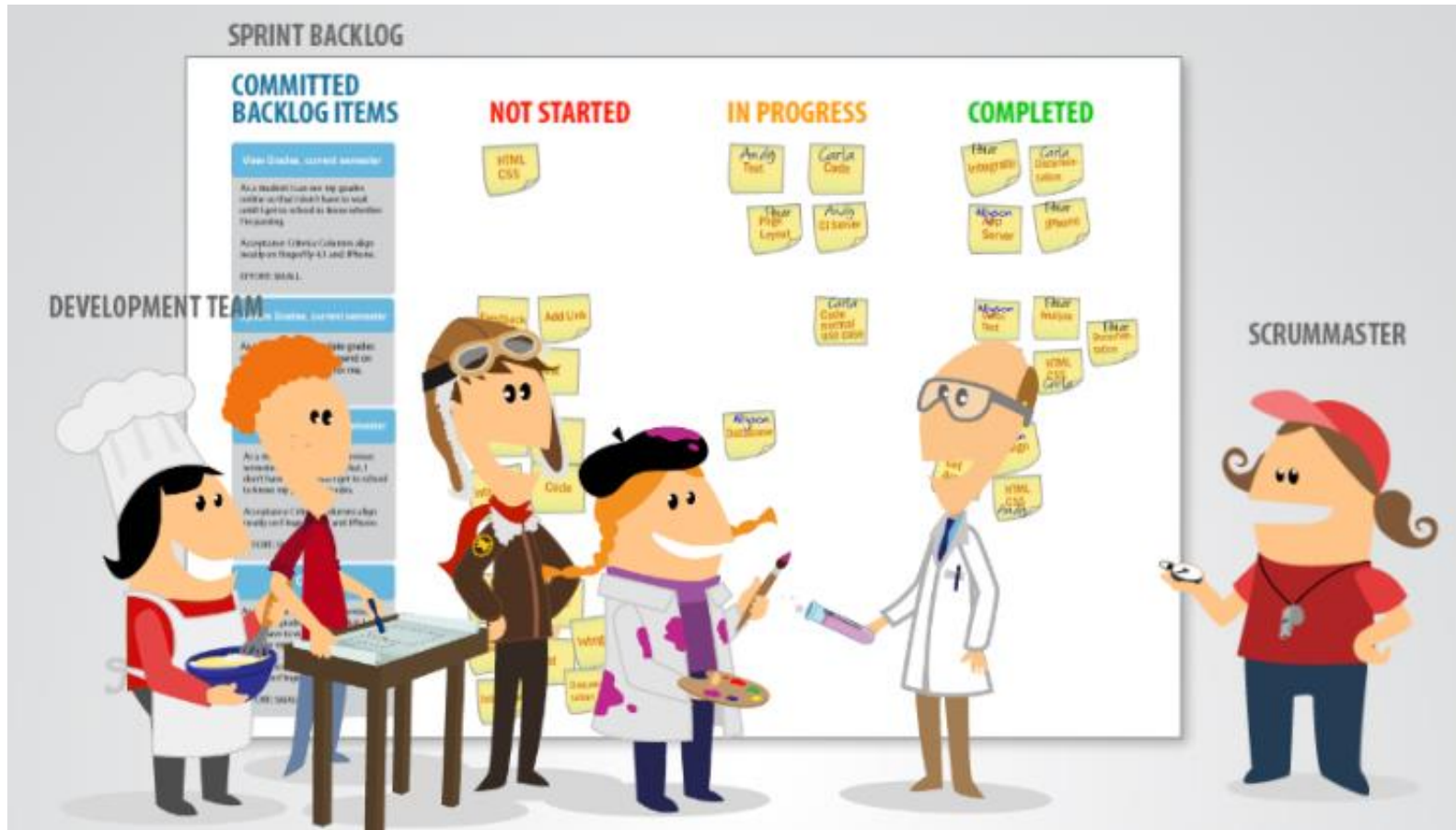


► Not for problem solving

- Whole world is invited
- Only team members, Scrum Master, Product Owner, can talk

► Helps avoid other unnecessary meetings

The daily scrum



Everyone answers 3 questions

What did you do yesterday?

What will you do today?

Is anything in your way?

The sprint review

- ▶ Team presents what it accomplished during the sprint
- ▶ Typically takes the form of a demo of new features or underlying architecture
- ▶ Informal
 - 2-hour prep time rule
 - No slides
- ▶ Whole team participates
- ▶ Invite the world

The Sprint Review



Sprint retrospective

- ▶ Periodically take a look at what is and is not working
- ▶ Typically 15–30 minutes
- ▶ Done after every sprint
- ▶ Whole team participates
 - Scrum Master
 - Product owner
 - Team
 - Possibly customers and others



Scrum framework

Roles

- Product owner
- ScrumMaster
- Team

Ceremonies

- Sprint planning
- Sprint review
- Sprint retrospective
- Daily scrum meeting

Artifacts

- Product backlog
- Sprint backlog
- Burndown charts

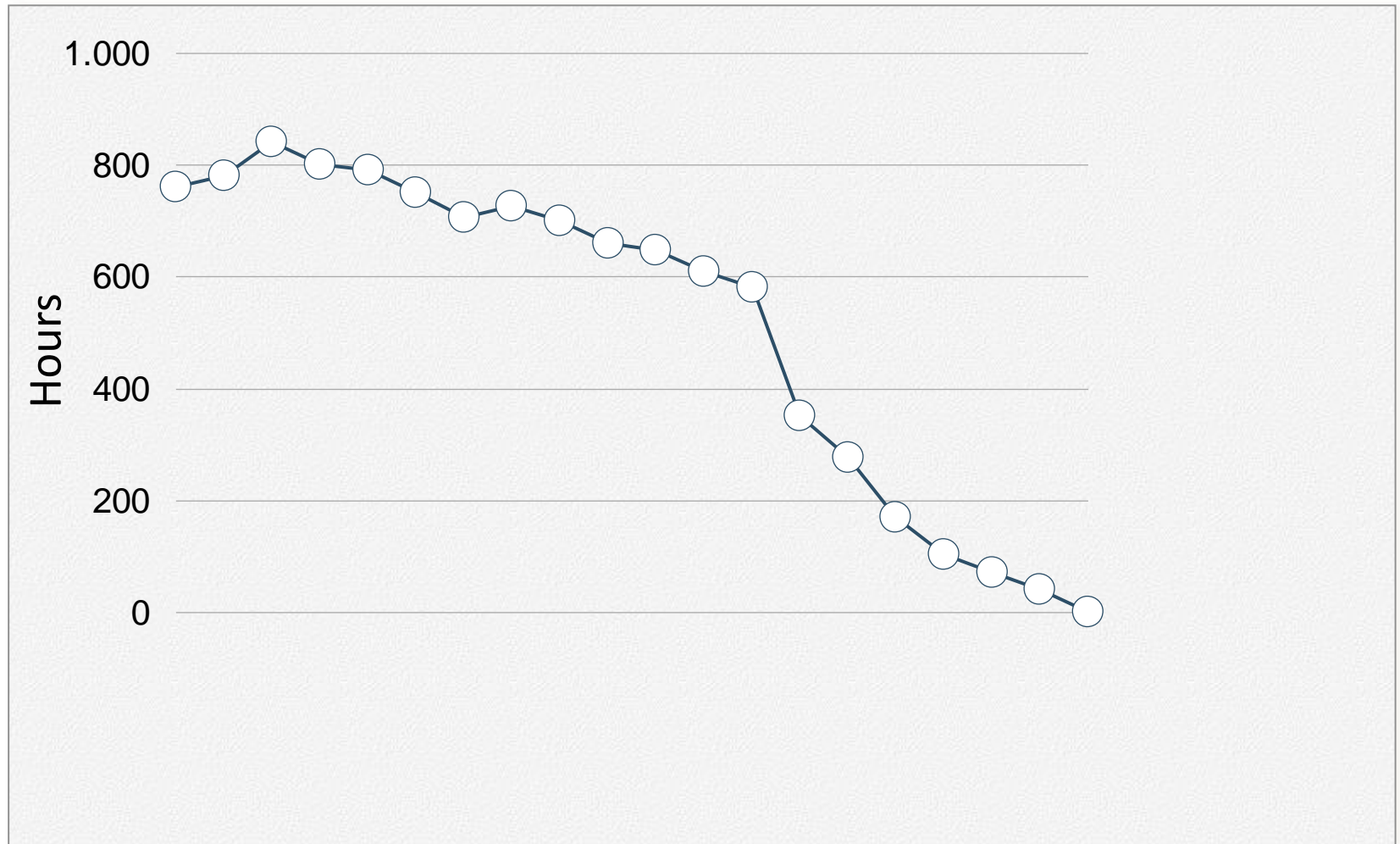
Product backlog



This is the
product backlog

- The requirements
- A list of all desired work on the project
- Ideally expressed such that each item has value to the users or customers of the product
- Prioritized by the product owner
- Reprioritized at the start of each sprint

A sprint burndown chart



4.4 OBJECTIVES

What are objectives?

An objective is a mental
anticipated future state

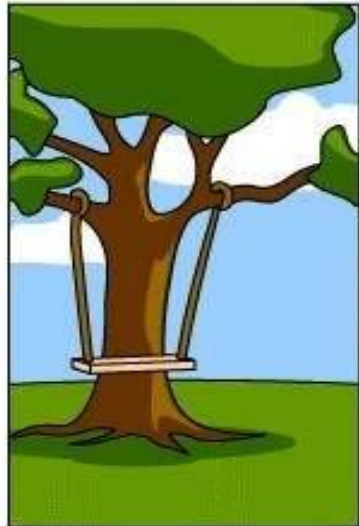


The importance of right objectives

Source: www.projectcartoon.com



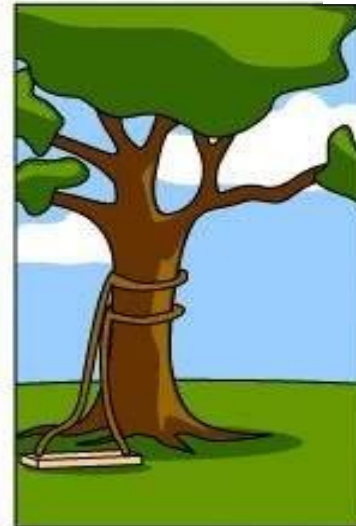
How the customer explained it



How the Project Leader understood it



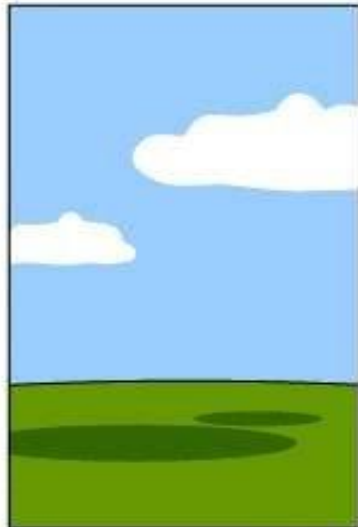
How the Analyst designed it



How the Programmer wrote it



How the Business Consultant described it



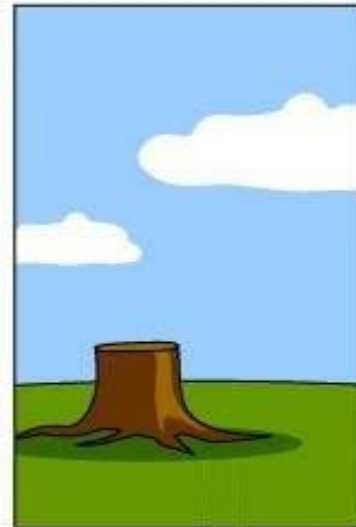
How the project was documented



What operations installed



How the customer was billed



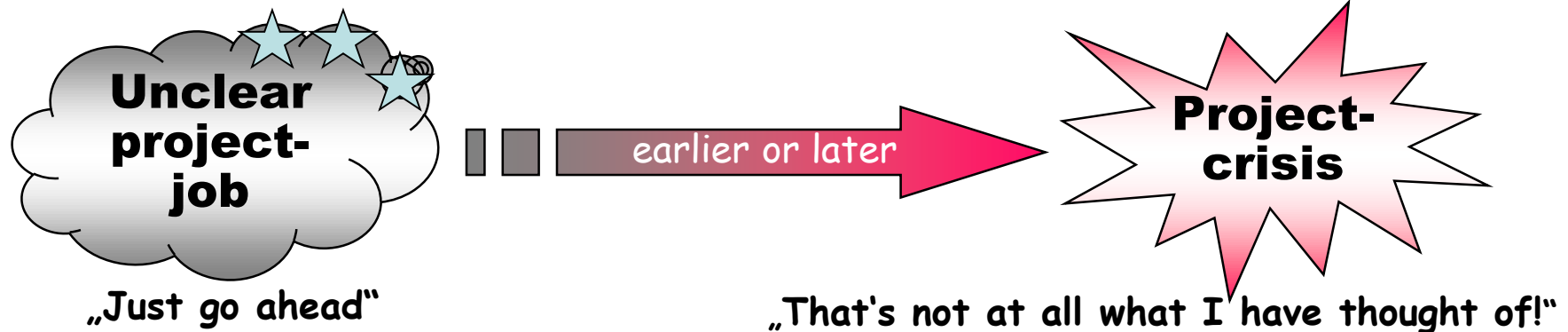
How it was supported



What the customer really needed

Clarification of the project objective is particularly important

Great sin in Project Management: „Vague or insufficient defined project objectives“



Project manager is responsible for the detailed description:

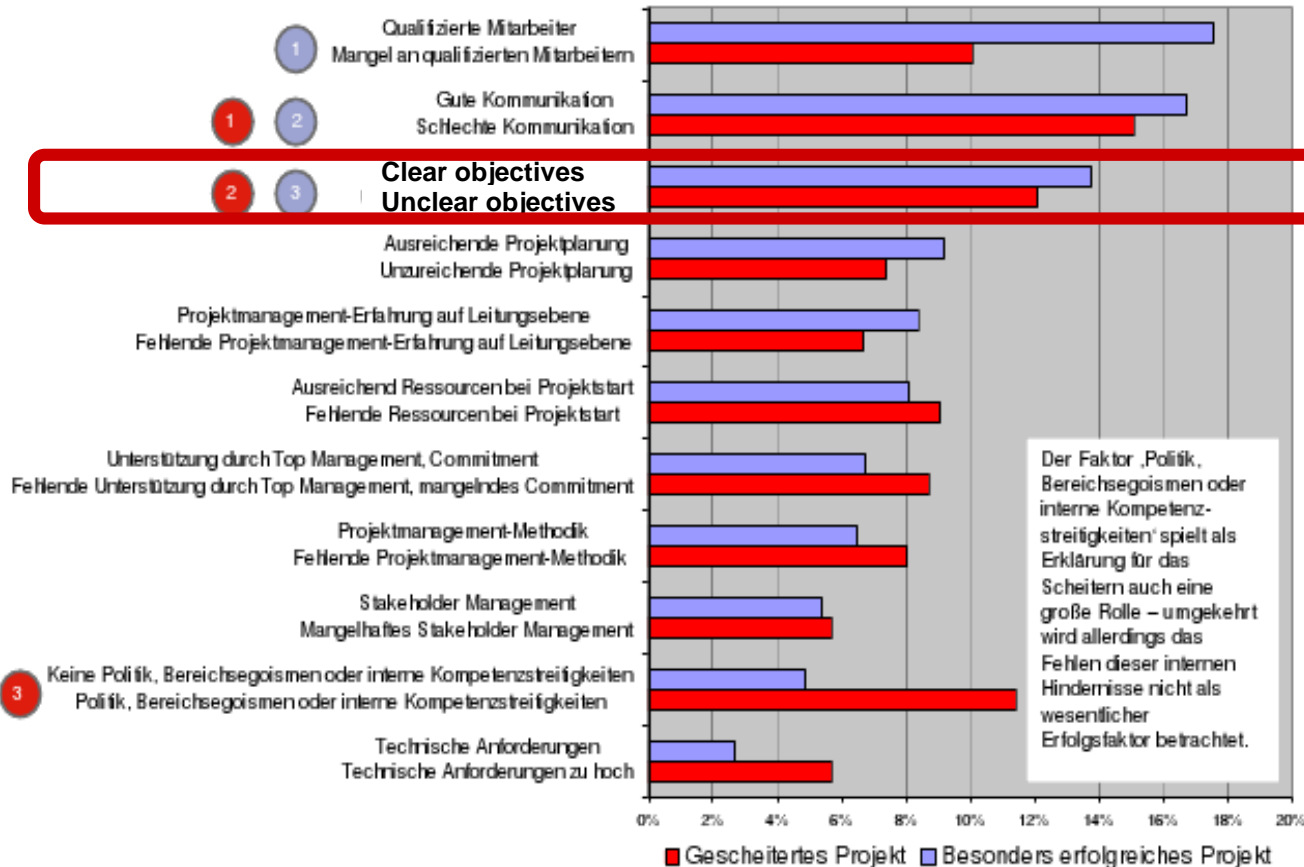
„What should be achieved with the project?

What is the aim of ...“

The exact definition of the objectives at the start of a project is a **key success factor**

Meaning of objectives for project success

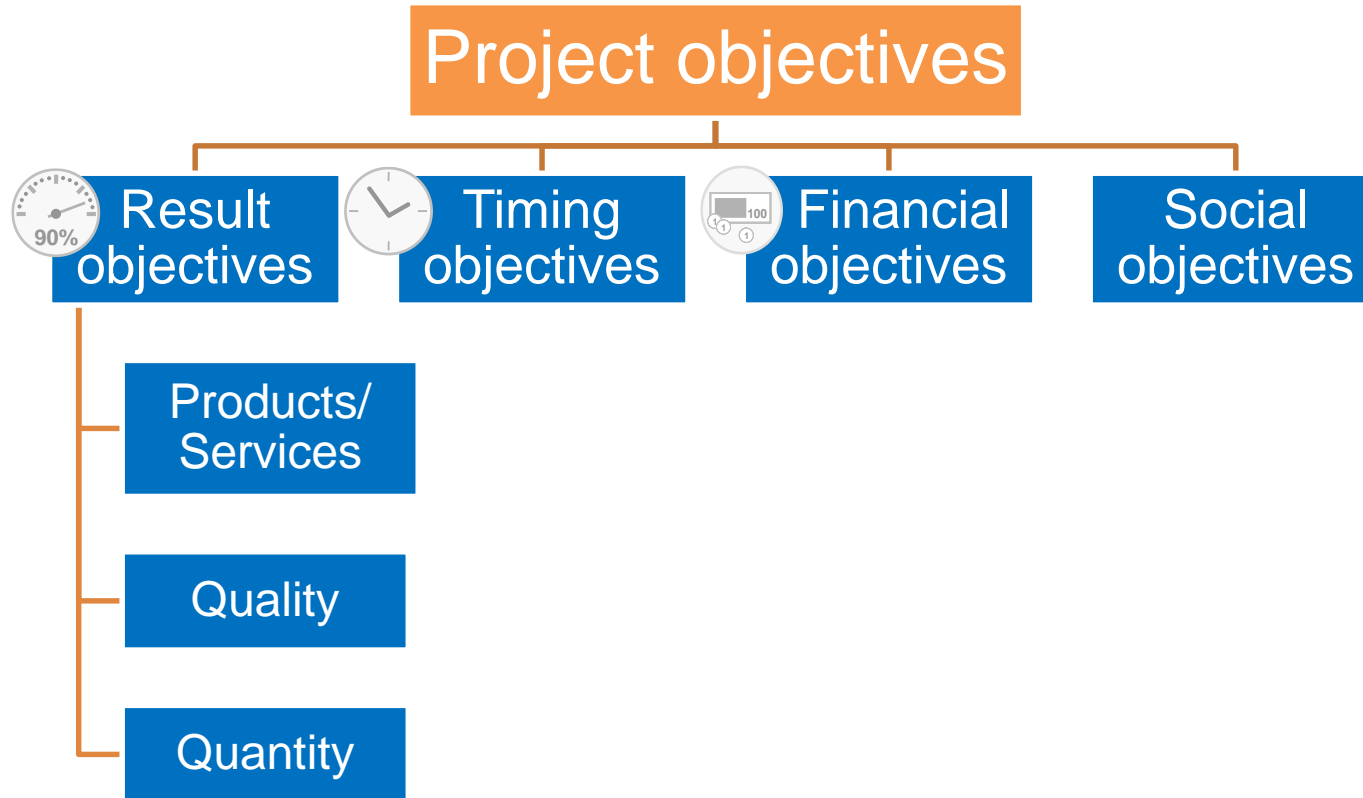
Communication, **definition of objectives** and the qualification of the employees determine the success (or failure) of the projects most frequently



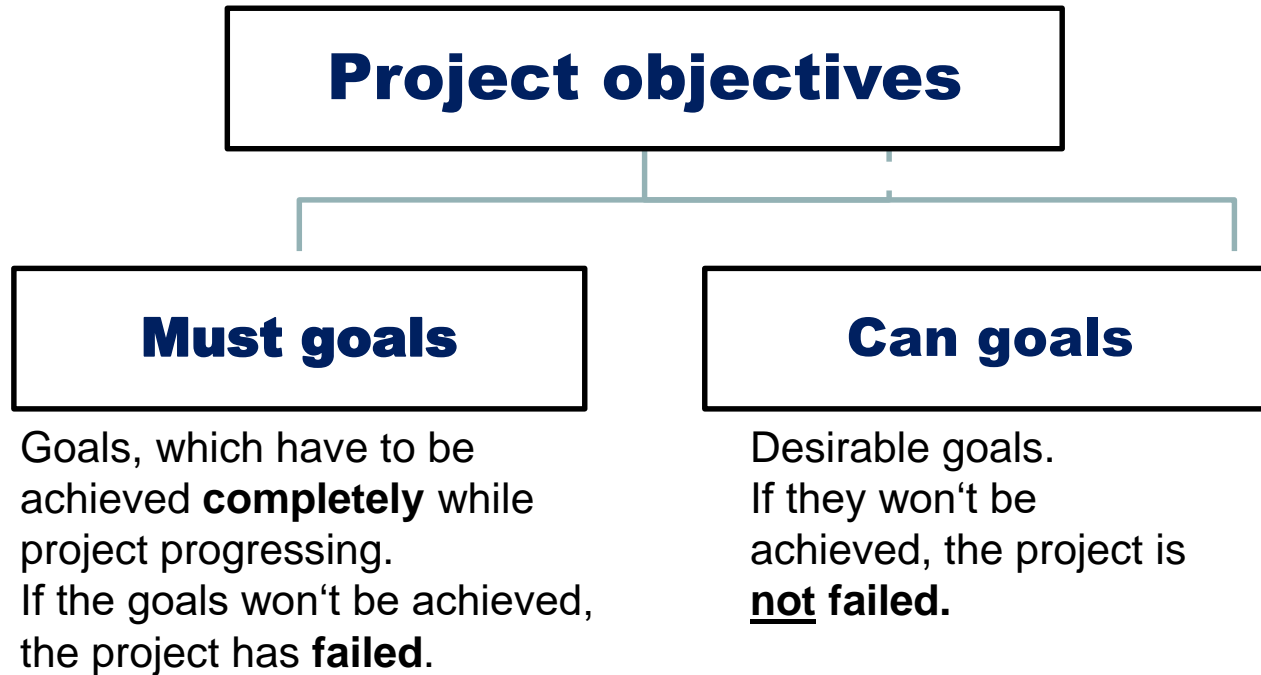
Results of a project management study

Success and failure of projects

Types of objectives



Objective prioritization: must and can goals



This categorization can help prioritizing in bottleneck-situations of a project

- Priority 1: Must goals
- Priority 2: Can goals

Non objectives for demarcation of the project scope

For demarcation of the project scope also the „**Non objectives**“ must be determined

- „Non-objective“: What is **NOT** part of the Project (Explicit exclusion of objectives)
 - To create clarity
 - To prevent unnecessary conflicts

Example of “Non objectives”

- The maintenance of the software product is NOT part of the project
- The rollout of the new software is NOT part of this project. The rollout takes place in a follow-up project.
- The planning, organisation and support of the trade exhibition is NOT part of the congress project. The project manager of the trade exhibition is Mrs. Maren Meier.

Examples – Compare these two objectives!

A: Develop as fast as possible a new version of our control software

B: Version 2.0 of the control software for the VarioChartXL product must be available in series production by November 30, 2019

Objectives: Formulation



- S**pecific - simple and understandable
- M**easurable - definite indicators
 - measure if objective has been achieved or not
- A**ccepted - achievable
 - can be influenced & possible from social point of view
- R**ealistic - relevant
- T**imeable - time bound /defined deadline

Further criteria:

- Completely
- Unambiguously
- Positively
- Result-oriented
- Solution-neutral
- In achievement-oriented language („...is achieved“)

Example: Objectives (Auto-Update News website)

<p>Project objectives <i>(results/deliverables, timing, financial, social)</i></p>	<ol style="list-style-type: none">1. Result:<ul style="list-style-type: none">• No human administrators, autobot does everything• Access time: low (fast site loading)• Reliable news• Beautiful User Interface (UI)• Great User Experience (UX)2. Time:<ol style="list-style-type: none">a. 3 months for doing survey for customer's interestb. 1 month for designing UI and finding host/data servicec. 3 month for building and coding websited. Release and advertise it to as many people as possible3. Financial:<ul style="list-style-type: none">• Host/data service: 2,000,000 VND• UI design: 8,000,000 VND• Code: 6,000,000 VND• Marketing: 4,000,000 VND4. Social:<ul style="list-style-type: none">• Provide a fast and convenient news sharing website
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Example: Objectives (Friends Nearby app)

Project objectives <i>(results/deliverables, timing, financial, social)</i>		<ol style="list-style-type: none"> 1. Result <ul style="list-style-type: none"> • Fast, smooth, reliable location detection • Update Google Map, Facebook database • Multi-platform application • Friendly interfacing (ads allowance) • Do not violate Facebook and Google Map policies • Friend list is sorted by distance between users and their friends • Tap to invite • Voice recognition • Meeting places suggestion 2. Timing <ul style="list-style-type: none"> • 1st step: 1 month for preparation and plan • 2nd step: 6 months for developing main features (things must do) • 3rd step: 6 months for developing extended features (things can do) • 4th step: 1 year for product promoting 3. Financial <ul style="list-style-type: none"> • \$3000 per month in first 6 months 4. Social <ul style="list-style-type: none"> • Feedback from user > 4/5 stars • 100 000 active users per month
Non objectives		<ul style="list-style-type: none"> • Maintenance application product • Update to fix minor errors and improve quality
Times	Duration	1 year and 1 month
	Start date	1/3/2016
	Finish date	1/3/2017

Workshop „Objectives“

1. Teams develop **objectives** for their project
 - Result objectives
 - Time objectives / milestones
 - Financial objectives
 - Social objectives
 - NON objectives

2. Review
 - SMART verbalization of objectives
 - Completeness of the objective catalogue

Time: 0 minutes

Workshop „Objectives“: Results

1. Result objective:
 - Friendly interface
 - Don't need doctors to diagnose common diseases.
 - Accuracy: 99%
 - Diagnosing using AI service
2. Time objective:
 - 1st step: prepare & plan, doing survey for different type of customers (1 month)
 - 2nd step: collecting database and build library (2 months)
 - 3rd step: modeling & coding (3 months)
 - 4th step: complete product, advertising & selling (3 months)
3. Financial
 - Collect data: 200 \$
 - Build model & code: 2000 \$
 - Advertising: 1000 \$

4. Social
 - Help patients to know their diseases
 - Help doctors to have more time to research new diseases
5. Non-objective
 - Update to fix errors
 - Joint trade exhibition to advertise product



Perfect team work