



Business development, & the H2020 SME instrument

By

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Chairman H2020 SME Innovation Advisory Group

Master Class, Riga, November 16th 2015.

HORIZON 2020

The logo for Horizon 2020, featuring the word "HORIZON" in white capital letters, a globe of the Earth in the center, and the word "2020" in white capital letters. The background is a blue gradient with a glowing horizon line and a reflection of the globe below it.



InvestorNet is the "funding and business exploitation" partner in the following EU projects:

- **INNEON**
 - Network of Eco-Investors
- **SiforAGE**
 - Policy, Tools and Services for the
- **LightJumps**
 - Photonic Clusters
- **Europrune**
 - Biomass business cases
- **Meman**
 - Value chain optimizing in metallic sector
- **ProBio**
 - Conversion of biological waste to useful products





Upcoming book:

How attract Investors

- and read their mind-set.

A subjective guide to the mind-set of investors and their requirements

By

Uffe Bundgaard-Jørgensen



Commercialization of innovation projects

We normally say:

There are four ways of funding innovation projects:

- **The "Hard way":**
 - **"Bootstrapping":** Secure that revenues from consultancy or sales can cover the cost of the innovation project.
- **The "Expensive" way – however also often intelligent way:**
 - Convince investors to invest in the company and provide funding for the innovation project, and "give away" part of the ownership in the company.
- **The "Difficult" way":**
 - Borrow in the Bank. - Just try – you will find it is rather difficult. Banks low security – and hate risk. Remember, you will need to repay the loan!
- **The "Smart" way:**
 - Apply for public or private "Grants". You do not give away ownership. No need for repayment of the money, and evaluation criteria focus on opportunities – and if funded it might also attract investors !.



All routes have a common denominator for success

- **a good business case.**



Horizon 2020's SME Instrument

Looking for Europe's next innovation leader

As part of the Horizon 2020 programme, the European Commission is selecting potentially disruptive businesses to invest in and support as part of the SME Instrument. SMEs with a strong growth potential and the ambition to become world-market leaders could receive **up to €2.5 million*** in funding, and world-class **business support** and **mentoring**.



Who should apply?

We are looking for high growth, highly innovative SMEs with global ambitions. You should be actively investing in innovation, and looking to grow. You should have been established for a while – further than the start-up stage.

Projects sought
Projects at the **technology readiness level 6 or higher** (technology demonstration) have the best chances to receive funding.



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PHASES



The instrument is structured in three phases, with the aim of transforming **disruptive ideas** into concrete, innovative solutions with a European and global impact. SMEs are recommended to apply for Phase 1, but may also apply directly for subsequent phases:

PHASE 1

Concept & Feasibility Assessment
Idea to concept (6 months)

The SME will draft an initial **business proposal**.

The European Union will provide **€50 000 in funding** and business coaching.

PHASE 2

Demonstration, Market Replication, R&D
Concept to Market-Maturity (1-2 years)

The SME will further develop its proposal through **innovation activities**, and draft a more developed **business plan**.

The EU may contribute between **€0.5 million** and **€2.5 million*** and provide business coaching.

PHASE 3

Commercialisation
Prepare for Market Launch

The SME will receive extensive support to help polish its concept into a marketable product, and have access to **networking opportunities**.

The EU will not provide funding in this phase.



@H2020SME

 ec.europa.eu/easme/sme

*Up to €5 million for health projects.



Phase 1. Concept & Feasibility Assessment

Idea to concept (6 months)



The European Union will provide **€50 000 in funding**, and carry out a feasibility study to verify the viability of the proposed disruptive innovation or concept.

The SME will draft an initial **business proposal** (around 10 pages).

- Funding: € 50.000 (70 % financed)
- Application: 10 pages
- Duration: 6 months
- Deliverable: Feasibility study + initial business plan

- Feasibility study about viability of business concept.
 - Commercial, technical, regulatory or legal (IPR)





Phase 2. Demonstration, Market Replication, R&D

Concept to Market-Maturity (1-2 years)



Assisted by the EU, **the SME will further develop its proposal through innovation activities**, such as demonstration, testing, piloting, scaling up, and miniaturisation. It will also draft a more developed business plan (around 30 pages).

Proposals will be based on a business plan developed on phase 1 or otherwise. The EU aims to contribute **between €0.5 million and €2.5 million**.

- Funding: € 0.5-2.5 million (70 % financed)
- Application: 30 pages
- Duration: 1-2 years
- Deliverable: Report on results + business plan

- Activities to bring you closer to the market.
 - Testing, pilot plant, scaling etc.
- Strong understanding of market – help to overcome barriers



Horizon 2020 SME Instrument beneficiaries

Last update: 07/09/2015

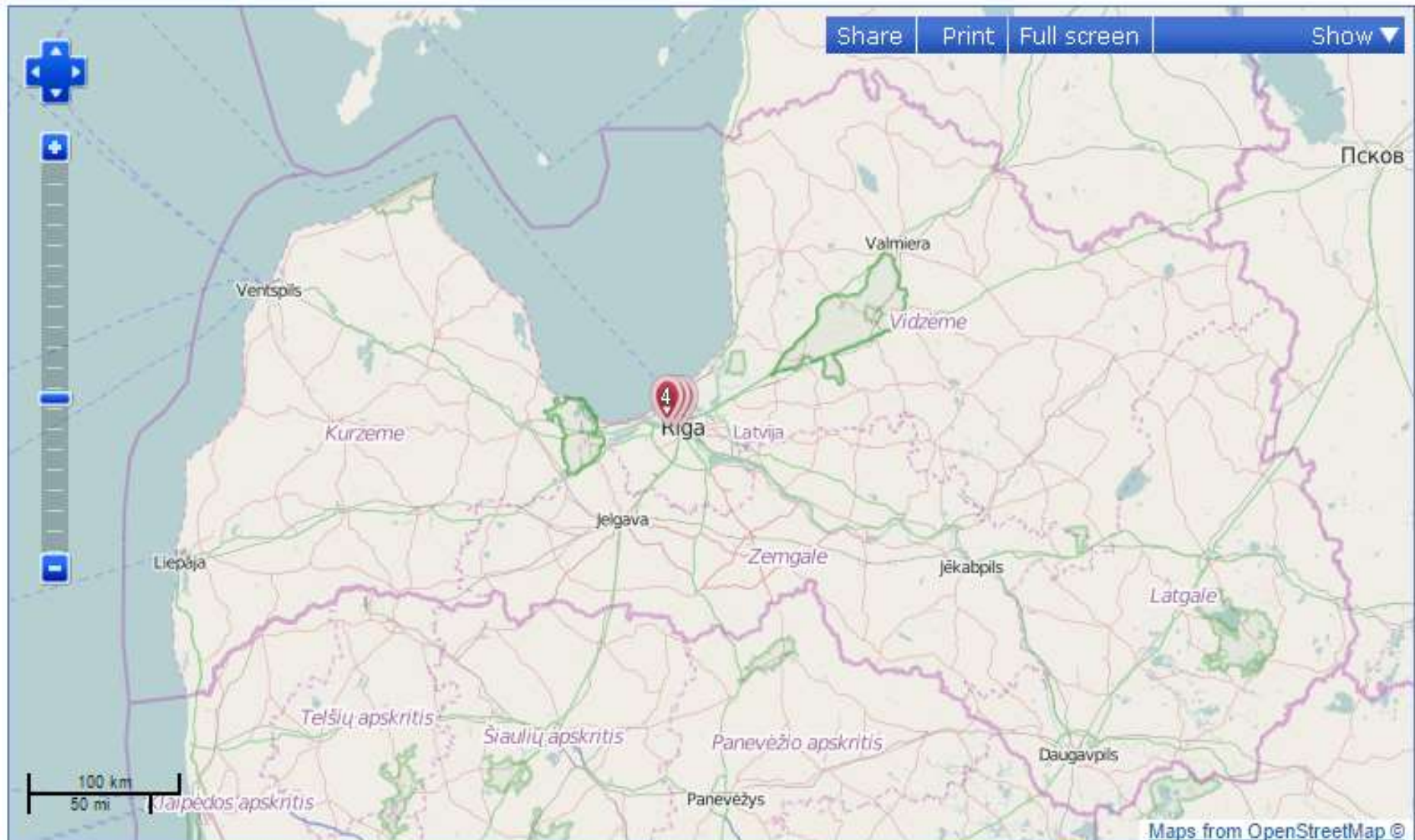
 Phase 1 |  Phase 2



Horizon 2020 SME Instrument beneficiaries

Last update: 07/09/2015

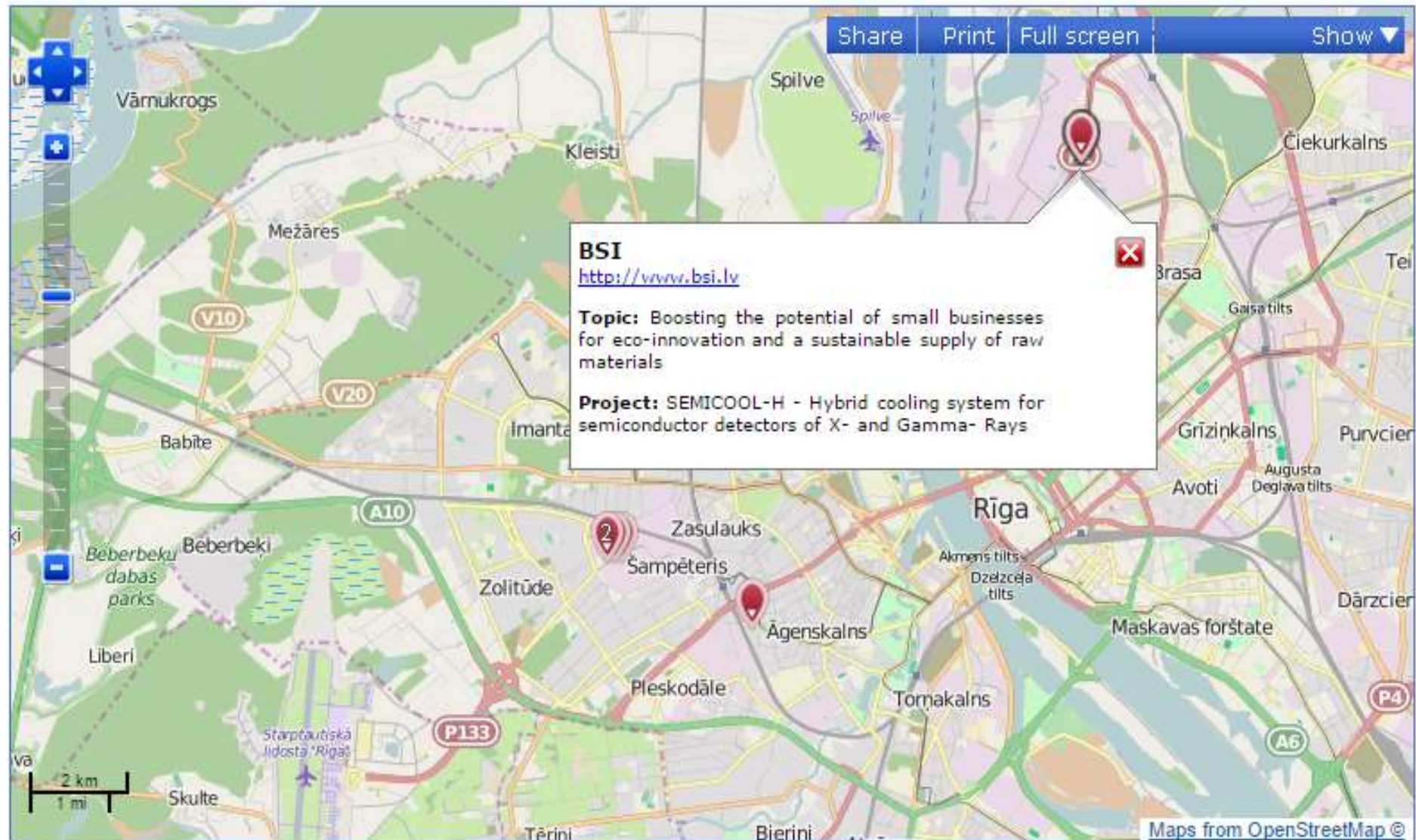
 Phase 1 |  Phase 2



Horizon 2020 SME Instrument beneficiaries

Last update: 07/09/2015

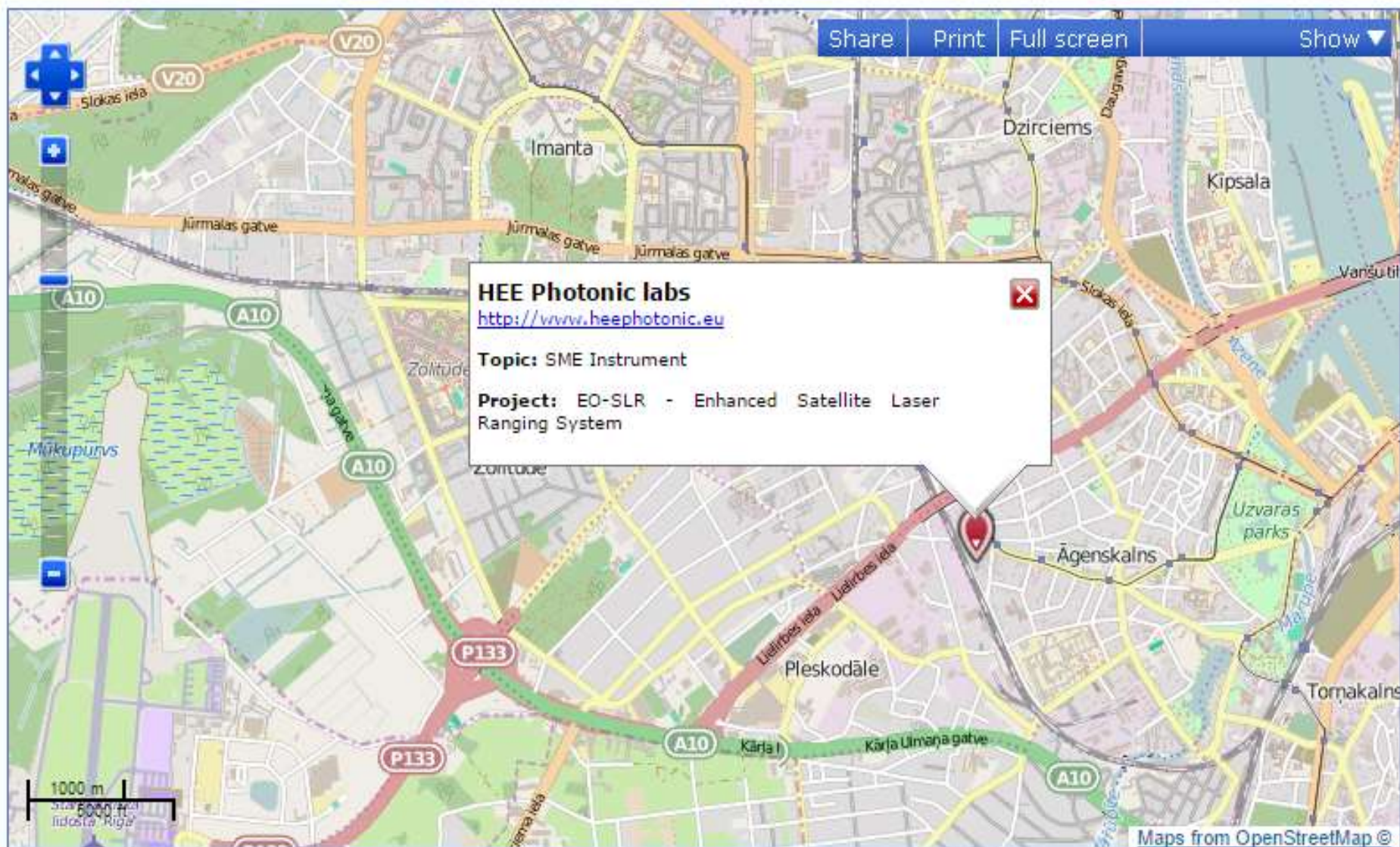
 Phase 1 |  Phase 2



Horizon 2020 SME Instrument beneficiaries

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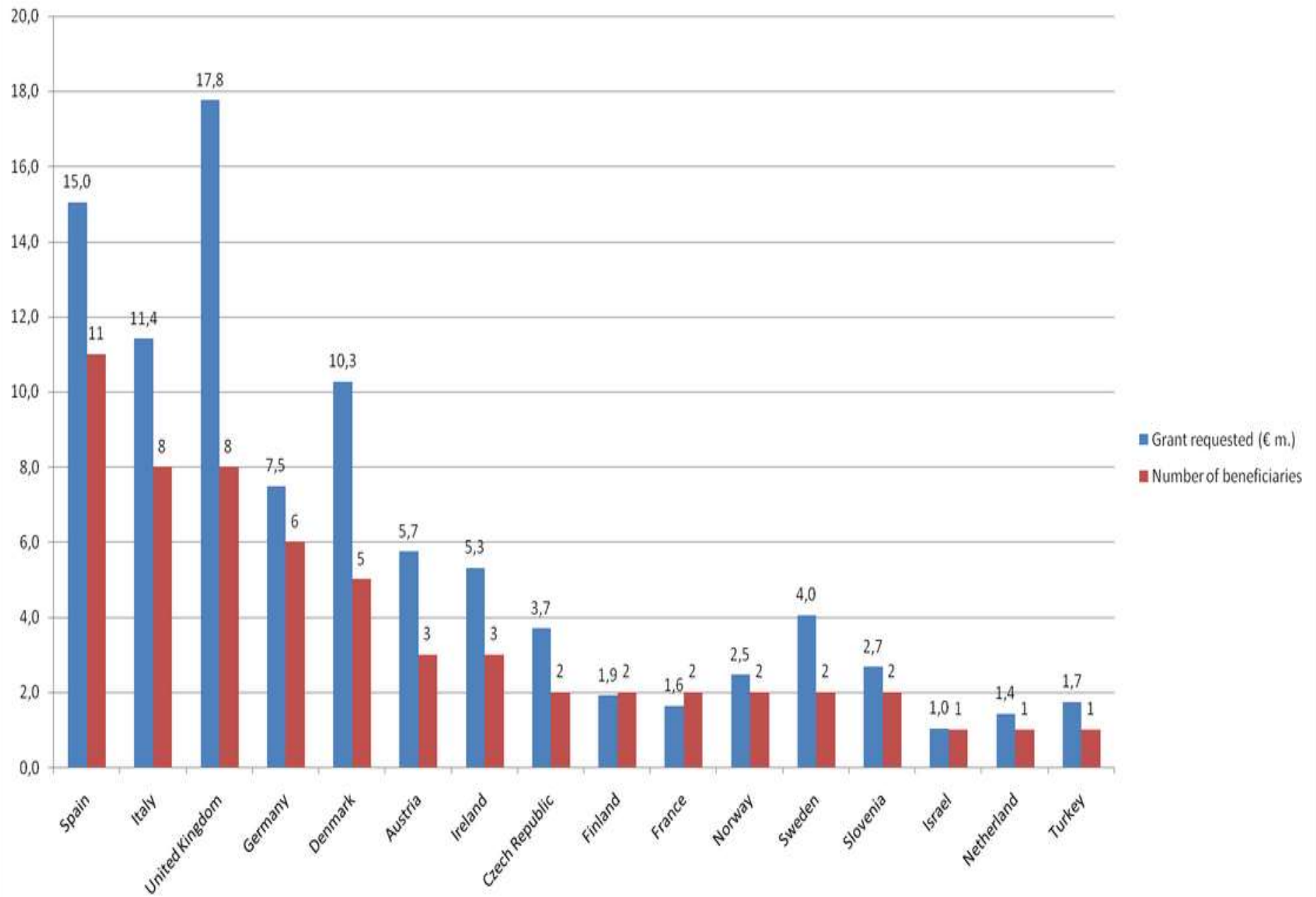
 Phase 1 |  Phase 2



Horizon 2020 SME Instrument Phase 2

Grant requested and number of beneficiaries per country

June 2015 cut-off





Update September 2015

- 9 cut-off dates
- 13352 applications (20% of H2020)
- 1084 funded projects (18% of H2020).
- 355 already finalized projects
- Mostly single companies (92% for phase 1, 79% for Phase 2)



Trends

- Quality of proposals increased
- Thereby chances to get funded for good proposal decreases
- Phase 2 after Phase 1 triples chances of success
- Resubmission doubles chances of funding (only if close to/above threshold)



Grants – and business funding

- **Assume a young company, newly created by entrepreneur and business angels and with a total finding requirement of 3.750.000€**
- **CASE 1**
- **Beginning first year:**
 - Business Angel investment: 500.000€ and 50 % ownership
 - Founding entrepreneur: 50 % ownership
- **End year 1**
 - VC 1 investment 1.750.000€ , risk 50 % , requested IRR 60 %
- **End year 3**
 - VC 2 investment 1.500.000€ risk 25 % , requested IRR 40%
- **Exit year 6**
 - Exit value: 20.000.000€



The 2 cases compared

Case 1

1.000 €	Year 1	Year 2	year 3	year 4	year 5	year 6
Funding requirment - exit value year 6	1.000	1.000	1.500			20.000
Entrepreneur investment % part of exit value						800
Founders investment and part of exit value	-500					800
Investor 1 investment and part of exit value	-1.750	0	0	0	0	15.000
Investor 2 investment and part of exit value	0	0	-1.500	0	0	3.260

Realized IRR	
Founders (business angels)	10%
Investor 1	54%
Investor 2	31%



Grants – and business funding

- **Assume a young company, newly created by entrepreneur and business angels and with a total finding requirement of 3.750.000€**
- **CASE 2**
- **Begining first year:**
 - Seed –Fund investment: 500.000€ and 50 % ownership
 - Founding entrepreneur 50 % ownership
- **End year 1**
 - H2020 SME grant 1.750.000€
- **End year 3**
 - VC 2 investment 1.500.000€ risk 25 % , requested IRR 40%
- **Exit year 6**
 - Exit value: 20.000.000€

The 2 cases compared

Case 1

1.000 €	Year 1	Year 2	year 3	year 4	year 5	year 6
Funding requirment - exit value year 6	1.000	1.000	1.500			20.000
Entrepreneur investment % part of exit value						800
Founders investment and part of exit value	-500					800
Investor 1 investment and part of exit value	-1.750	0	0	0	0	15.000
Investor 2 investment and part of exit value	0	0	-1.500	0	0	3.260

Case 2

1.000 €	Year 1	Year 2	year 3	year 4	year 5	year 6
Funding requirment - exit value year 6	2.000	1.000	2.000			20.000
Entrepreneur investment % part of exit value						7.650
Founders investment and part of exit value	-500					7.650
H2020 SME Grant	1.750					0
Investor 2 investment and part of exit value		-500	-1.000			4.700



The 2 cases compared

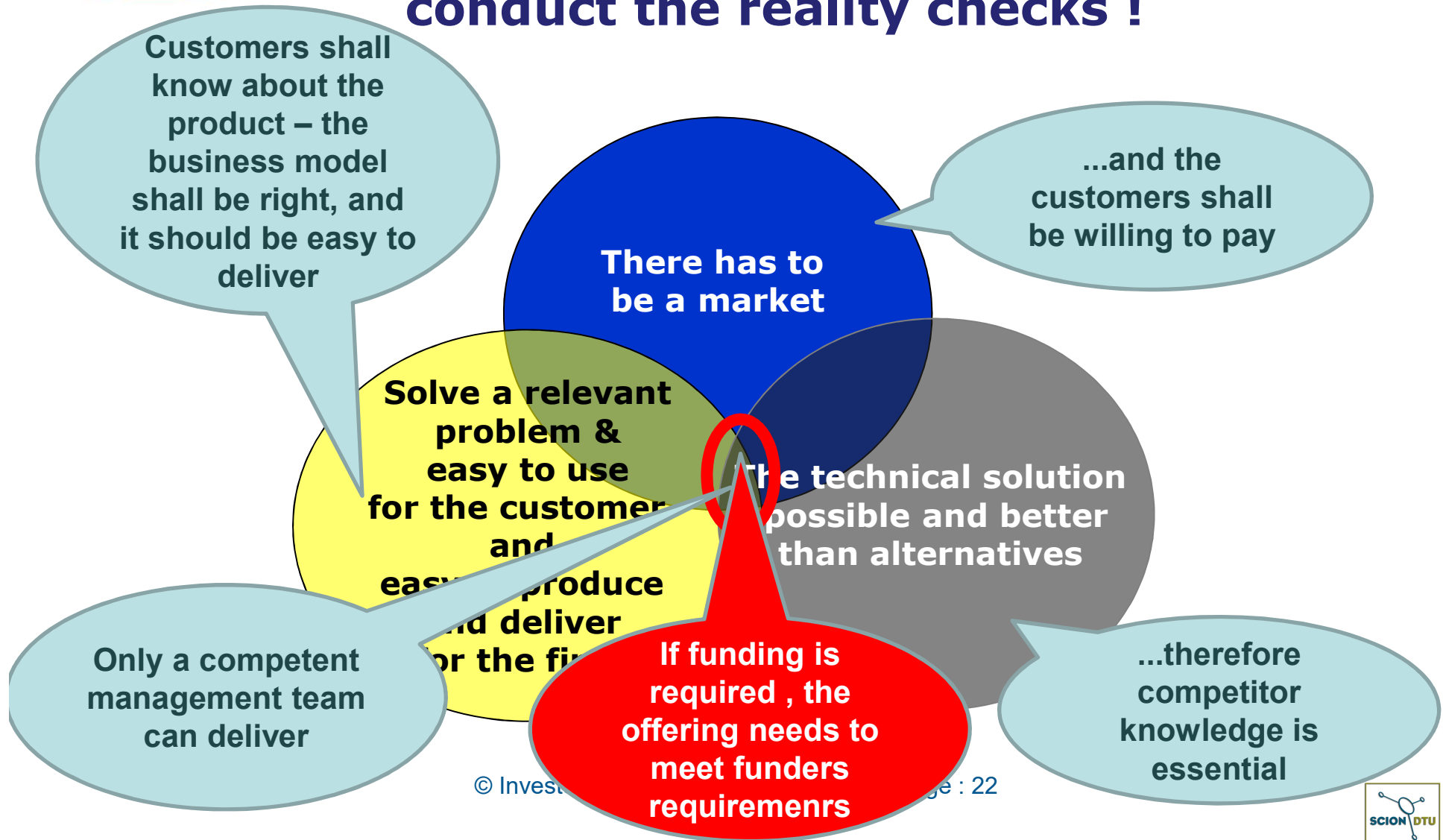
Case 1

Realized IRR	
Founders (business angels)	10%
Investor 1	54%
Investor 2	31%

Case 2

Realized IRR	
Founders (business angels)	73%
Investor 2	40%

To build a business, conduct the reality checks !





Market

**There has to
be a market**

**...and the
customers shall
be willing to pay**

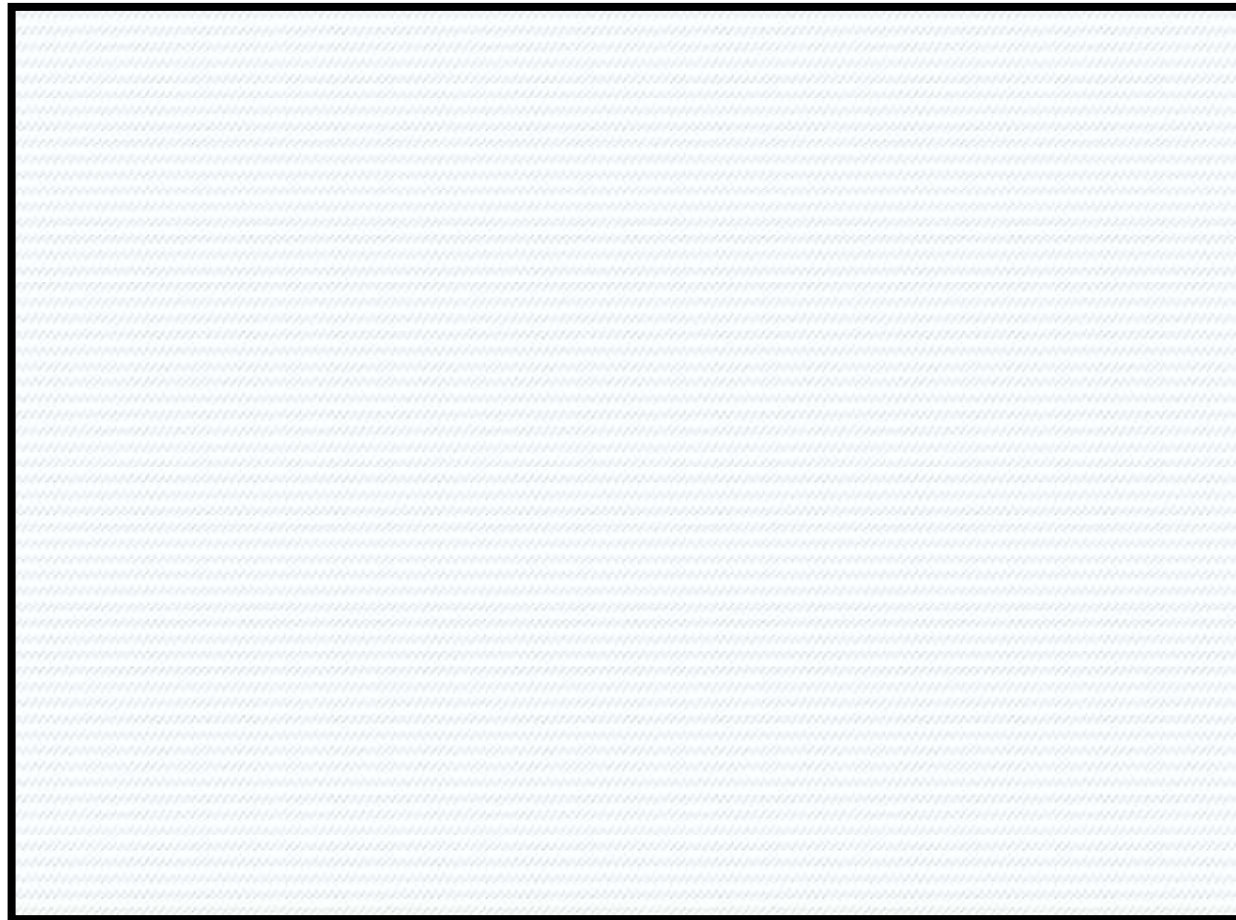


Who is buying, who is using the product –and why ? How about competing solutions ?

- Understand which problem you are solving for the user and the customer.
- Identification of the actual customer – who may not be the user!
 - The customer is the one making the purchase decision
 - The user is the one who uses the product / service
 - Identify the size of the realistic market
- Identification of sales channels and relevant markets
 - Direct sales, sales via agents or partners
- Understand competition and formulate a price/sales strategy
 - Does it cover all your cost ? And is it still competitive, and who are the competitors ?
- Formulation of marketing strategy
 - USP, choice of business model and foresee competitor reaction.

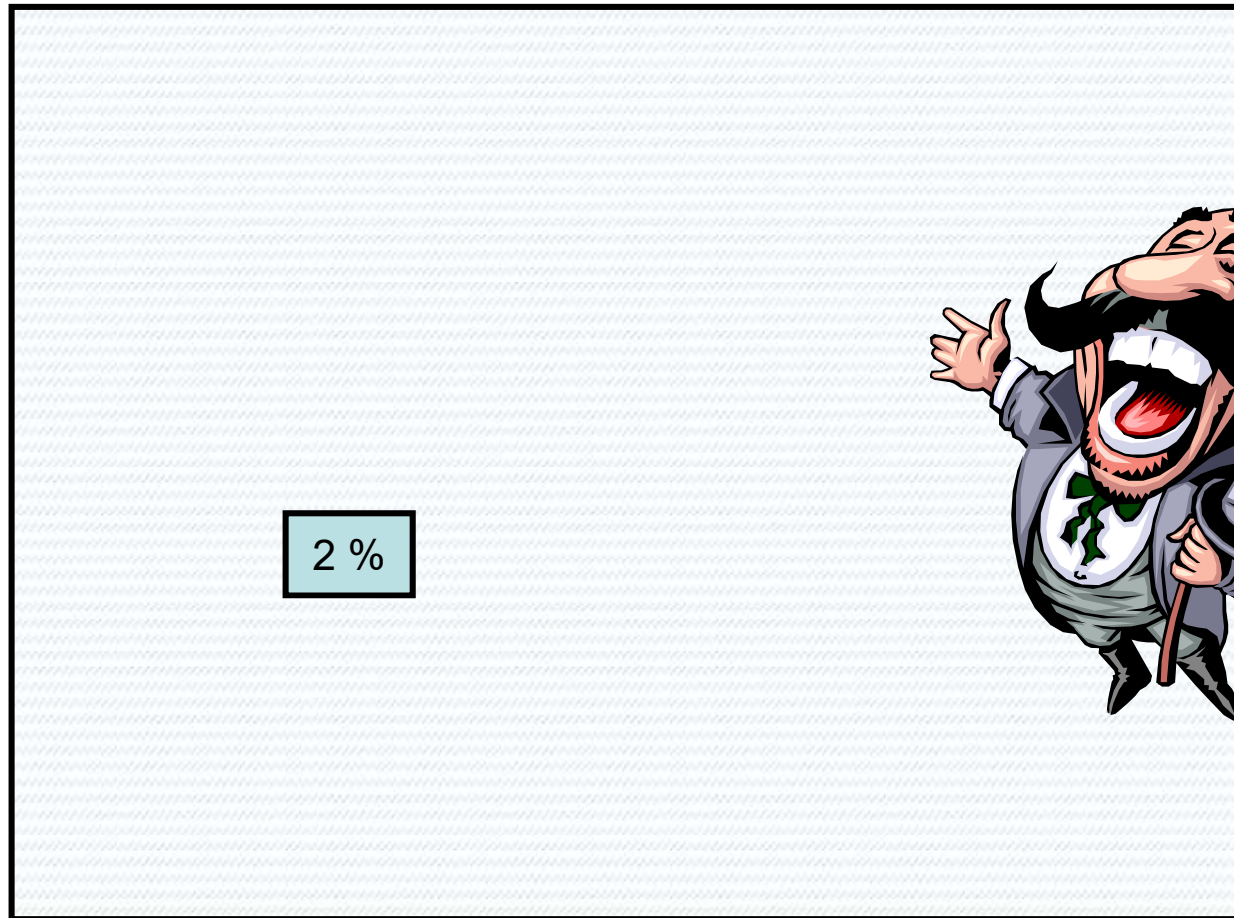


World market





World market “Medisat”





Real “world” market for “Medisat”

	USA	EU	ASEAN	Americas	Other	
	Grey	White	Grey	White	Grey	Private Kool patients
	White	Grey	White	Grey	White	Institutions
	Grey	White	Grey	White	Grey	Hospitals
	White	Grey	White	Grey	White	Private doctors
	Grey	White	Grey	White	Grey	Public



Real “world” market for “Medisat”

	USA	EU	ASEAN	Americas	Other	
	■	■	■	■	■	Private Kool patients
	■	■	■	■	■	Institutions
	■	■	■	■	■	Hospitals
	■	■	■	■	■	Private doctors
	■	■	■	■	■	Public



Real “EU” market for “Medisat”

	Finland	Denmark	Sweden	Germany	Other	
	■		■	■	■	Private Kool patients
	■	■	■	■	■	Institutions
	■	■	■	■	■	Hospitals
	■	■	■	■	■	Private doctors
	■	■	■	■	■	Public



GATE 2 GROWTH

Real "EU" market for "Medisat" 2 % = 30 %

	Finland	Denmark	Sweden	Germany	Other	
	Grey	White	Grey	White	Grey	Private Kool patients
	White	Grey	White	Grey	White	Institutions
	Grey	White	Grey	White	Grey	Hospitals
	White	Grey	White	Grey	White	Private doctors
	Grey	White	Grey	White	Grey	Public

30%



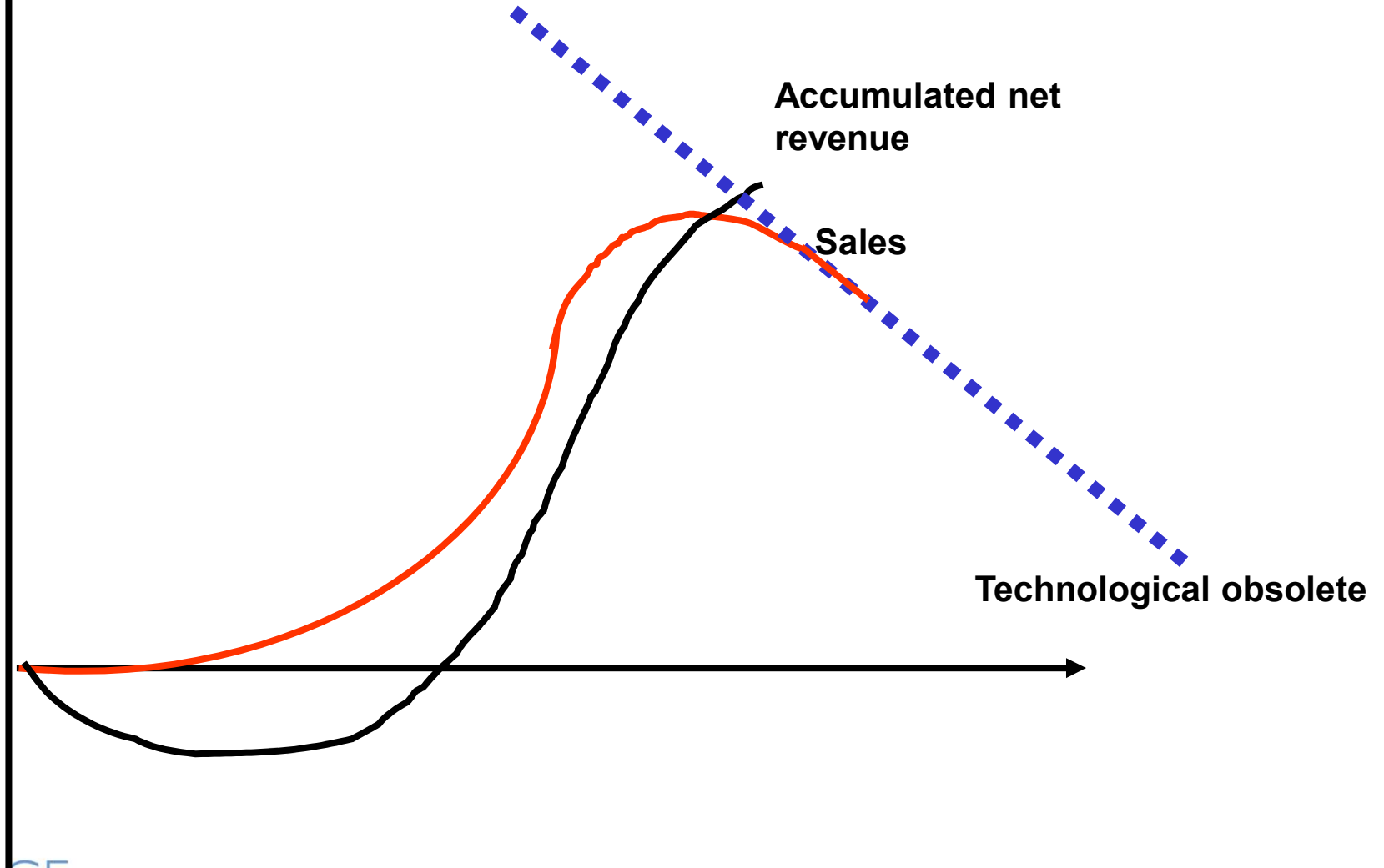
Understand who is the customer of a medical device product?

The one who benefits from a product is not always the one who decides to buy it.

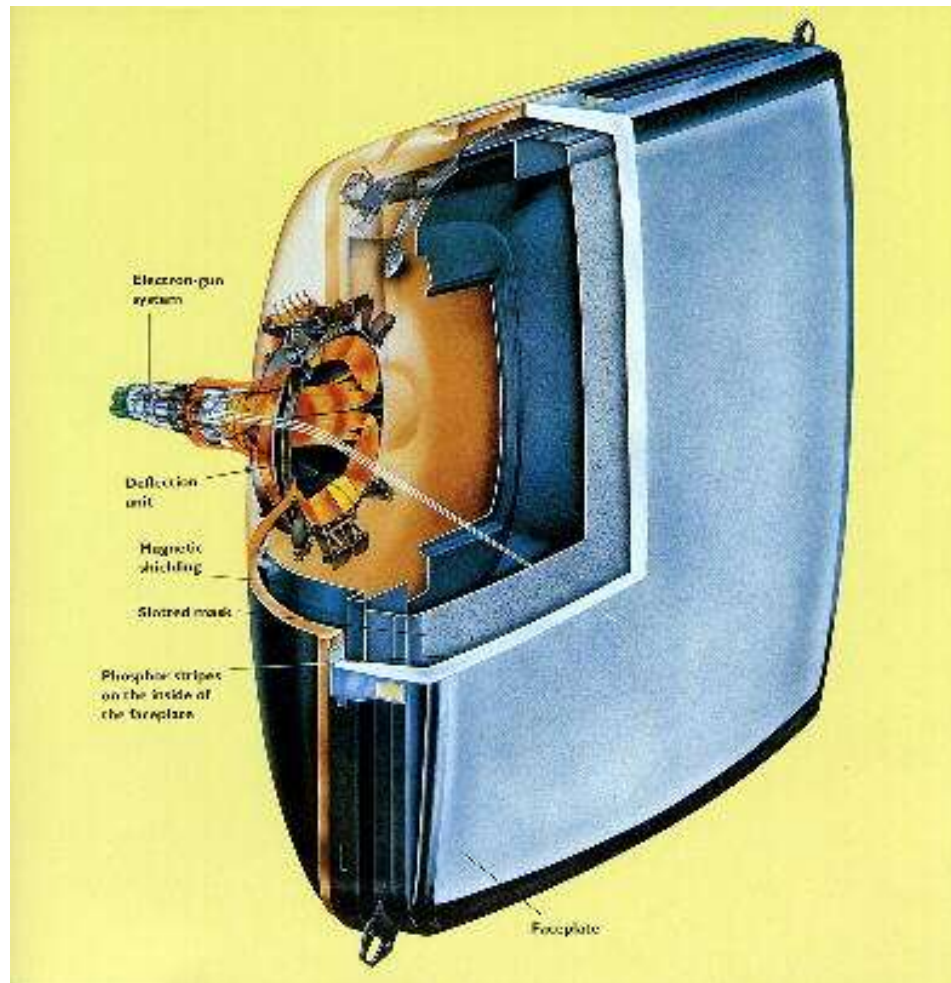
Or is it the hospital administration or the insurance company ?



Sales and market penetration – Even the best solution becomes obsolete and out !



The TV a few years ago





TV sets today





Intellectual Property Rights (IPR)

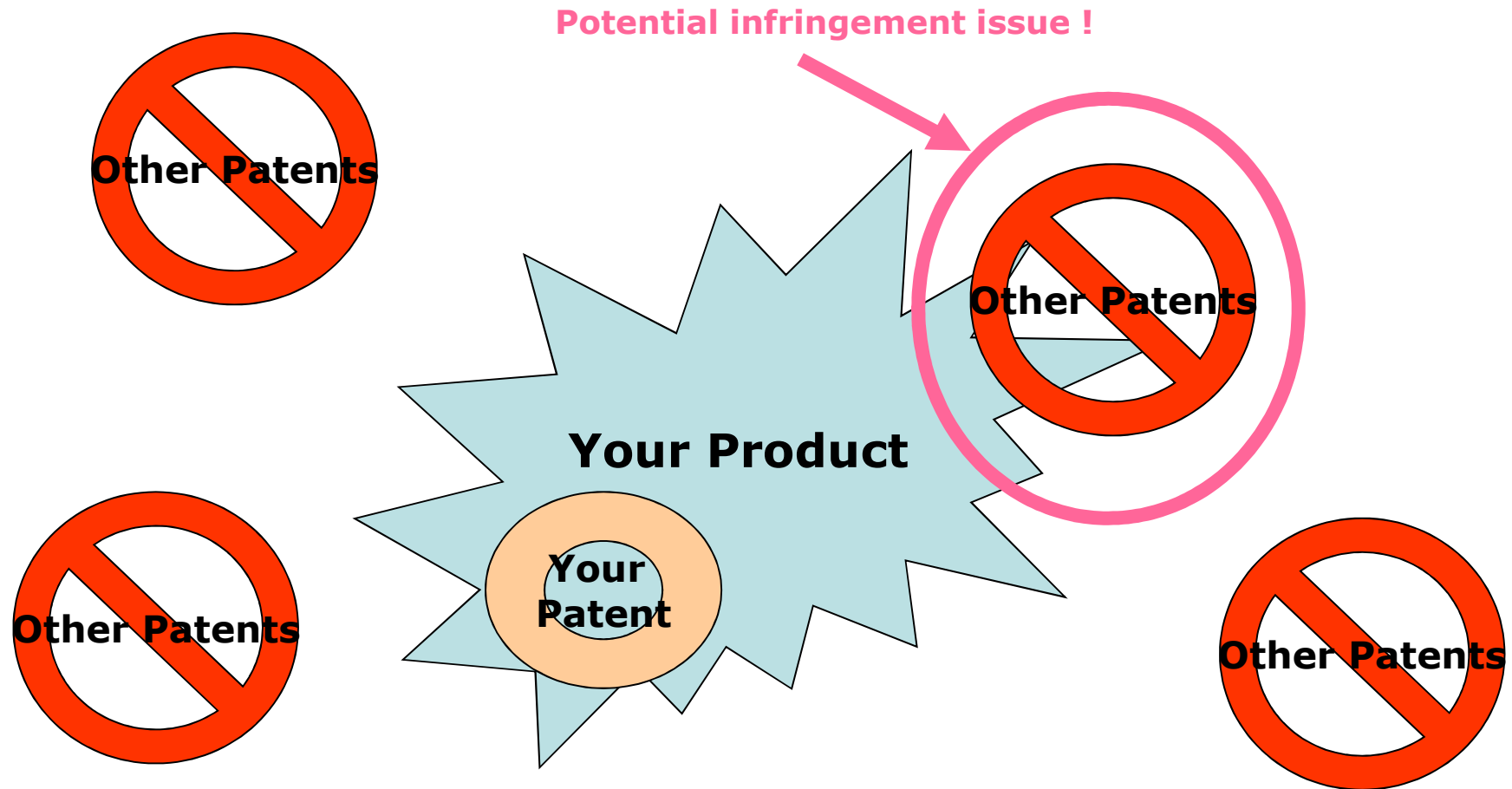
- Patenting considerations
 - Cost
 - Policing
 - Strategic significance
- Freedom to operate analysis
- The value of a patent



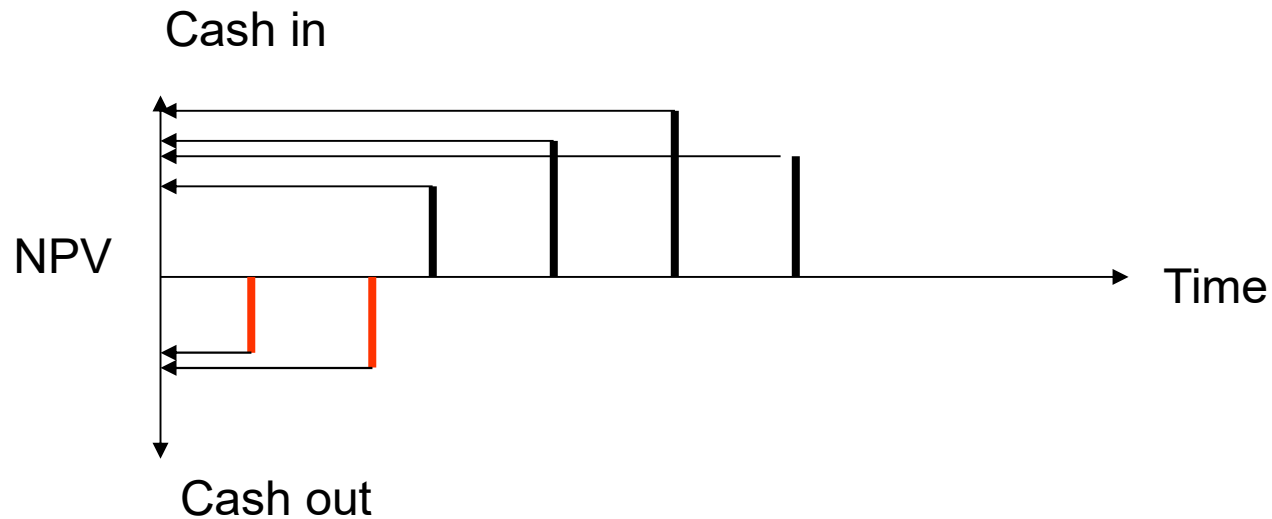
”Freedom to operate” analysis

- The ”Freedom to operate” analysis is important, even if the business case/technology is not fit for IPR protection.
 - Because
 - In some countries (e.g. the US) other ”inventions” than ”technology” can be IPR protected.
 - Remember that even if you have ”invented it yourself” someone else might have come to the same solutions and filed a patent!
 - A patent provides protection for ”Your Invention” only.
 - but in order to turn the invention into a product you might need access to a lot of other technology/solutions – which might be patent protected.

Result of Freedom to operate analysis



The Value of a Patent



Revenue types:

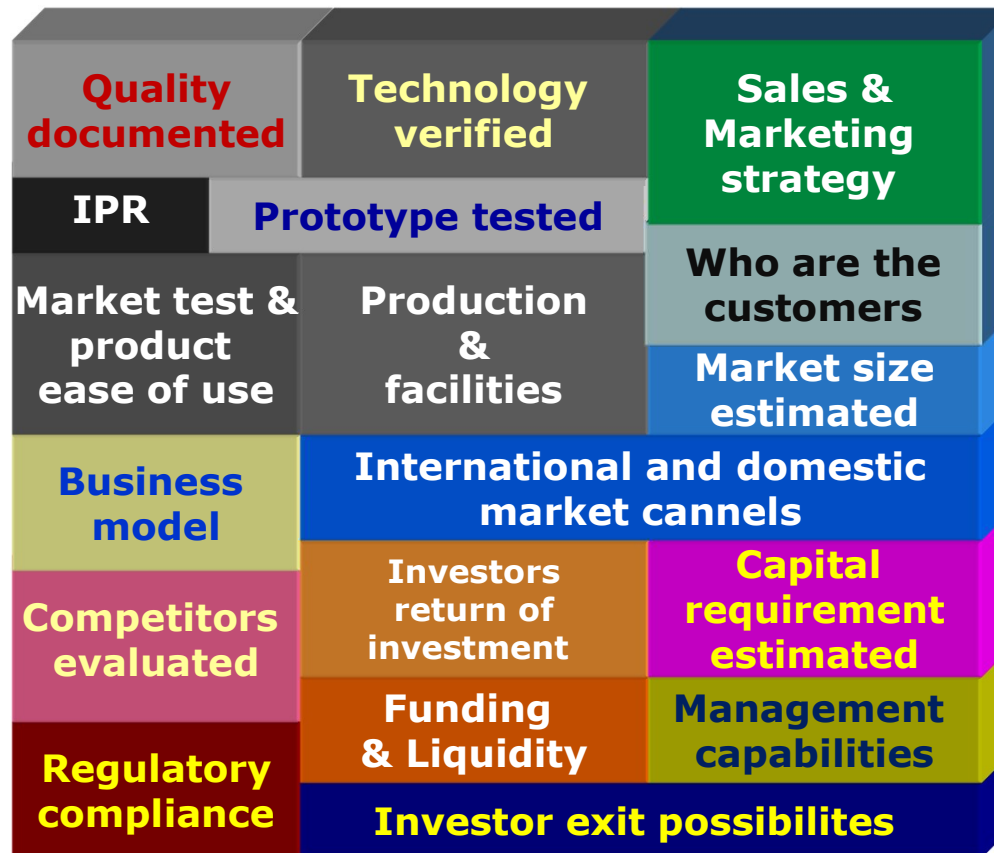
- Revenue from sales of patented products
- License revenues
- Strategic sales of IPR
- Value of protection from competitors
- Other value



Competing BUSINESS MODELS

- **U-Turn health, training concept for active elderly citizens**
- – the same technical solution but 5 different business models:
 - **Model 1:**
 - Deliver all/or training equipment to local fitness centers and provide license to use the training concept and technology. The fitness center buys consumables (e.g. training modules, music etc) from supplier or from third party
 - = “Ikea model”
 - **Model 2**
 - Deliver and install the training equipment at the fitness centers, train the trainers and leave operation to the local fitness centers but supply consumables as part of the package.
 - = “Turn key supplier”
 - **Model 3**
 - Install training equipment and operate the individual fitness centers on behalf of the owner (which manage sales and marketing functions) at a fixed “operators fee”..
 - = “Build & Operate”
 - **Model 4**
 - Provide and install training equipment, operate, market and finance a number of special U-Turn Health centers specialized in the needs and interest for elderly people.
 - = **U-Turn Health Center**”
 - **Model 5**
 - Deliver to franchise takers all training equipment for a fully operational U-Turn Health center, including providing of training of trainers, sales and marketing material etc.
 - = **U-Turn Health Center Franchise concept**”

In reality you need to solve "the business plan puzzle"



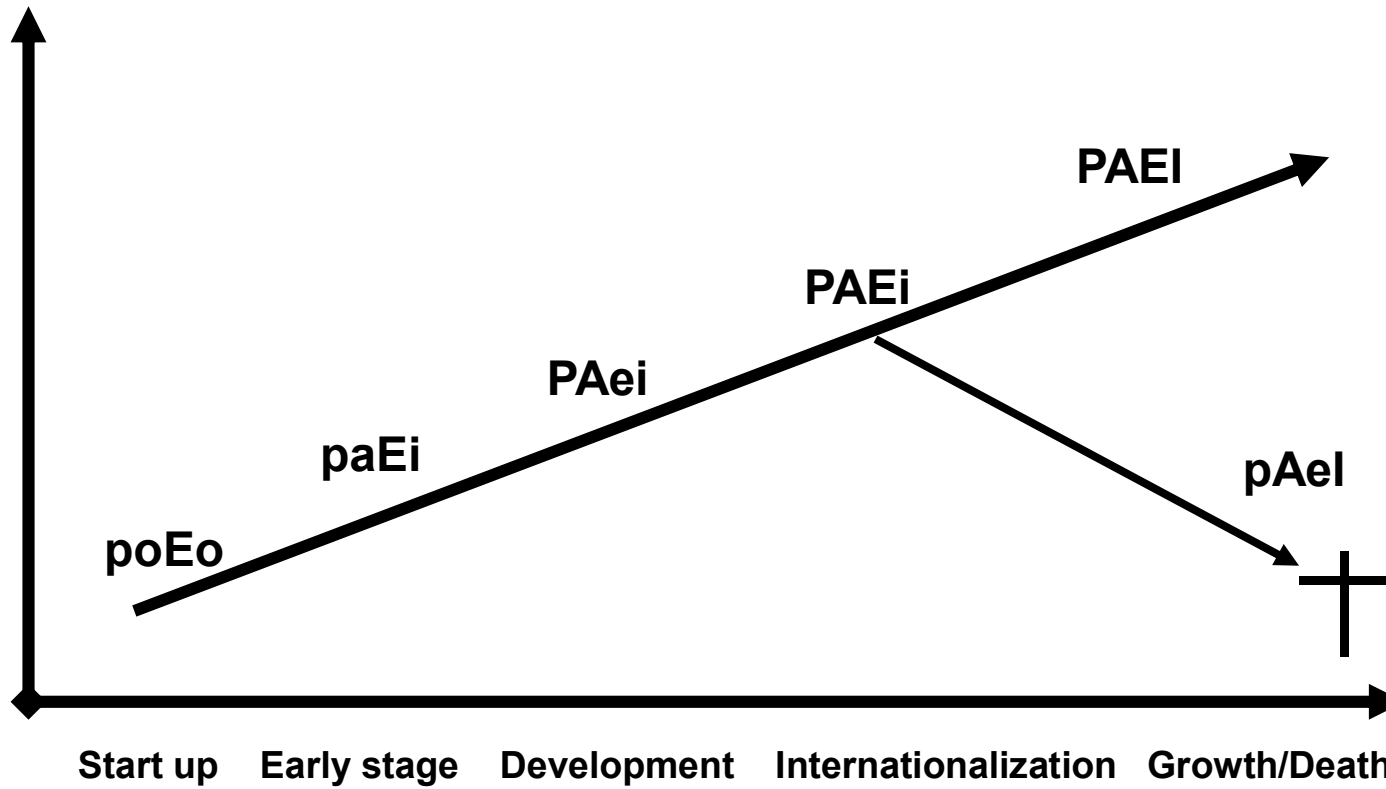


What is PAEI ?

- **P – The role as “producer” in a management team.**
 - The “P” can create results and produce products and services better than competitors.
- **A - The role as “administrator” in a management team.**
 - The “A” shall be able to plan, coordinate, control establish procedures for the organization
- **E – The role as “strategy creator” and visionary in the management team.**
 - The “E” is the person who develops the strategy for business development and the development of new products and services. He adapt products and services to new market challenges and identify hither unseen opportunities.
- **I - The role as “integrator” in the management team.**
 - The “I” shall be able to create harmony in the organization and secure that the whole organization is moving in the same – and right direction.



Size of organization



Management can be a barriers for growth





The Horizon 2020 SME instrument

- It is part of EU's new Horizon 2020 Research and Innovation programme, targeting SME's.
- Nearly €2.8 billion of SME funding available from 2014 to 2020.
- Focus on taking great ideas from the lab to the market.
- It is an intelligent new EU co-funding scheme of business excellence and a feeding channel for growth via "Risk financing"
- **The aim is via a quality evaluation process to support the creation of new leading world businesses, and give the EU a new positive face!**





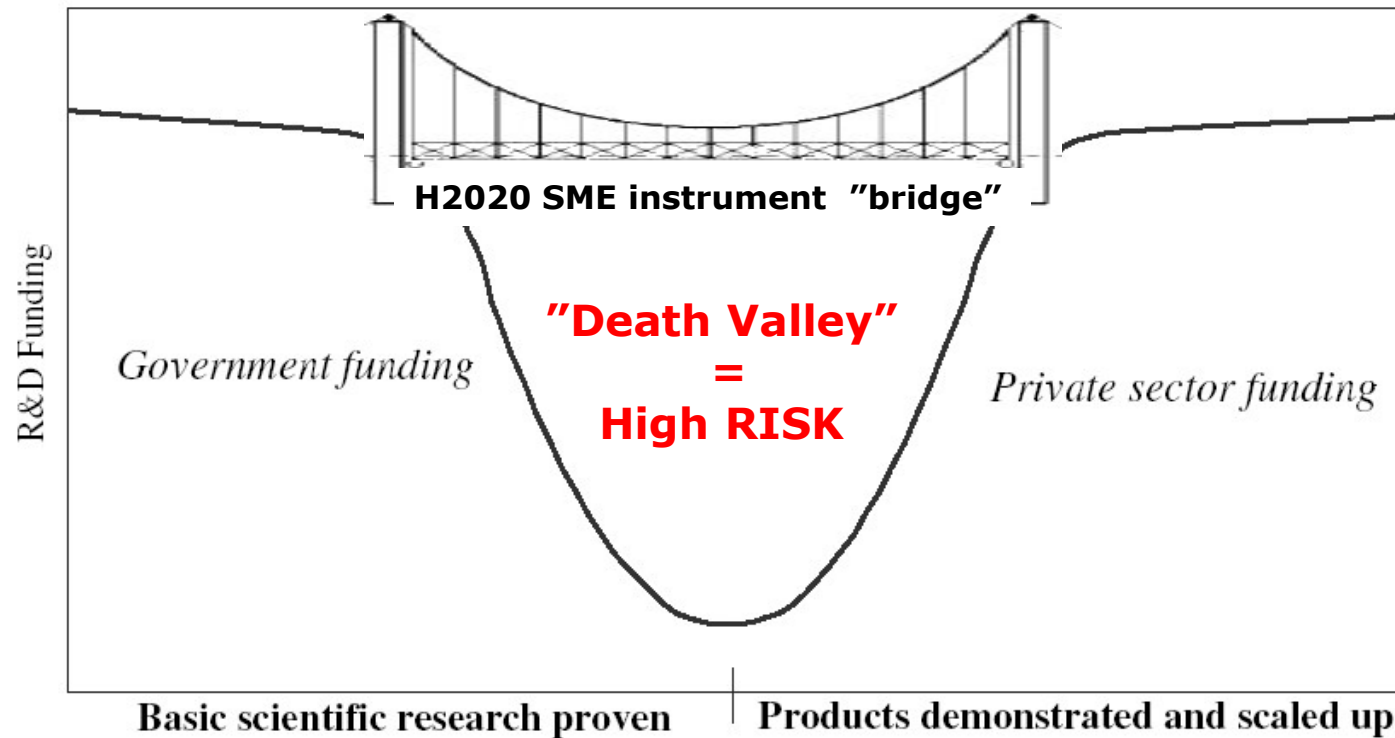
The H2020 SME instrument relevance.

- The H2020 Instrument is relevant for:
 - **Single companies** ("old and young") with interesting technology or business innovation projects.
 - **Investor portfolio companies** in need of extra funding
 - **Spin-off's** from Universities and Research Institutions with commercial ambition and with interesting technology or business innovation projects..
 - **Clients** of University Institutes and Research Institutions.
 - Why: The clients of the University or Research institution can use part of the H2020 SME funding to pay for this type of services. (subcontracting).

The SME Instrument is special.

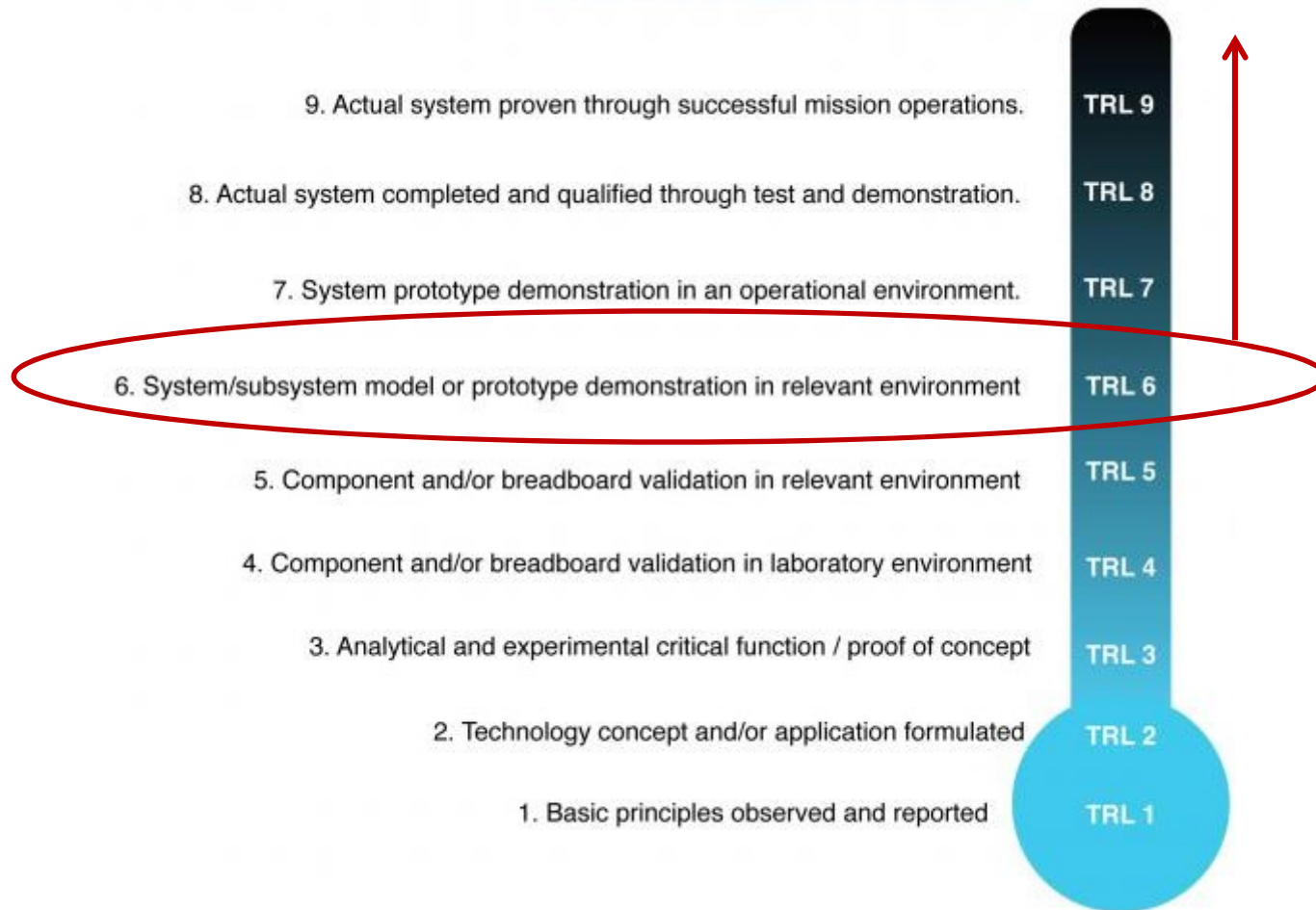
- It is aimed at reducing the risk and bridging the funding gap = "valley of death" between research grants and private investments, in order to strengthen European competitiveness

Figure 5. The "Valley of Death" between Public and Private Sector Development Activities



The TRL Scale

TECHNOLOGY READINESS LEVELS



Call overview 2016-2017

Horizon 2020 Innovation in SMEs work programme

TOPICS	CALL ID	BUDGET	
		2016	2017
Open Disruptive Innovation Scheme	SMEInst-01	€60 m.	€66 m.
Accelerating the uptake of nanotechnologies advanced materials or advanced manufacturing and processing technologies by SMEs	SMEInst-02	€31.83 m.	€35.32 m.
Dedicated support to biotechnology SMEs closing the gap from lab to market	SMEInst-03	€7.5 m.	€7.5 m.
Engaging SMEs in space research and development	SMEInst-04	€11.37 m.	€12.6 m.
Supporting innovative SMEs in the healthcare biotechnology sector	SMEInst-05	€35 m.	€45 m.
Accelerating market introduction of ICT solutions for Health, Well-Being and Ageing Well	SMEInst-06	€18 m.	€12.5 m.

Call overview 2016-2017

Horizon 2020 Innovation in SMEs work programme

TOPICS	CALL ID	BUDGET	
		2016	2017
Stimulating the innovation potential of SMEs for sustainable and competitive agriculture, forestry, agri-food and bio-based sectors	SMEInst-07	€25.46 m.	€32.19 m.
Supporting SMEs efforts for the development - deployment and market replication of innovative solutions for blue growth	SMEInst-08	€9.5 m.	€10 m.
Stimulating the innovation potential of SMEs for a low carbon and efficient energy system	SMEInst-09	€46 m.	€50 m.
Small business innovation research for Transport and Smart Cities Mobility	SMEInst-10	€57.57 m.	€61.23 m.
Boosting the potential of small businesses in the areas of climate action, environment, resource efficiency and raw materials	SMEInst-11	€25 m.	€27.5 m.
New business models for inclusive, innovative and reflective societies	SMEInst-12	€10.8 m.	€11.4 m.
Engaging SMEs in security research and development	SMEInst-13	€15.37 m.	€14.67 m.
TOTAL		€353.4 m.	€385.91 m.



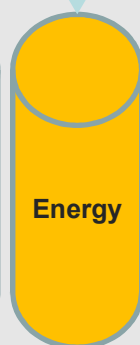
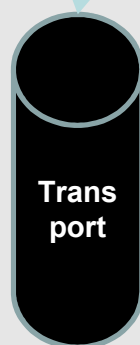
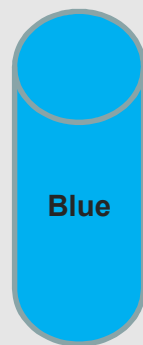
The "theme" selection is a challenge

let us assume that:

- I have a company that has developed a unique new efficient nano based filter unit which can reduce 95 % of the particle emission from diesel engines, without any impact on engine efficiency.
- The purpose of the funding application is to design final user tests and market strategy.
- Application areas
 - Diesel engines for Lorries and Busses
 - Marine Diesel engines



SME with nano based filter for diesel engines

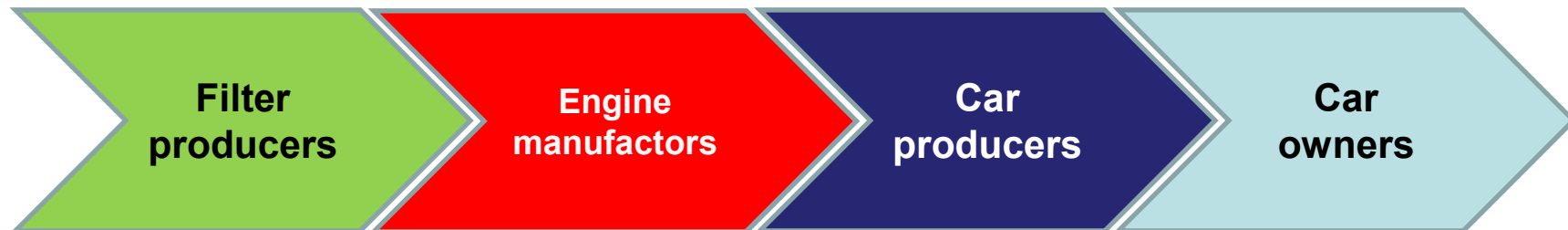


H2020 SME instrument TOPICS



Find your place in the value chain.

- **Who will best appreciate my solution?**
- **What do I want to sell?**
- **To whom ?**





The Phase 1 Application max 10 pages

1. Excellence
2. Impact
3. Implementation
4. Members of consortium
5. Ethics and security



Not covered
by page limit



The Phase 1 Application

1. Excellence

- Objective
 - Describe overall innovation project
 - Describe specific objectives for phase 1 feasibility study
- Relation to work programme
- Concept and approach
 - How will you solve the problem and/or use business opportunity
 - Current state of development
 - Technology Readiness Level (TRL)
 - Activities and methodology in feasibility study
 - How do you solve a EU/global challenge
- Ambition
 - Novelty of innovation project
 - How do your solution compare to "state of the art" and competitors



The Phase 1 Application

2. Impact

- Users/market
 - Have user needs and market size been identified?
 - Describe the main economic benefit for the users
 - List competitors and competitive solutions
 - Indicate the most relevant market barriers
- Company
 - What is the relevance of the management team of the SME
- Dissemination and exploitation of results
 - Plan for commercialization
 - How does phase 1 fit into overall plan to reach market
- IPR
 - Explain key knowledge (IPR) items
 - Have a “freedom to operate analysis” been made?
 - Explain relevant regulatory requirements



The Phase 1 Application

3. Implementation

- Work plan
- Management structure and procedures
 - Describe the organizational structure and decision making
- Consortium
 - Describe the consortium (if relevant)
- Resources to be committed



Budget

	A. Costs of the feasibility study/Direct and indirect costs of the action	Total costs	Reimbursement rate %	Maximum EU contribution	Maximum grant amount
Form of costs	Lump sum				
	50 000	71 429	70 %	50 000	50 000

Horizon 2020's SME Instrument cut-off dates in 2016

PHASE 1

24 February

03 May



PHASE 2

03 February

14 April



PHASE 1

07 September

09 November

PHASE 2

15 June

13 October

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ec.europa.eu/easme/sme



Evaluation & evaluators

Criterion 1 - Impact

Score: **3.38** (Threshold: 4.00/5.00 , Weight: 100.00%)

Note: Where appropriate, the application should make reference to the successfully finalised Phase 1 project. The proposal indicates in a convincing way that there will be demand/market (willing to pay) for the innovation when the product /solution is introduced into the market

Good to Very Good

The targeted users or user groups of the final product/application, and their needs, are well described and the proposal provides a realistic description of why the identified groups will have an interest in using/buying the product/application, compared to current solutions available

Fair to Good

The proposal provides a realistic and relevant analysis of market conditions, total available market size and growth rate, competitors and competitive solutions and key stakeholders, clear opportunities for market introduction

Fair to Good

It is described in a realistic and relevant way how the innovation has the potential to boost the growth of the applying company

Fair to Good

The proposal demonstrates the alignment with the overall strategy of the participating SME(s) and the need for commercial and management experience, including understanding of the financial and organisational requirements for commercial exploitation as well as key third parties needed

Fair to Good

The innovation /solution has a clear European dimension both with respect to commercialisation and with respect to competitor competition evaluation

Good to Very Good



Evaluation criteria

- Evaluation on three areas
 - Impact
 - Excellence
 - Implementation
- Scale from 0-5 giving a max total of 15 points.

Threshold for Phase 1

Impact	min. 4
Excellence	min. 4
Implementation	min. 4

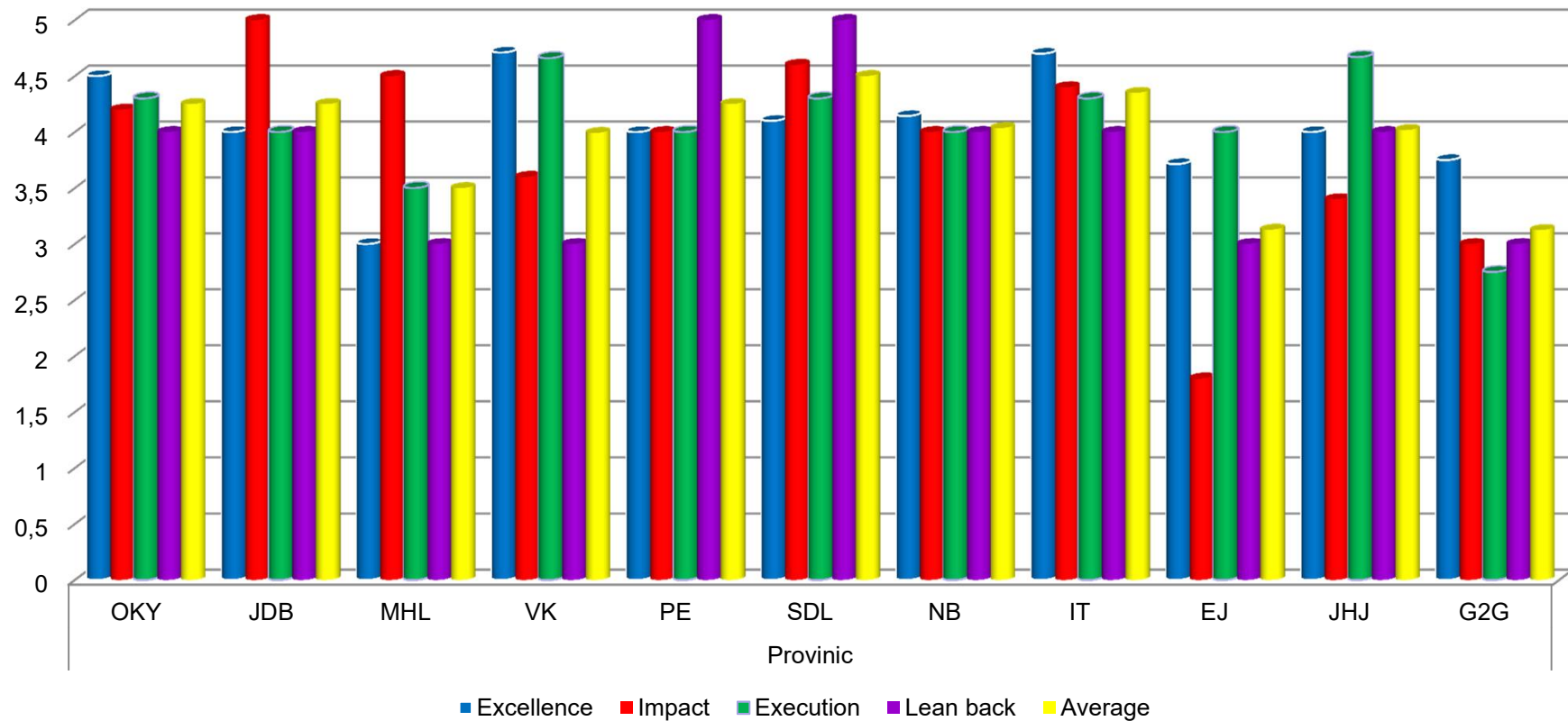
Total score min. 13

Threshold for Phase 2

Impact	min. 4
Excellence	min. 3
Implementation	min. 3

Total score min. 12

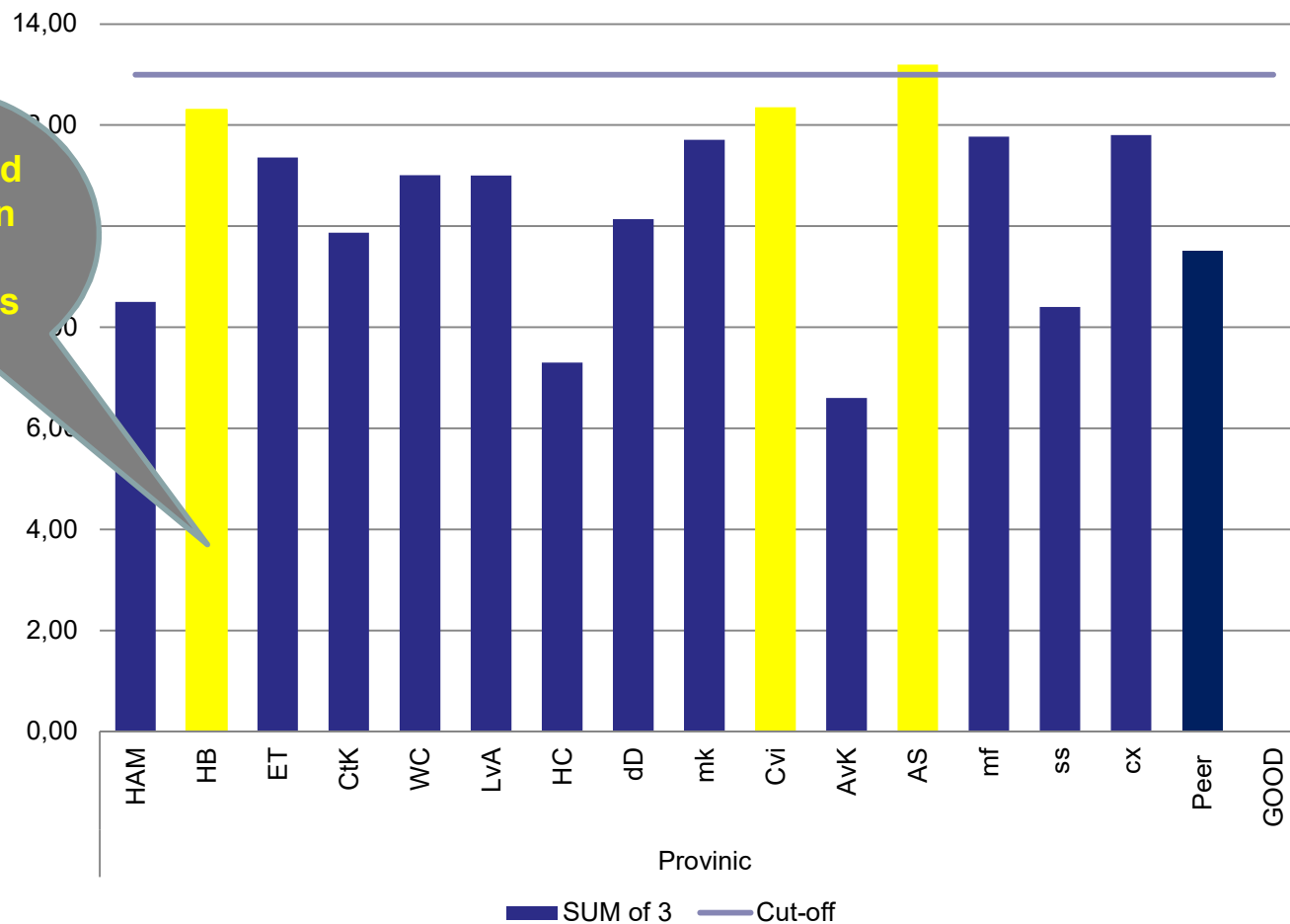
Not all "evaluators" agree! I





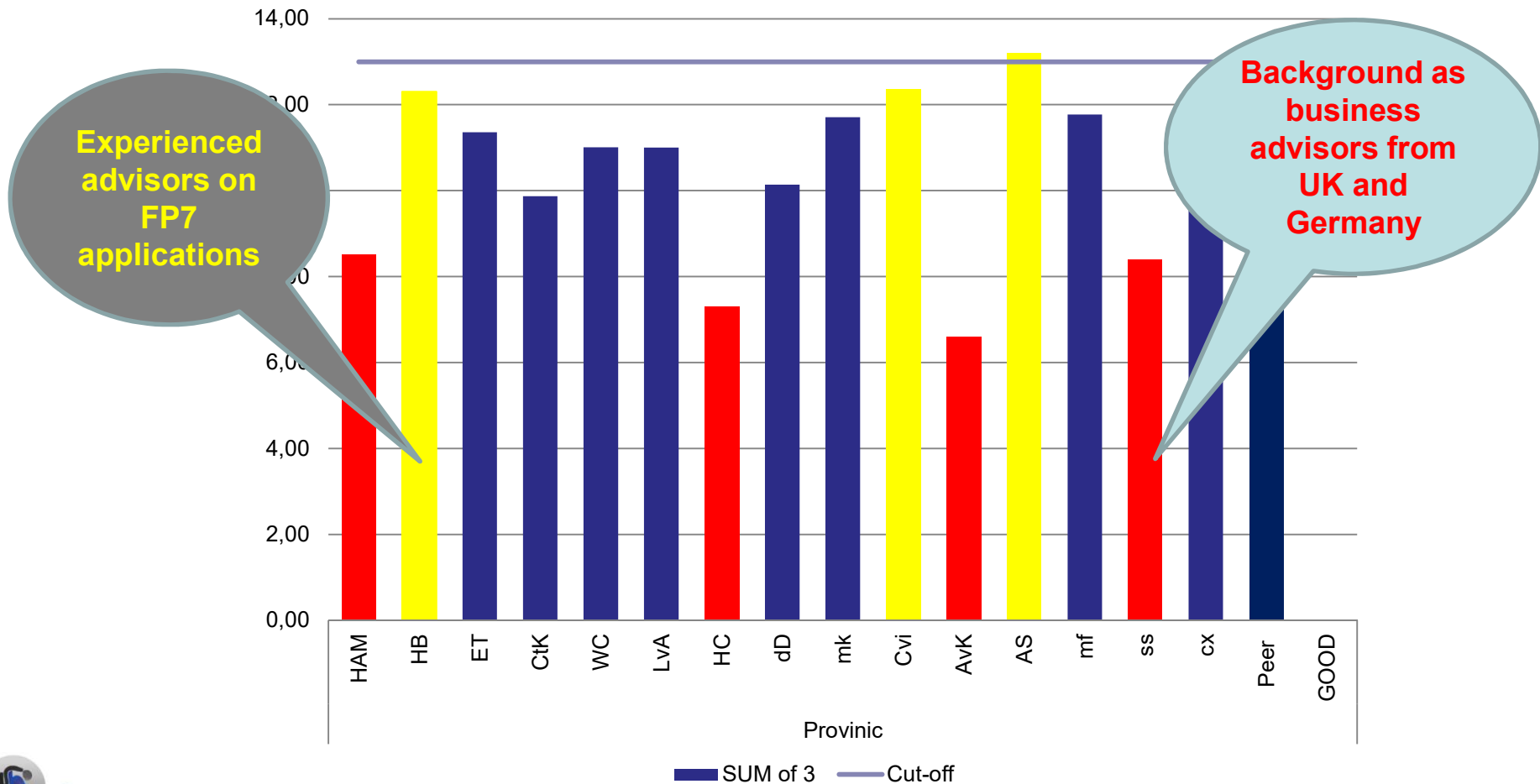
Participant background in Master Class: advisors

Experienced advisors on FP7 applications

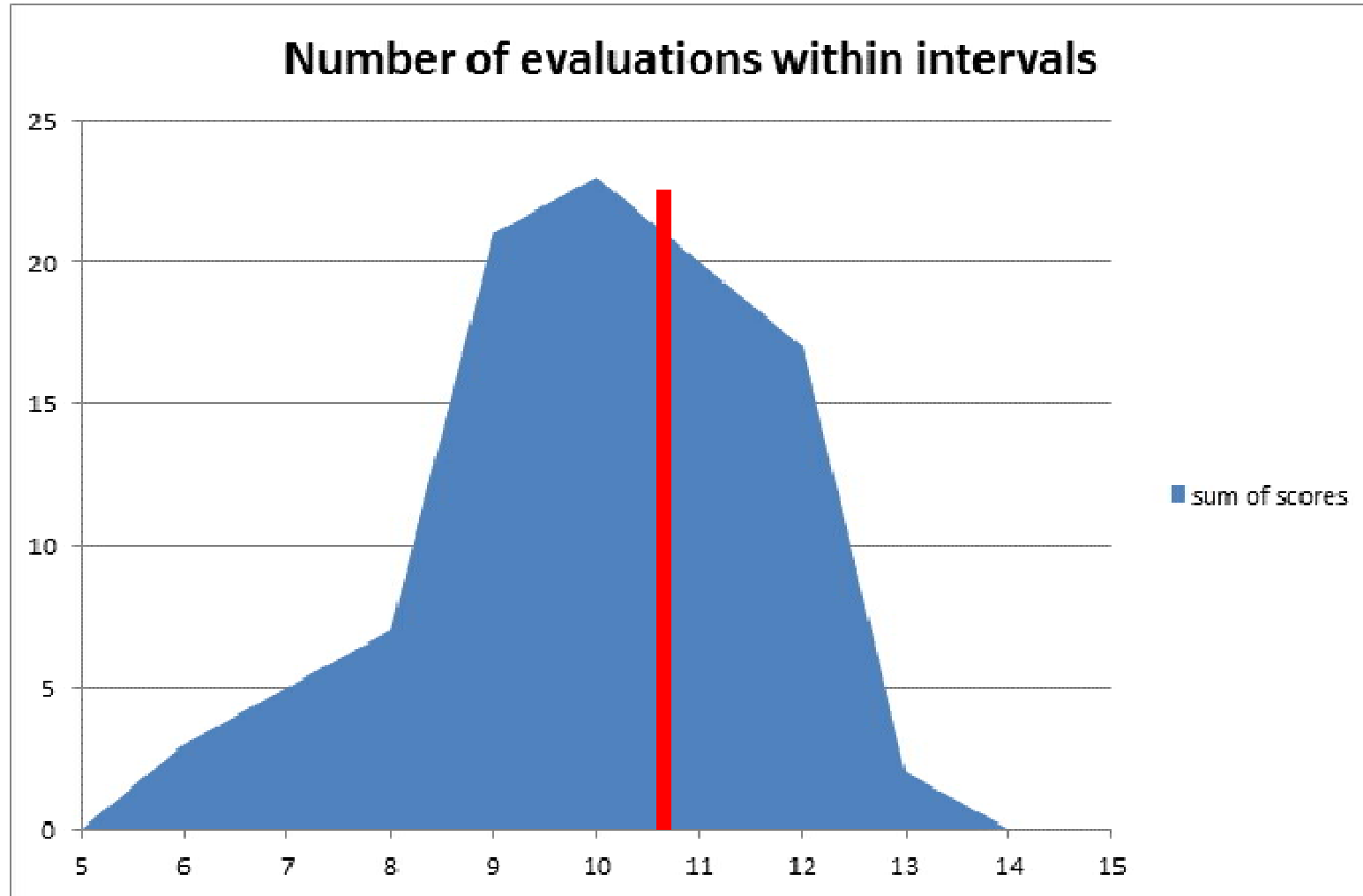




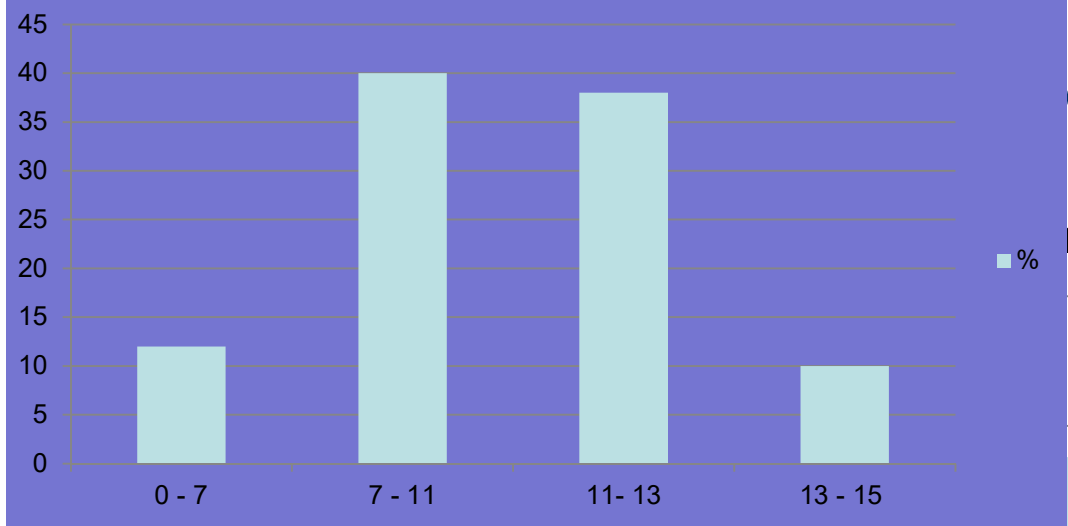
Participant background in Master Class: advisors



Ideal distribution of "sum of scores"

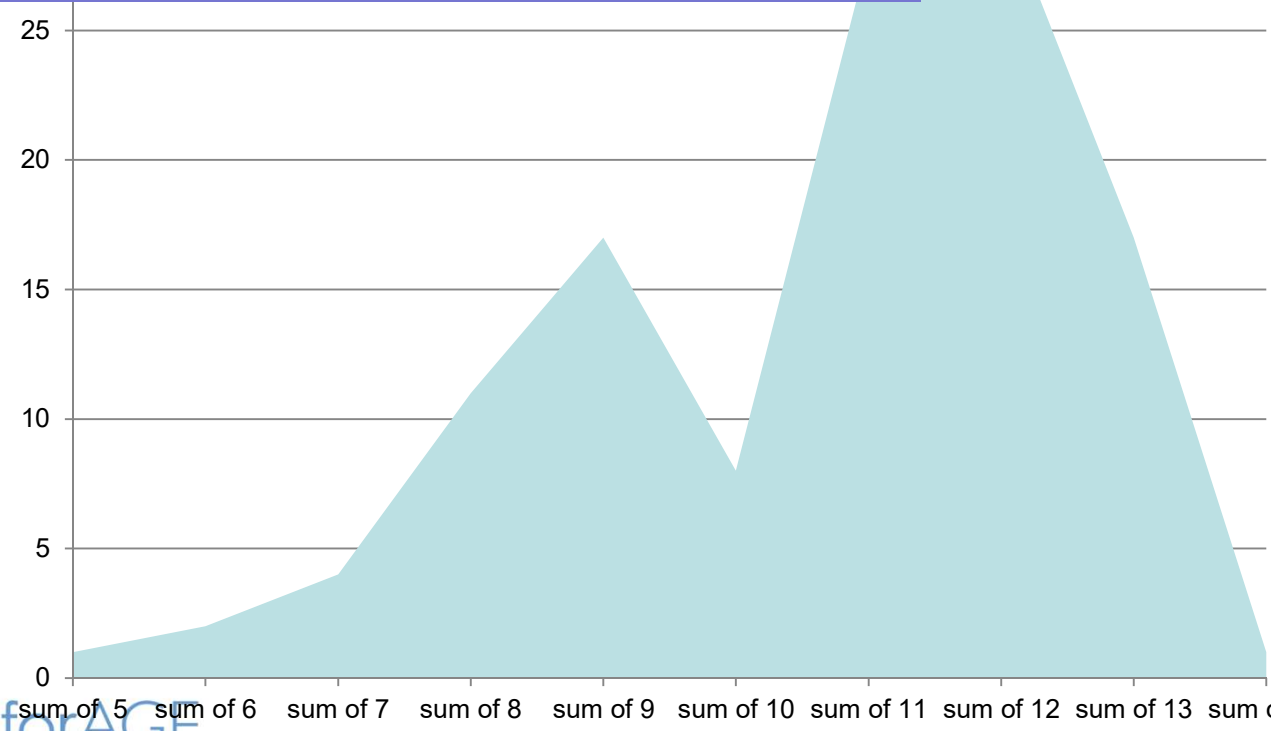


RELATIVE DISTRIBUTION 750 EVALUATORS



... of "sum of scores"

... each interval (N=150)



number in each interval



Trends

- Quality of proposals increased
- Thereby chances to get funded for good proposal decreases
- Phase 2 after Phase 1 triples chances of success
- Resubmission doubles chances of funding (only if close to/above threshold)



The evaluator challenge

- Four evaluators will score each application, the median is calculated.
- Do not expect all four to be specialist/experts in your field of technology or business
- Each evaluator score carries the same weight
- Evaluation is remotely = evaluators do not coordinate or discuss scorings
- **Make your application interesting for the expert in your field AND accessible for non-experts.**
- Do not force the evaluator to make assumptions, or rely on their knowledge. They could be wrong.
- You do not know who will read the application
 - Make sure the information is correct
 - Find the line between expert knowledge and accessibility



Get someone to check your application and its readability!



Ideas for a good "page 1"

- **Abstract/introduction** (1/2 to 3/4 pages)
- **Problem**
- Briefly describe the problem which will be solved by your solution, and why it is important:
 - For customers/users.
 - For society (Europe, the World).
 - Why it is an opportunity for your company – right now?
- **Solution**
- Briefly describe:
 - Why and how your solution is solving the problem.
 - What is actually your solution, and why is it unique?
 - Why are competing solutions inferior to yours (prices/ efficiency/easy to use)
 - What will be achieved through the H2020 funding
- **Customers**
 - Who will be your customers and why will they buy your solution, and if customers are different from "users" who will use the solution and why.
- **The team**
 - Who are the key persons in the team, what is their relevant experience and how will they contribute to the project.



Submit or re-submit

- An application which
 - is easy to read and fulfill all the Guideline requirements
 - demonstrates potential solution to a big problem or is really "blue ocean"
 - has a clear business potential for a great break through
 - is likely to attract investors
 - **has a great chance to get funded.**
- Only resubmit after thorough analysis of "evaluation feed back".
 - It should be easy to understand, why some scores are low and other are high
- Never re-submit unless the application is significantly improved.
 - If a re-submitted proposal scores lower than first submission, EASME initiate a separate investigation.
- Your application competes against other applications, of which the majority is written by consultants or guided by advisors!
 - You never get the chance to "let me explain" or to "present in front of evaluators!"
 - Only what is written on the 10 / 30 pages counts!



Our Team



Rasmus Egvad

M. Sc. in International Business

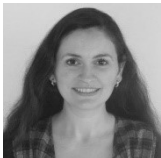
6 years of experience: Business Plan evaluation, Business development, funding, Consulting



Louise Pierrel Mikkelsen

M. Sc. in Accounting, Strategy and Control

6 years of experience: Business development & Business Skills for Non-MBAs



Carmen Bianca Socaciu

BSc. in Business Administration & Service Management (2009) and a MSc. in International Marketing and Management (2011) from Copenhagen Business School



Uffe Bundgaard-Jorgensen

Ph.D. in Economy, operation research and statistics

Public decision processes, Welfare policy, Business models, International partnering, Financing and IPR strategy

40 years of experience: Business development, consulting, financing



Thank you for your attention.



**Uffe Bundgaard-Jørgensen.
InvestorNet-Gate2Growth**

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