eurostars™

MATCHMAKING EVENT
28 MAY 2019
LIEGE

We wish you a fruitful day in *Les Comtes de Méan*

ncp WALLONIE

Wallonie recherche SPW

enterprise europe network

PROGRAMME

10.30 – 10.45	**Opening and agencies presentations** Didier FLAGOTHIER, Head of International Research Programmes Unit (SPW recherche) Stijn MAAS, Scientific Advisor (InnovIris) Marteen SILEGHEM, Head Entity International Collaboration and Energy (VLAIO) Ranjana SARKAR, Senior Programme Officer (DLR) Nils HAARMAN, International Advisor (NEA)
10.45 – 11.00	**Keynote speech** Peter VAN HARTEN, Ambassador Smart Industry and member of the Smart Industry Programme in the Netherlands
11.00 – 11.15	**Success stories** Harold HASPESLAGH, Marketing & Innovation Director (T-CHAIR, NiniX Technologies) Nicolas LOIX , General Manager (Grinding 4.0, Micromega Dynamics)
11.15 – 11.30	**Eurostars presentation** Marcela PALACKA, Eurostars Programme Management Officer (Eureka Secretariat)
11.30 – 12.45	**SMEs pitches**
12.45 – 13.30	**Lunch**
13.00 – 18.00	**Matchmaking**

OPENING AND AGENCIES PRESENTATIONS

Didier **FLAGOTHIER**

Head of International Research Programmes Unit

Wallonie recherche SPW

OPENING AND AGENCIES PRESENTATIONS

Stijn **MAAS**

Scientific Advisor

innoviris .brussels
we fund your future

OPENING AND AGENCIES PRESENTATIONS

Maarten **SILEGHEM**

Head Entity International Collaboration and Energy

FLANDERS INNOVATION & ENTREPRENEURSHIP

Flanders State of the Art

Flanders Innovation & Entrepreneurship – VLAIO

Maarten Sileghem

- VLAIO: funding agency Flanders
- Match making→ projects:

Network/programme	Contact
⇨ Eurostars:	Johan Michiels (johan.michiels@vlaio.be)
⇨ Eureka:	Geert Thorrez, (geert.thorrez@vlaio.be)
⇨ ERA-net	Elsie De Clercq (elsie.declercq@vlaio.be)
⇨ ECSEL (JTI)	Francis Deprez (francis.deprez@vlaio.be)
⇨ Horizon 2020	Nico Deblauwe (nico.deblauwe@vlaio.be) François Stassijns (françois.stassijns@vlaio.be)
⇨ Interreg:	David Grzegorzewski (david.grzegorzewski@vlaio.be)

Vlaanderen is ondernemen

AGENTSCHAP INNOVEREN & ONDERNEMEN

OPENING AND AGENCIES PRESENTATIONS

Ranjana **SARKAR**

Senior Programme Officer

DLR-PT

OPENING AND AGENCIES PRESENTATIONS

Nils **HAARMAN**

International Advisor

Netherlands Enterprise Agency

eurostars™

SMART INDUSTRY
INDUSTRY 4.0

More information:
www.rvo.nl/eureka-event2019

KEYNOTE SPEECH

Peter **VAN HARTEN**

Ambassador Smart Industry and member of the Smart Industry Programme in the Netherlands

Eurostars Matchmaking Event
28 May 2019 Liège

DUTCH INDUSTRY FIT FOR THE FUTURE

Peter van Harten – Smart Industry Ambassador

www.smartindustry.nl

Peter van Harten

Smart Industry Ambassador

International Relations
Smart Industry Program

We must work hard to help make EU companies fit for the future.
Industry currently employs 37 million people, accounting for 2/3 of our exports.
We need your help!

Our economy is transforming before our eyes and the world is changing faster then ever

Europe must be the first to shape it.

Let’s start today!

There is a lot
at stake

PUBLIC HEARING

COMMITTEE ON CIVIL LIBERTIES, JUSTICE AND HOME AFFAIRS

TUESDAY 14.04.2015

PAUL-HENRY SPAAK BUILDING - BRUSSELS

15.00-18.30 ROOM: **1A2**

THE FIGHT AGAINST TERRORISM AND THE CHALLENGES FOR EU INTERNAL SECURITY

Chair: Claude MORAES

Европейски парламент Parlamento Europeo Evropský parlament Europa-Parlamentet Europäisches Parlament Euroopa Parlament Ευρωπαϊκό Κοινοβούλιο European Parliament Parlement européen Parlaimint na hEorpa Europski parlament Parlamento europeo Eiropas Parlaments Europos Parlamentas Európai Parlament Parlament Ewropew Europees Parlement Parlament Europejski Parlamento Europeu Parlamentul European Európsky parlament Evropski parlament Euroopan parlamentti Europaparlamentet

STOP complaining
about the US and China!

Made in Europe

Smart Industry = Industrie 4.0 + Services

FME POWERED BY DUTCH TECHNOLOGY

kamer van koophandel

dutch digital delta

Holland High Tech
Global Challenges, Smart Solutions

Holland.

Ministerie van Economische Zaken en Klimaat

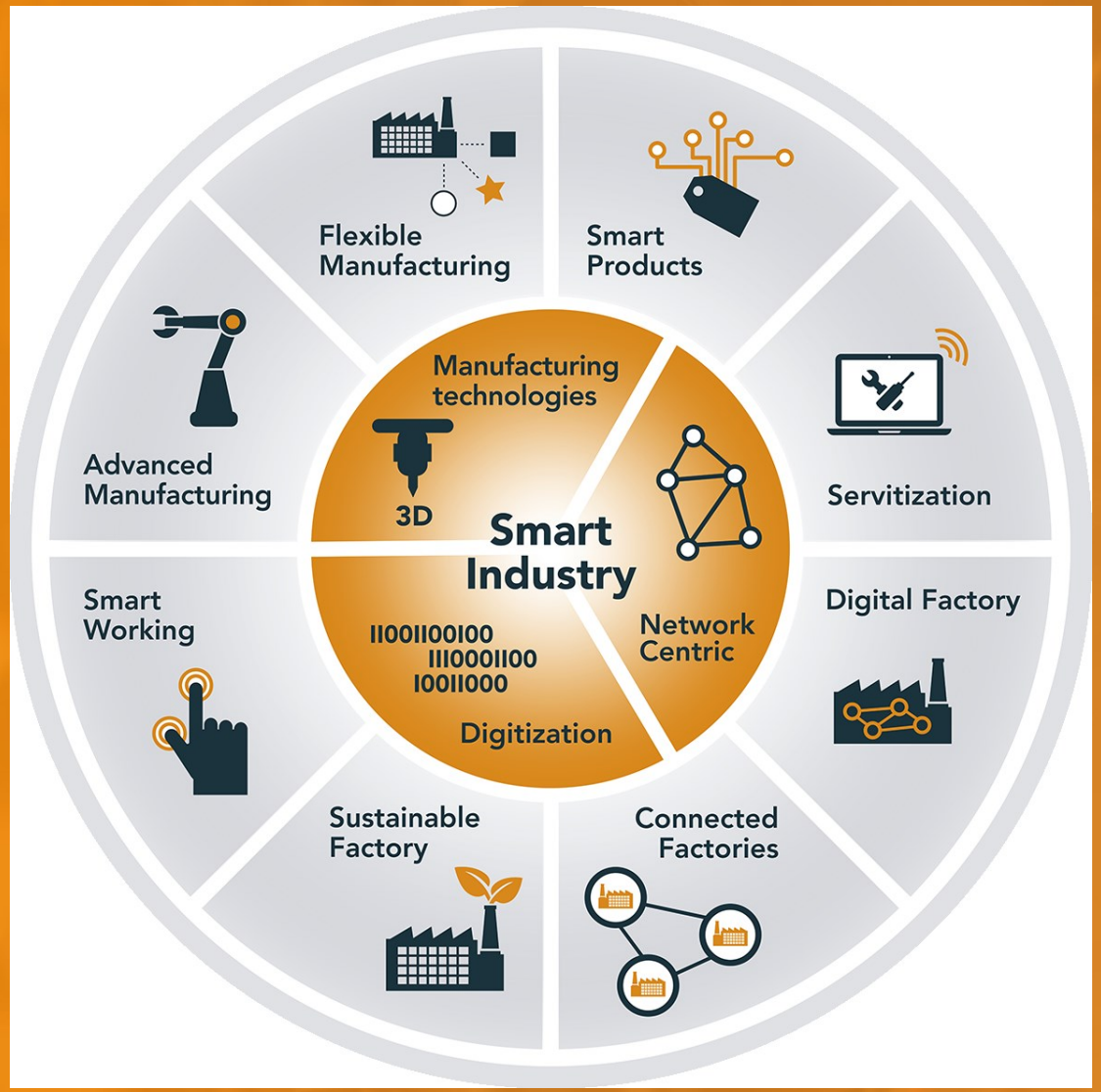
koninklijke metaalunie

VNO NCW

TNO innovation for life

Key Objective 2018-2021:

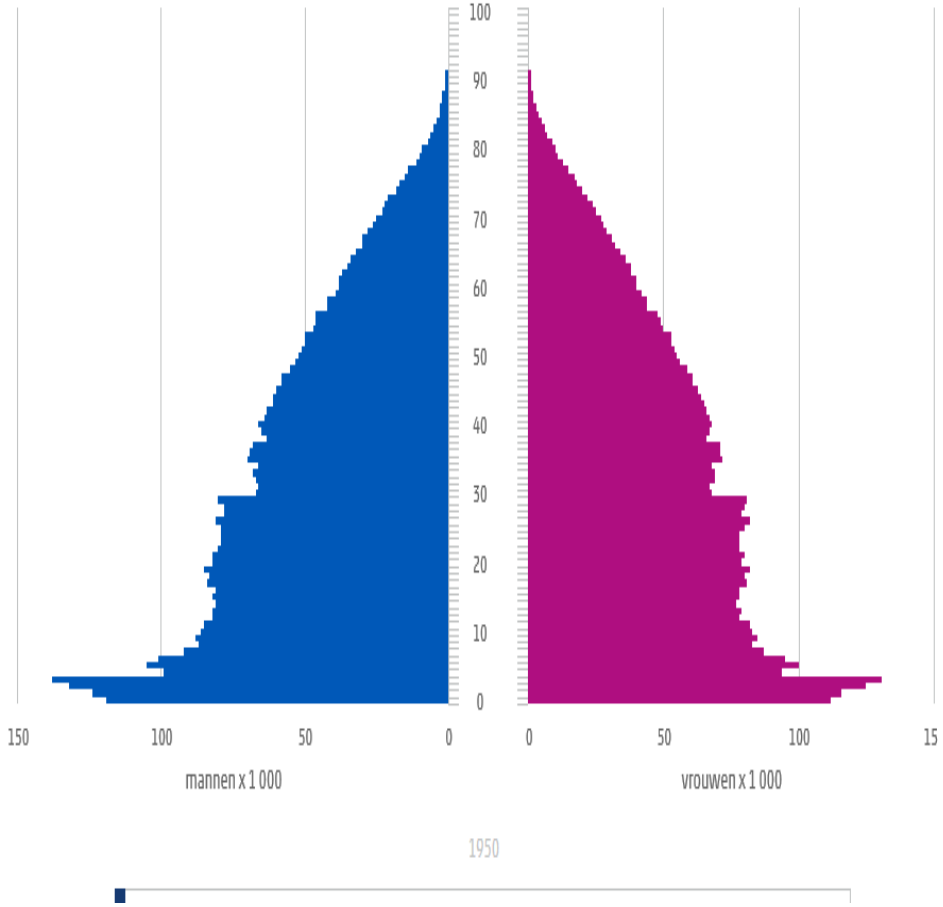
The Netherlands has developed one of the best and most flexible digitally connected production networks in Europe



Why? Because of our demographics

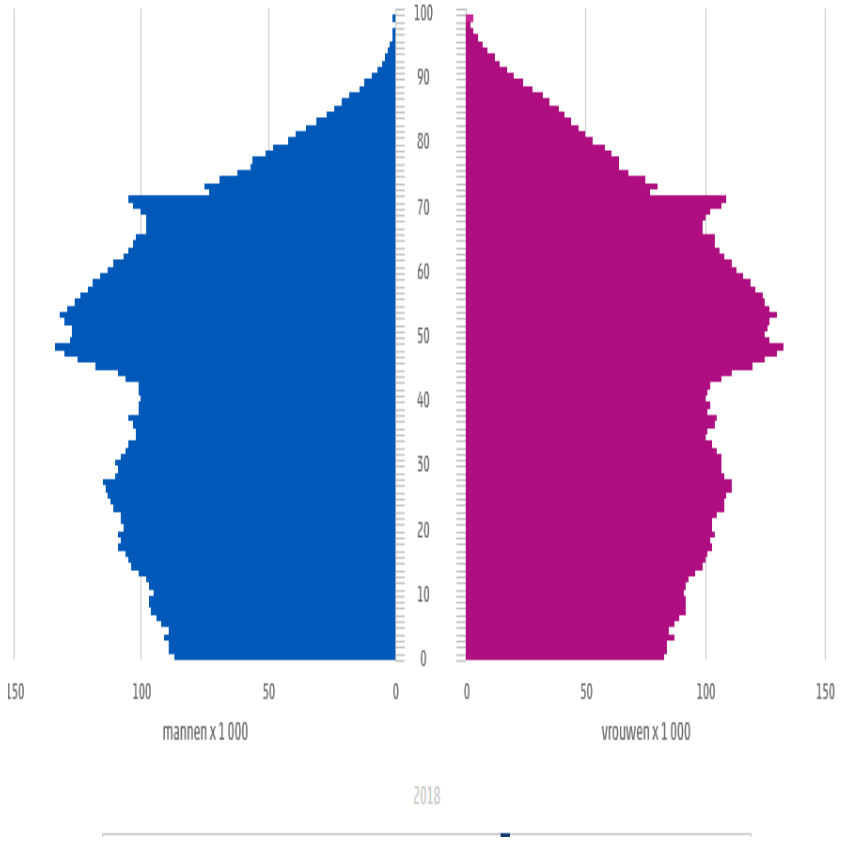
NL: 1950 - 10 M People
2x80T in (20y) and 2x30k out (65y)

Delta: 100T/y



NL: 2018 - 17 M People
2x100T in and 2x100T out

Delta: 0



In 20 Years:

2x125k out

2x100k in

Delta -50k/Year

20j x -50k= -1M

200%

Productivity Increase

2015-2035

Smart Industry = 2021, ultimate ambitions

8 transformations with ultimate ambitions

1 **Zero defects in production/product:**
100% Q-control at each production step

2 **Zero-problems at customer site/usage:**
100% monitoring of usage of product/service

3 **Zero tooling:**
3D printing/additive manufacturing

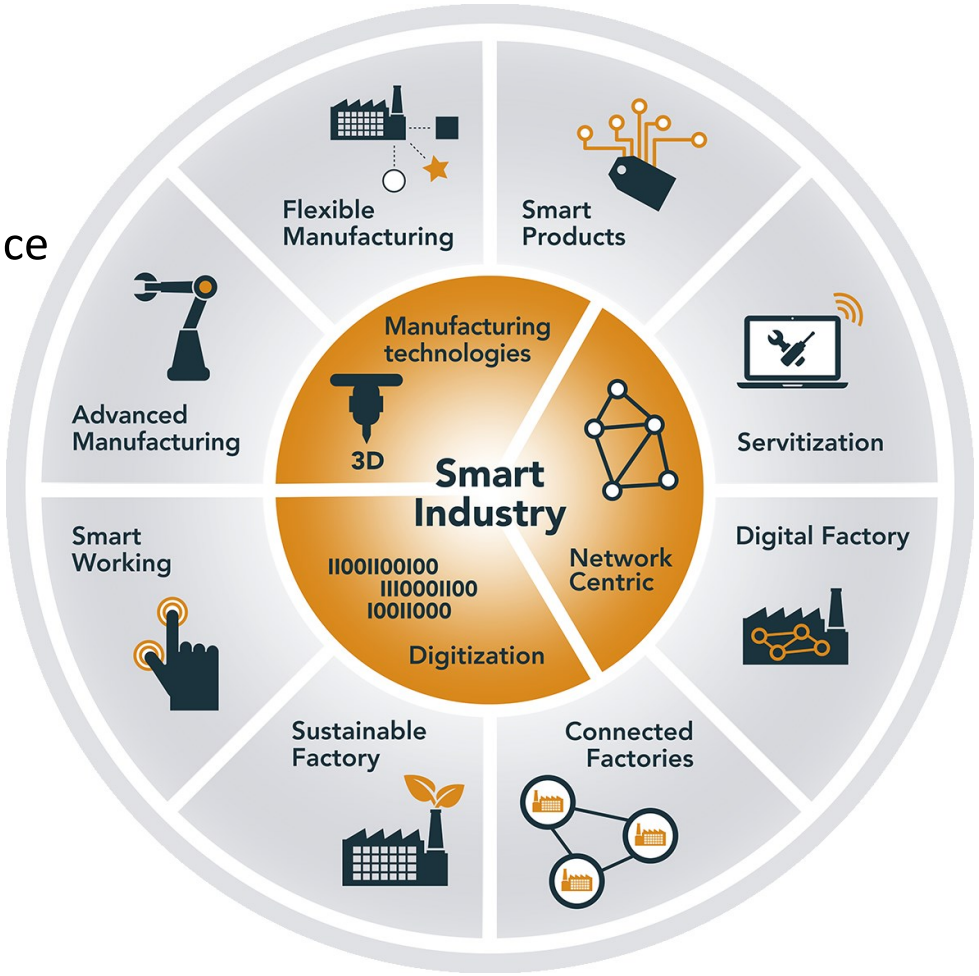
4 **Zero delay:**
lean manuf, just-in-time, lot size n=1

5 **Zero waste**
recycling and sustainable energy

6 **Zero programming:**
2G/3G robots with sensing

7 **Zero surprise:**
predictive maintenance

8 **and Zero drop-out**
life long learning for everyone



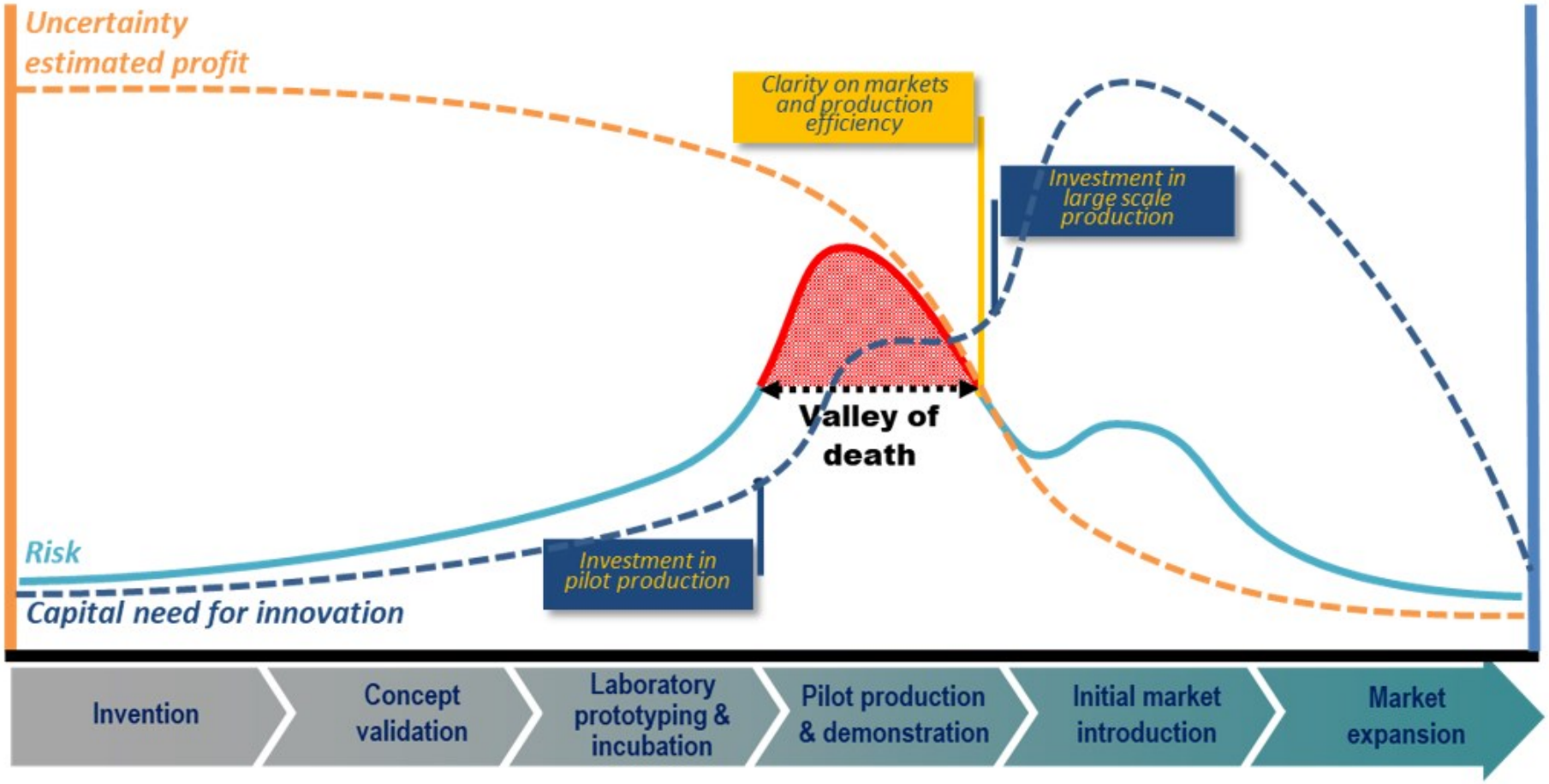
Smart Industry Fieldlabs

Fieldlab: *An industrial environment where Smart Industry solutions are developed, tested, implemented as well as where people can learn to apply them.*

Criteria for a Smart Industry Fieldlab:

- Innovation eco-system
- Regional focus
- Radical innovations
- Interconnect higher & vocational education
- Training Human Capital
- Identification and application of new rules & standards
- Location with a program manager
- Program with 3+ year plan and multiple projects on innovation and education

Why is today so important?



Fieldlabs

600 --> 6.000 --> 60.000

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The Fieldlabs in Numbers

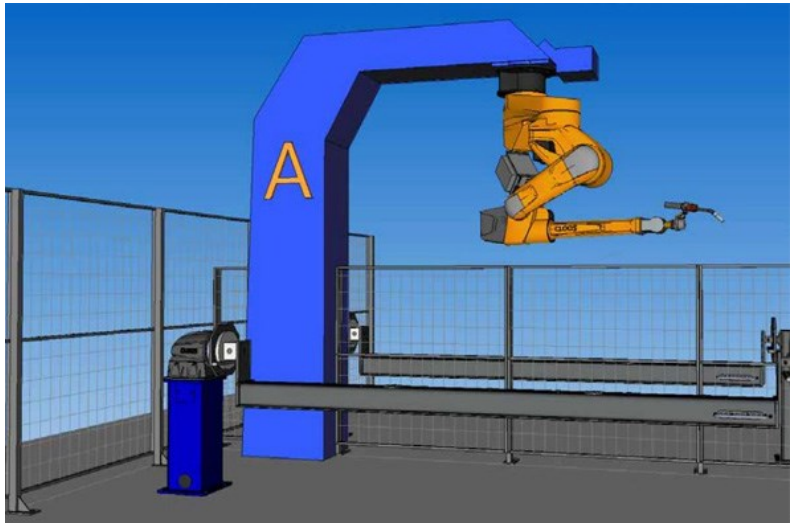
600 Companies	565 Partner Companies	773 Partners
400 Employees	400 New Jobs	275 Projects
11 Spinn-offs	€ 240.000.000 Investments	xx Skills Programs

NORTHERN NETHERLANDS REGION OF SMARTFACTORIES

EU DIGITAL INNOVATION HUB

ROBO
HOUSE
FESTO
SICK
STEMMER

smart
industry
Fieldlab
Smart Welding
Factory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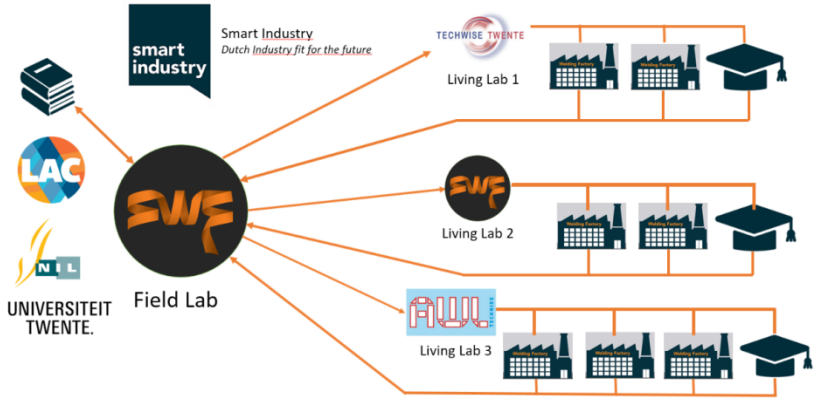
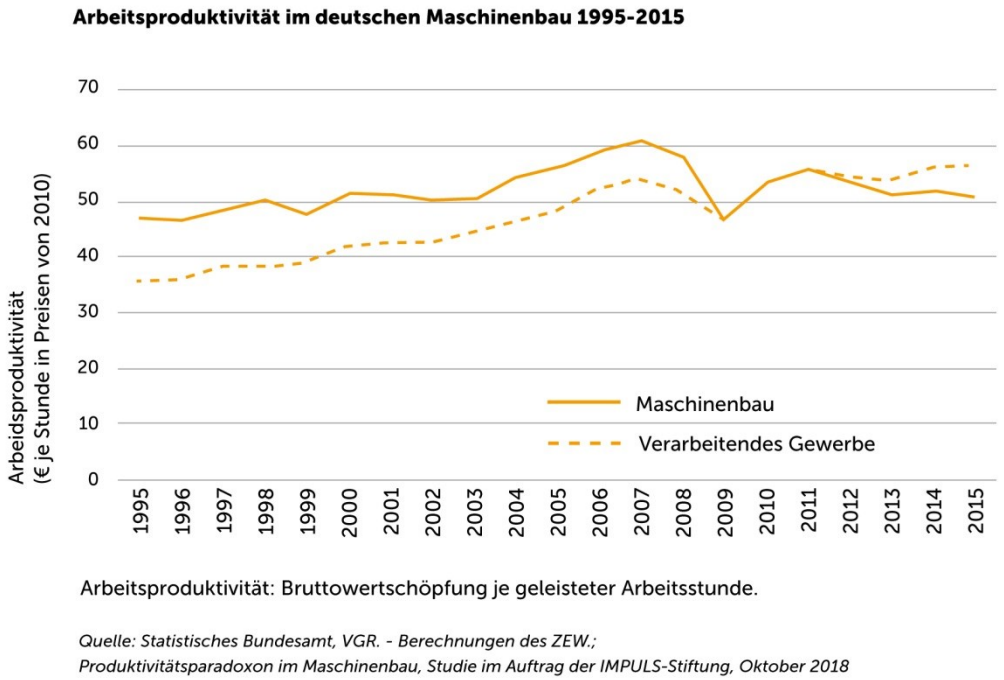

smart
industry
Smart Industry
Dutch Industry fit for the future
TECHWISE TWENTE
Living Lab 1
Living Lab 2
Living Lab 3
Field Lab
UNIVERSITEIT
TWENTE.

AKTIONSPLAN 2019-2021

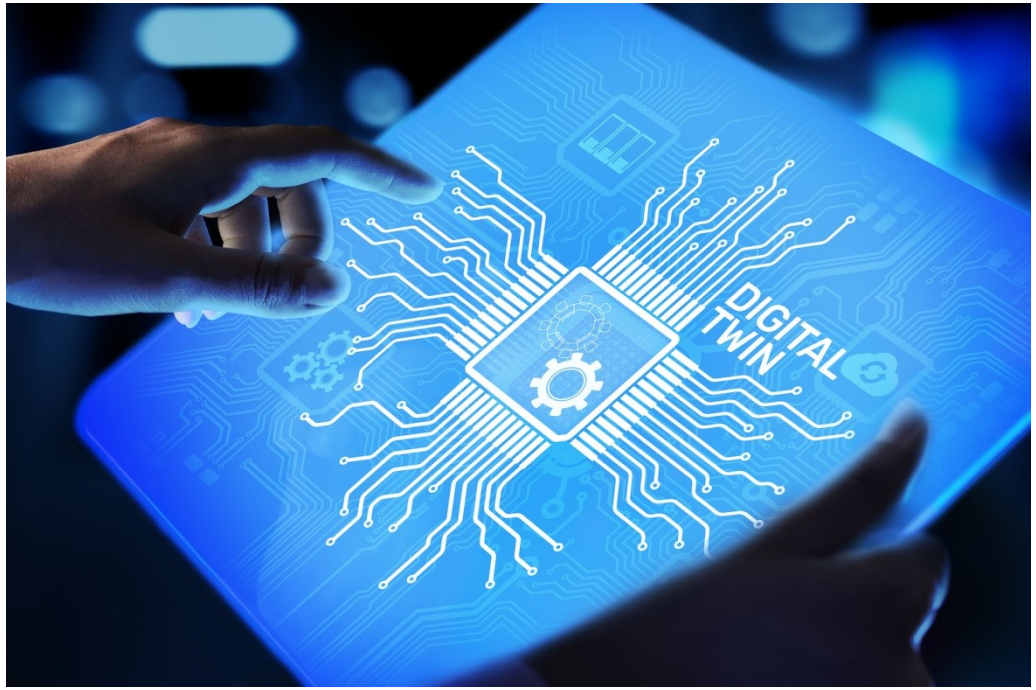
Konturen eines deutsch-niederländischen Aktionsplans für die Industrie

Gemeinsam für eine sichere, nachhaltige und erfolgreiche Industrie in Europa



Arbeitsproduktivität: Bruttowertschöpfung je geleisteter Arbeitsstunde.

Quelle: Statistisches Bundesamt, VGR. - Berechnungen des ZEW.;
Produktivitätsparadoxon im Maschinenbau, Studie im Auftrag der IMPULS-Stiftung, Oktober 2018

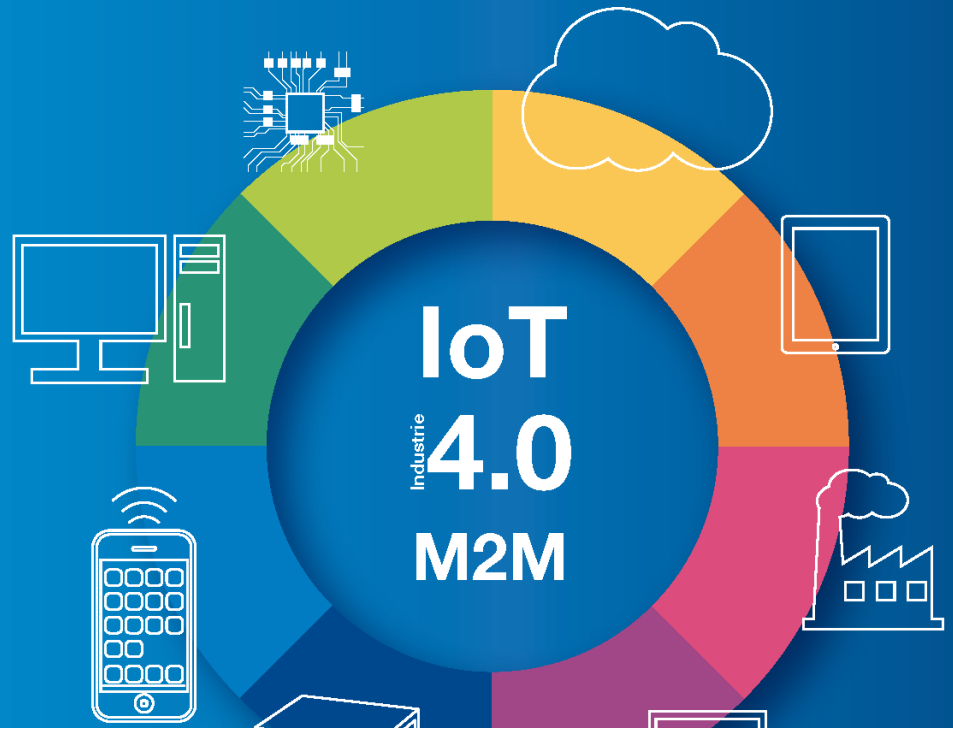


Mastering the productivity paradox

OPC Unified Architecture

Interoperability for Industrie 4.0 and the Internet of Things

OPC UA



"YOUR INDUSTRY NEEDS
YOU"

How you can help!

- Solutions to increase Productivity -> Thinkthank Productivity
- European Projects – incorporate Fieldlabs and companies
- How to bring AI to the Industry

Contact Details

Peter van Harten

Smart Industry Program International

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p.vanharten@isah.com

M: +31 6 29531479

www.smartindustry.nl

www.isah.com

isah BUSINESS SOFTWARE

POWERING smart industry

SUCCESS STORIES

Harold **HASPESLAGH**

Marketing & Innovation Director

EUROSTARS PROJECT E!11323 T-CHAIR

HAROLD HASPESLAGH
NINIX TECHNOLOGIES NV

NiniX Technologies

ISO 13485 SYSTEM CERTIFICATION SGS

NINIX TECHNOLOGIES NV

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SMART INDUSTRY
INDUSTRY 4.0

- Belgian SME, number of employees: 35
- Year of establishment: 2001 (Roots: Philips Components)
- Development & manufacturing of:

  Smart sensors modules for harsh environment

  Medical devices (expertise in trunk stability assessment)

  Automated assembly solutions
- Eurostars T-chair project = FIRST experience in EU-funded projects

T-CHAIR PROJECT

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SMART INDUSTRY
INDUSTRY 4.0

- T-CHAIR: "THERAPY CHAIR"

- A ROBOT-ASSISTED THERAPEUTIC CHAIR DEVELOPED TO IMPROVE TRUNK STABILITY AND CONTROL OF PATIENTS POST STROKE

- Duration: 36 months, start Oct. 2017

- Main project result: " develop a **THERAPY** to help stroke patients "

  NOT: " develop a medical **DEVICE** "

T-CHAIR CONSORTIUM

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SMART INDUSTRY
INDUSTRY 4.0

Country		
Industrial partners	NiniX Technologies	rotavis
Research / Clinical	KU LEUVEN	Zürcher Hochschule für Angewandte Wissenschaften zh aw School of Engineering KLINIKEN VALENS
Funding	AGENTSCHAP INNOVEREN & ONDERNEMEN Vlaanderen is ondernemen	Schweizerische Eidgenossenschaft Confédération suisse Confederazione Svizzera Confederaziun svizra

ABOUT T-CHAIR

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SMART INDUSTRY
INDUSTRY 4.0

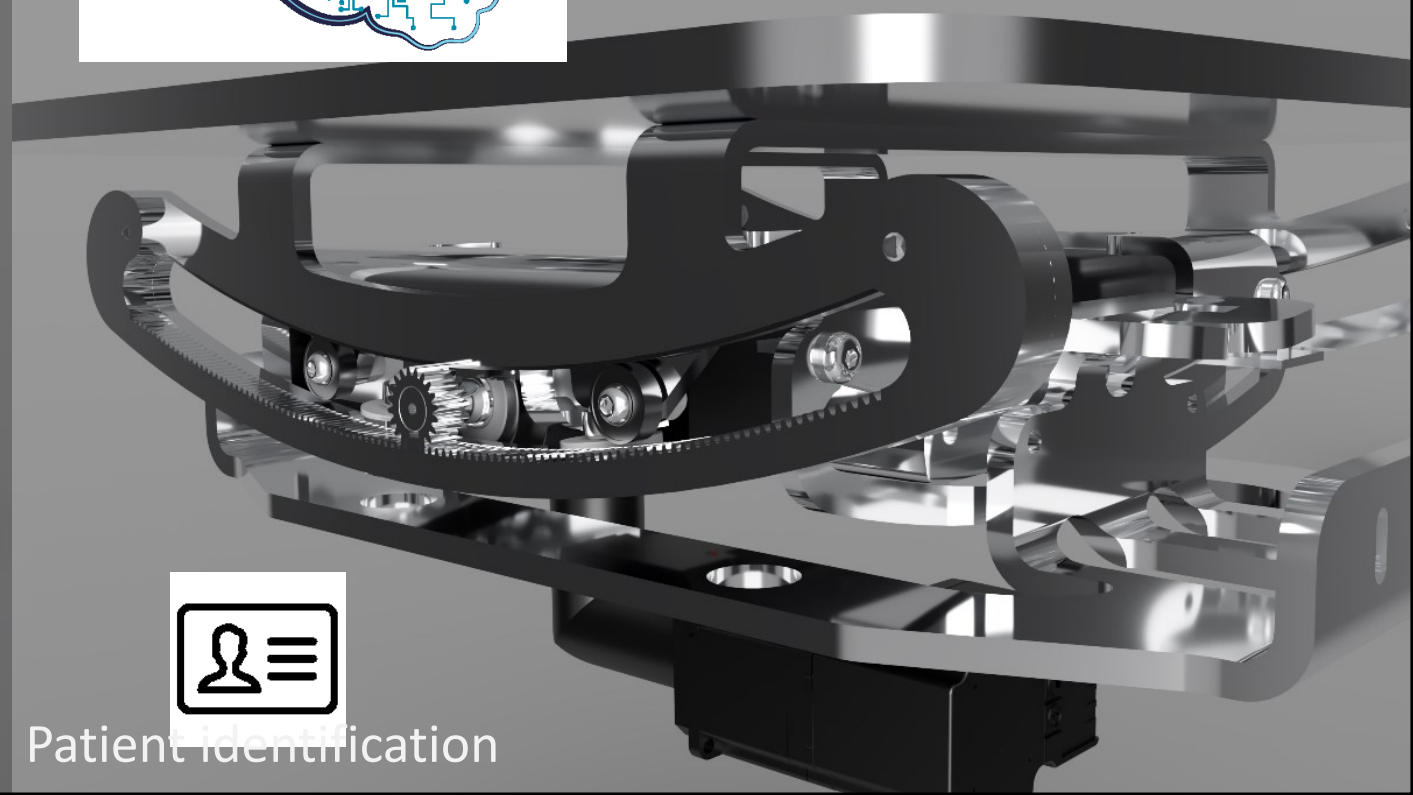
Microsoft Azure

Reporting

Machine Learning

Gamification

Patient identification



OUR EUROSTARS EXPERIENCE

eurostars™
SMART INDUSTRY
INDUSTRY 4.0

- Our advice/experience "How you submit an E* project":
  - Reference = businessplan (max. effort by industrial partners)
  - Then derive from there:

    Requirement specs ⇨ Milestones / timeplan ⇨ Work packages

- Our advice/experience "How you run the project":
  - Work with a "USER group" :
    - iterative process during development: needs versus possible solutions
    - to optimize the THERAPY, design of the DEVICE + design of clinical studies

OUR EUROSTARS EXPERIENCE

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SMART INDUSTRY
INDUSTRY 4.0

- How have we found partners:
  - Trade Fair Medica - Düsseldorf 2016:
    - NiniX Technologies “exhibitor” @ Group booth of Flanders Investment & Trade
    - Rotavis “visitor” looking for partner with expertise in trunk stability assessment
- PROs of E* programme:
  - @European level: excellent quality check for the project, does the project pass the demanding criteria of Eurostars?
  - @Local level: support by VLAIO creates opportunity for a SME to cooperate with international partners (industrial + research) in challenging projects.

CONTACT DETAILS

eurostars™
SMART INDUSTRY
INDUSTRY 4.0

- Contact person: Harold Haspeslagh
- Organization: NiniX Technologies NV
- Address: Kleine Monnikenwerve 9, Bruges, Belgium
- Phone: +32 50 32 89 60
- E-mail: harold.haspeslagh@ninix-tech.com
- Website: www.ninix-tech.com

NiniX Technologies

SYSTEM CERTIFICATION ISO 13485 SGS

SUCCESS STORIES

Nicolas **LOIX**

General Manager

MICROMEGA DYNAMICS

EUROSTARS – GRINDING 4.0

NICOLAS LOIX
MICROMEGA DYNAMICS

YOUR ORGANIZATION

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SMART INDUSTRY
INDUSTRY 4.0

- Micromega Dynamics sa (SME) – 15 employees – 2M€
- Operation from Belgium but mainly export (>90%)
- Activities : design & production of mechatronic devices for:
  - Structural vibration damping
  - High-precision mechanisms (Astronomical telescopes)
  - Smart sensors for structure monitoring (including Iiot)
- Involved in FP5, FP7-Growth, Integrated projects, CleanSky, H2020, Eurostars

YOUR PROJECT

eurostars™

SMART INDUSTRY
INDUSTRY 4.0

- Project information:
  - Grinding 4.0 (intelligent machine cell model for automotive cutting tool grinding services)
  - Partners from Belgium (1 SME iiot device manufacturer + R&D center), France (SME – end user), Spain (SME – machine manufacturer)
  - Start (November 2017) : 36 months
- Main project results (for Micromega)
  - New 8 channel data acquisition unit + communication (LAN, Wifi, 4G,…) + Profinet Interface (communication with machine controller)
  - Cloud platform (based on Azure): including statistics, event report, device management

GRINDING 4,0

eurostars™
SMART INDUSTRY
INDUSTRY 4.0

- Objective: create a smart grinding operation cell for the tooling industry, fully connected to the automotive industry end users, including:
  - Grinding Machine – equipped with sensors for predictive maintenance
  - Tool inspection device
  - Product inspection device
  - Handling Robot
  - Data acquisition & communication device
  - Cloud Supervision Platform
    - Production supervision
    - Machine supervision

GRINDING 4,0

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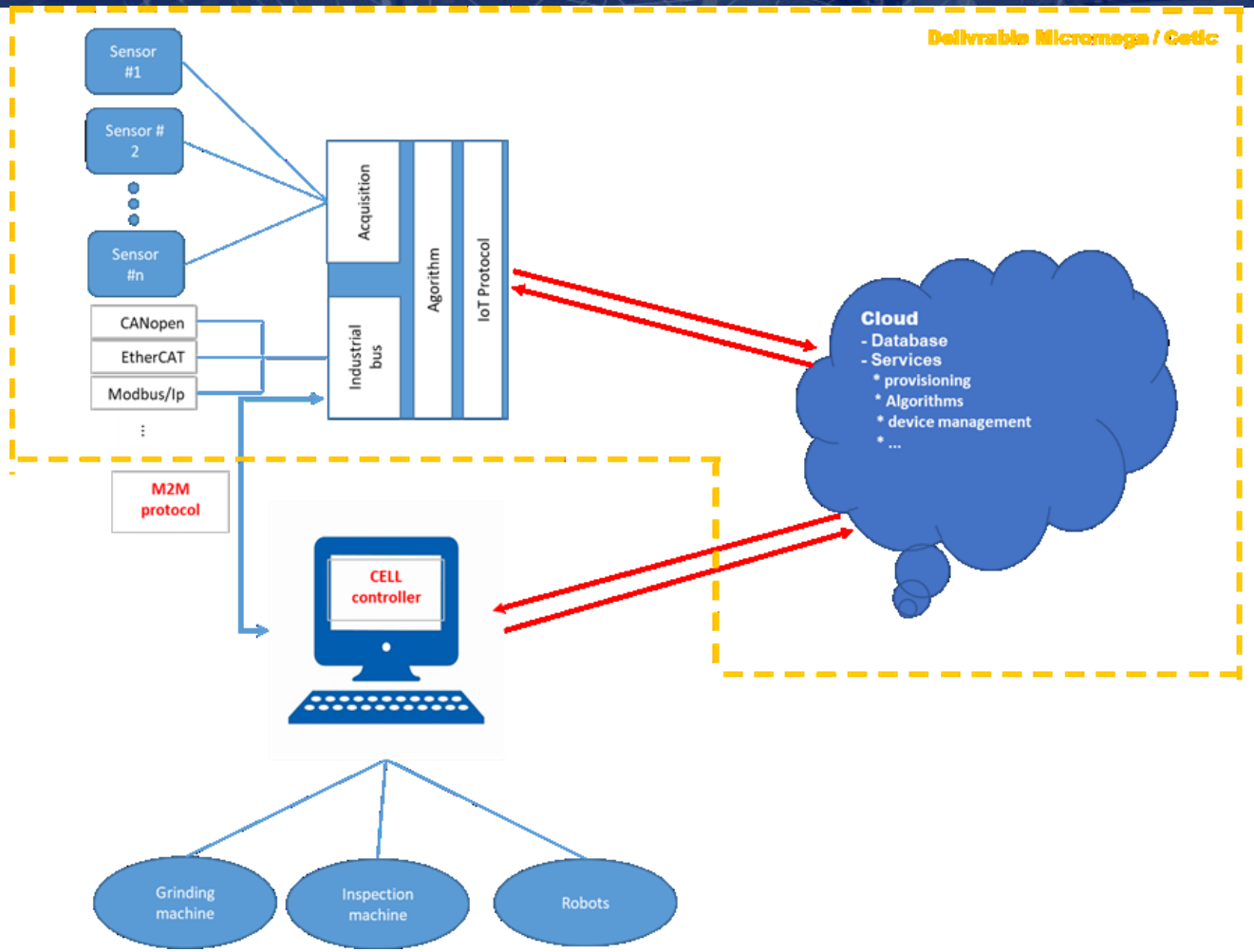
SMART INDUSTRY
INDUSTRY 4.0



YOUR EUROSTARS EXPERIENCE

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INDUSTRY 4.0

- Submit a E* project :
  - Easy: submission platform (except for platform sharing)
  - Not easy: Find a balanced consortium, define common objectives in lines with your institution R&D strategy, identify market, consortium agreement…
- Possible conflicting objective – the role of the project manager is essential
- Preliminary contacts: Micromega is a small company, we are then generally called : importance of a good network (past projects)
- PROs : Easy submission, fast feedback, small consortium, little administration
- CONs: 2 proposals, 2 reporting, financing must be granted for every partners

YOUR CONTACT DETAILS

eurostars™
SMART INDUSTRY
INDUSTRY 4.0

- **CONTACT PERSON: NICOLAS LOIX**
- Organization: Micromega Dynamics sa
- Address: Rue du Trou du Sart 10, 5380 Fernelmont, Belgium
- Phone: +32 81 24 81 00
- E-mail: nloix@micromega-dynamics.com
- Website: https://www.micromega-dynamics.com

EUROSTARS PRESENTATION

Marcela **PALACKA**

Eurostars Programme Management Officer

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EUREKA

EUROSTARS

Smart Industry and Industry 4.0
28 May 2019

Marcela Palacka
Eurostars Programme Management Officer

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Co-funded by EUREKA member countries and the European Union Horizon 2020 Framework Programme

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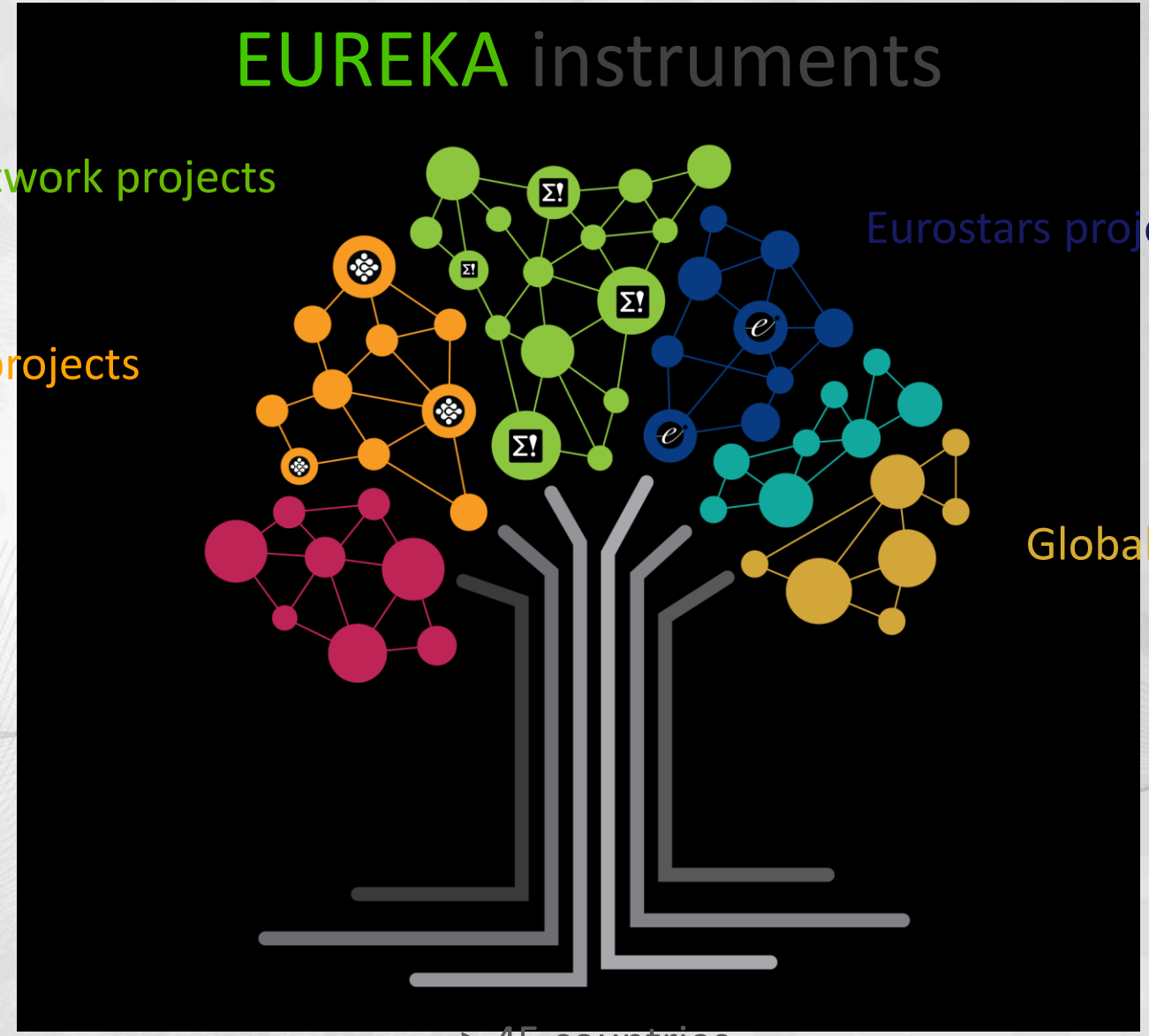
EUREKA instruments

Network projects

Eurostars projects

Cluster projects

Globalstars projects



> 45 countries

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EUROSTARS is…

01 Joint programme between EUREKA and EU

02 Dedicated to R&D-performing SMEs

03 Market-oriented

04 Bottom-up

05 International cooperation

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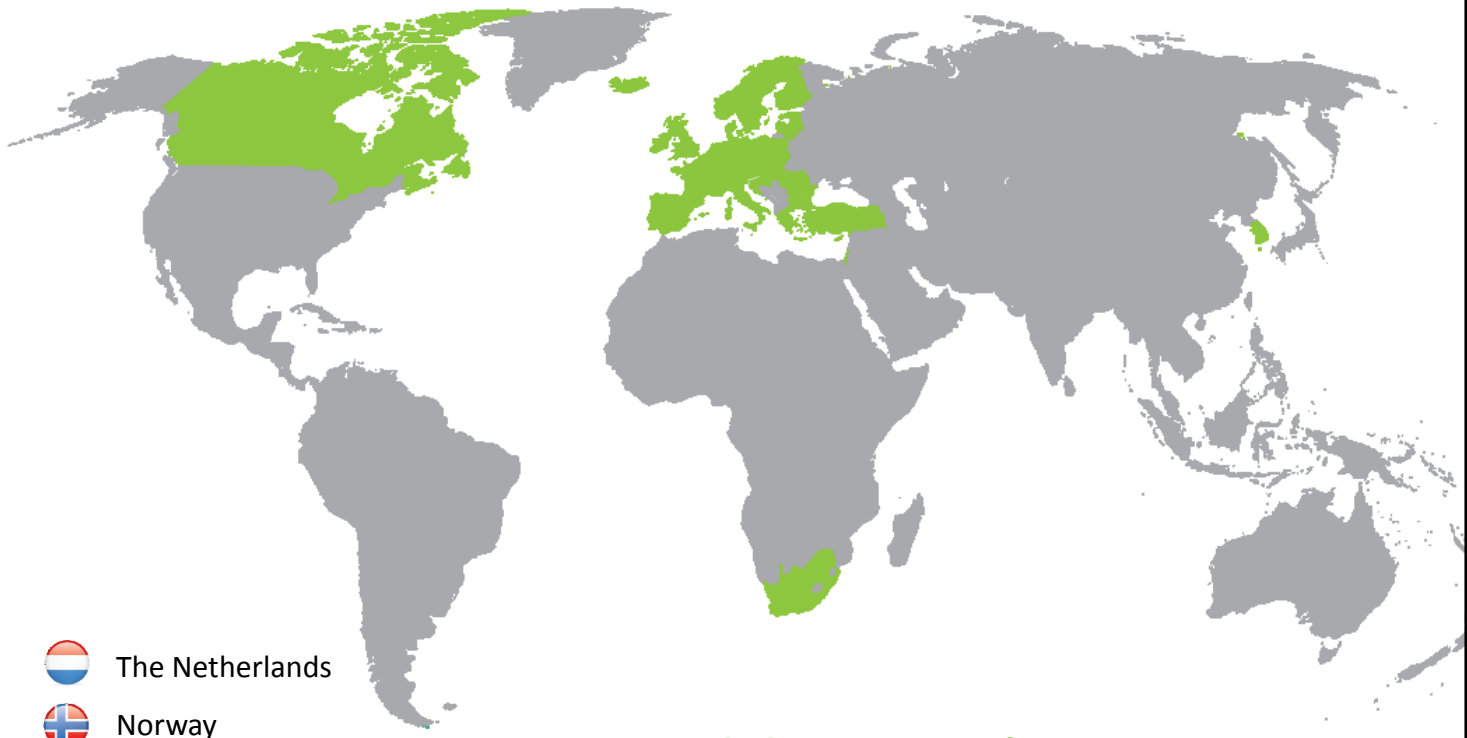
Eurostars Countries



36 countries

- Austria
- Bulgaria
- Belgium
- Canada
- Croatia
- Cyprus
- Czech Republic
- Denmark
- Estonia
- Finland
- France
- Germany
- Greece
- Hungary
- Iceland
- Ireland
- Israel
- Italy
- Latvia
- Lithuania
- Luxembourg
- Malta
- The Netherlands
- Norway
- Poland
- Portugal
- Romania
- Slovak Republic
- Slovenia
- South Africa
- South Korea
- Spain
- Sweden
- Switzerland
- Turkey
- United Kingdom

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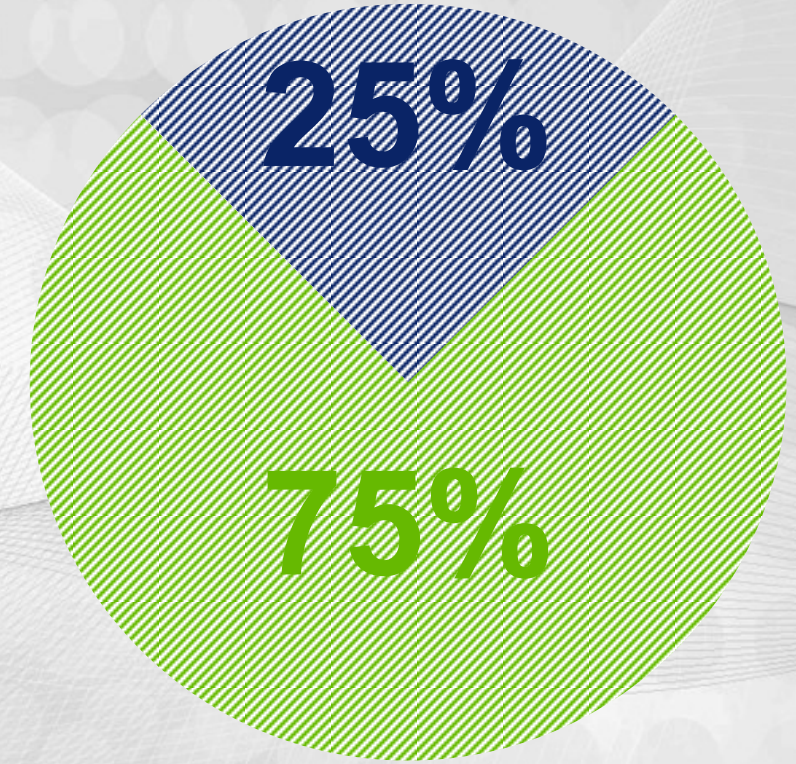
Eurostars under Horizon 2020

EU contribution

+

Eurostars countries contribution



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€1.15 billion

Eurostars total public budget 2014–2020

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Eurostars in numbers

Projects submitted		Projects funded
number of applications 3,422	→	number of approved projects 991
number of applicants 10,801	→	number of participants 3,112
total costs of applications €4,6 billion	→	total costs of applications funded €1,45 billion

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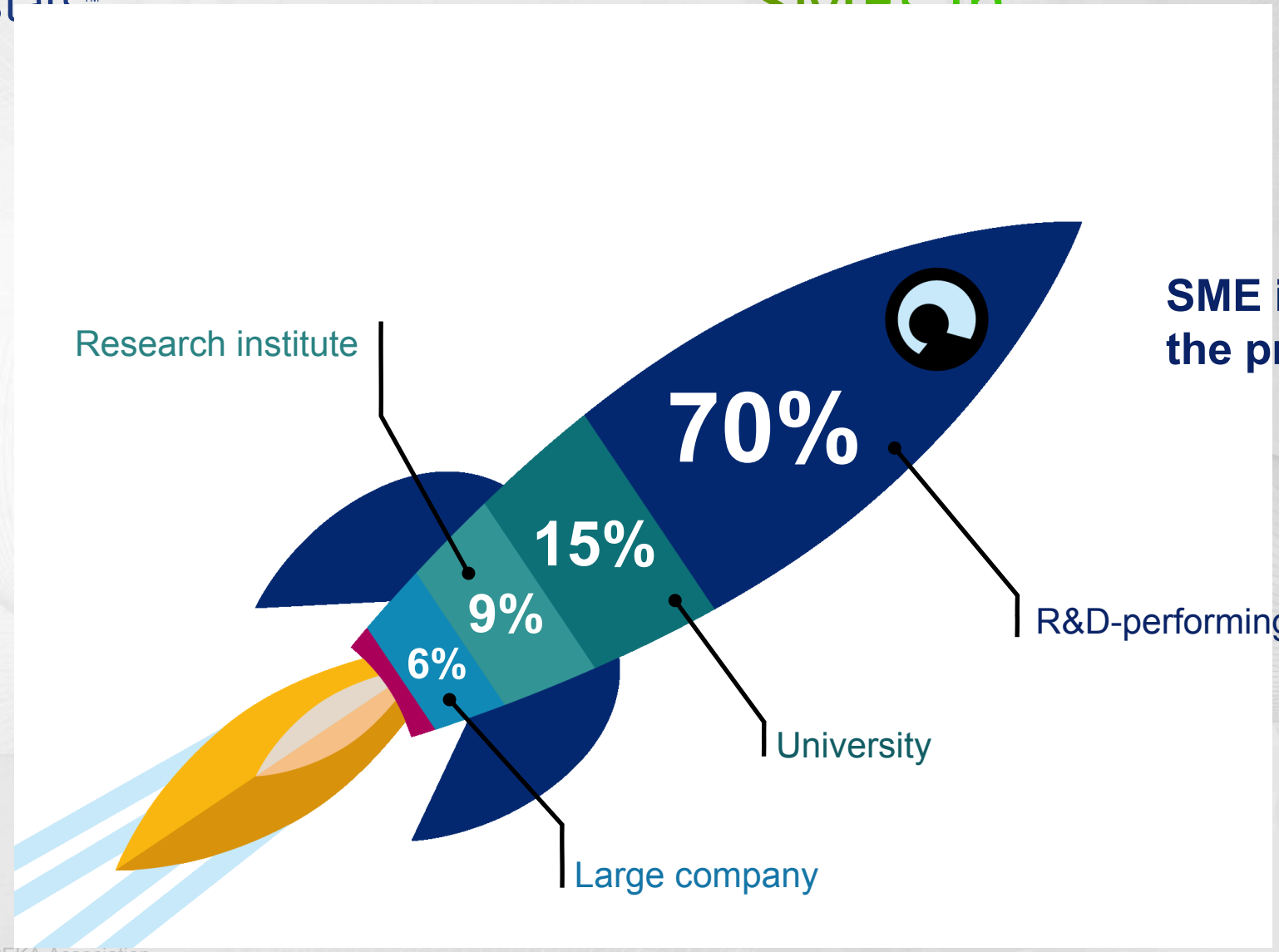
SMEs in



SME is always the project leader

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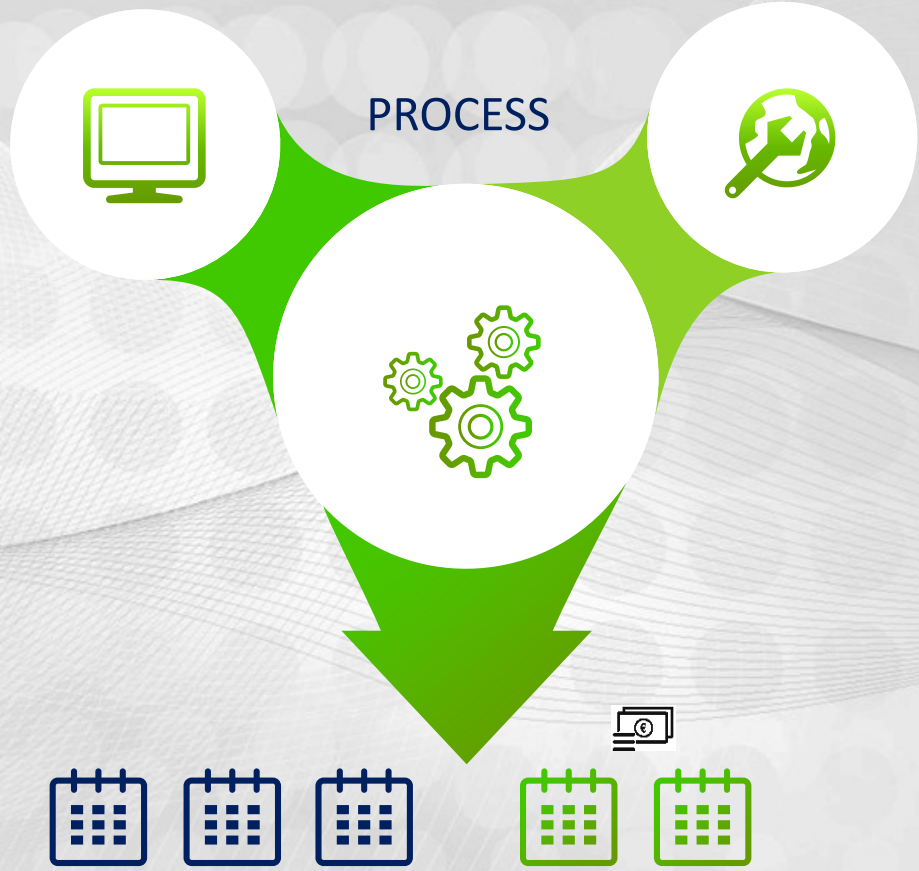
Market-oriented

INNOVATIVE

PRODUCT

PROCESS

SERVICE



Market introduction is foreseen within 2 years after project completion

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A typical Eurostars project is…

3-4
participants

2-3
countries

average duration
30 months

average project cost
€1.4 million

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Top 5
Technological Areas

Projects submitted

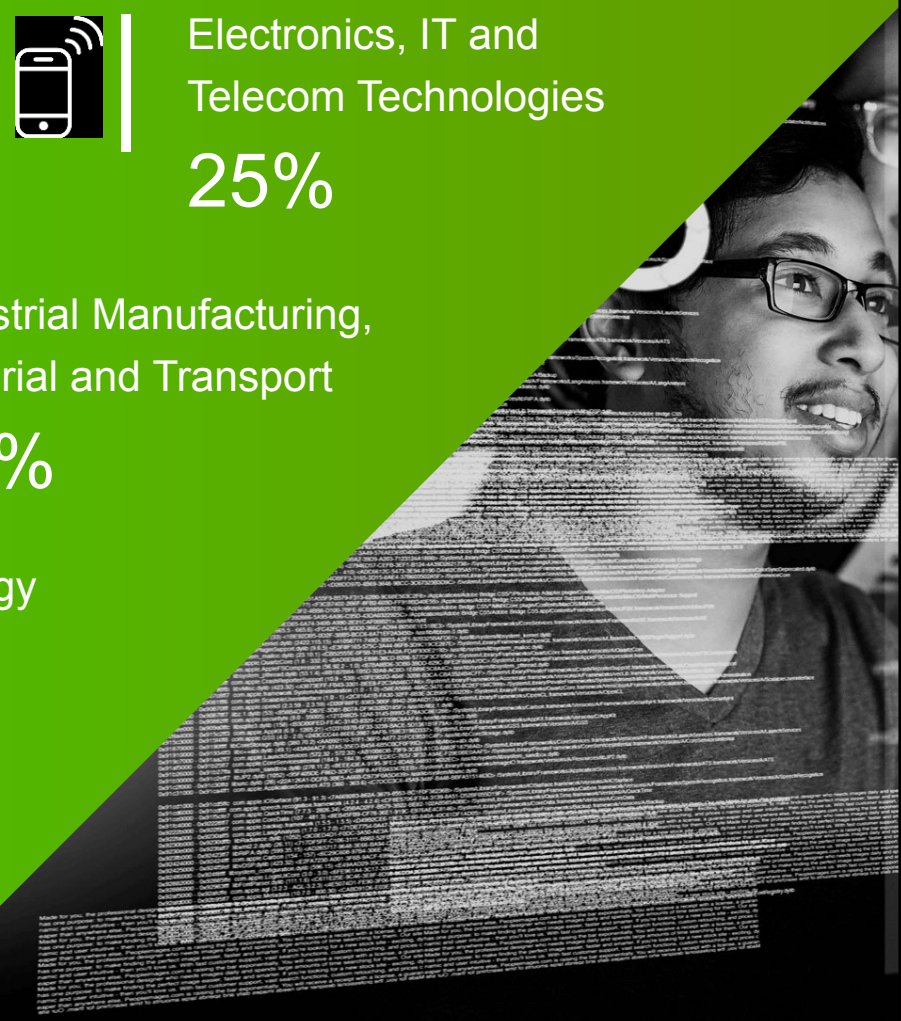
Biological Sciences / Technologies
34%

Electronics, IT and Telecom Technologies
25%

Industrial Manufacturing, Material and Transport
14%

Energy Technology
7%

Measurements and Standards
6%



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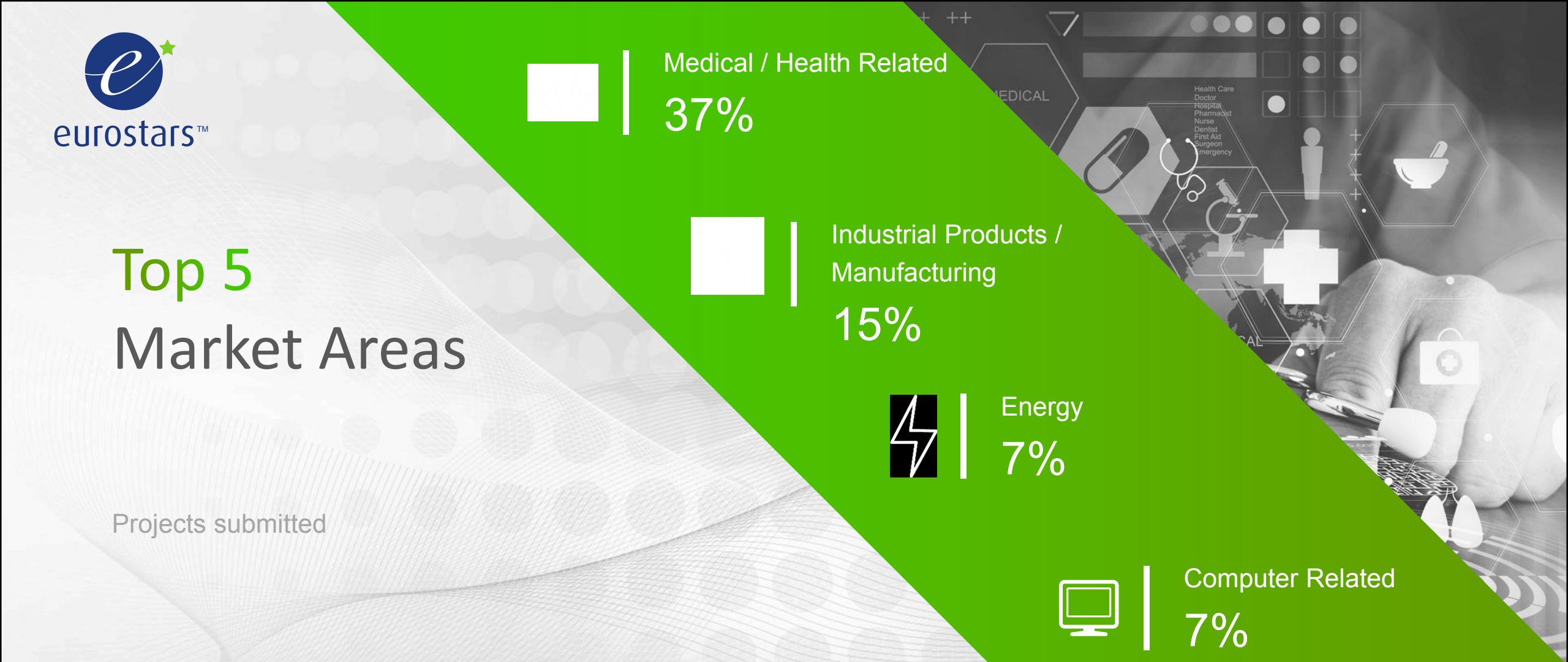
Top 5 Market Areas

Projects submitted



- Medical / Health Related **37%**
- Industrial Products / Manufacturing **15%**
- Energy **7%**
- Computer Related **7%**
- Biotechnology, Molecular Biology **8%**

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Motives for participation

You need access to someone else's science/technology

You have a solution for someone else

Access skills you don't have

Requires collaboration across the value chain

Share risks

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Eurostars process

- Application
- Evaluation
- Monitoring

Eurostars easy application

EVALUATION

5 SUBMIT

4 Upload ANNEXES

3 Complete the APPLICATION FORM

2 REGISTRATION My Eurostars

1 CONTACT your NPC

PROJECT IDEA

Check your eligibility!

Read relevant guidelines!

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Eurostars eligibility

Project leader is an R&D-performing SME from a Eurostars country

At least 2 participants
- Autonomous entities
- Legal entities

from at least 2 Eurostars countries

SMEs are in the driving seat
International balance

Project duration is max. 3 years
Market introduction within 2 years

Eurostars evaluation criteria

Quality and efficiency of the implementation: basic assessment

- Quality of the consortium
- Added value through co-operation
- Realistic and clearly defined project management & planning
- Reasonable cost structure

Excellence: innovation and R&D

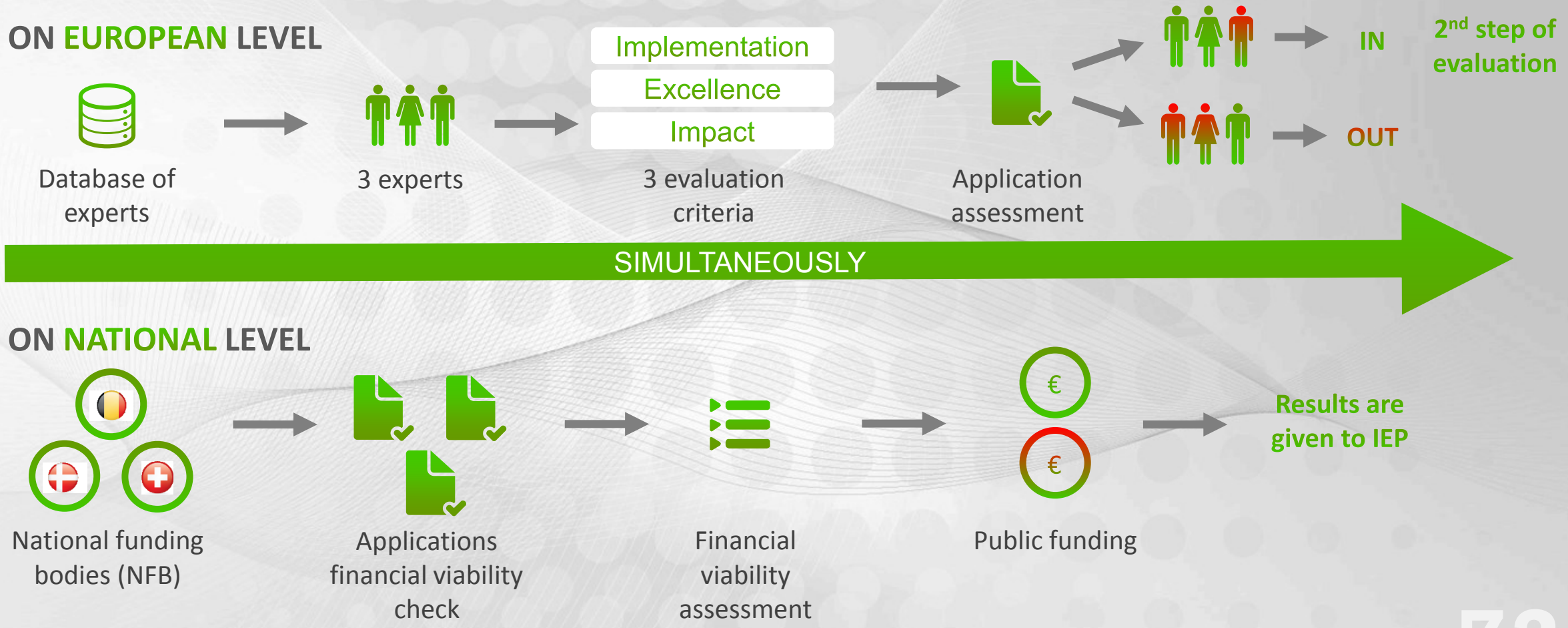
- Degree of innovation
- New applied knowledge
- Level of technical challenge
- Technological achievability & risk

Impact: market & commercialisation

- Market size
- Market access and risk
- Competitive advantage
- Clear and realistic commercialisation plans
- Time to market

STEP 1

Assessment by independent experts



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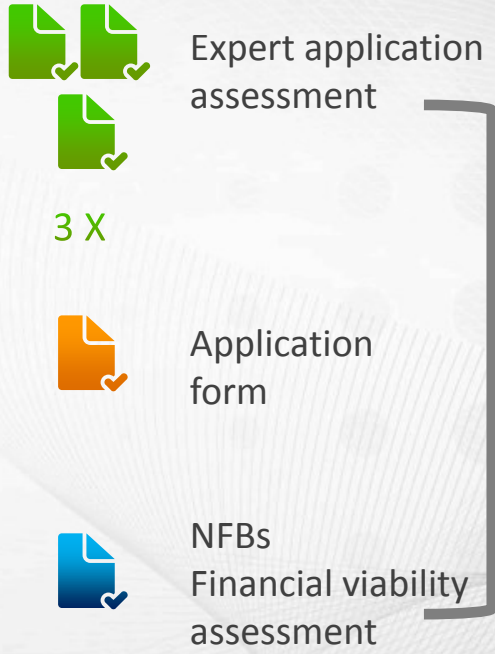
STEP 2

Scoring and ranking by independent panel



Independent expert panel

Criteria		Treshold
1	MAX 200	≥ 120
2	MAX 200	≥ 120
3	MAX 200	≥ 120
MAX	600	**≥ 402**

Ranking list

Rank	Project	Criteria 1	Criteria 2	Criteria 3	Total
1	9252	**183**	**179**	**185**	**547**
2	9856	**177**	**176**	**178**	**531**
…	…				
185	8954	178	90	135	403
186	9899	120	122	121	363
187	9134	121	95	127	343
…	…				

- Only projects rated above the quality thresholds are recommended for funding
- The funding of projects is following the ranking list until national budget exhaustion
- The funding of partners is based on the national funding rules

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Decentralized funding

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Ethics review

Consideration for all Eurostars projects on the ranking list

Verifies the respect of ethical principles and legislation

Each project application must:

- Identify and describe any potential ethical issues
- Detail how they plan to address them

Human embryos & foetuses
Human beings
Human cells or tissues
Personal data
Animals
Non-EU countries
Environment, health & safety
Dual use
Misuse and security

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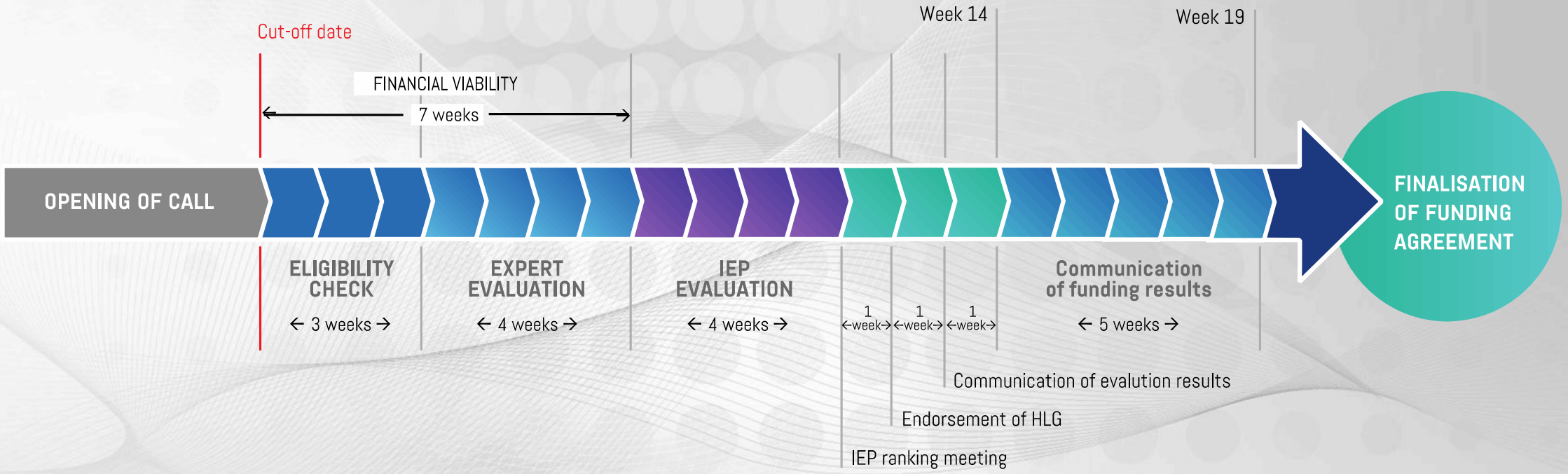
Timing



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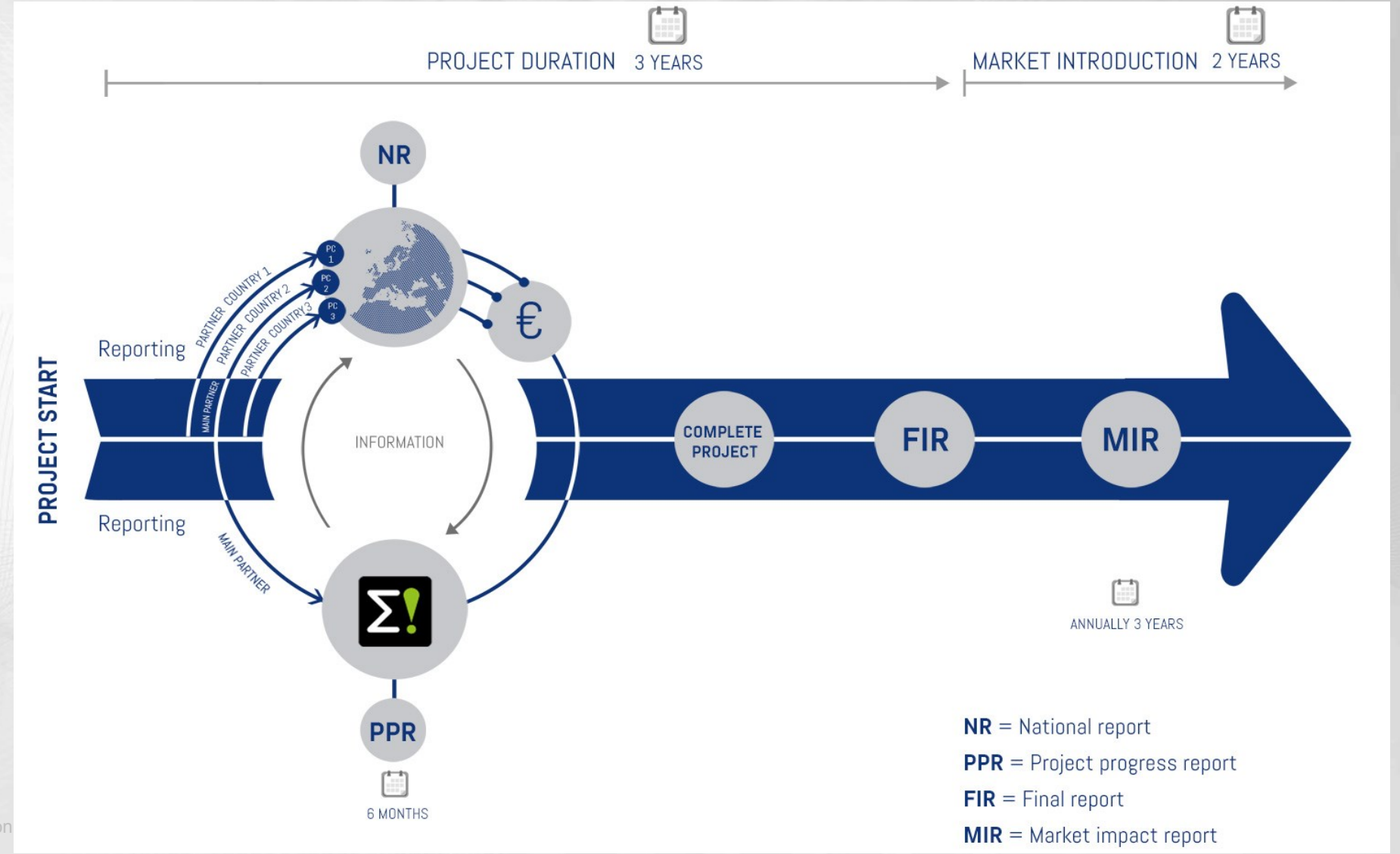
Monitoring process



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Factors for success

Be available

Allow time for necessary preparation (partner search, project proposal, consortium agreement…)

Build up a « win-win » cooperation

Show complementarities and added value of trans-national partnership during and after the project

Show partnership's ability to meet its commitments

Demonstrate each party's management, scientific and technical skills as well as its available financial resources for the project

In austerity, tax payers money is a scarce resource

Demonstrate the fact that you have good financial health and have considered all of your options.

If you are too risky, you might not be able to access support.

Set clear, measurable and verifiable objectives

Define success indicators for technological performance as well as the commercial and financial targets to achieve

Demonstrate clearly why the projects should be financed

Highlight the risks and the strategic character of the project in terms of expected commercial and financial impact

Is it value for money?

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Factors for success

Be technologically ambitious while remaining realistic

Define a methodical approach in line with partnership, budget and time limit set for the completion of the project and the marketing of its results

Point out the innovative nature of the proposal submitted

Present new industrial applications and their impact on the industry sector and relevant markets

Describing the technology is the easy bit there is more…

Who are you? Describe the benefits of this partnership, the added value that each organisation brings?

Focus on the project methodology (objectives, means, results)

Appropriate and realistic cost breakdown

Analyse the risks. How will you mitigate against them?

Don't forget your market (it sounds strange, but people do)

Product plans, exploitation plans, commercialisation strategy.

Analysis and comparison with state of the art.

Barriers to market entry? Competitive advantages?

Realistic market share? Will you actually make ROI?

Or how to protect it – Good IPR analysis/strategies are rare

Fill in the project application carefully and ensure it is clear

Promote the key elements the evaluators are looking for and ask an objective party to read it

Proof read it – this is the cheapest way of making it better.

Don't allow yourself to be surprised by anything

Do your homework

Speak to your National Project Coordinator (NPC)

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Call planning

Cut-off 12

12/09/2019

20:00

2 more calls in 2020 (February & September) - TBC

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Thank you
for your attention

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SMES PITCHES

1. Brain Creators
2. Condugo
3. Cooperlink
4. Crodeon
5. CSL
6. DiCeCo
7. EneRa
8. GDTech
9. Ingestic
10. Pepite
11. QuantBase
12. RealitySys
13. SAM
14. VocSens
15. Yazzoom

Pitches presentations are available here !

LUNCH

MATCHMAKING

“ Industry 4.0 is more than just a flashy catchphrase. A confluence of trends and technologies promises to reshape the way things are made. ”

Cornelius Baur and Dominik Wee, McKinsey & Company