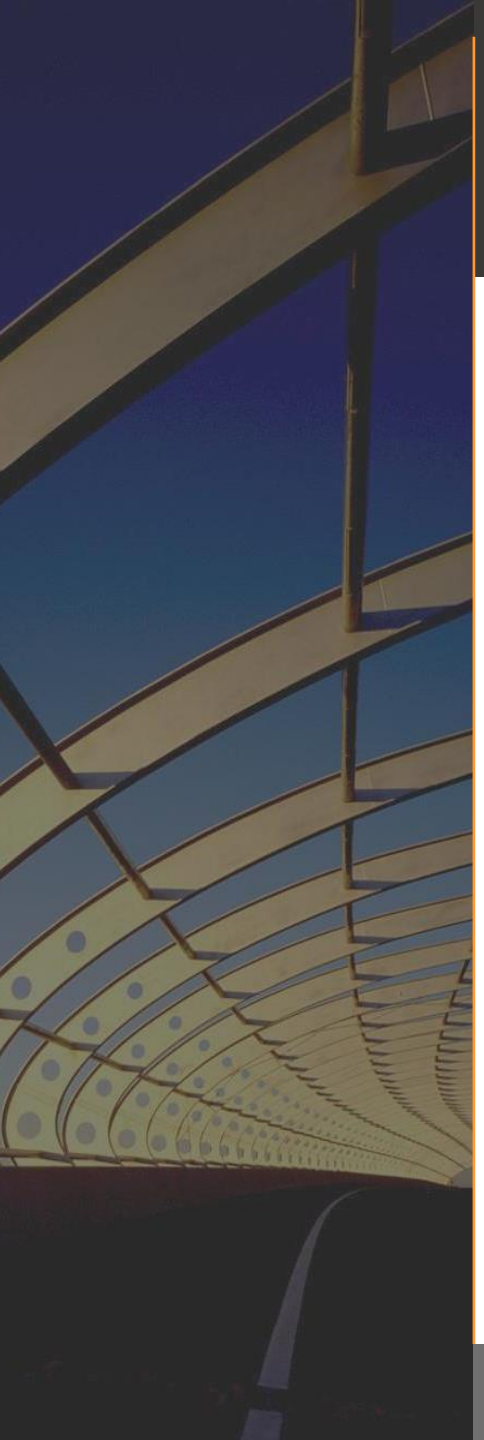
HOW TO PREPARE AN INNOVATION PROCUREMENT:
Best Practices & Lessons Learned

WEBINAR - 30 May 2024

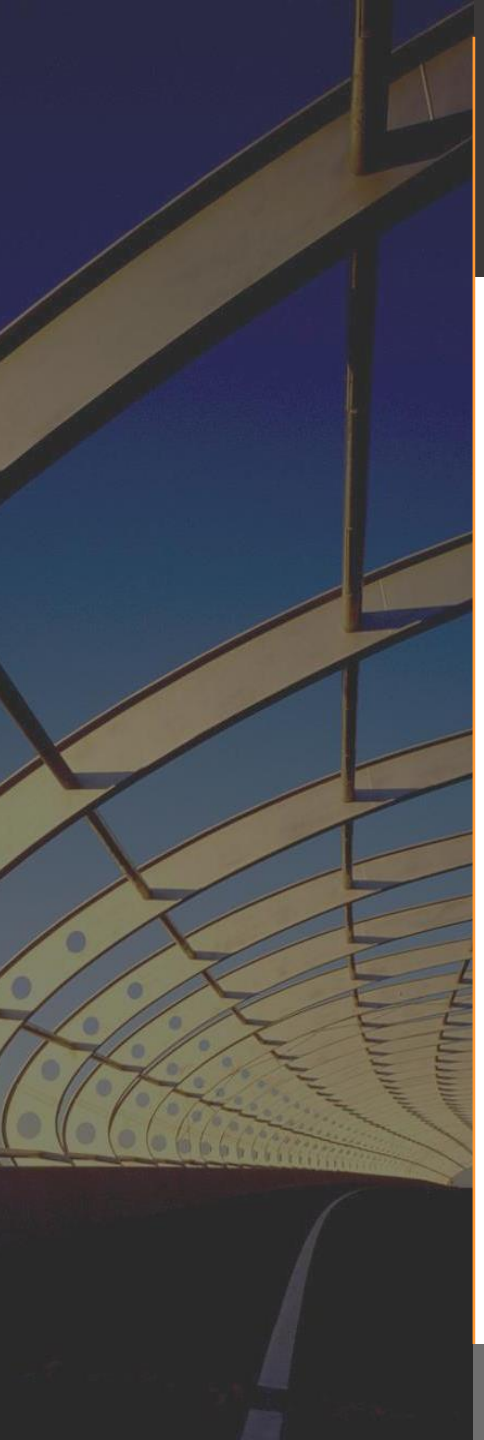
Watch the replay video of the webinar via:

https://www.youtube.com/watch?v=TtevL8cf9Qk



Welcome

Stephan Corvers
CEO & Founder
Corvers Procurement Services BV



Welcome

Ana Lucia Jaramillo
Senior Legal Procurement Researcher
Corvers Procurement Services BV

Introduction & Agenda

House rules

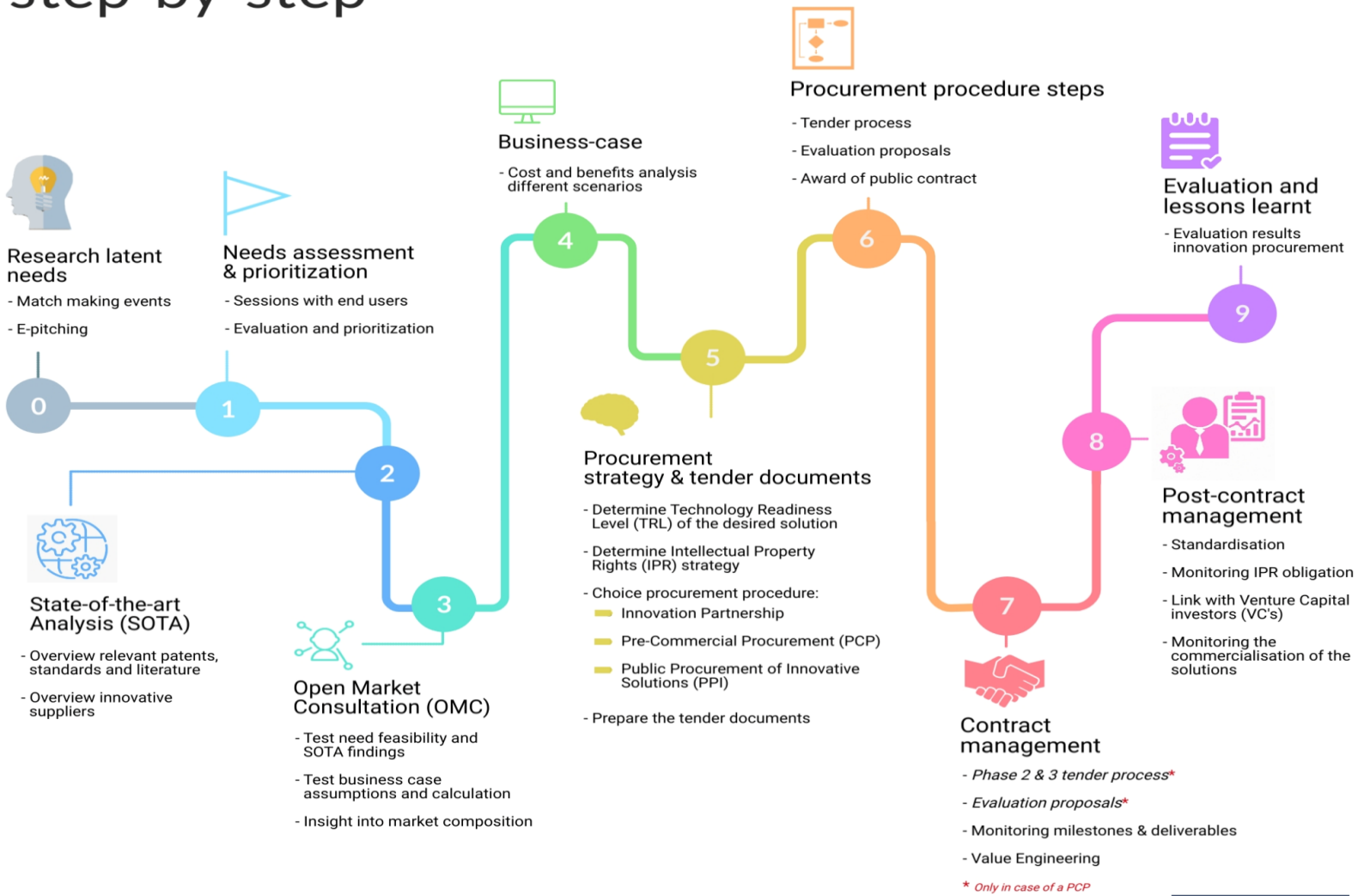
It is possible to ask questions in the private chat

The recording of the webinar will be made available on the EAFIP website

The list of participants will not be disseminated

In case there are technical problems, the session will be recorded and published

EAFIP methodology step-by-step



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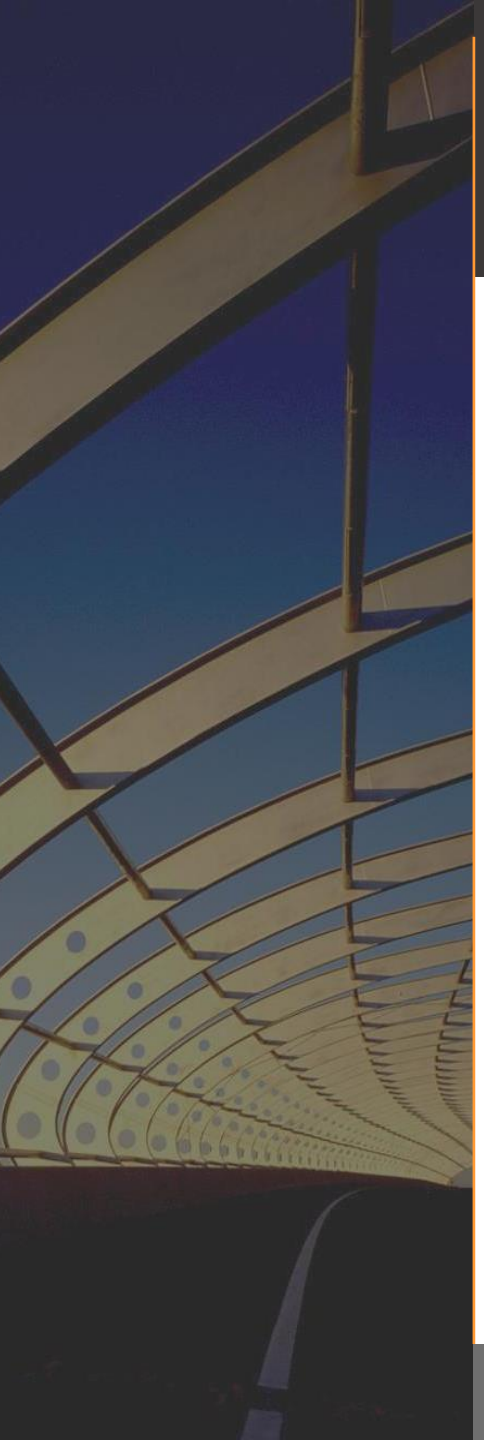
AGENDA

TIME (CET)	TOPIC	SPEAKER/PARTICIPANTS
9:00 – 9:05	Registration to the platform	Participants can ensure that the platform's functionalities are working fine
9:05 – 9:10	**Welcome & Introduction** Agenda	**Stephan Corvers** CEO – Corvers Procurement Services B.V.
9:10 – 9:40	**How to identify and assess needs:** *pain point workshops, value methodologies and use cases in PROTECT*	**Hans van Leeuwen** STOWA, The Netherlands
9:40 – 10:10	**How to conduct a market analysis to identify the state of the art of solutions:** *the experience of PROCURE4HEALTH*	**Karsten Lemke** Zenit, Germany
10:10 – 10:40	**How to prepare an Open Market Consultation and e-pitching on 3 use cases:** *the experience of SHIELD4CROWD*	**Jorge Garzón** Ministry of Interior, France
10:40 – 10:50	**Coffee break**	
10:50 – 11:20	**How to build a business case:** *the case of IMPRESS to expand the research capabilities with new era of TEM.*	**Maria Kampa** Corvers Greece IKE
11:20 – 11:50	**How to draft tender documents:** *participation agreement of SPRIND for the EUDI Wallet PCP*	**Eva Vogt** SPRIND, Germany
11:50 - 12:00	**EAFIP in the broader European context:** *cooperation with other EU initiatives*	**Lieve Bos** Policy Officer, European Commission DG RTD
12:00 - 12:25	**Discussions and Q&A**	

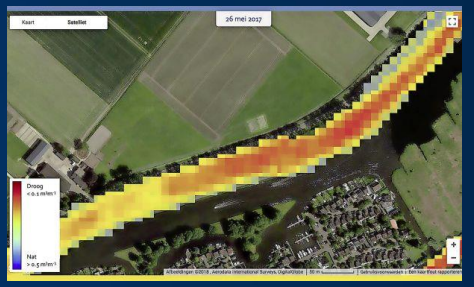


How to identify and assess needs:

pain point workshops, value methodologies and use cases in PROTECT

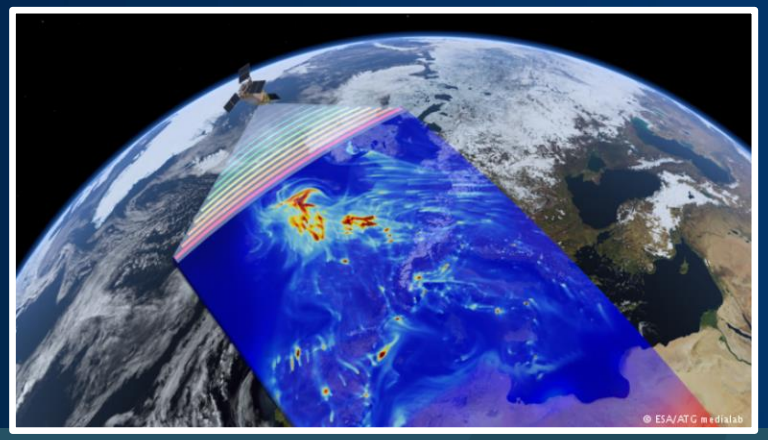
Hans van Leeuwen
STOWA
The Netherlands

User Needs identification & Assessment in the PROTECT: Innovation Procurement



EAFIP
30 May 2024

Dr. Hans J.C. van Leeuwen,
STOWA/Het Waterschapshuis
Programleader SAT-WATER
(Erik Nobbe & Jeroen Leusink) on behalf of
Dutch Water authorities & executing bodies Climate & Water Ministries



AGENDA

- *Introduction: The PROTECT project context*
- *The Pivotal Role of Water in PROTECT challenges*
- *The overall Vision for Europe (basin approach & interoperability)*
- *Innovation Procurement process (lessons learned)*
- *Focus by funneling (European problem/user driven)*
- *European Water challenges and priorities*
- *Regular & crises (water) management*
- *Identification of representative Pilot areas in Europe*
- *Assessment of buyer & user needs & interoperability*
- *The identification of stakeholders (Buyer & User)*
- *Use cases of the local watermanager & policy maker (drought/waterexcess)*
- *Matching Solution spectra with identified needs (in rural and urban context)*
- *The Dutch pre-operational example on fighting integral EO based local water challenges*
- *User driven Procurement requirements*
- *The result: The PCP-WISE project proposition*

In red the agenda on: Innovation Procurement process

In black the agenda on: Procurement Theme as an example

Nu en in de toekomst

Introduction to PROTECT CSA

- PROTECT's mission is to prepare and equip a **community of public authorities/ buyers** to undertake one or more joint, cross border or coordinated **Pre-Commercial Procurement(s)** processes in order to steer the development of the **next generation of climate services based on Earth Observation data**.
- Through PROTECT, public authorities/ buyers facing **similar pressing challenges related to climate change** are connected and supported in the formulation of concrete and realistic **needs for EO-based climate services applicable to 5 selected domains** that can be the subject of future PCP.
- PROTECT's activities supported public authorities/ buyers prepare a proposal for the EUR 19 million HE PCP call: (***HORIZON-CL6-2024-GOVERNANCE-01-5: Customisation/pre-operationalisation of prototypes end-user services in the area Climate Change Adaptation and Mitigation***)

Objective PROTECT Water challenge (European Vision)

Goal:

to be more climate resillient through a better EO-based local information position and alignment between regional water management organisations across EU memberstate borders and in common riverbasin systems

General Requirements:

- Production of common operational information products of the local/regional water/soil/meteo systems
- Interoperability between member states organisations through common procurement mechanisms
- An active user (CoP) network for exchange, validation, improvement, update, experience

Water challenge is complementary and essential to other original PROTECT challenges

Paint Workshops PROTECT

STOWA SAT-WATER as Lead Procurer Integral Water approach

4 key challenges identified

Lead buyer identified

Extreme water information in watermanagement areas

1. Mapping and predicting FLOODS (marine, riverine and other sources)
2. Prediction and prevention of FIRES and tracing and tracking responsible sources (waste, forest/nature, other)
3. Climate resilient WATER solutions (prediction, connecting data, planning, supply-demand)
4. Sustainable & resilient INFRASTRUCTURE (sustainable re-development, buildings restoring & adaptation).

Waterschapshuis as Lead Buyer of Water Information & Procure expert

Basic and ***regular*** water information in watermanagement areas to anticipate on climate risks: Flood, Fire, Subsidence, etc

The overall Vision for Europe (basin approach & need for water cooperation & interoperability)

How to accomplish this by the European (PCP) Innovation Procurement Mechanism in the HORIZON programme

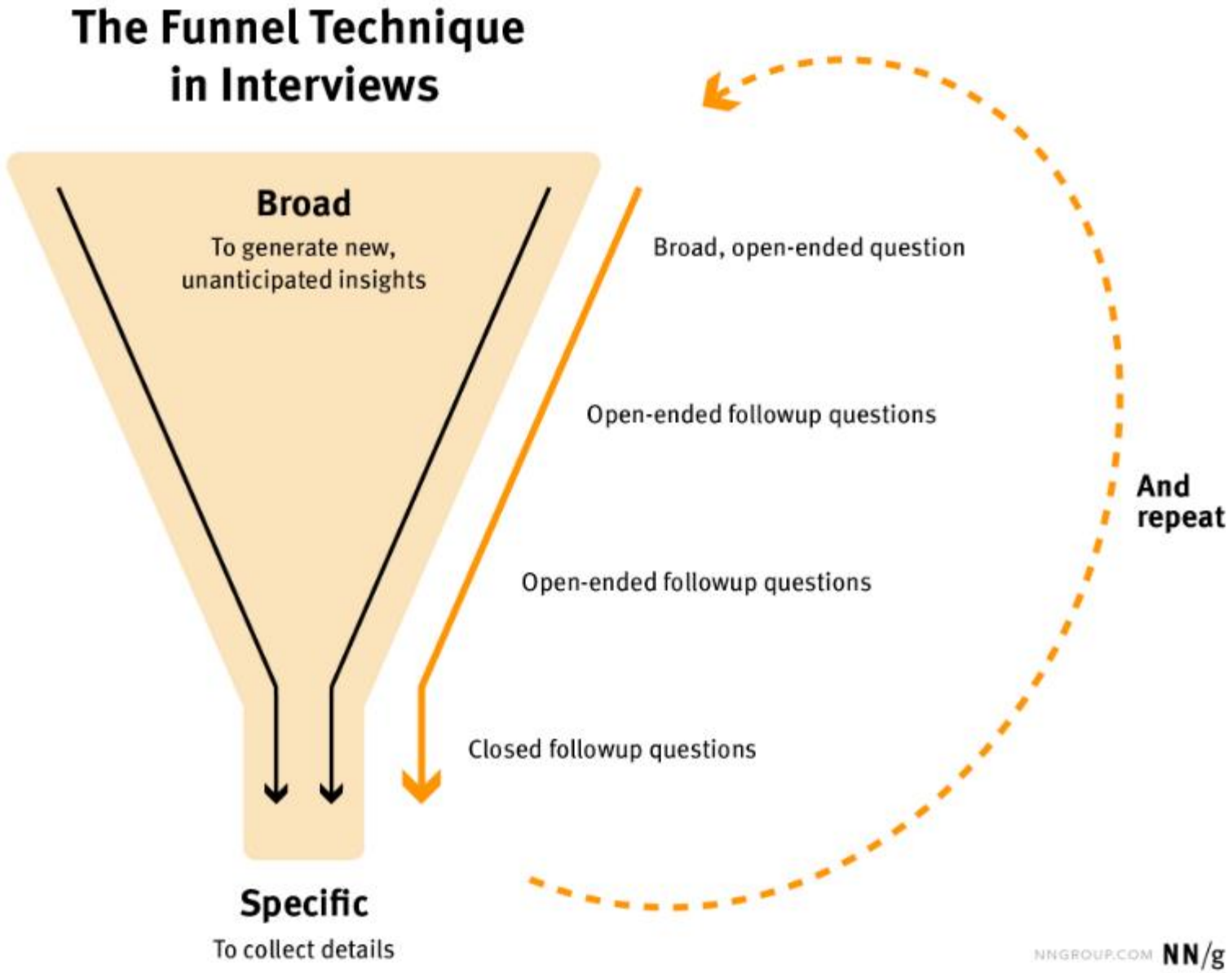
Innovation Procurement Process (lessons learned)

Along the process of innovation procurement some advise ***to prevent pitfalls*** or frustration of the process

- Prevent chaos: Start small, think big (vision which matches the needs of motivated stakeholders)
- Keep a common denominator and a common interest, such that all stakeholders will feel commitment (common goal)
- The ***common demominator is in our case the 'regular monitoring*** of the soil-water-vegetation system' which is in the interest of all stakeholders, the bonus is that the result of this basis is input ***to facilitate & support the extreme situations*** (due to climate) with prior intelligence (or risk insights) to anticipate or fight different crises.
- Important is to know that the solution to answer this (by procurement) is realistic and feasible. There fore you need to have a ***front runner example*** (SAT-WATER NL) and Early adopter (BUYER) example for a USER community (Dutch water boards)
- Important is that this is not the end game, ***still much R&D*** is required, certainly to the various conditions in Europe (scaling), which gives input to the procurement (requirements based on European wide problem spectrum based on the usecase portfolio)

The Process to focus

First priority on the topic and then focus on the stakeholders (buyers/users) and their needs by funneling towards a clear defined end goal as basis for a sound procurement mechanism



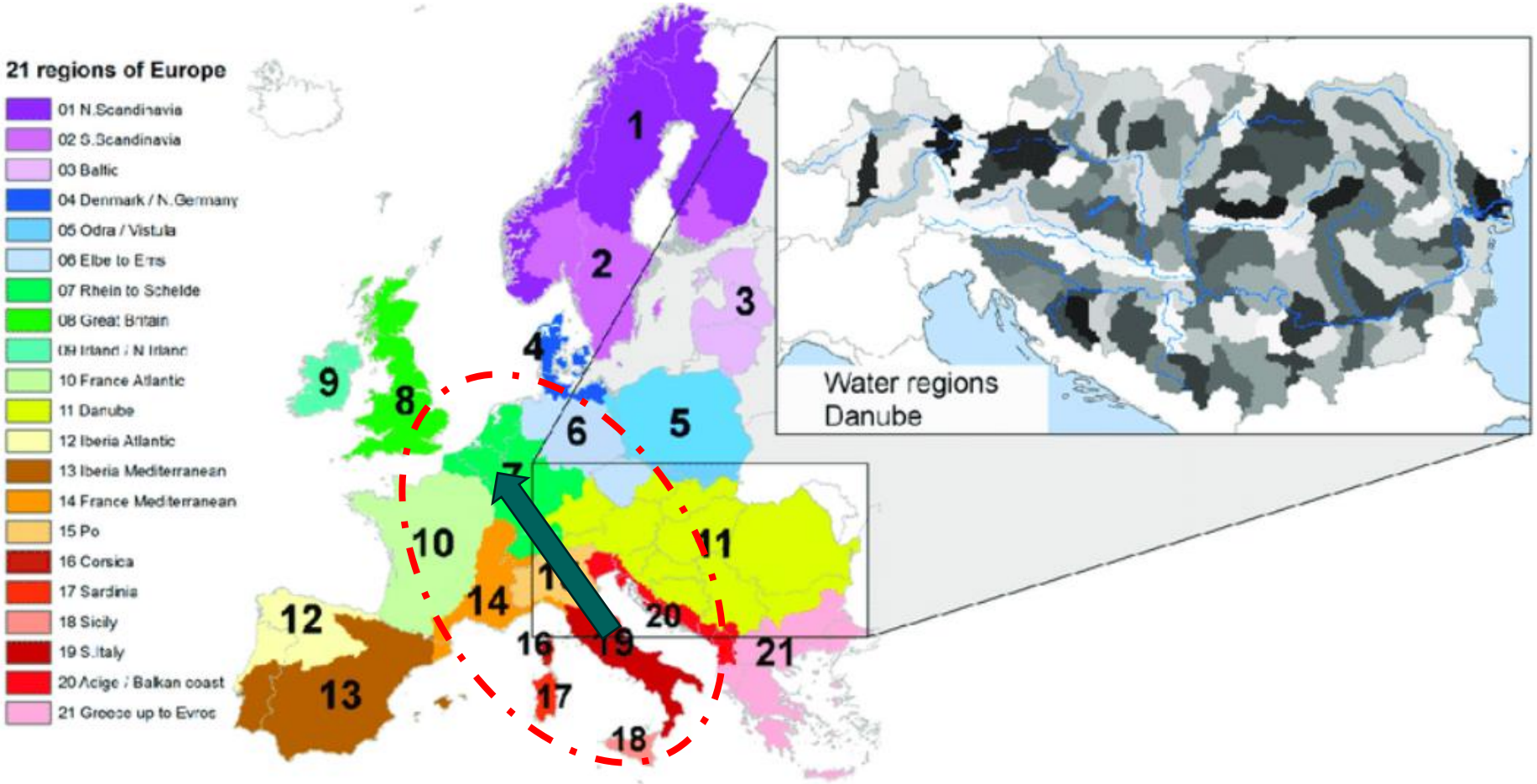
Focus on (fresh) water distribution in Europe

For several sectors (urban, rural (agri/nature), drinkingwater (ao industries, food/cooling), recreation, etc.) in society a well balanced (fresh) water demand & supply in city and rural area is of utmost importance and is more and more challenged by extreme climate conditions (drought/waterexcess).

It is therefore we focus on the EO based information potential on water quantity and often related its quality.

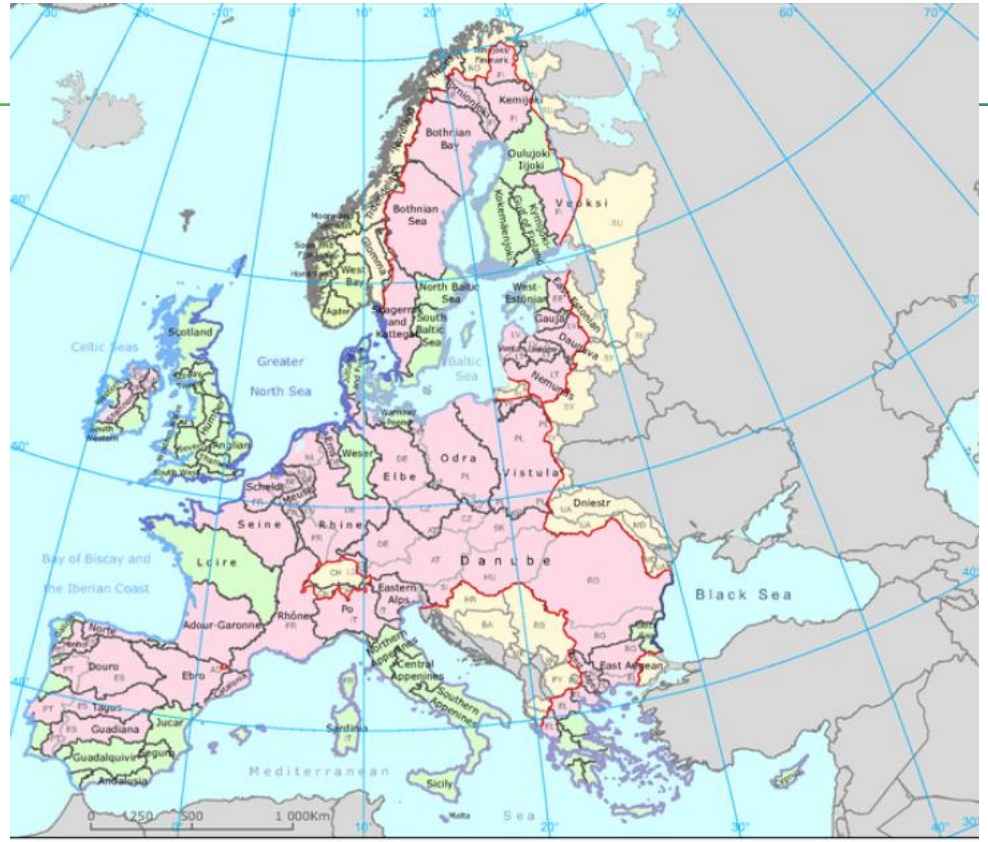
Of course to mitigate these extreme climate/water situations watermanagers have to anticipate with day-to-day operational information in their management area (dashboards).

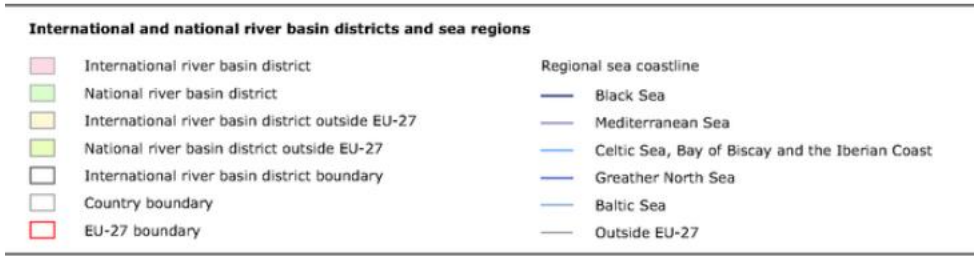
Focus Regions/Countries (see red dotted line) on Watermanagement regional/national/European infrastructure

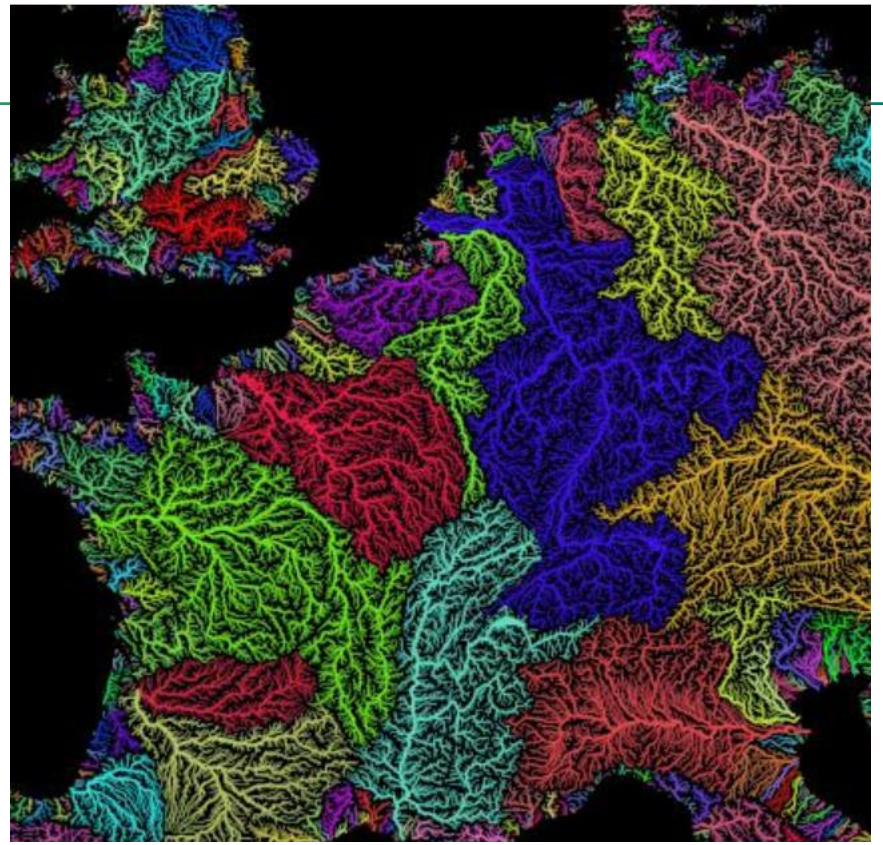


The focus of the waterchallenge is (- . - . - . -) defined for the Rhine, Meuse, Scheldt, Po riverbasin and especially their sub basins for local/regional water management

Focus on Riverbasins and local/regional sub-basins (physical water basin regions)





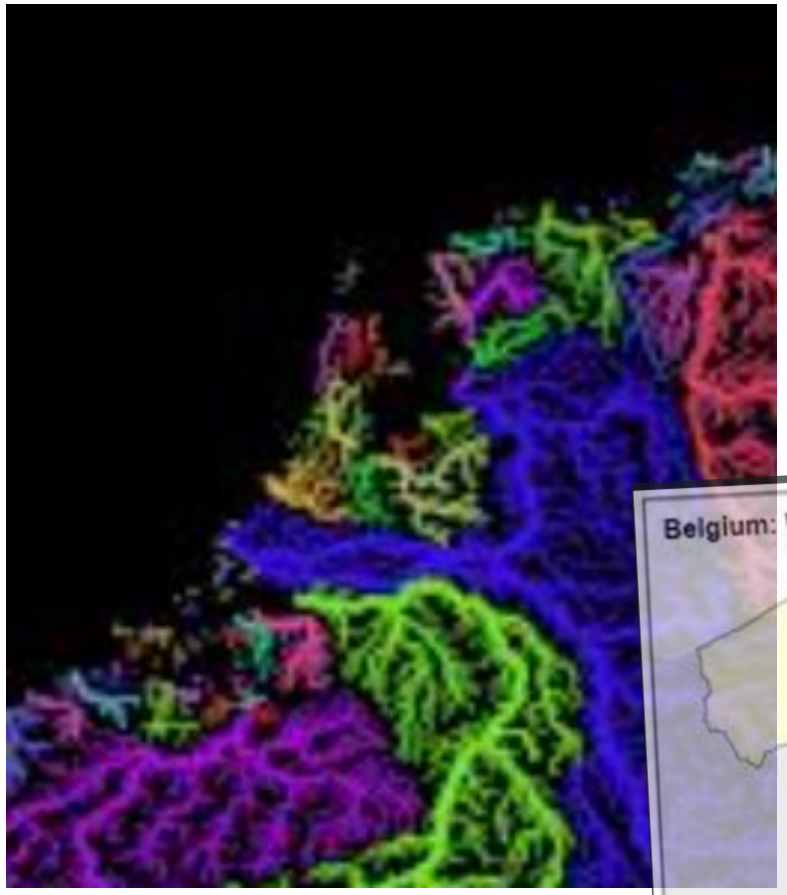


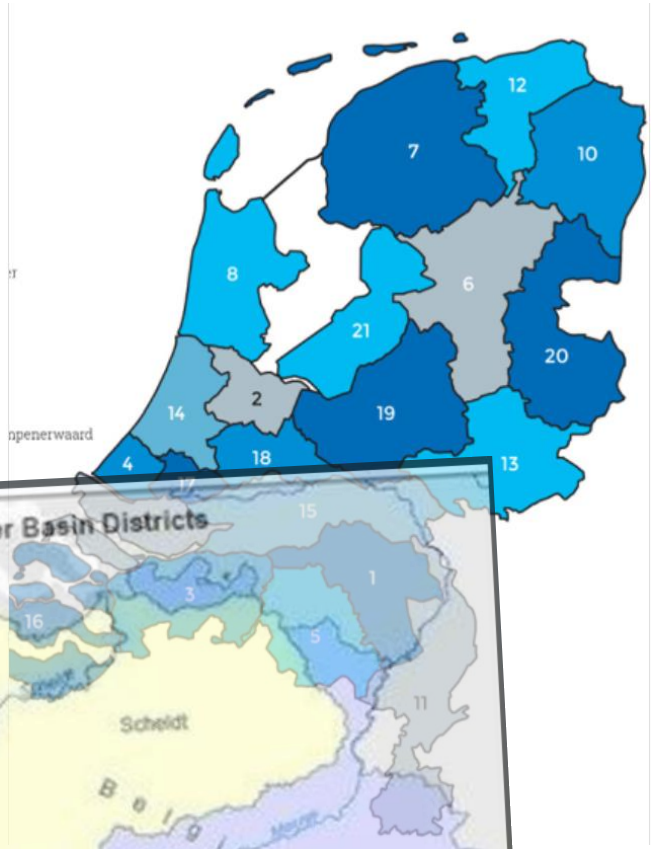
https://www.reddit.com/r/europe/comments/rcit49/river_basin_watershed_map_of_europe/?rdt=46102

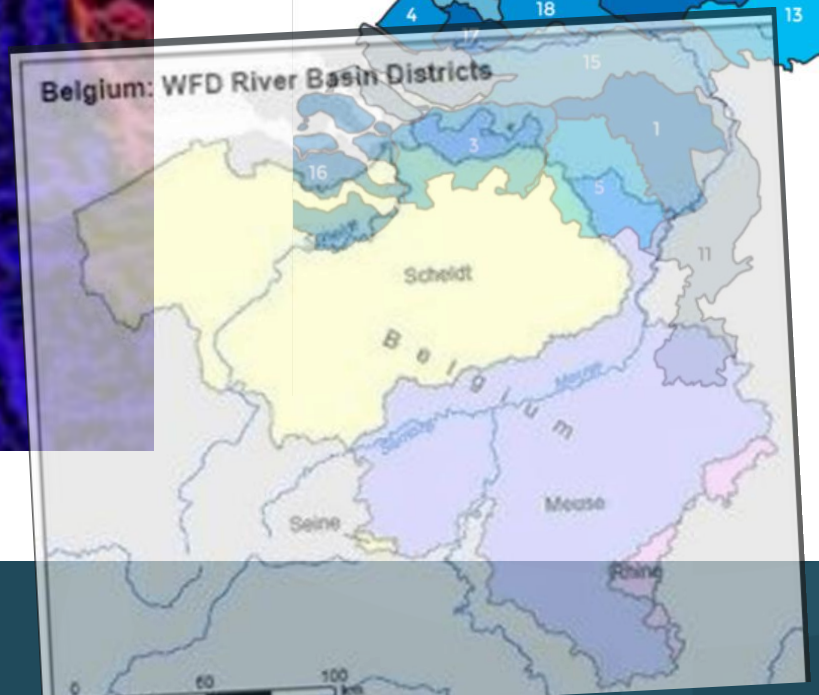
https://www.eea.europa.eu/data-and-maps/figures/map-of-rbds-and-sea/map-of-rbds-and-sea/image_large

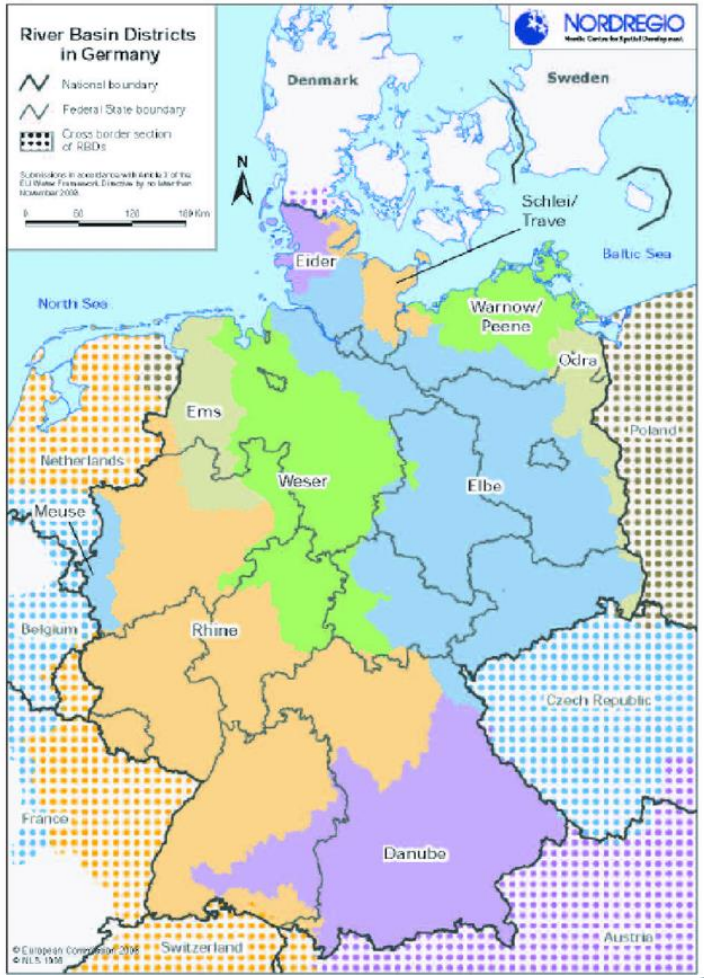
Focus on organisations involved !!

Remind!! Difference in physical watershed and administr. water local management regions









The current European information (what do we have) on Water compared to PROTECT water information (wannahave)

The COPERNICUS program and especially it's EFAS water (model) system on (supra) national Riverbasin level and the European Emergence services are partly built on/updated with EO based information as input to *hydrological large scale hydrological/meteo/soil modelling systems*. This information sometimes can help local watermanagers but is ***mostly too general. However, it does provide a pre-conditional situational awareness on water*** and provides trends!!!

In this *complementary PROTECT waterchallenge project* the focus is put on daily local validated, tailored and more small scale (high detailed) information, which helps to understand the actual availability of local sweet water and with that water quantity and quality indicators.(for hind-, now- and forecasting purposes)

European Water challenges and priorities = Regular daily water management & crises Management!!

Climate change has a huge effect on society. Extremes causing local/regional droughts and water excess result in all kinds of unexpected local problems.

- Water distribution problems has a big impact on differents sectors:
- Agriculture (eg. Po Delat droughts in 2022), Subsidence (peat, clay)
- Eology/Recreation: Waterquality of surface and groundwater systems,
- Industries: Drinkingwater, Cooling/processing water, etc
- Urban: Heat islands, subsidence, etc

The challenge and focus is to regulate/manage/anticipate the water availability and according societal local interests under

current & future climate conditions.

Regional (= LOCAL management) vs (supra)national information (POLICY) interests examples to focus

- Local water shortage/excess cases cross border require common (standardised) information exchange (socalled water taxonomy), communication to prevent impact and damage due to climate extremes:
- Examples flood Limburg-Germany 2021
- Regular Nature fires Brabant region (Belgium-NL)
- Po Delta Drought (It, 2022)
- Delta Programma Maas (NL, B, France, Lux)
- Rhein Programme (CH, D, NL)
- Infrastructure problems all European cities in Delta areas due to droughts (Heat, subsidence, groundwater issues, etc)
- Etc.

Drought problems in the European Delta, lessons learned for other Delta's

- Riverbasin depends on melting water
- When there is no rain and melting water upstreams is lacking we need to be prepared
- Distribution of water in the riverbasin as a whole is crucial
- Different functions of the water use need to be dealt with in conjunction with eacht other and priorities set!
- Upstream activities should not lead to problems downstream
- Energie/water hydro-electric dams, drinking water, agriculture (risotte Torino), etc.
- Intelligence on water distribution along the whole basin need to be fed with hind, now and forecast spatial/temporal water related information: EO-based info can provide a great help in this area!

Subsidence in urban areas induced by severe drought

- Rotterdam area where foundations (wooden poles are rotting/oxidation) of buildings severe serious threats due to low groundwater levels in the city area

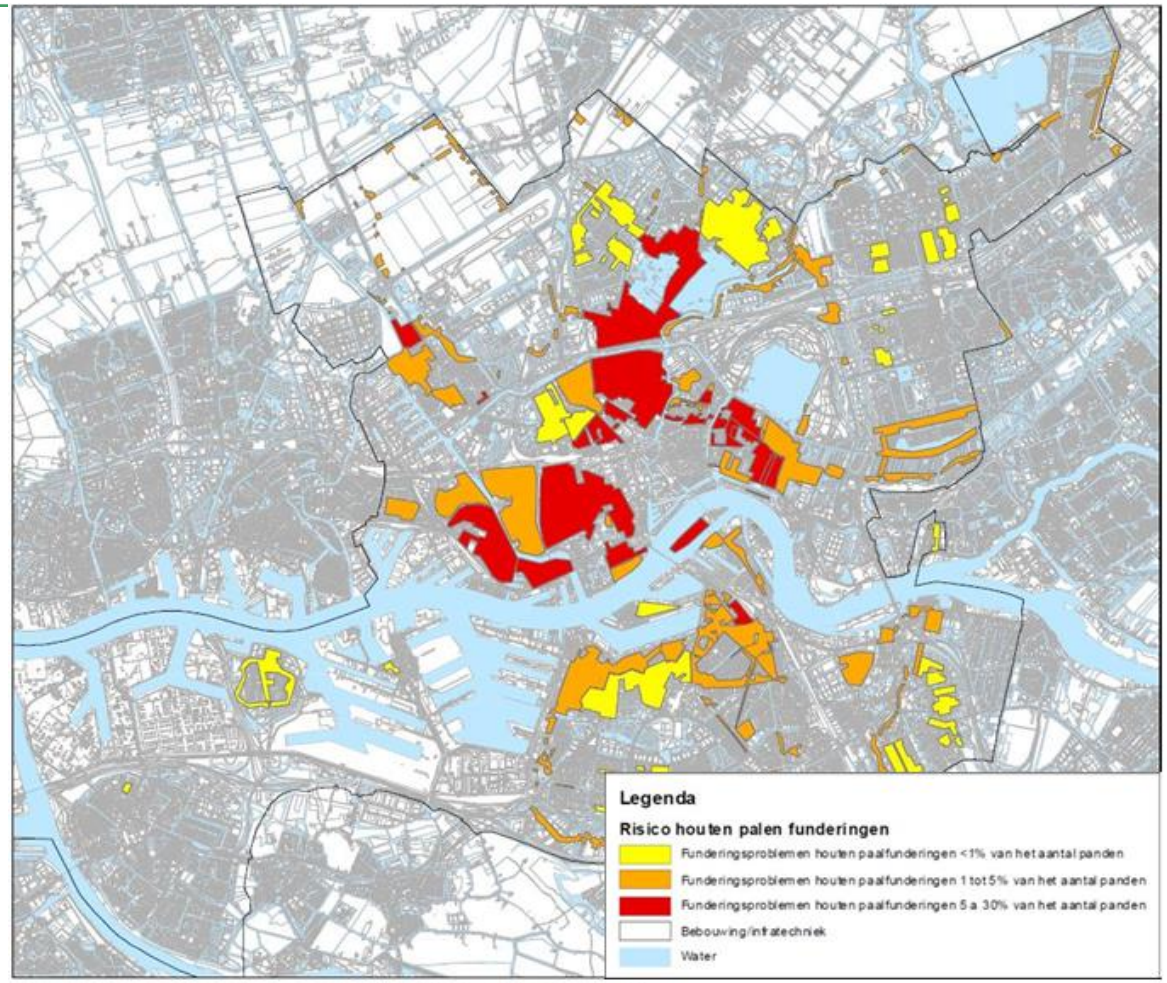
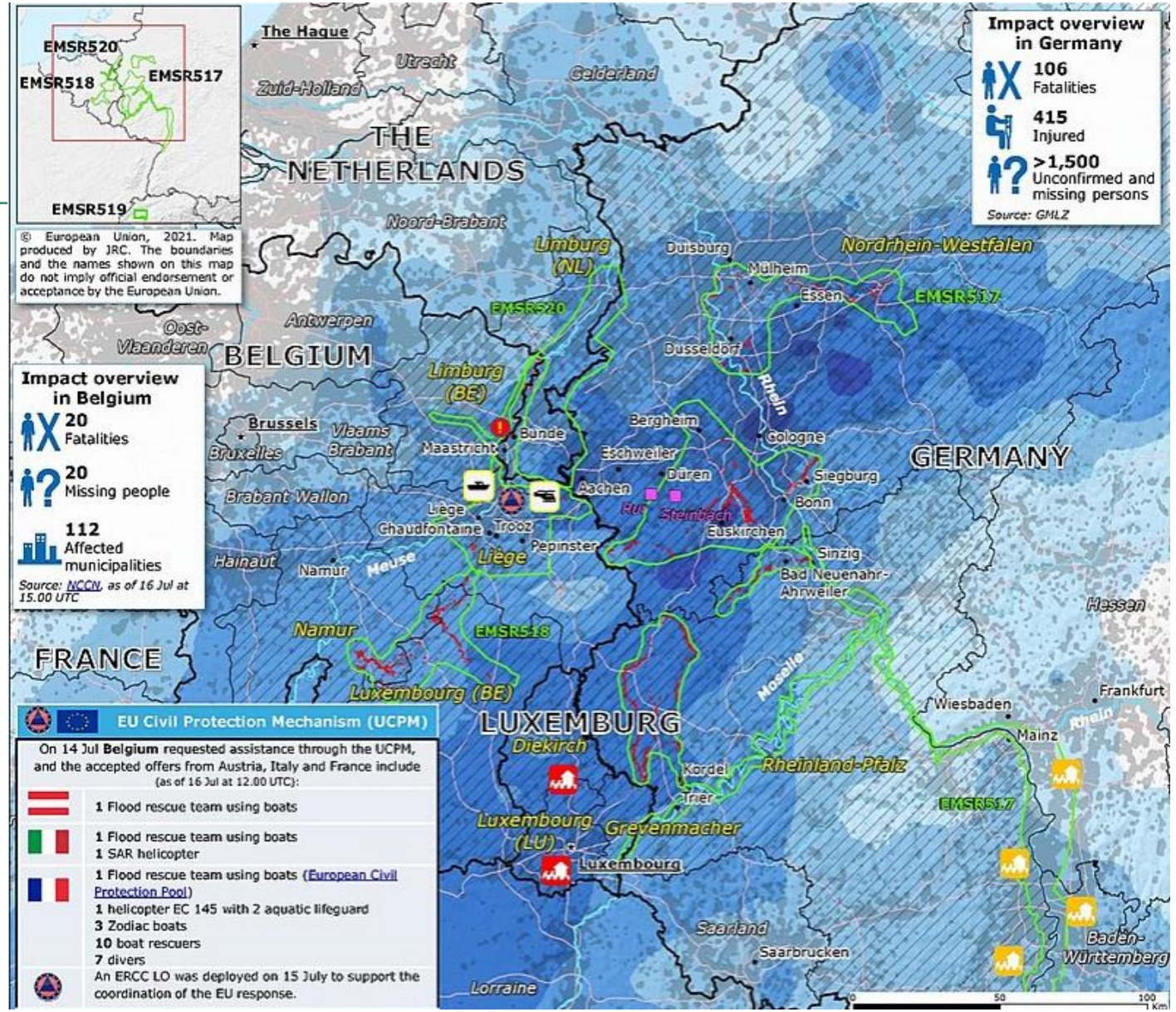


Figure 4.2 Foundation risk map Rotterdam (Het funderingshuis, n.d.)

Floods 2021

- In July 2021, several European countries were affected by severe floods. Some were catastrophic, causing deaths and widespread damage. The floods started in the United Kingdom as flash floods causing some property damage and inconvenience. Later floods affected several river basins across Europe including Austria, Belgium, Croatia, Germany, Italy, Luxembourg, the Netherlands, and Switzerland.[8] At least 243 people died in the floods, including 196 in Germany,[9] 43 in Belgium,[2] two in Romania,[3] one in Italy[4] and one in Austria.[5]

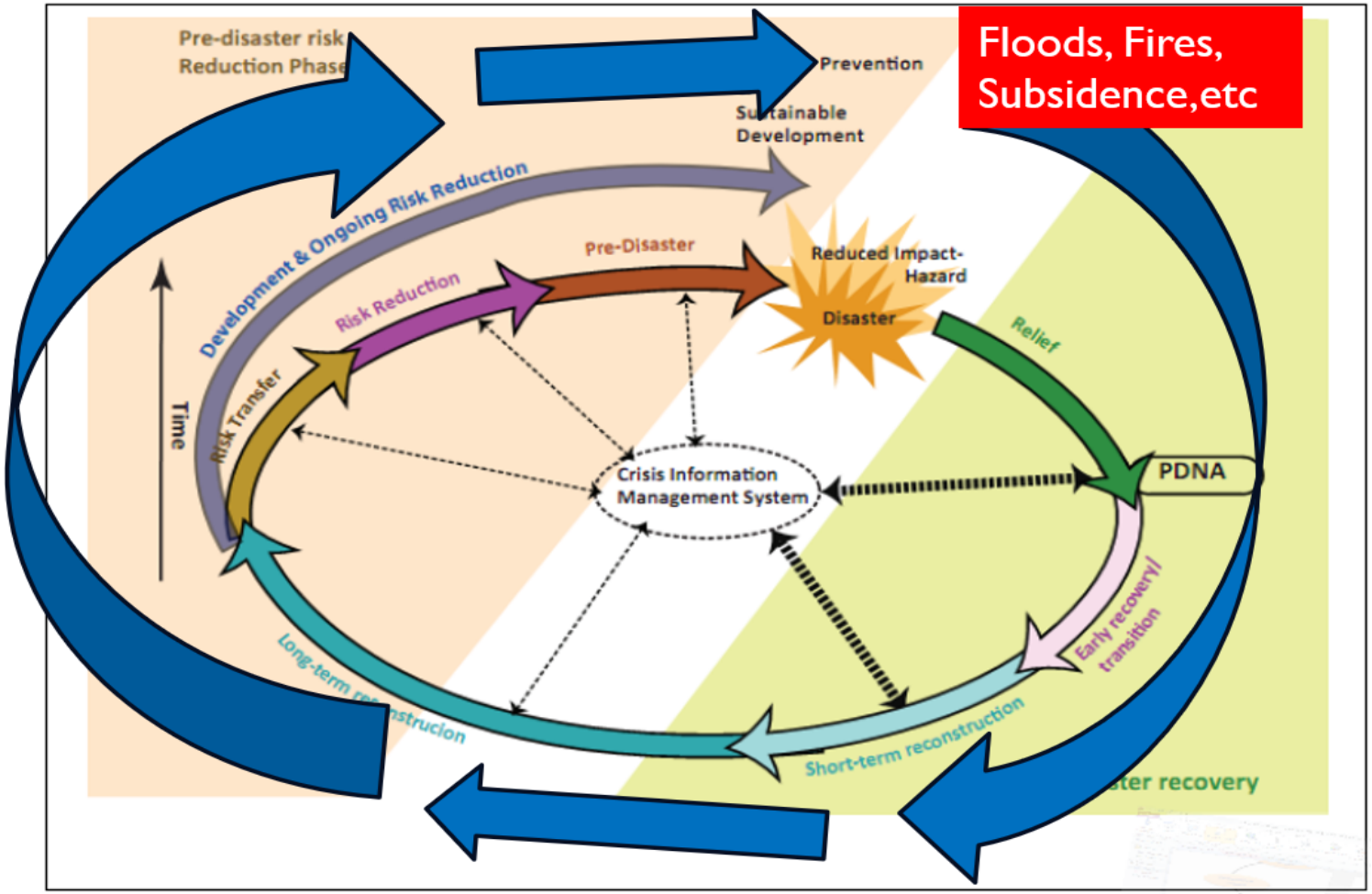


WATER AS COMMON DENOMINATOR IN CROSS BORDER AND MUTAL RIVERBASIN CONDITIONS/REGIONS

Water Management (regular = blue) supported by space based unique water/climate information/intelligence for climate related crisis challenges (red) for different sectors in

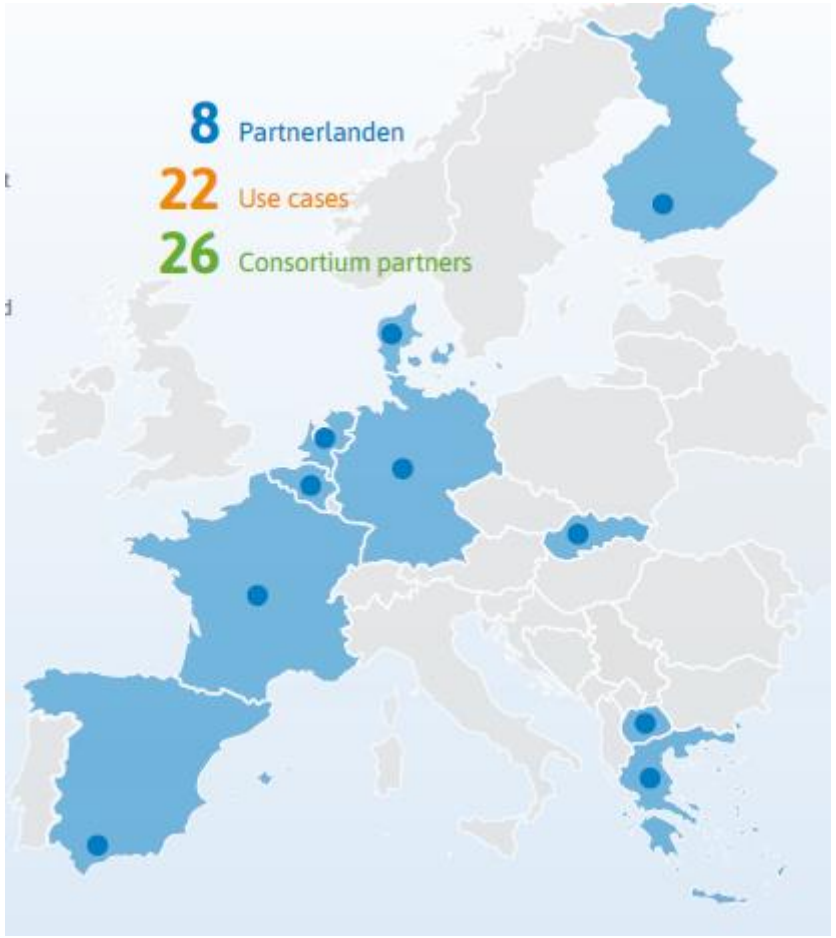
rural/urban areas

(Floods, droughts/Fires, Infrastructure risk assessment & impact)



Identification of representative Pilot areas and stakeholders in Europe

- Through workshops and our networks we disclosed relevant pilot ares related to the identified issues
- After identification of the areas we contacted the according regular (water) management and crisis organisations (Users)
- And with the contacts we analysed the information needs relevant to their work
- As a result we identified the potential/relevant information assessment mechanisms (Buyers)



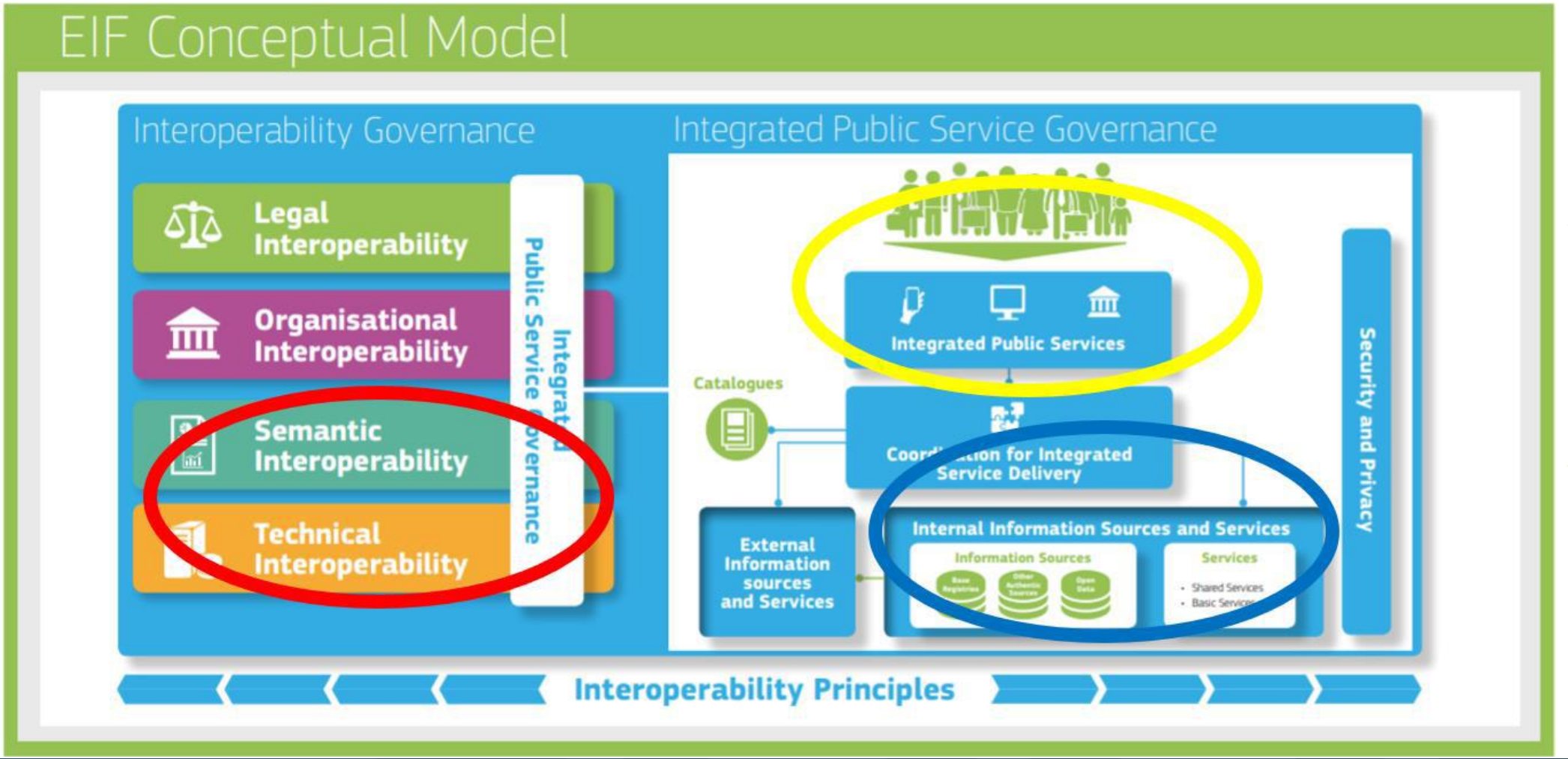
Needs (hWh) from PROTECT water Challenge: Cooperation on EU scale (water management)

- Need for exchange of national information & knowledge(!) is crucial for European scale information monitoring. Therefore, a combination of forces of knowledge, Government & business/market (KGB model) is required!
- Need for scaling: embedding the national/regional scale (local finetuning, validation & acceptation) into this framework in order to cooperate is also a prerequisite
- Therefore the (inter)***operability*** information provision (including, standards, management & maintenance of archives, procurement/contracting, regulations on AI, IP, etc.) on national level to support regional/national/European waterpolicies is crucial
- This requires a national strategy & implementation on continous monitoring/information production, which is qualified (calibrated and validated to local/national and European standards (exchange)

Example of blueprint (?) of information production on EO (Earth Observation):

The Dutch Waterschapshuis and STOWA national water management information production hub (through its SAT-WATER programme, see annex)

Interoperability between actors (EU-EIF procedures)



Actors :

1. Blue: Government (Information/**Data** Warehouse,Buyer, Procurement, etc), market: acquisition,
2. Red: Government,(**information** Warehouse) market, (Data Processors, Value-adders, etc)
3. Yellow: Data/information modeling, application, visualization, integration, user environment, business)

https://ec.europa.eu/isa2/sites/isa/files/eif_brochure_final.pdf

Validation of Geospatial information as a first start to support policy making in the context of EU External Action in Security

Dr. Hans J.C. van Leeuwen
Globsec Unit – JRC, Ispra, Italy

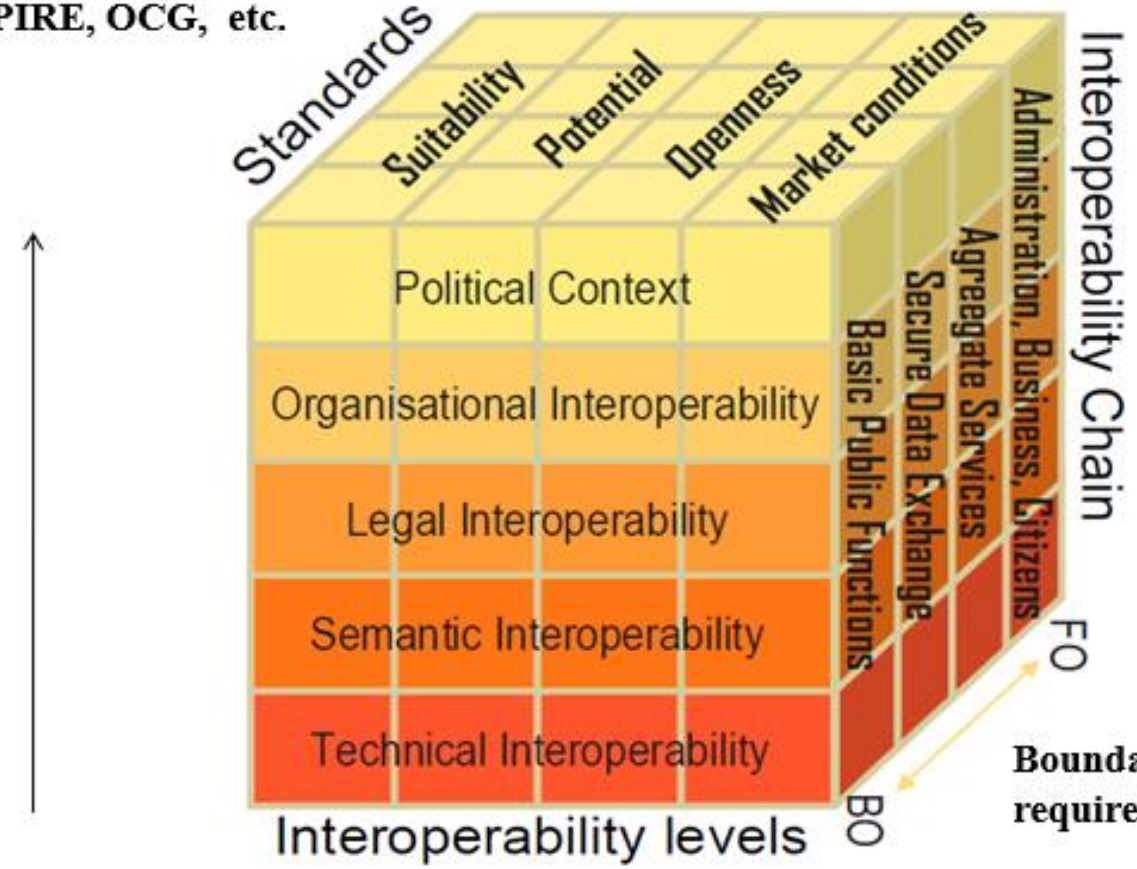
INTERNATIONAL WORKSHOP ON VALIDATION OF GEO-INFORMATION PRODUCTS FOR CRISIS MANAGEMENT

Session IV – Quality of Geoinformation products: The users' perspective

23- 25 November 2009
Ispra-ITALY

Dimensions in the transition box of interoperability of (geo) information

Standards and procedures:
INSPIRE, OCG, etc.



Interoperability chain:
Bottem-up: 4 to 5 levels to go!

Boundary and functional requirements to be solved!

For sustainable succes:
Investigate interoperability first: Our Client may not be ready!!

Funneling process: Information base and additional needs (resulting into well defined practical use cases)

Information challenge in the PROTECT project between member states:

- Create a common regional basic information carrier (interoperability) as common foundation for the water thematical information:
- Create a common regional water/meteo information main EO-based parameter base (as input to the aforementioned water availability and further indicators to local water management/policy)
- Development of additional prioritised EO-based water information for management and policies based on national member states user needs assessment

BUYER/USER group information needs (2 categories)

The ***Water managers*** responsible for the regular day-to-day practise need information to monitor the (fresh) water situation of their area.

Therefore it is important to avail over up-to-date daily information:

1. To model the wateravailability (and spatial distribution)
2. To model the level of water saturation in the profile
3. Indicator of the quality of the water
4. To anticipate on extreme shortage or excess of water (crises)

Basic information management (interoperability, standards, combination)

In order to organise the water information information carriers are essential (like basic topographic layers, administrative information on water infrastructure (channels, fields, etc.)

Sometimes central water (& ICT) Organisations procure or manager these 2 type of datasets in their own organisation or sometimes they work together with other organisations (like kadaster, topographic centers)

Participation of Public Buyers

Questions to Public Buyers

Common questions:

- Could you briefly describe the challenge your organisation face when it comes of **water supply and demand**? users, use cases, type of environmental problem, frequency, etc.
- What kind of climate data is your organization already collecting (if any?)
- What type of EO data does your organization need/ collect/ use?
- What kind of functionalities do you expect a 'new' and 'tailored' climate service solution to provide/ deliver?

Challenge related questions:

- How does your organizatio currently prioritise resilient water solutions?
- How is the awareness around resilient water solutions distributed within the organization?
- How could your organisation improve its analyses of needs and better structure its demand in view of a PCP?

Questions to Public Buyers

The public authorities should be able to specify about their challenges:

- **Spatial resolution desired.** Or in non-technical words the area they would like to be covered in km/m and how closely they would like to look at that area in meters, centimeters or even millimeters, depending on their need.
  - If they have already worked with other solutions before to specify this for the previous solutions and to express the new measurements desired (for example: if the previous solutions was able to provide an image with a coverage of 10 m now they would like to have for 2 m) and if they have not worked with CS before to specify it in a form of wish based on their own knowledge regarding the problem by conducting studies or what other actions they did in order to collect data about their need.
- **Update frequency which means how often the data will be updated** (for example: real-time, near real-time, daily, weekly, seasonal etc.)
- **If as a part of the CS, the providers should/shouldn't provide training to the public authorities** in order to use their CS. Depending on the public authorities' familiarity's level on working with space data and CS, this might/might not be required.

Use cases dimensions of the local watermanager & policy maker (drought/waterexcess): categories PCP-WISE

Climate Chal-lenges	Fast Onset Crises	Slow Onset Crises
Urban	Flooding (inundation), Heat Island (lack of green) Waste fires	Subsidence by drought (Infrastructure) Flood (Slow Onset)
Rural	Flooding & Runoff (safety dike/levee, erosion road and rural infra/agriculture loss), Wildfires (Nature/peat drought)	Agriculture drought (production loss) Nature drought (biodiversity loss) Subsidence peat/grasslands (drought)

Use cases PCP-WISE	Fast Onset Crises	Slow Onset Crises
RURAL	▪ *Flash Flood Summer 2021 in Ahr Valley, GER, Limburg NL* ▪ *Vegetation and peat fire 2023/24 lower Saxony, GER* ▪ *Wild Fires*: Slovak republic (National level), Self-governing regions Banska Bystrica, Zilina (Regional level), Spisska Nova Ves ▪ *Floods*: Slovak republic (National level), Self-governing regions Banska Bystrica, Zilina (Regional level), Spisska Nova Ves ▪ *Floods:* Surface Runoff Flows according to Rule 5.2-IC of the Roads Instruction (Andalusia, Spain) ▪ *Floods:civil protection initiative for the Mygdonia catchment area (Central Macedonia)*	▪ *Slow Onset River Flood 2023/24 in Lower Saxony, GER* ▪ *Drought Impact Model on Agricultural Production - Catalonia region, Andalusia or other (Spain)* ▪ *SOIL MOISTURE: Spatiotemporal surface & root zone soil moisture determ. Catalonia eo region (Ebro Delta Spain)* ▪ *Drought: Subsidence in rural agricultural grass/peatlands in the water management area of waterauthority HDSR (NL)* ▪ *Wild Fires: Nature area Kalmthoutse Heide (NL Belgium)* ▪ *Nature/Rural: control ecosystem/residential area on groundwater/greening (in former airport region of Helsinki)*
URBAN	▪ *Flash Flood Summer 2021 in Ahr Valley, GER* ▪ *Wild Fires*: Slovakia Bratislava (Local City level) ▪ *FLoods*: Slovakia Bratislava (Local City level) ▪ Floods/Stormwater: City critical watermanagement Helsinki	▪ *Slow Onset River Flood 2023/24 in Lower Saxony, GER* ▪ *Heat Island/subsidence: Multi Climate change scenario's in existing urban area's (Haarlem city, NL)* ▪ *Soil saturation: Shallow ground water, Demvig, Denmark*

Matching Solution spectra with identified needs in rural and urban context

European Provider/service matching the user needs:

- Through well defined procurement the market is invited through a competitive procedure to produce both type of information categories (basic and water information).
- The example of the Waterschapshuis in the NL shows that this way of information production can work in operational mode (this project TRL5 towards TRL8) on the long term by implementing a business case based on contributions of the local watermanagement organisations. (framework of 3 to 4 year with a selected consortium)
- To co-create and develop new additional products on top of the information base (earlier mentioned) by common R&D based on needs priorities.

Service matrix *regular* conditions (soil-water-VEG system in the Rural context)

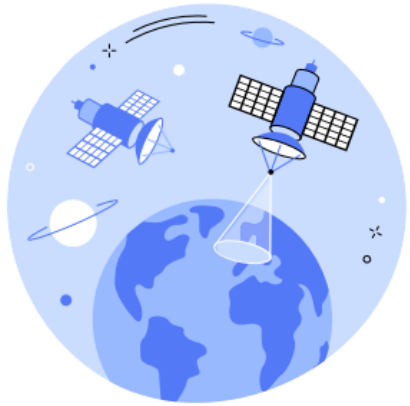
Rural Service Layer Regular conditions	A1. Information carrier & standard raster/vector X,Y,Z, & mutation (admin)	A2. DTM (detailed)	A3. Rainfall ao weather parameters	B1. Evapotranspiration (soil-veg-atm system)	B2. Soil Moisture Top & soil profile	B3. Groundwater level
1. Base (start of EO valuechain)	Aerial Photo, High Res Satellite (yearly update), mutations AI based	LIDAR, Aerial Photo	International Ground Radar, Sat based, weathermodels (ECWMF)			
2. Water Regular	Update (EO/AI based) changes in water management infrastr. channels,areas, dikes,etc	Improve 3D (hydro)logical spatial (sub) river basin model (EO/AI)	Input to EO-based waterbalance modeling/AI based	> Innov. fieldobservation > (MW,Opt) Sat soil-veg evapotransipration & > A3/B1 Input to EO-based waterbalance model/AI based	> Innov. fieldobservation > MW Sat TopSoil system > A3/B1 input to EO-based soil;-water-atm modeling (wateravailability)	> Field data > Groundwater level (A3/B1 input toEO/AI based modeling
3. Water(+ or -) Dynamics conditions/limits (Sector inputs)	Update/actualise/map per sector management admin/area/delineation (AI-based)	Update DTM/basin model due to (erosion or subsidence)	Weather / climate scenarios (short and long term)	Per sector Threshold determination of soil-water system (scenario modeling)	Per sector Threshold determination of soil-water system (scenario modeling)	Per sector Threshold determination of soil-water system (scenario modeling)
4. Risk see crises matrix D1 to D5						

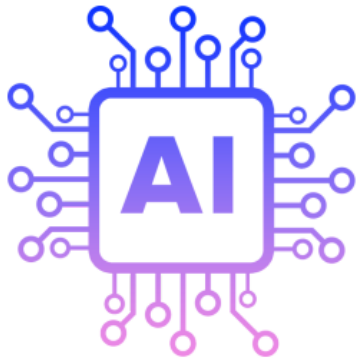
Service matrix *extreme* conditions (of the soil-water-veg system in the Rural context: too dry, too wet)

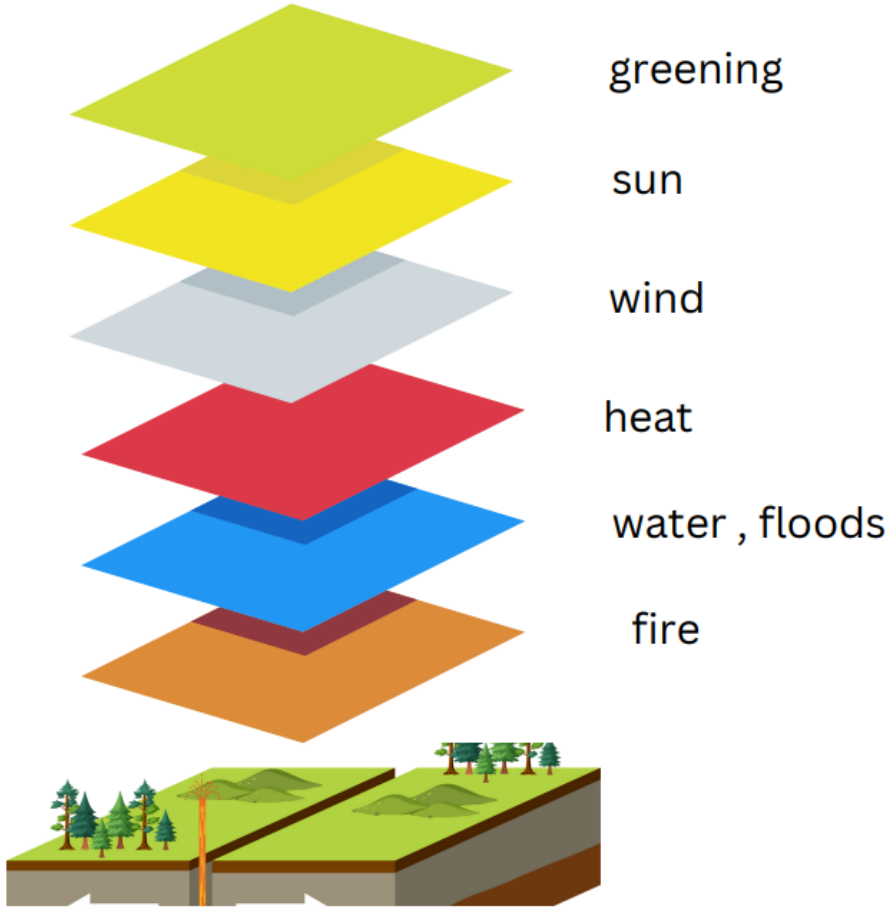
Rural Service Layer Extreme conditions	C1. Drought	C2 Wild Fires	C3. Water Quality	C4. Subsidence (urban/rural)	C5. Water excess
1. Base	Input from A services	Input from A services	Input from A services	Input from A services	Input from A services
2. Water Regular	Input from A/B services	Input from A/B services	Input from A/B services	Input from A/B services	Input from A/B services
3. Water crises (+ or -) Dynamics process modeling (Sector inputs)	> Input to improving/cal/val drought model (agro, city, ecosystem dependent) > Realtime & scenario modeling	> Input to improving/cal/val fire distribution & fire figting process model (ecosystem dependent) > Realtime & scenario modeling	> Input to improving/cal/val ground/surface water quality model (agro, city, ecosystem dependent) > hind-, now, & forecast & climate scenario modeling (decadal trends-analysis)	> Input to improving/cal/val subsidence process model (agro, city, ecosystem dependent) > hind-, now, & forecast & climate scenario modeling (decadal trends-analysis)	> EO-Saturation Top soil > EO-surface/flood extent >Input to waterbalance & Runoff model (agro-, city-, ecosystem dependent) >Input to waterbalance & Inundation model (agro-, city-, ecosystem dependent
4. Impact/Risk Indicator (Sector inputs)	D1. Sector dependent **Impact/Risk drought** indicator modeling (evolution)	D2. Sector dependent **Impact/Risk wild fire** indicator modeling (evolution)	D3. Sector (agro, city, ecosystem, drinking water) dependent **Impact/Risk water quality** indicator modeling (evolution)	D4. Sector dependent **Impact/Risk subsidence** indicator modeling (evolution)	D5. Sector dependent **Impact/Risk waterexcess** indicator modeling (evolution)

- Input to 3 Copernicus CLMS: Copernicus Land Monitoring Service
- Input to 4. Copernicus CEMS: Copernicus Emergency Management Service

Same system for prediction, warning, monitoring, but with more perspectives for the *URBAN context* (layers)!







Service *regular* conditions in *urban* areas (soil-water-Vegetation)

Urban Service Layer Regular conditions	A1. Information carrier & standard raster/vector X,Y,Z, & mutation (admin)	A2. height model (detailed)	A3. Rainfall ao weather parameters	B1. Evapotranspiration (soil-veg-atm system)	B2. Soil Moisture Top & soil profile	B3. Groundwater level
1. Base (start of EO valuechain)	Aerial Photo, High Res Satellite (yearly update), mutations AI based	3D-city modelling (height streetlevel/building (LIDAR, cm-dm in Z)	city temperature, sunshine, wind,rain weathermodels (ECWMF)	Maps of city vegetation (Parks, trees, rooftops, etc)	Maps of Stoniness of city (street) for infiltration	
2. Water Regular	Update (EO/AI based) changes in water management infrastr. channels,areas, dikes,etc	Improve 3D (hydro)logical spatial (sub) surfacewater model (EO/AI)	Input to EO-based waterbalance modeling/AI based	> Innov. fieldobservation > (MW,Opt) Sat soil-veg evapotransipration & > A3/B1 Input to EO-based waterbalance model/AI based	> Innov. fieldobservation > MW Sat TopSoil system > A3/B1 input to EO-based soil;-water-atm modeling (wateravailability)	> Innov. fieldobservation > Groundwater level (A3/B1 input toEO/AI based modeling
3. Water(+ or -) Dynamics conditions/limits (Sector inputs)	Update/actualise/map per sector management admin/area/delineation (AI-based)	Subsidence (mm/yr) by satelite INSAR	Weather / climate scenarios (short and long term)	Per sector Threshold determination of soil-water system (scenario modeling)	Per sector Threshold determination of soil-water system (scenario modeling)	Per sector Threshold determination of soil-water system (scenario modeling)
4. Risk see crises matrix D1 to D5		Risk subsidence street, building, sewerage				

Service matrix *urban extreme* conditions (too dry, too wet)

Service Layer Extreme conditions Urban areas	C1. Energy transition (wind, sun)	C2 Quality of living (Heat Island, greening)	C3. Water scarcity (green, gr water)	C4. Subsidence grey infra (urban)	C5. Water excess in the city (floods, inundation)	C6 Maintenance & climate adaptation of city infra	
1. Base	Input from A services	Input from A services	Input from A services	Input from A1,2 services	Input from A services	Input from A services	
2. City management Regular	Input from A/B services	Input from A/B services	Input from A/B services	Input from A/B services	Input from A/B services	Input from A/B/C services	
3. City crises (+ or -) Dynamics process modeling (Sector inputs)	> Input to improving/cal/val wind and sun models (city, ecosystem dependent) > Realtime & scenario modeling	> Input to improving/cal/val heat island and greening models (ecosystem dependent) > Realtime & scenario modeling	> Input to improving/cal/val ground/surface water quality model (city, ecosystem dependent) > hind-, now, & forecast & climate scenario modeling (decadal trends-analysis)	> Input to improving/cal/val subsidence process model (city, ecosystem) > hind-, now, & forecast & climate scenario modeling (decadal trends-analysis)	> EO-Saturation Top soil > EO-surface/flood extent >Input to waterbalance & Runoff model (city-, ecosystem dependent) >Input to waterbalance & Inundation model (city-, ecosystem dependent	Thresholding critical maintenance levels wrt lifecycle of infra), climate adaptation of excisting infrastructure, city process models	
4. Impact/Risk Indicator (Sector inputs)	D1. Sector dependent **Impact/Risk wind(storm)** indicator modeling (evolution)	D2. Sector dependent **Impact/Risk heat island and greening** indicator modeling (evolution)	D3. Sector (city, ecosystem, drinking water) dependent **Impact/Risk water quality and scarcity** indicator modeling (evolution)	D4. Sector dependent **Impact/Risk subsidence** indicator modeling (evolution), grey infra, ecosystem biodiversity, foundation (assets) risk map	D5. Sector dependent **Impact/Risk waterexcess** indicator modeling in urban areas (evolution)	Risk Critical infrastructure (energy, water, etc.) Impact on regular infrastucture, modelling (evolution)	

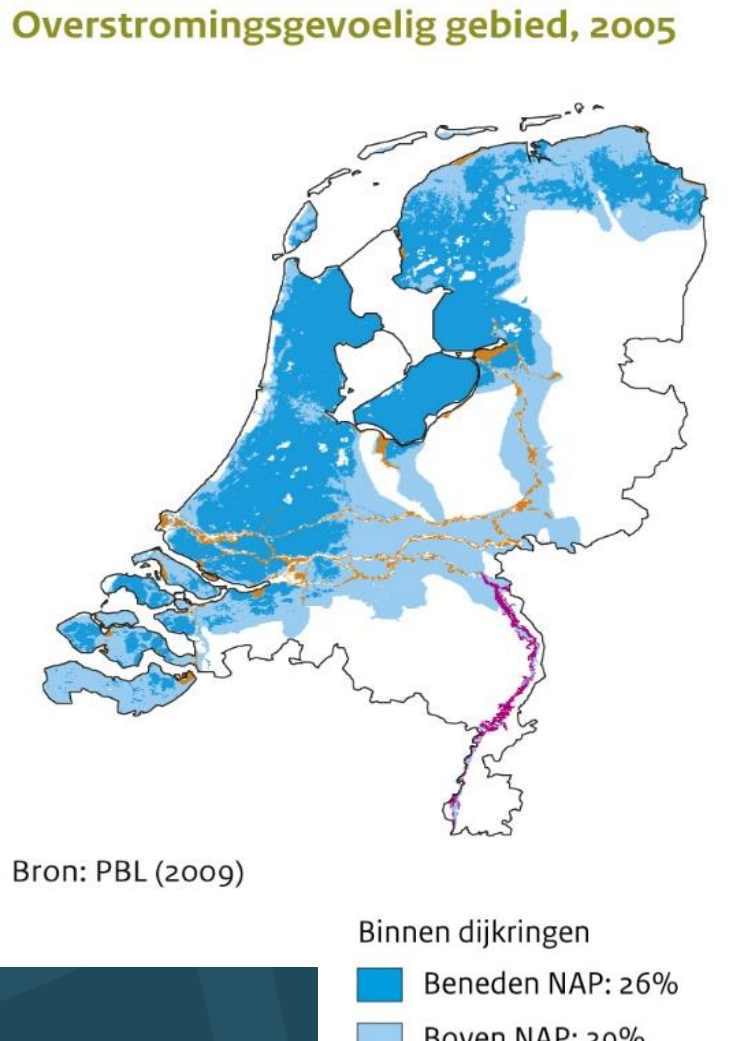
The Dutch pre-operational example on fighting integral EO based local water challenges as a front runner example for European Innovation Procurement (STOWA-Waterschapshuis)

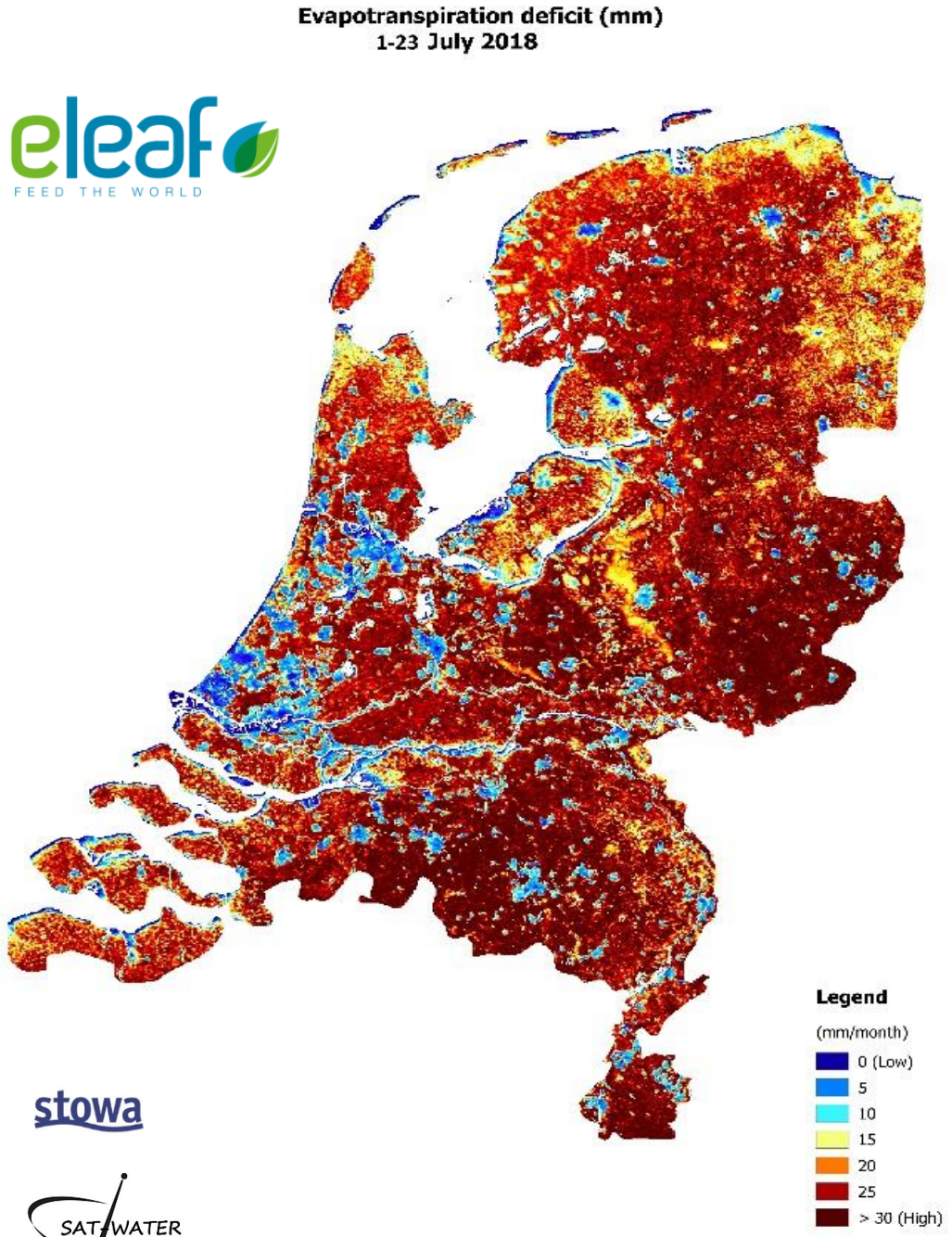
Motivation:

- In the interest of our national stakeholders (waterboards) we are aware that the (climate) issues are beyond our own local management areas, but we still do not have cooperation and alignment in place
- Expand our knowledge and procurement network to Europe (now national focus)
- Expand the solution spectrum to the European market and their services/providers (we know there is more than NL expertise alone!)
- We dare to jump into a new process and learn from it: from project scale to long term programme scale
- We are aware that we need to learn from (european) procurement mechanism in order to scale and achieve the above ambitions

OWASIS-NL Improved water availability information for water manager

- **Efficient water management** is crucial to the Netherlands sweet water distribution.
- **Drought and availability of fresh water** is becoming more and more problematic due to climate change.
- Lack of information on water availability and **available storage capacity** is a growing issue in current operational watermanagement.





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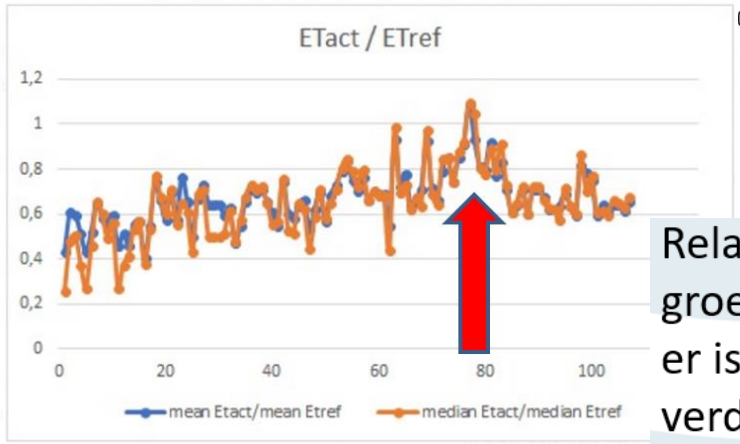
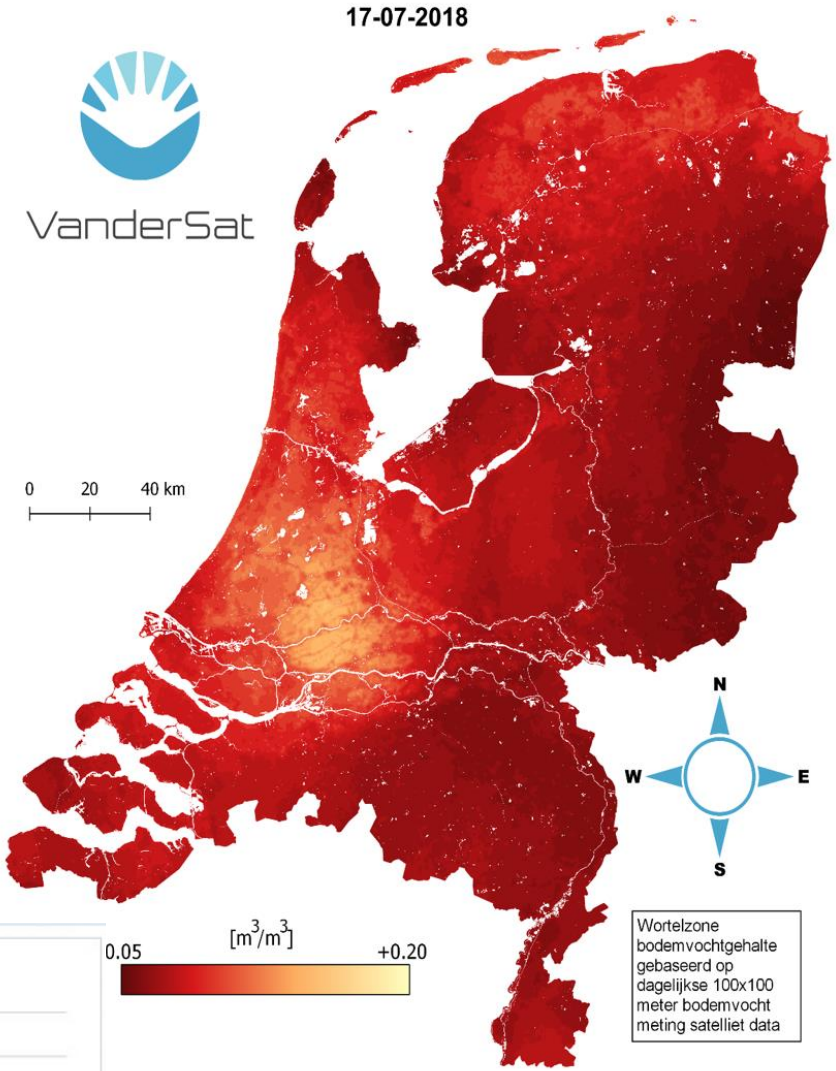
Bodemvocht

Wortelzone
Gebaseerd op 100x100m bodemvocht data uit satelliet (zie later Planet/VdS)

Letop:
Hoge Zandgronden Z & O NL
Veen-weide gebied West NL





Relatieve verdamping eind juni slaat om: groeibeperking van gewassen zichtbaar: er is bijna geen water meer om te verdampen door gewas

Monitoring Drought & Waterexcess using available soilmoisture storage (info from OWASIS)

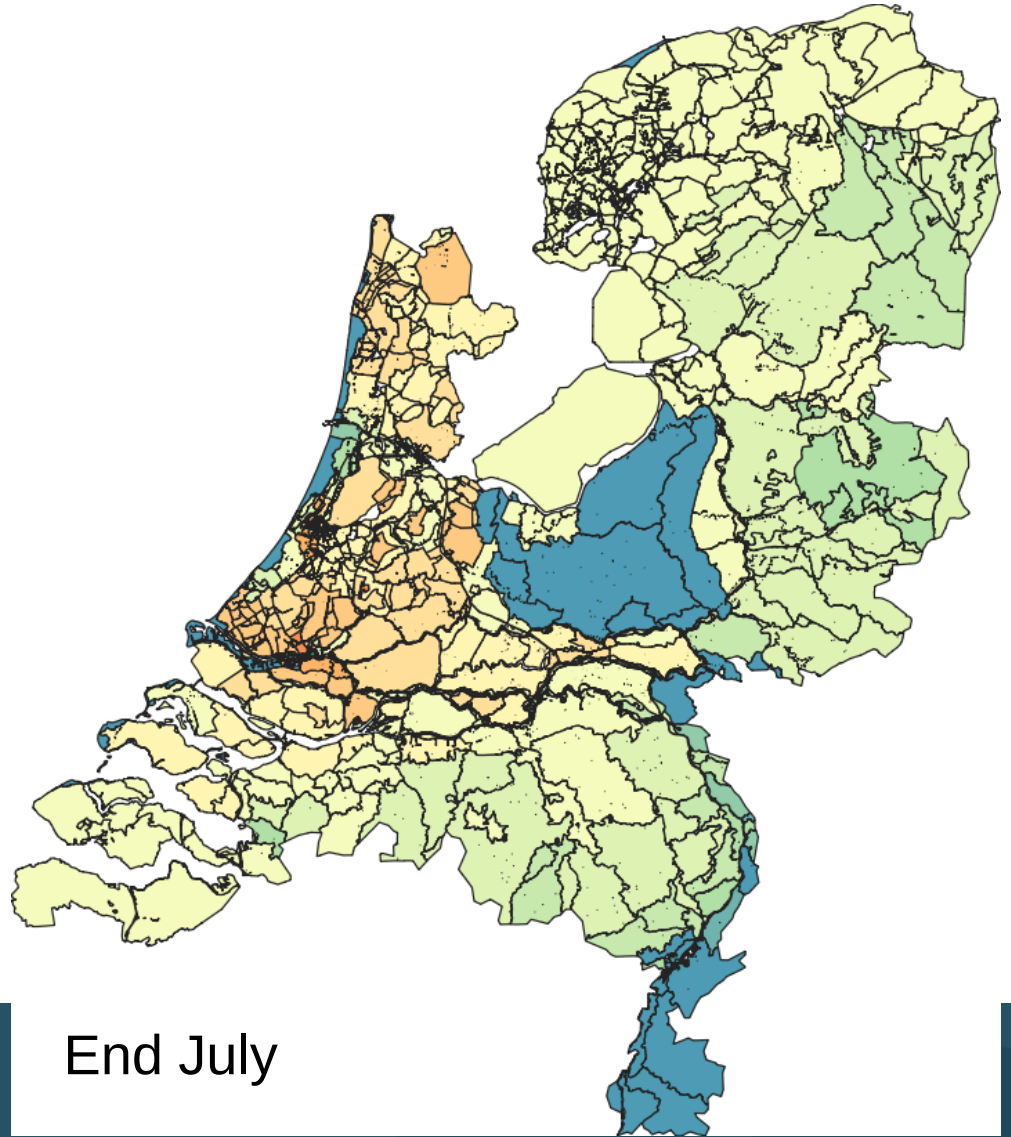
with actual evapotranspiration SATDATA 3.0 data in watermanagement areas

HydroLogic

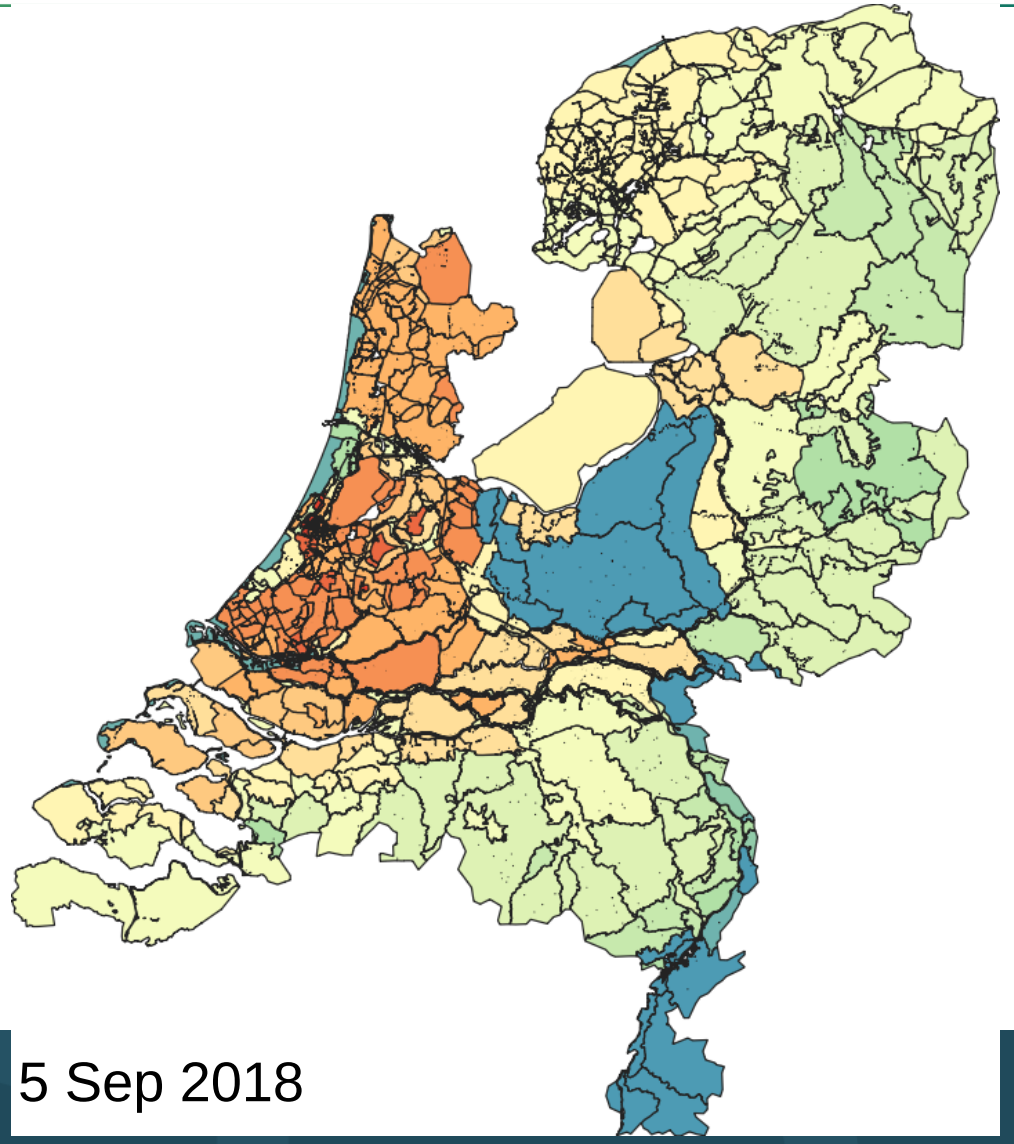
VanderSat

stowa

SAT-WATER



End July



5 Sep 2018

Legenda

Beschikbare bodemberging (mm)

- 0 - 25 mm
- 25 - 50 mm
- 50 - 75 mm
- 75 - 100 mm
- 100 - 125 mm
- 125 - 150 mm
- 150 - 175 mm
- 175 - 200 mm
- 250 - 300 mm
- 300 - 400 mm
- 400 - 500 mm
- 500 - 600 mm
- 600 - 700 mm
- 600 - 700 mm
- 800 - 1000 mm
- > 1000 mm

OWASIS on drought & waterexcess: practical level

1. **Actual Moisture Content soil profile Water management area (peilgebied)**: Waterboards use OWASIS to assess the status of profile watercontent every day (for operational measures in times of waterexcess and drought)
2. **To pump or keep the water in management area:** Waterboarrds use OWASIS in combination with weather predictions to advice the water managers
3. **Waterbalance**: Waterboards use OWASIS as indicator for interactive waterbalance insights (e.g. Waterschap Brabantse Delta in their crisisroom for alerting and communication or water management measures)
4. **Information dashboard ARK/NZK (amsterdam region)**: Ministry Infra & Water (Rijkswaterstaat) use OWASIS to present regional difference in soil moisture for mutual smart management (between the water areas).

OWASIS: what on policy level?

1. **Effect/impact monitoring:** Waterboards use OWASIS to evaluate the impact/effects on the change from winter to summer waterlevels
2. **Validation - waterbalance.** Indirectly OWASIS is used as indicator to validate waterbalance models and daily (field)measurements
3. Operational **Decision Support systems** (VIDENTE, peilbeheer)
4. To **advice waterboards** on the transition from summer to winter water levels (& vice versa)
5. And **many other functions in the policy cycle** not yet discovered (reference level (0-meting), time-series (trends/anomalies), monitoring & evaluation, Cost-benefits and efficiency, etc.

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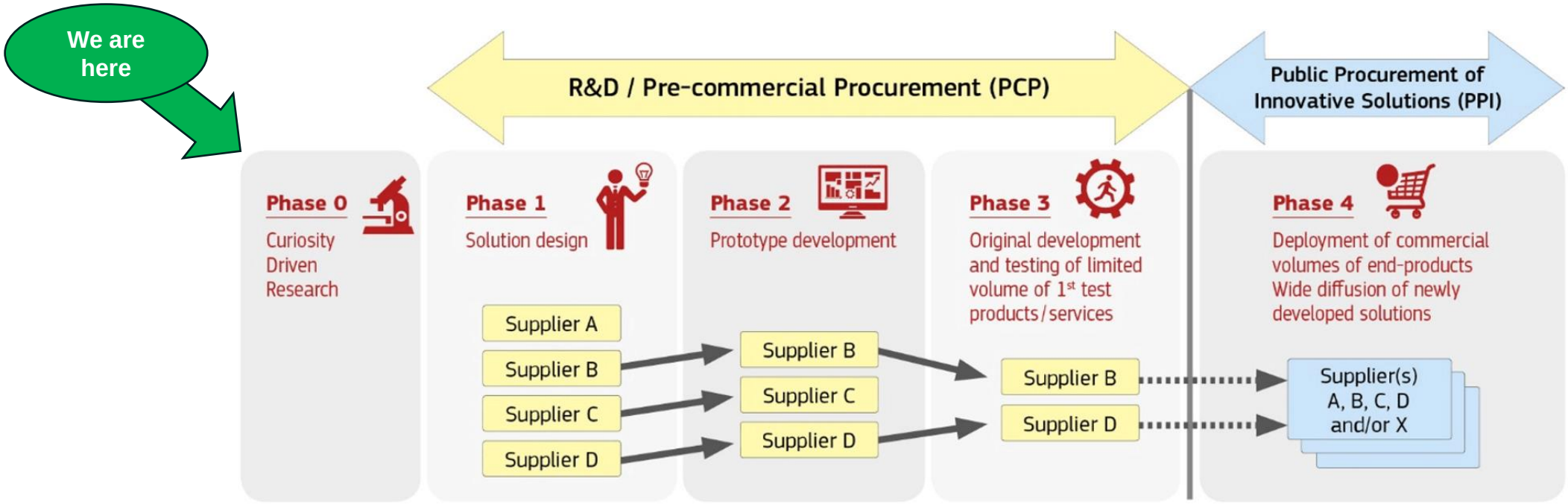
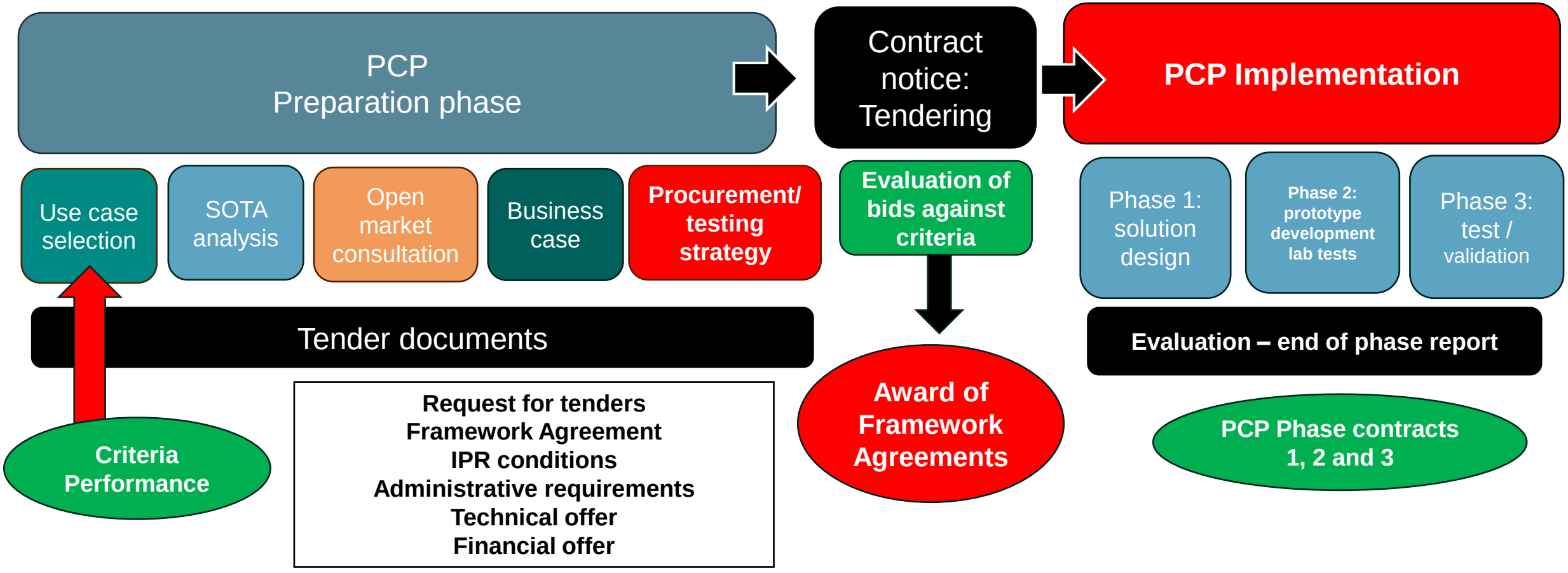
SAT-WATER

Innovation (user driven) Procurement



PCP and PPI. Source: European Commission

PCP preparation and implementation



Strategy to find the consortium partners

- Start with local use cases (bottum up approach)
- Find the cross border programmes (on water issues and their impact towards the crisis categories)
- Find the organisations (endusers) in EU countries involved in those programmes
- Find commitment from those organisations (supporting our vision)
- Discover the information needs in peace and war time (regular and crisis)
- Inventory of existing info and new needed info
- Find the current information providers (BUYERS) and approach them (partners)
- Common information strategie amongst EU partners
- R&D issues for missing issues
- Prepare use cases together and validation capacity at those organisations

PCP WISE

1 INNOVA NEXT SL ES Coordinator
2 STICHTING TOEGEPAST ONDERZOEK WATERBEHEER NL Partner
3 HET WATERSCHAPSHUIS NL Partner
4 FORUM VIRIUM HELSINKI OY FI Partner
5 MINISTERSTVO VNUTRA SLOVENSKEJ REPUBLIKY SK Partner
6 GEMEENTE HAARLEM NL Partner
7 BUNDESANSTALT TECHNISCHES HILFSWERK DE Partner
8 REGION OF CENTRAL MACEDONIA EL Partner
9 FORENINGEN KLIMATORIUM DK Partner
10 Benego - Grenspark Kalmthoutse Heide BE Partner
11 INSTITUT CARTOGRAFIC I GEOLOGIC DE CATALUNYA ES Partner
12 Stadsregio Rotterdam NL Partner
13 SLOVENSKA AGENTURA ZIVOTNEHO PROSTREDIA SK Partner
14 BAYERISCHES ROTES KREUZ DE Partner
15 INSTITUT D'ESTUDIS ESPACIALS DE CATALUNYA FUNDAC ES Partner
16 CORVERS PROCUREMENT SERVICES BV NL Partner
17 CORVERS GREECE MONOPROSOPI I.K.E. EL Affiliated
18 GAC FR Partner
19 ENRICH GLOBAL FR Affiliated
20 CLIMATE-KIC HOLDING BV NL Partner
21 AEROSPACE VALLEY FR Partner
22 FRAUNHOFER GESELLSCHAFT ZUR FORDERUNG DER ANG DE Partner
23 UNIVERSITEIT TWENTE Netherlands Partner
24 ISEM-INSTITUT PRE MEDZINARODNU BEZPECNOST A KRIZ SK Partner
25 EVENFLOW BE Partner
26 FUNDACIO PRIVADA I2CAT, INTERNET I INNOVACIO DIGITAES Partner

Thank you for your attention !!

stowa 50 JAAR

PROTECT

hetWaterschapshuis

Questions
& Discusion

Van Wetenschap Naar Waterschap
From Science to WaterManagement

Landings Baan/ Launch		Soil-Water Balance(OWASIS	Verdamping Evapotranspiration	Soil (profile) Moisture	Rural Subsidence	(peat)dike Drought Monitoring	Water Quality	Digital Canal inspection	Depth Canal	NL Veranderdetectie Mutation Rural objects	National Irrigation Indicator
Phase	step						HDSR	WDOD			
Idea	1										
Research	2									SBIR fase 1	
Pilot/demo	3	ESA /STOWA/SBIR	STOWA/SBIR	SBIR	SBIR	STOWA	ESA			SBIR fase 1/2	
Validation (technical/ organisation)	4	SBIR OWASIS	SBIR SATDATA 2.0	SBIR soil moisture	SBIR Rural Subsidence i-ZAK/BODIS STOWA	**SBIR waterschap / STOWA**	CYMONS			SBIR fase 2	**Embedding national Water Instrumentation NHI**
Business Case & Central Procurement & acceptance	5		BC SATDATA 3.0	**BC bodemvocht**	**Validation & acceptance**	**Validation**	**Validation**	BC skipped		**BC verander detectie**	
Operational Information	6	OWASIS	SATDATA 3.0					Disruptive			
CoP/Support	7										

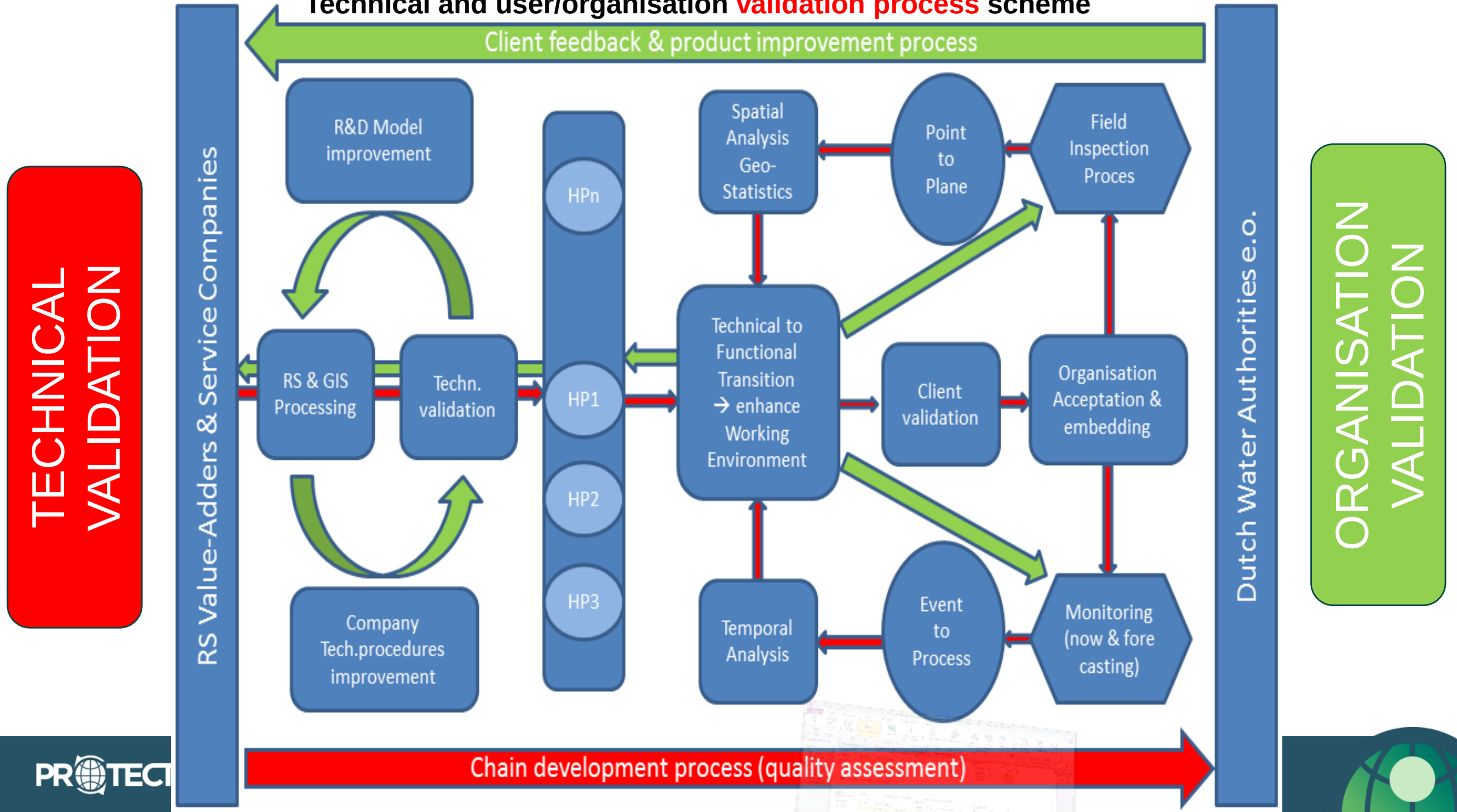
R&D in PCP-WISE

- To develop operational procedures for information products, three phases can be distinguished:
  - design & definition of local cases (user & technical partner)
  - demonstration & testing by selected market parties (procurement)
  - validation (technical) by selected market parties (procurement)
- Central is the technical guidance of an institute/partner to be selected which has as well developed (and up-to-date) water as technical (earth observation) knowledge capacities as well the technical instrumentation (AI, modelling, etc.)
- Additional Assistance is asked from a guidance group with European renown knowledge entities (DG-JRC, memberstates institutes)

User validation by local watermanagers

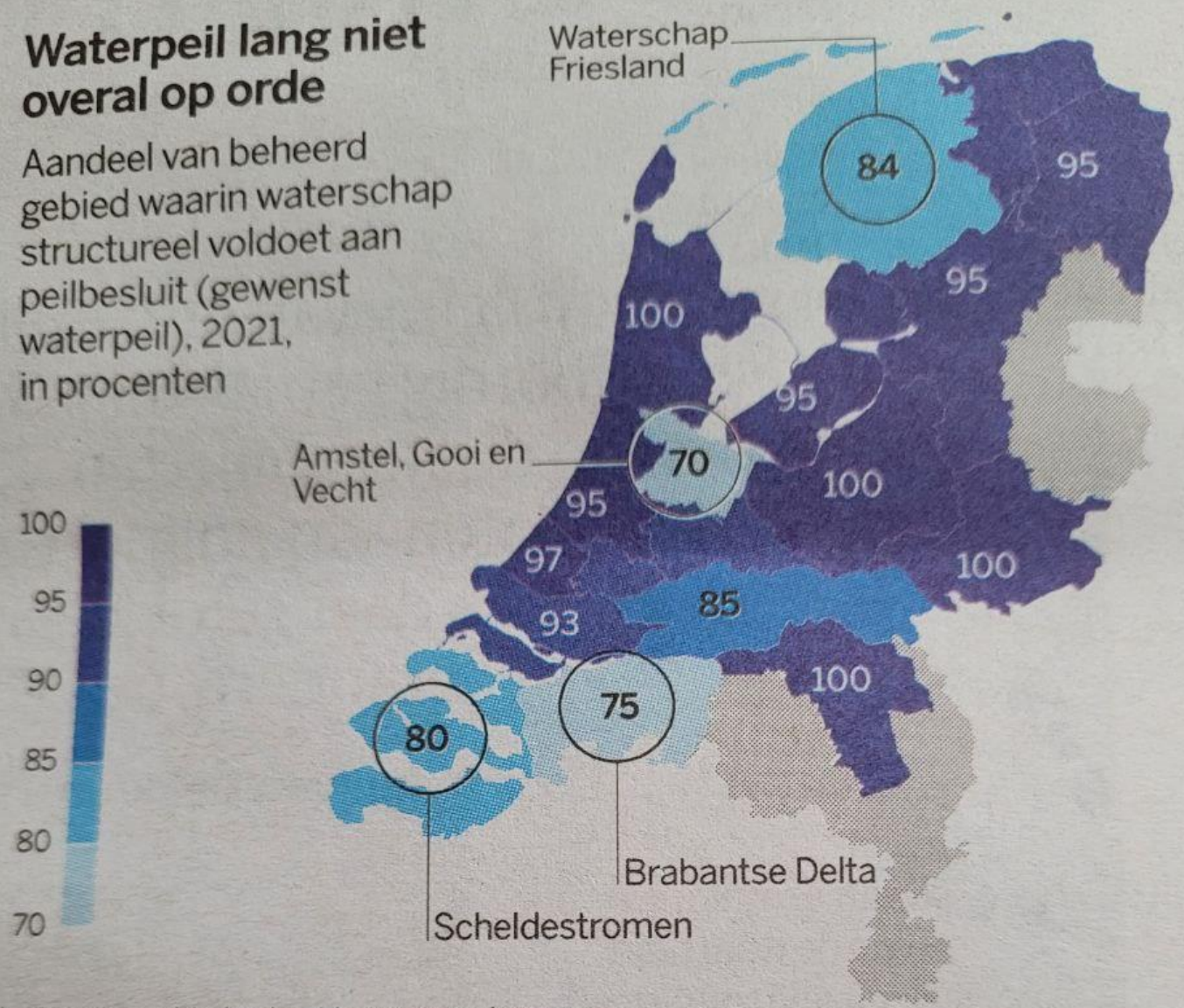
- Very important is the user acceptation and commitment of the regional water organisations who have to steer the requirements (timeliness, replaceability, cost efficiency, quality, etc.) of the technical information production.
- To assist for design of local representative practical cases
- To shape user requirements for the final procurement of information products to be supplied by selection of market service provider
- Etc., etc.

Technical and user/organisation validation process scheme



Waterpeil lang niet overal op orde

Aandeel van beheerd gebied waarin waterschap structureel voldoet aan peilbesluit (gewenst waterpeil), 2021, in procenten



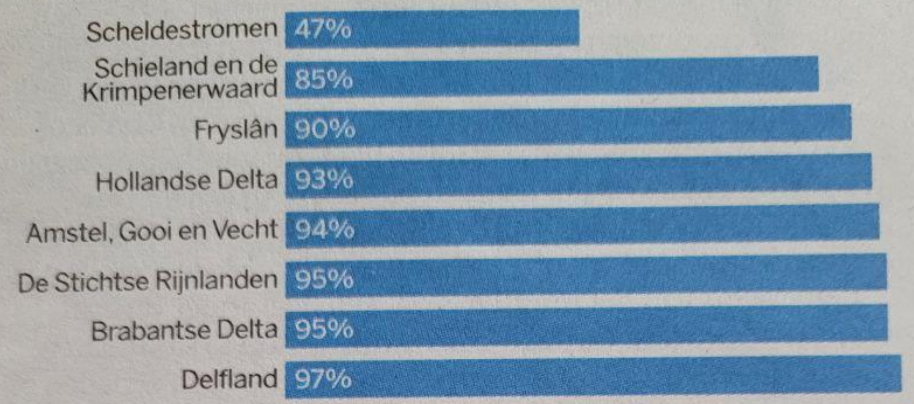
In de grijze gebieden kent het waterschap een 'vrij afwaterend watersysteem' en zijn er geen peilbesluiten

140323 © de Volkskrant
Bron: Unie van Waterschappen, Waterschap Scheldestromen; kaartgegevens hWh

Press VK'14mrt23

Gewenst waterpeil niet altijd haalbaar

Aandeel van gebied waarin het waterpeil technisch haalbaar is

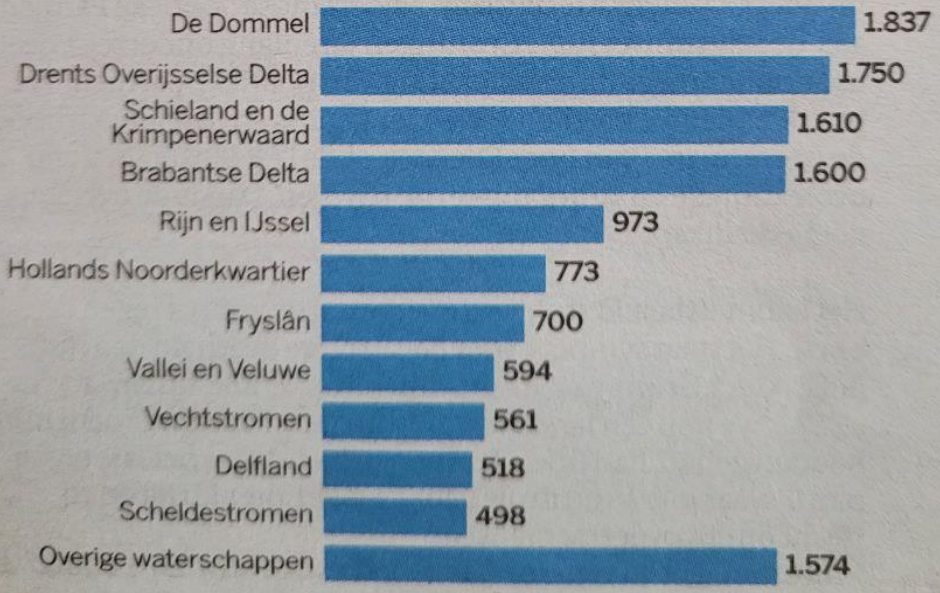


Voor de overige water- en hoogheemraadschappen is het peilbesluit voor 99% of 100% technisch op orde.

140323 © de Volkskrant. Bron: Unie van Waterschappen

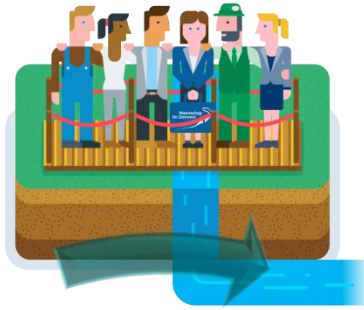
Duizenden hectaren voldoen niet aan overlastnorm

Aantal hectaren waar (nog) niet wordt voldaan aan normen voor wateroverlast, per waterschap (2021)



140323 © de Volkskrant. Bron: Unie van Waterschappen

Input to integral systems (BIGDATA & AI)
Smart Governance on water management



Meteo

EO-Info: evapotranspiration

1. Governance: smarter & better cooperation
2. Meteo & Info Network &
3. RS monitoring &
4. Modelling, AI
5. Smart management by better information

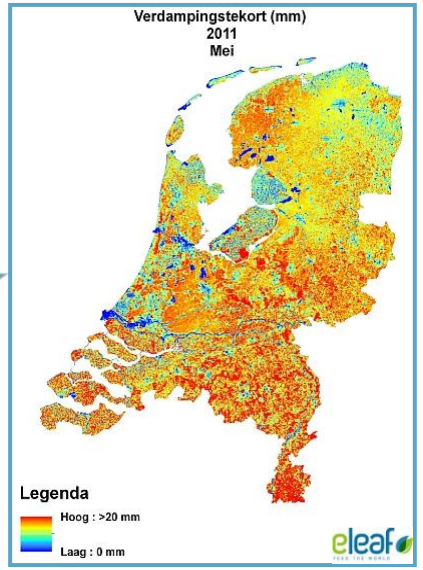
1

Beleids- en beheercyclus

koppeling

2

Inspectie en monitoring



Organisation
Water
Management
Policy

5

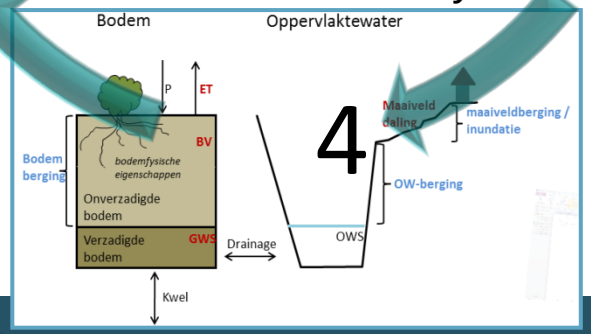
Organisatie

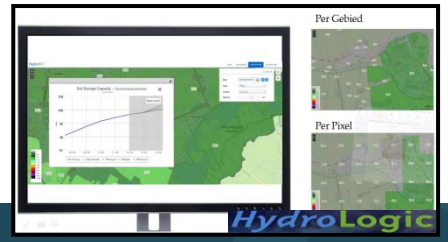
3

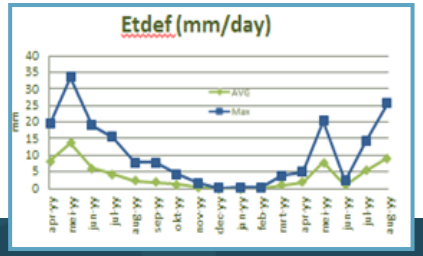
Operationele Sturing

NHI

Water availability







Satellite information input to Models/DSS !!

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OWASIS 2.0

esa

INPUT DATA

MODEL AS SERVICE

STORAGE & DISTRIBUTION

Historical

- Precipitation (radar)
- Evaporation (Satellite based)
- Groundwater & Soil Moisture data

Forecast 10 days

- Precipitation
- Evaporation

ECMWF

extended Water balance solver

System characteristics (soil type, land use, elevation,...)

- Water availability
- Soil Moisture
- Ground water levels
- Water demands

Database history & forecasts

FTP

HydroNET Portal

API

hetWaterschapshuis

Use in

Water Manage-ment & Policies DSS

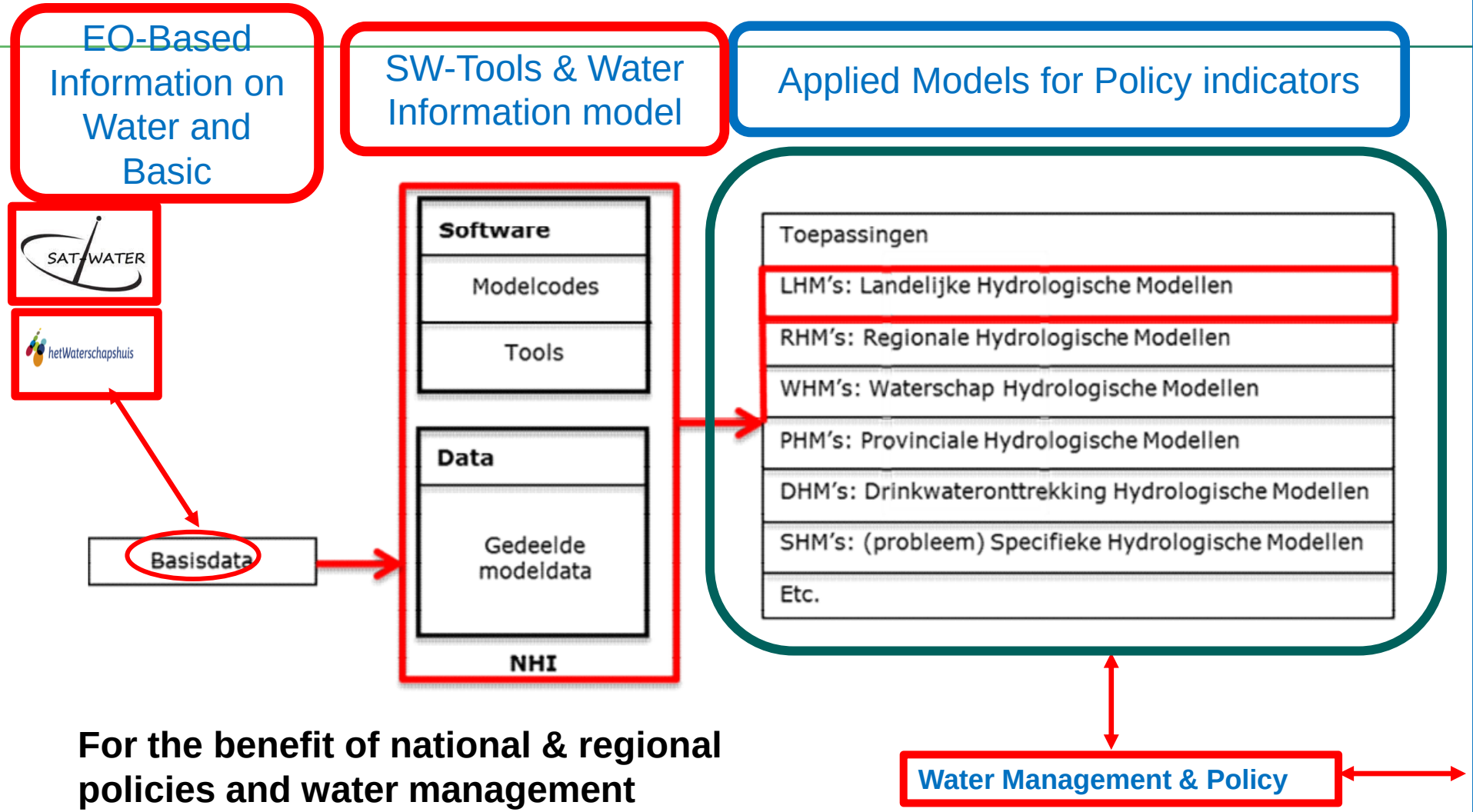
PROTECT

Central Model instrumentarium (NHI) as basis for policy based climate indicators

In order to cover the water management and policy needs spectrum one needs to be aware of the waterinformation/indicator user chain:

1. Basic information carriers (Lufo or high resolution Satellite data, Detailed height model, Admin. Boundaries, basic topographic data, etc. and mutations tracking)
2. Thematics EO-based thematic water related information (evapotranspiration, soil moisture, weather/meteo)
3. Model-based WaterManagement information (wateravailability in soil profile)
4. Decision modeling based on Policy indicators (water/climate)

Example of EO-based input to the Dutch national Hydrological (modelling) Instrumentarium (NHI) from STOWA-hetWaterschapshuis.



For the benefit of national & regional policies and water management

→Nutrients ground & surface water

→ Soil Subsidence

→ Yield losses

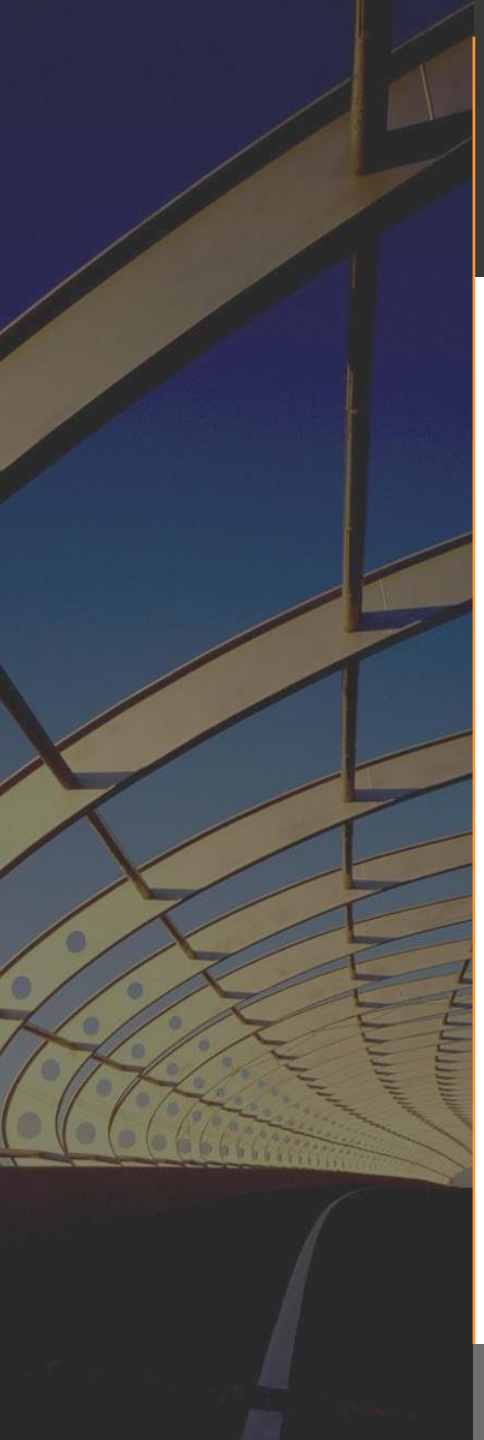
→ Terrestrial nature values

→ Aquatic nature values

→ Groundwater (drinking water) reserves

→ Sweet water demand & salt concentration

→ Waterdepth



How to conduct a market analysis to identify the state of the art of solutions:

the experience of PROCURE4HEALTH

Karsten Lemke
Zenit
Germany

Webinar:

“How to conduct a market analysis to identify the state of the art of solutions”

The experience of Procure4Health

Dr. Karsten Lemke
ZENIT GmbH, Muelheim an der Ruhr

Digital event
Thursday, 30th of May 2024, 09.00 – 12.30 hrs

Procure 4Health

Agenda

(1) Short introduction – ZENIT

(2) Context / Scope of the market analysis

(3) The five step process

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(3) The five step process

Moving innovation forward

We make small and medium-sized businesses innovative and international

About us

The agency for innovation and European affairs of the Federal State of North Rhine-Westphalia

Public-Private Partnership

- Federal State of North Rhine-Westphalia
- A consortium of public and private banks in North Rhine-Westphalia
- Netzwerk ZENIT e. V.
  (an association of over 200 enterprises)

Turnover:
5,0 mio. EUR
(2020)

Employees:
60

Established in
1984

Our mission

On behalf of our shareholders and partners in Europe, Germany and NRW, we assist and support **small and medium-sized enterprises** as well as the **public sector** in the development and introduction of new products, processes or business models in existing or new markets.

Business areas and expertise

Innovation

Technology

Internationalization

Funding Advice

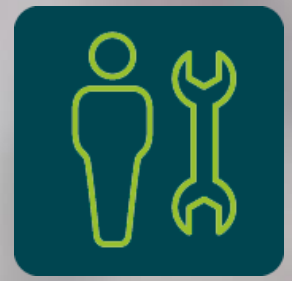
Networks

Artificial Intelligence

3D Printing

Circular Economy

Hydrogen



Human Resources

Agenda

(1) Short introduction – ZENIT

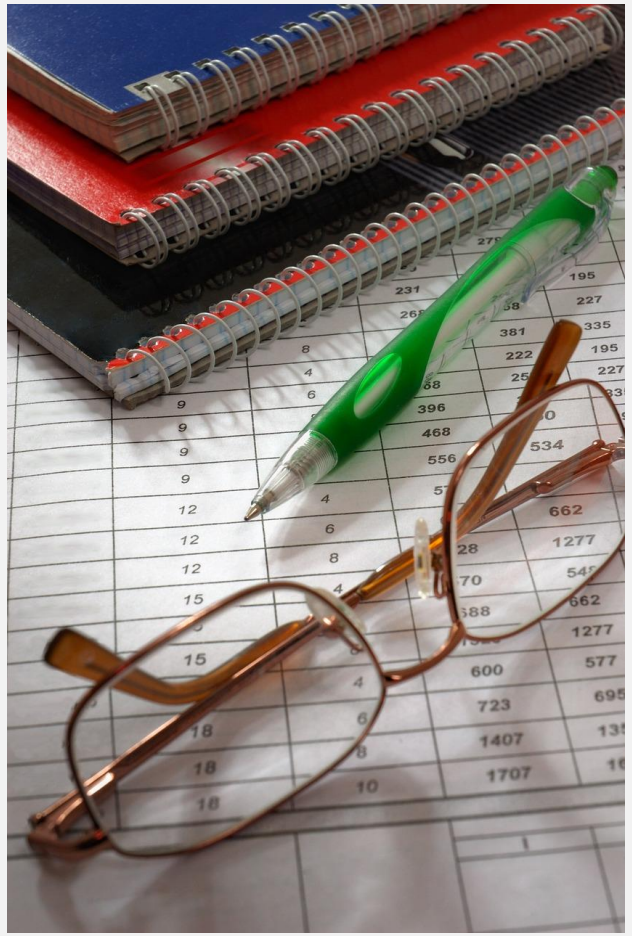
(2) Context / Scope of the market analysis

(3) The five step process

Context / Scope of the market analysis 1

Background

- A well-founded market analysis is an **indispensable prerequisite** for a successful innovation procurement process.
- The results of the market analysis are used in the **further process** to **prepare a public tender** and to involve the solution providers/experts in the process in the form of an **open market consultation (OMC).**



Context / Scope of the market analysis 2

Background

- Before the contracting authority can start an award procedure, **preparatory measures** must be taken. Above all, it is crucial to finalize the **decision-making process** regarding the specific service the client truly desires. The client must carry out a **needs analysis** and have answered the question: **What service do I actually want or need?**
- This is an **internal process** in which the solution providers are not normally involved. In many cases, the client knows exactly what service they need.
  - For **example**, if they want to outsource **cleaning services**, they know which buildings in the clinic are to be cleaned in which way and at what intervals.

Context / Scope of the market analysis 3

Background

- However, there are also a large number of procurement projects in which the **client faces problems when analysing precisely these requirements**. They may know what problem they want to solve with a particular procurement, but **they do not know what solutions the market and potential bidders can offer them**.
- The **market and the solutions** available on the market - such as in the IT sector - **often develop so quickly** that clients do not even know which options and solutions are **available** and which are still **under development** or **close to market maturity**.

Context / Scope of the market analysis 4

Background

- In such cases, the **client is unable** to draw up a **performance specification** due to a lack of expertise. Nor can it **define adequate eligibility and award criteria**. Ultimately, it cannot **estimate the value of the contract** because it cannot know at what price and at what cost it will be able to cover its needs on the market.
- In each of these scenarios, conducting a procurement-related market analysis before initiating the award procedure is not only correct but also crucially important.

Agenda

(1) Short introduction – ZENIT

(2) Context / Scope of the market analysis

(3) The five step process

Procure 4Health

The European *community* of healthcare innovation procurers

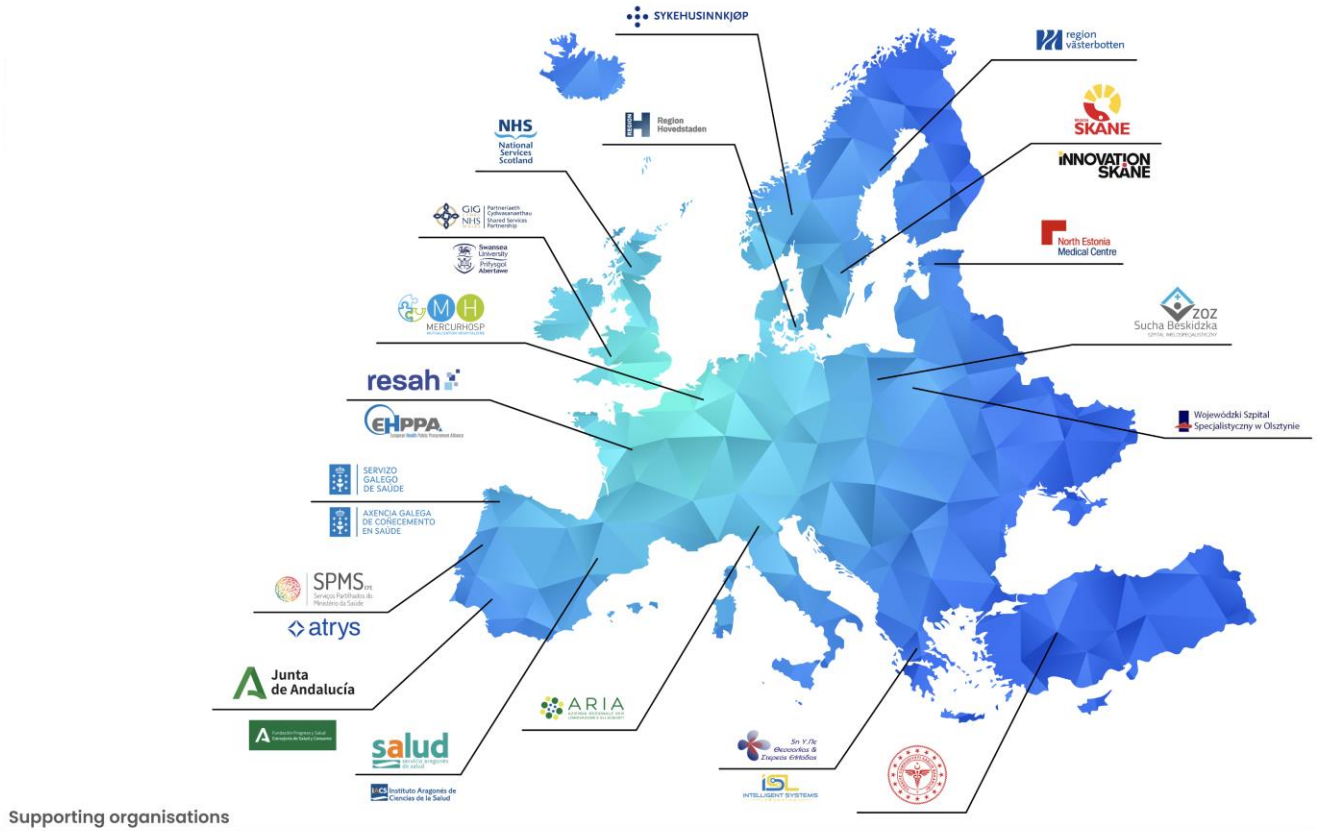
www.procure4health.eu

CAPACITY BUILDING

NETWORKING & MATCHMAKING

COLLABORATIVE INNOVATION PROCUREMENT

POLICY IMPACT



Supporting organisations

ZENITO · CORVERS · Vtrek · ticbiomed · Health Care Without Harm · SILO Science & Innovation Link · empirica

This project has received funding from the European Union. GA 101057209.

The innovation procurement process

Funding of €30k *to take the next step on this journey*

Are you a healthcare procurer interested in participating in the Twinnings?

DOWNLOAD DOCUMENTATION KIT

https://procure4health.eu/wp-content/uploads/2024/02/P4H-3rd-Call-for-Twinnings_Documentation-Kit_2402.zip

What is our (actual) unmet need?

What is currently available on the market?

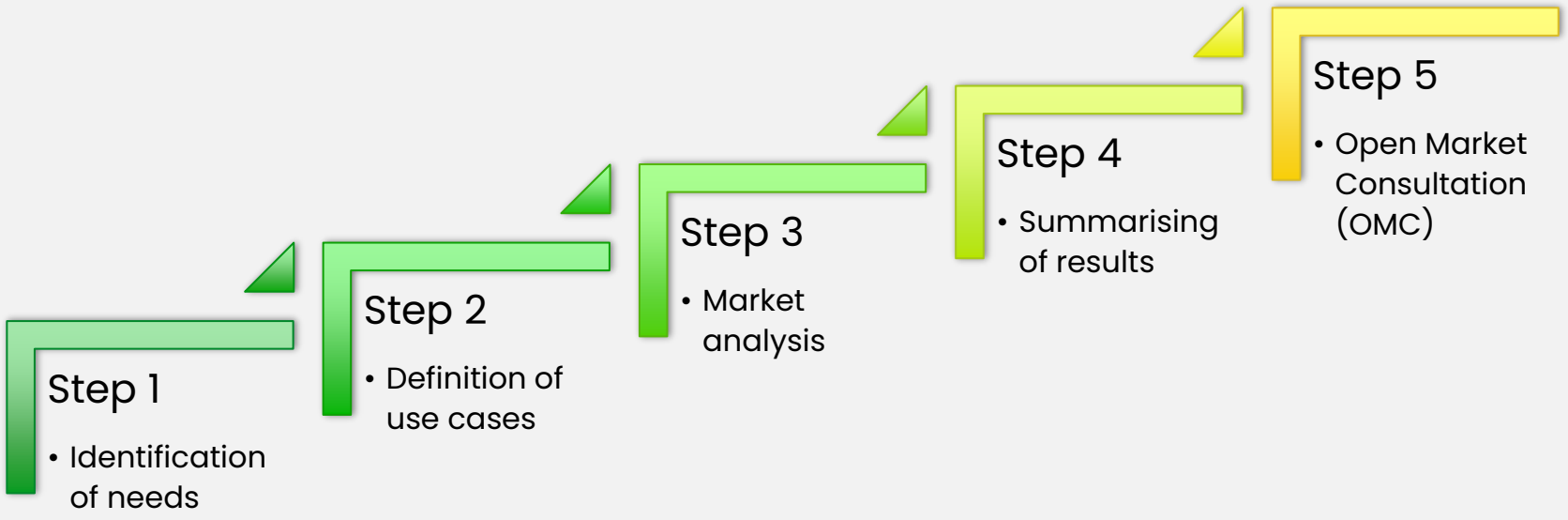
How do we engage safely with the industry?

How do we compare and procure innovative solutions?

The five step process

Structure

The entire market analysis process should comprise the following five individual steps:



The five step process – Step 1

Identification of needs

Be aware of the difference of a need and a solution!

A need is the **root problem** you want to solve. A solution is the **technology** or **approach** to solve it.

A need is something **stable in time**, e.g. I want to move from point A to B as quick and comfortably as possible. Solutions to this need include: horses, bicycles, cars or airplanes.

When identifying and describing needs, try to isolate what is truly the problem, desire or outcome versus the technology that can solve it. First the need, then the solution.

Source: https://community.procure4health.eu/p/p4h-insights

The five step process – Step 2

Definition of use cases

If you have a basic problem, i.e. a need, it is crucial to look for suitable use cases that relate to the defined need.

A market study can only be carried out on the basis of the most suitable and concrete use cases for a need. The search then focuses on functionalities and not on specific solutions/products.

Example:

„On-site treatment of hospital wastewater “ (HWW)

More information on the P4H website:
https://procure4health.eu/omc-on-site-treatment-of-hospital-wastewater/

Use case#2

On-site treatment of hospital wastewater (HWW)

The five step process – Step 2

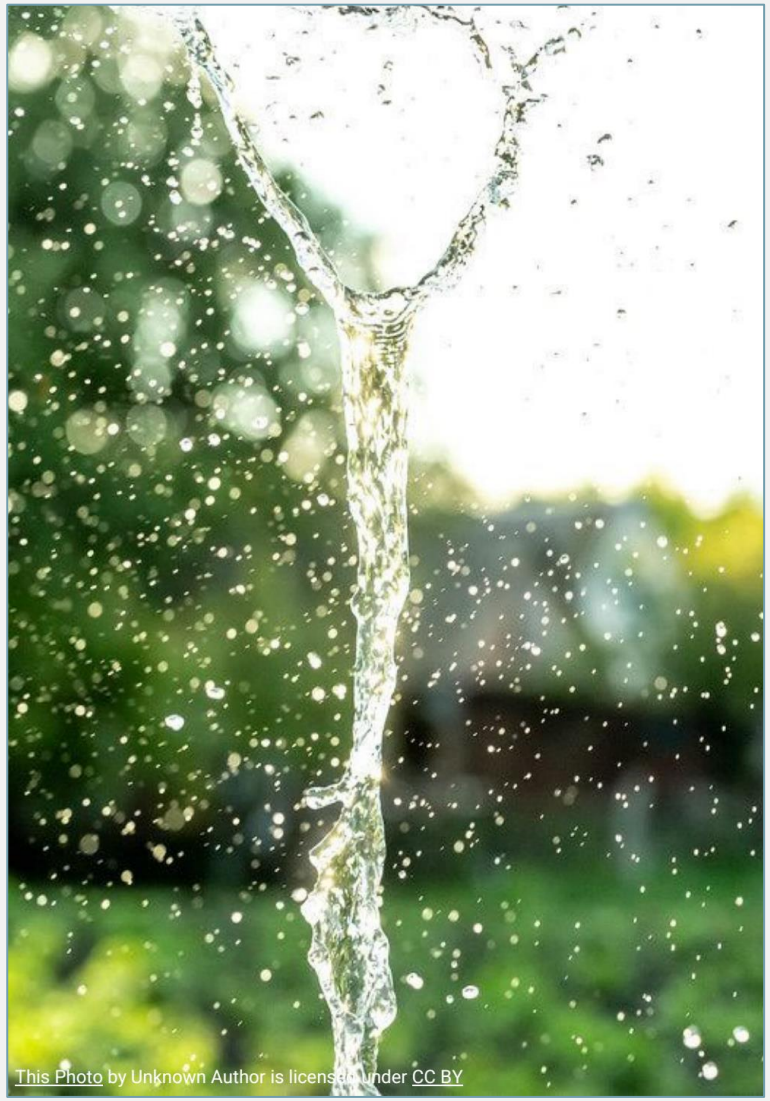
Use case - Example:

„On-site treatment of hospital wastewater “ (HWW)

Context

Hospital waste water (HWW) poses a significant environmental and health risk due to the presence of medicines, pharmaceuticals, pathogens, and other hazardous substances. Traditional wastewater treatment methods employed by hospitals are often inadequate in effectively removing these contaminants.

More information on the P4H website:
https://procure4health.eu/omc-on-site-treatment-of-hospital-wastewater/



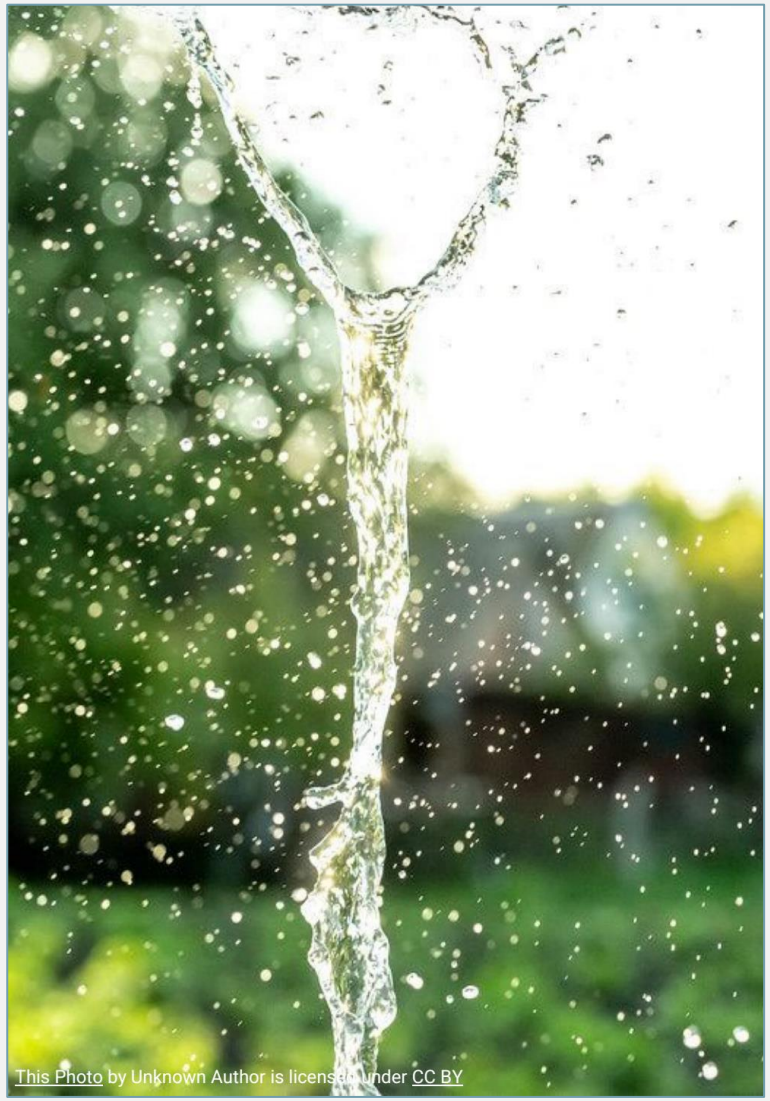
The five step process – Step 2

Definition of use cases - Example:

„On-site treatment of hospital wastewater “ (HWW)

Situation

As is now	Wish situation
Due to the presence of medicines, pharmaceuticals, pathogens, and other hazardous substances in HWW there is an environmental and health risks posed on the environment and the public.	With an improved wastewater treatment system, the discharge from hospitals would have a reduced environmental impact through the discharging toxic substances, infectious compounds, pharmaceutical residues, and pathogens into the environment or municipal water and minimize the risks on public health by ensuring the removal of disease-causing agents from hospital wastewater (the risk of waterborne transmission would be reduced and potential outbreaks or contamination of drinking water sources.)



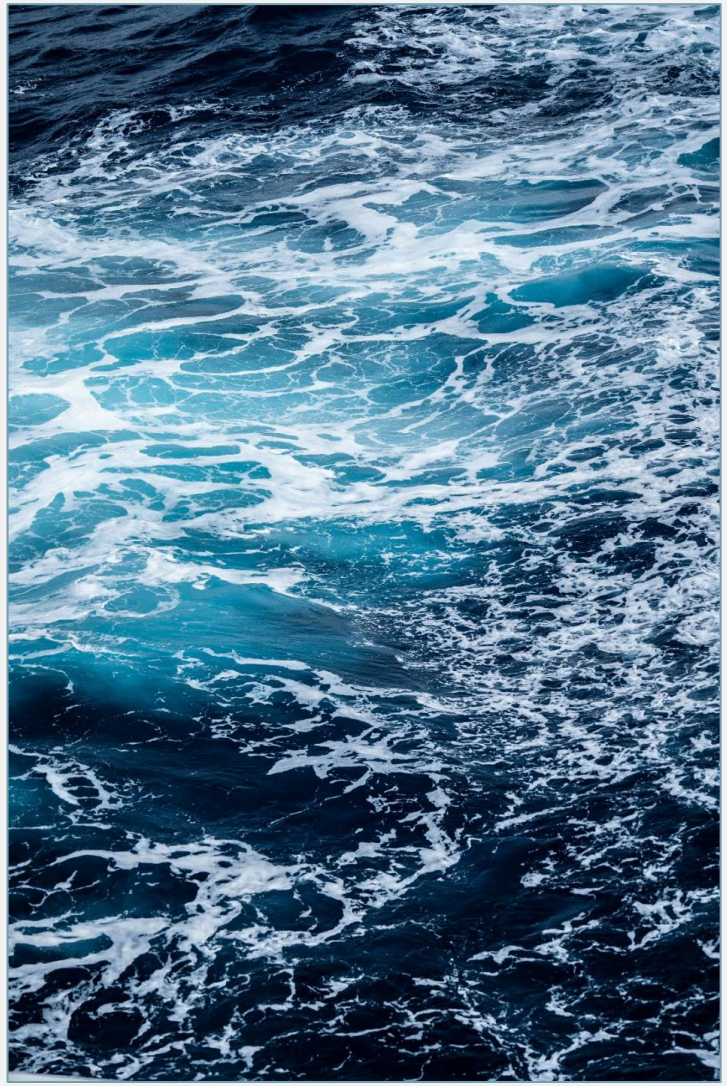
The five step process – Step 2

Definition of use cases - Example:

„On-site treatment of hospital wastewater “ (HWW)

Required functionalities:

- Channel the hospital wastewater into a centralized treatment facility
- Removal of large solid debris and coarse materials from wastewater
- Being able to separate/treat highly soluble reagents, like sodium azide, or other hazardous chemicals
- Works stably despite high concentrations of disinfection agents
- Treating persistent organic pollutants
- Meet the required waste-water discharge standards by disinfecting HWW
- Reduce nutrient concentrations (like nitrogen and phosporus)
- Filter and separate HW through advanced treatment technologies



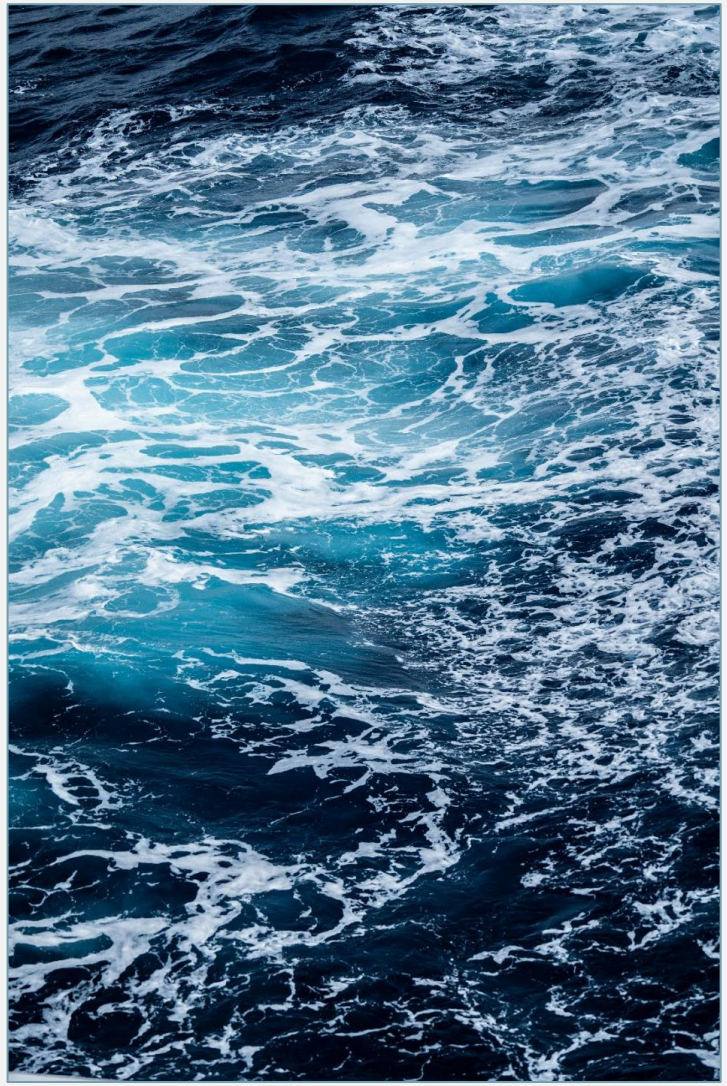
The five step process – Step 2

Definition of use cases - Example:

„On-site treatment of hospital wastewater “ (HWW)

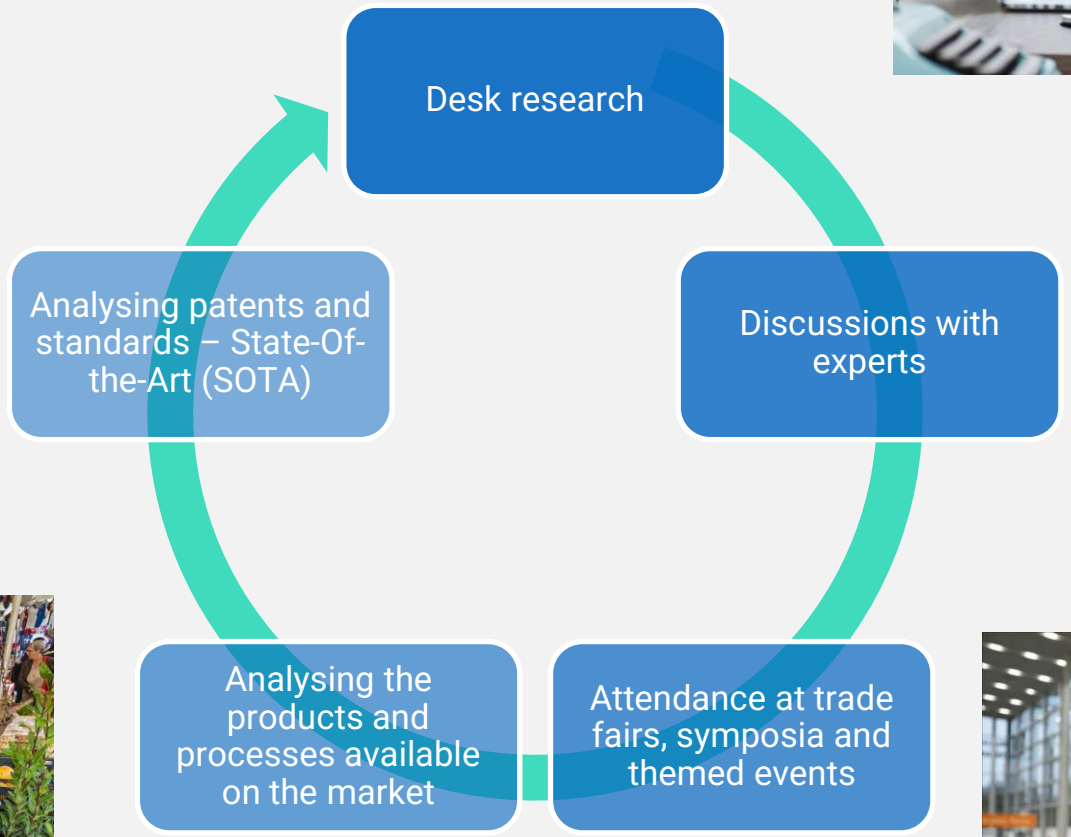
Required functionalities (continued):

- Proper handling of sludge that might form
- Include monitoring devices and sensors to measure important parameters (like pH, temperature, dissolved oxygen, and pollutant concentrations, etc.)
- Odour control
- Reuse water opportunities depending on local regulations and requirements, treated hospital wastewater may be suitable for various non-potable reuse applications within the hospital, such as irrigation, toilet flushing, or cooling tower makeup water



The five step process – Step 3

Market analysis tools



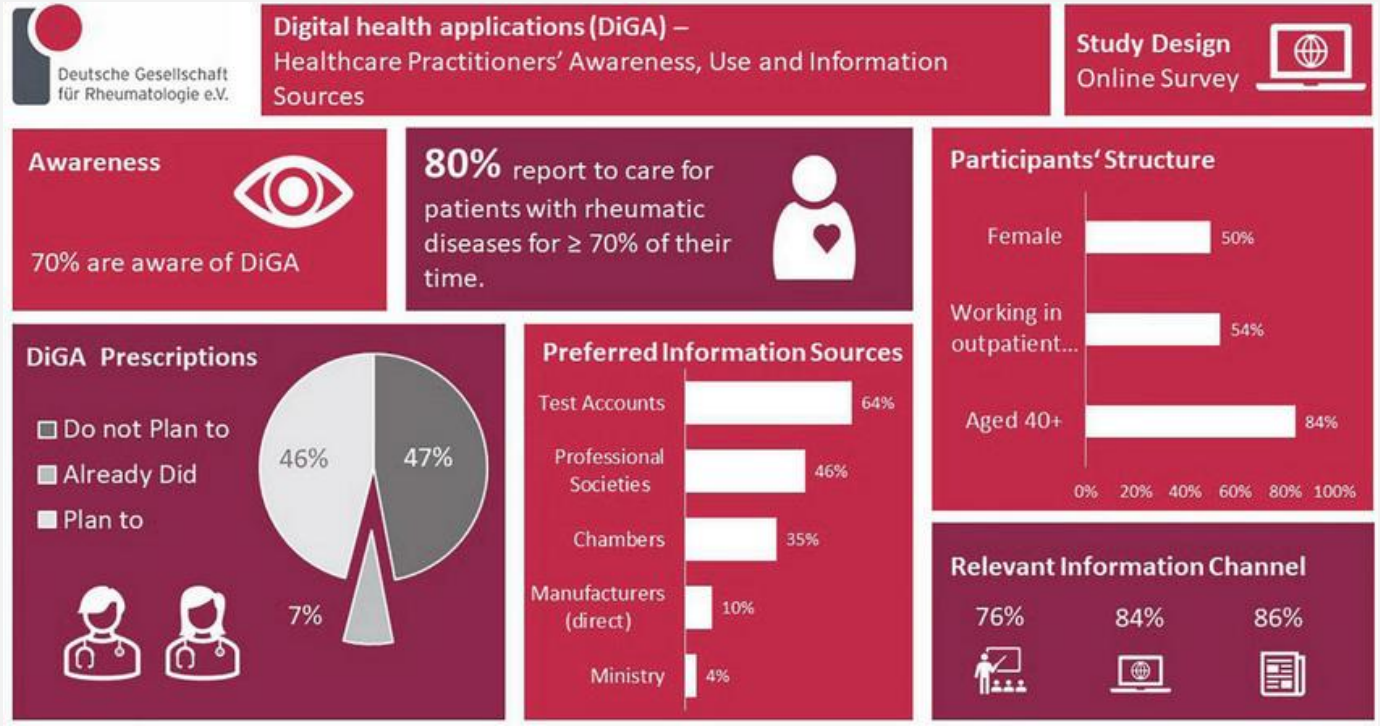
The five step process – Step 4

Summarizing the results

A summary of all findings and results will lead to the preparation of the final step, the open market consultation(OMC).

Example:

Richter, Jutta & Chehab, Gamal & Stachwitz, Philipp & Hagen, Julia & Larsen, Denitza & Knitza, Johannes & Schneider, Matthias & Voormann, Anna & Specker, Christof. (2022). *One year of digital health applications (DiGA) in Germany – Rheumatologists' perspectives.* Frontiers in Medicine. 9. 1000668. 10.3389/fmed.2022.1000668.



The five step process – Step 4

Example: „On-site treatment of hospital wastewater “ (HWW)

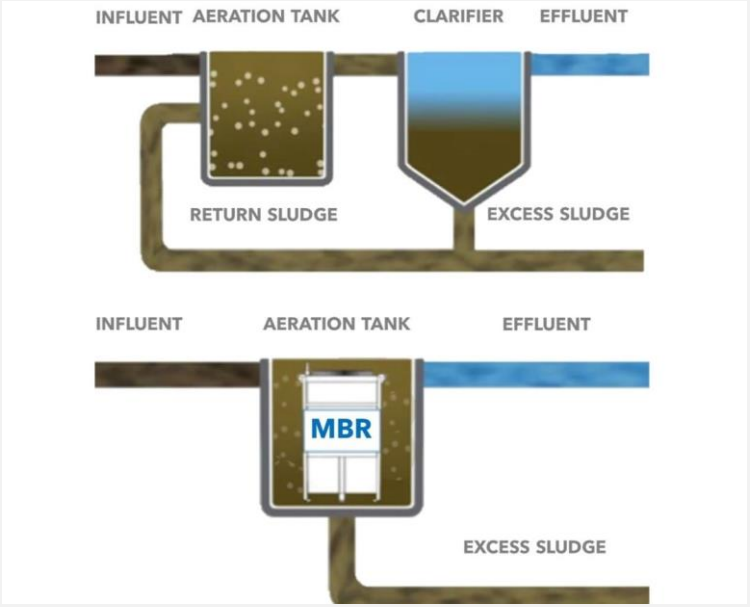
Technologies for (hospital) wastewater treatment (1)

There are different technologies being used for treating municipal wastewater. Some of these technologies are designed to address the complex mixture of contaminants that hospital wastewater typically contains.

Key technologies are:

- **Membrane Bioreactors (MBR):** MBR technology uses membranes with controllable porous and nonporous structures for molecular separations.
- **Disinfection Technologies:** These include incineration, chemical disinfection, and physical disinfection.
- **Degradation reaction, catalyzed by iron(II)oxide (FeO) under microwave irradiation:** This technology has been effective for treating hospital wastewater containing high concentrations of specific compounds like diclofenac and ibuprofen.
- **Electrochemical Technologies:** These have been developed to decrease chemical risks in hospital wastewater, particularly from pharmaceuticals.

WATER TREATMENT SOLUTION

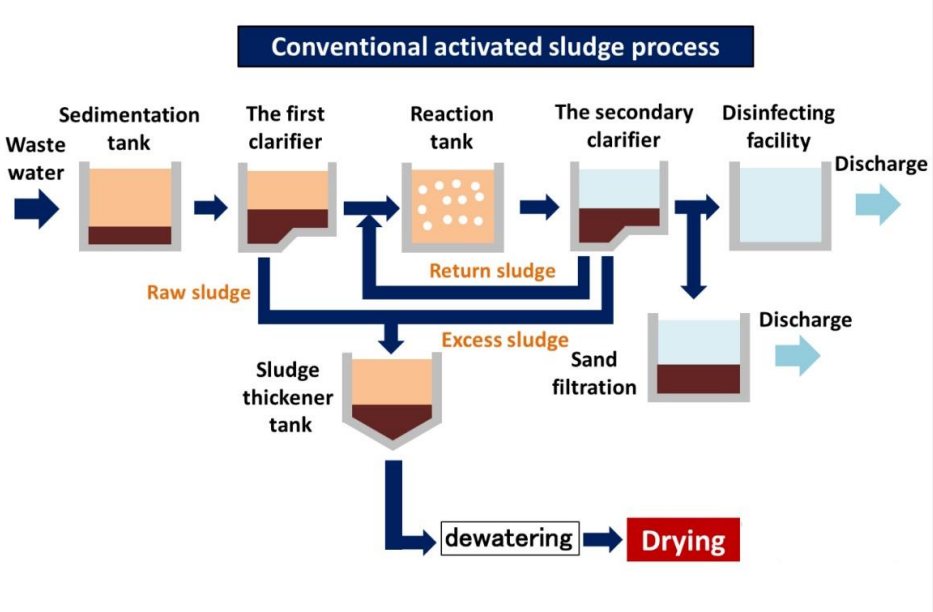


The five step process – Step 4

Example: „On-site treatment of hospital wastewater “ (HWW)

Technologies for (hospital) wastewater treatment (1)

- **Activated Sludge Processes (ASPs):** Alongside MBRs, ASPs are a major and effective method for hospital wastewater treatment, especially considering the COVID-19 outbreak.
- **Microflotation:** This process utilises fine air bubbles to separate suspended solids and oily contaminants. It is often used as a pre-treatment method to remove larger solids and fats before further treatment stages follow. Microflotation is cost-effective but requires a subsequent treatment stage to combat microbial contamination.



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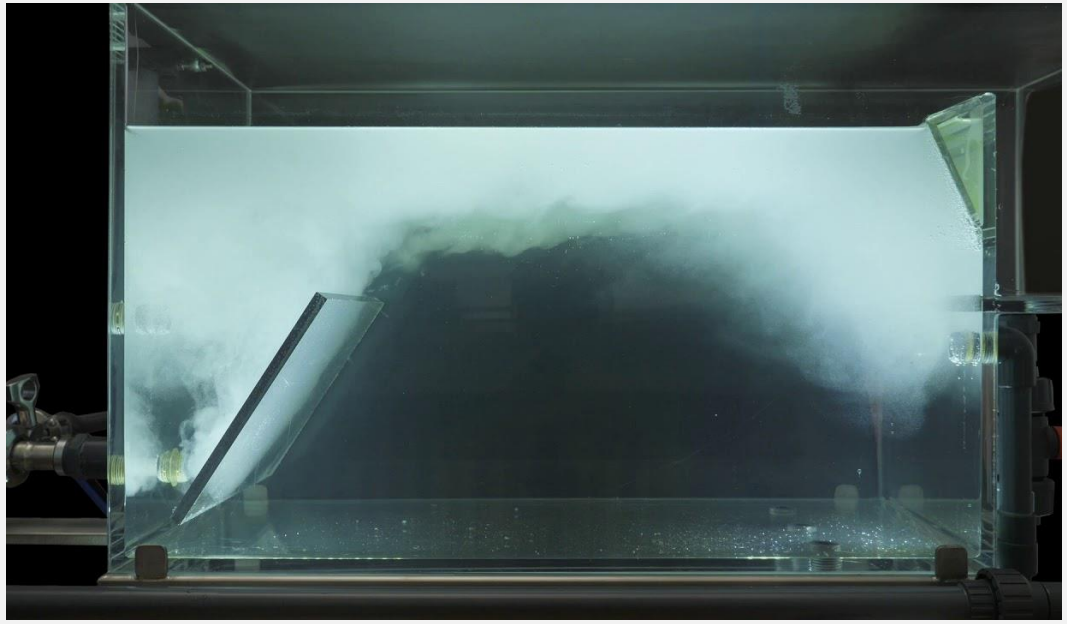

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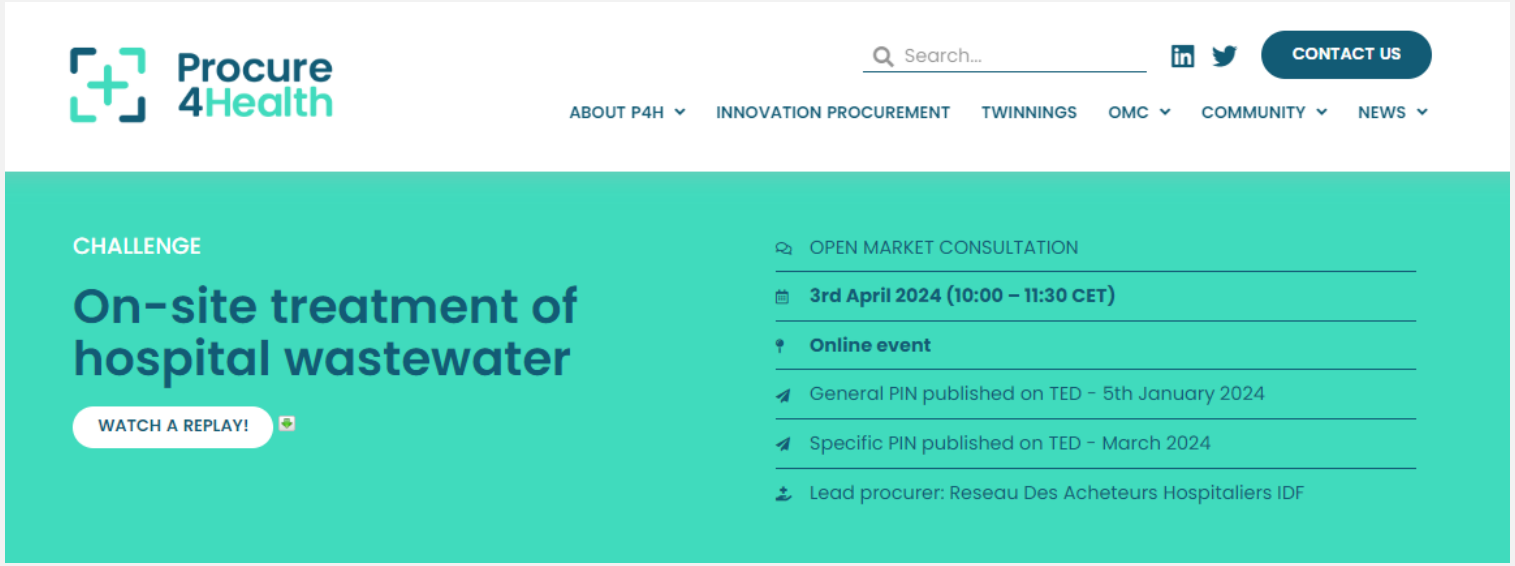
The five step process – Step 5

Open Market Consultation (OMC)

Share your market analysis results with suppliers and procurers either online in a webinar or in person at a face-to-face event



CONTEXT

Hospital wastewater (HWW) poses a significant environmental and health risk due to the presence of medicines, pharmaceuticals, pathogens, and other hazardous substances. Traditional wastewater treatment methods employed by hospitals are often inadequate in effectively removing these contaminants.

USE CASE

On-site system capable of effectively removing toxic substances, infectious compounds, pharmaceutical residues, and pathogens from hospital wastewater.

AGENDA

- 10:00 - Welcome & introduction to the P4H Project
- 10:10 - PCP + OMC objectives and activities
- 10:25 - Presentation of the use case "on-site treatment of hospital wastewater"
- 10:35 - Presentation of the market analysis results
- 10:50 - Presentation of the state of the art analysis results
- 11:00 - Open discussion & Request for Information
- 11:20 - Closure

Source: https://community.procure4health.eu/p/p4h-insights

The five step process – Step 5

Open Market Consultation (OMC)

Inform the market providers about the results of your research and ask them for additions and further suggestions for solutions.

Scope document

If you would like to better understand what is expected, have a look at this detailed description of the building blocks and use cases. Please note that this is draft information with the purpose of consulting the market and that it might differ from the final versions included in the Call for Tenders.

DOWNLOAD

Questionnaire

A questionnaire has been prepared to collect relevant information and feedback from the market about the scope of this challenge. Companies and other market participants are cordially invited to fill out the Open Market Consultation Questionnaire to express their feedback about the project and tender setup.

CLOSED

Source: https://procure4health.eu/omc-on-site-treatment-of-hospital-wastewater/

The five step process – Step 5

Open Market Consultation (OMC)

After the OMC webinar, supply the information, which was presented to the participants, online.

Recording

Slides

DOWNLOAD Q&A

DOWNLOAD PDF

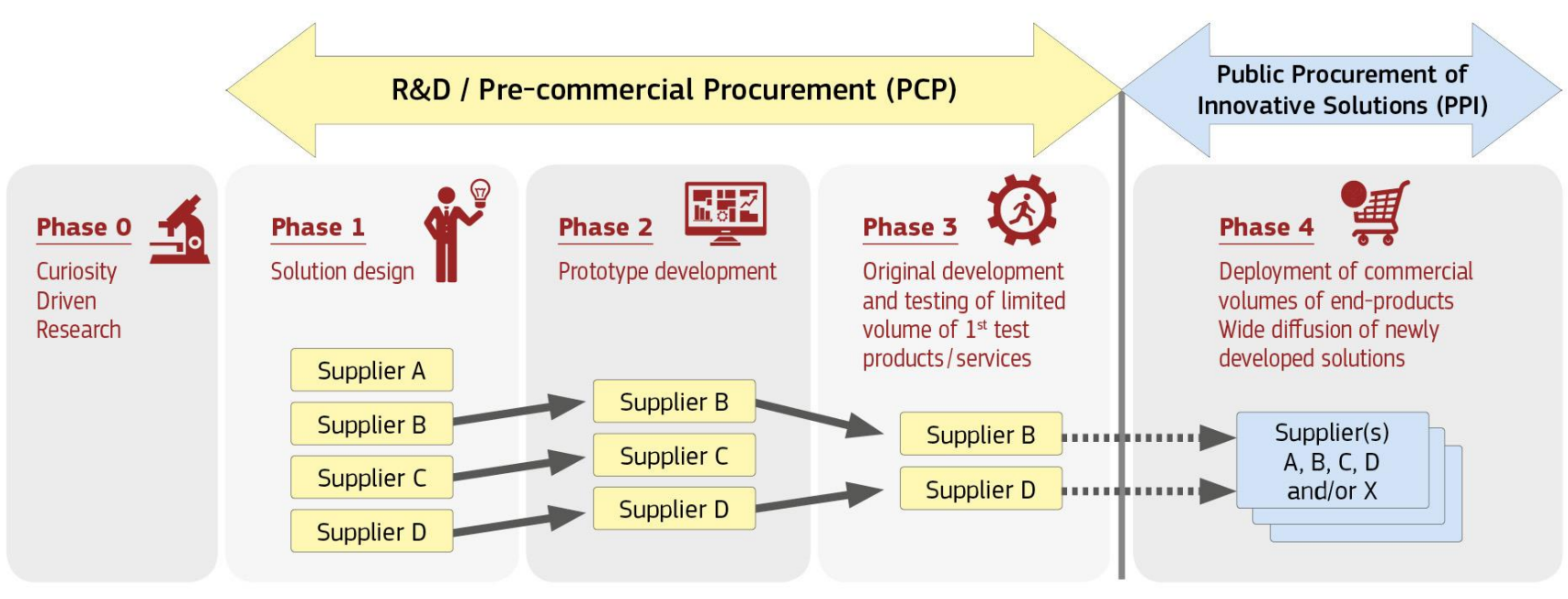
57 participants
6 speakers

Sources:
https://procure4health.eu/omc-on-site-treatment-of-hospital-wastewater/
https://youtu.be/5kGguQdv6c8
https://procure4health.eu/wp-content/uploads/2024/04/P4H_QA-document_2.pdf

Last, not least …

Publication of a PCP or PPI-Call

After the process of needs identification, market analysis and OMC, a PCP or PPI project can be the next step towards the uptake and implementation of innovations into the market



Source: European Commission (H2020 Programme «Guidance – PCP procurement documents », DG CNECT)

Thank you for your attention!

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Email: doris.scheffler@zenit.eu

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SHIELD4CROWD:

How to prepare an Open Market Consultation and e-pitching on 3 use cases:

the experience of SHIELD4CROWD

Jorge Garzón
Ministry of Interior
France

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How to prepare an

Open Market Consultation and e-pitching on 3 use cases

The experience of the Shield4Crowd EU project

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SHIELD 4CROWD

EU Project

SHIELD4CROWD

Heightening Innovation Procurements and Setting a Baseline for a Pre-Commercial Procurement (PCP) to Increase Crowd Management Security in EU Public Spaces

Learn more!

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How to prepare an

Open Market Consultation and e-pitching on 3 use cases

The experience of the Shield4Crowd EU project

Agenda

- *Introduction*
- *Knowing the market – The starting point for innovation*
- *Why conducting an Open Market Consultation (OMC)?*
- *How to conduct an OMC*
- *Engaging with technology providers (e-pitching)*

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Innovation starts with **market knowledge**

Strategic monitoring (intelligence)

Preliminary market consultations at FMI

Benchmarking

Engaging with the market

An optimised tool for sustainable procurement

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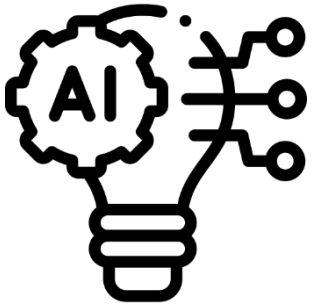
Strategic monitoring (intelligence)

It is a **decision-making tool** that provides a permanent overview of the market's environment.

It involves collecting, analysing and disseminating essential information on an ongoing basis on :

- The market and the strategic orientations of its players,
- competitors,
- potential customers,
- innovations and technological advances, etc.

It means grasping the trends in today's environment so that you can adapt your strategy to keep pace with tomorrow's developments.



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Benchmarking

It is a continuous process of evaluation (products, services, methods, etc.) in relation to other players (competitors, partners, its network, its counterparts) with **comparable needs**..

This assessment focuses mainly on :

- the buying tactics or strategies adopted,
- the associated advantages/disadvantages/risks
- the best practices implemented feedback (satisfaction or dissatisfaction)

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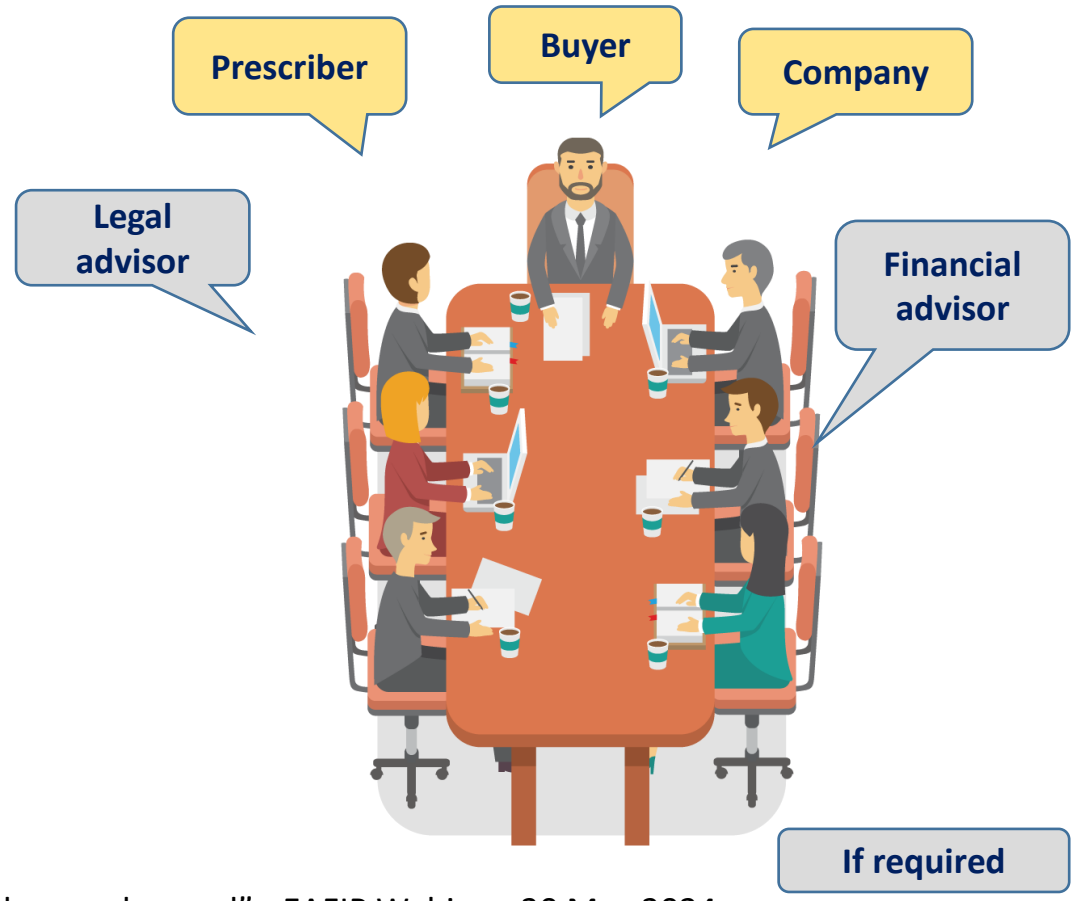
Market Consultation

- To identify the partners best **able to meet current** and/or **future needs**.
- To redirecting or adapting needs
- To **boost innovation**.

Framed by an internal procedure:

- analysis grid;
- same amount of time devoted to interviews;
- same information communicated;
- total traceability and transparency.



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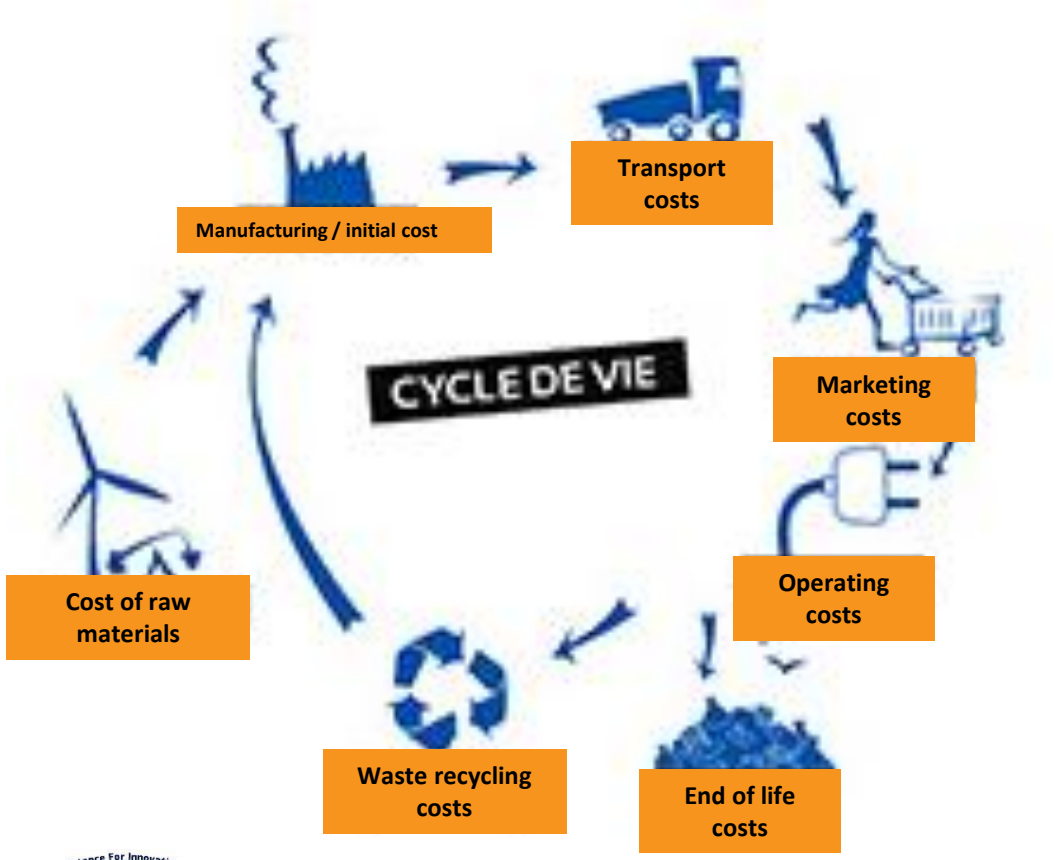
An efficient tool for LCC analysis



Market consultations help the LCC approach for a sustainable procurement strategy

EU Tools :

- Computers and Monitors: User guide & LCC tool
- Imaging Equipment: User guide & LCC tool
- Indoor Lighting: User guide & LCC tool
- Outdoor Lighting: User guide & LCC tool
- Vending Machines: User guide & LCC tool

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Showrooms, fairs and professional events

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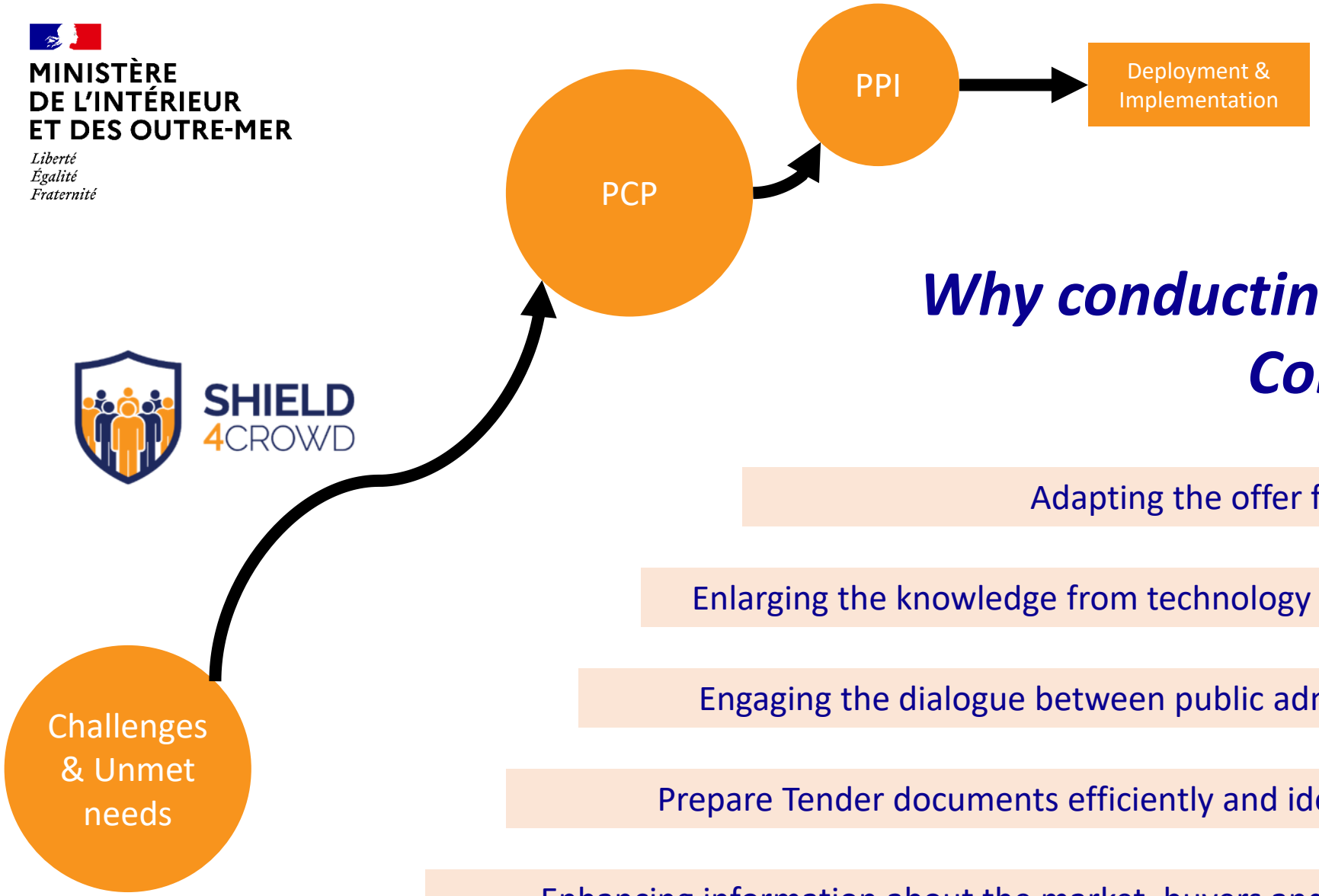

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Why conducting an Open Market Consultation (OMC)?

- Adapting the offer from suppliers to the demand side
- Enlarging the knowledge from technology providers. Alligning with the SOTA
- Engaging the dialogue between public administrations and private suppliers
- Prepare Tender documents efficiently and identify potential joint procurement
- Enhancing information about the market, buyers and end-users behaviours and trends

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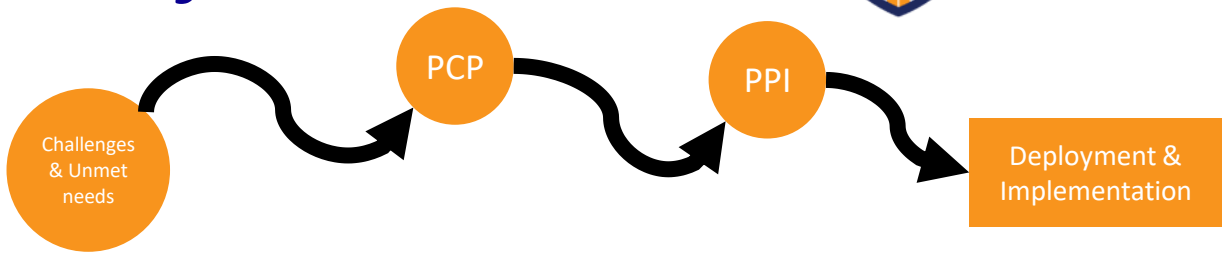
The experience of an OMC for Shield4Crowd

SHIELD 4CROWD



To prepare a future Pre-Commercial Procurement

Open market consultations and e-Pitching sessions

The key activities to be performed in order to to communicate procurers' needs to the market, cross-check the findings of the SOTA and obtain relevant information from suppliers included :

- Organisation of **e-Pitching sessions** for the three selected common security use cases in which the market suppliers will present how their existing/upcoming solutions could tackle the procurement challenges selected.
- Publication of a **Prior Information Notice (PIN)** to announce the OMC.
- Preparation of a **Request for Information (RfI) questionnaire** based on the information from the SOTA, which helps to prepare specific questions on budget, time, standards and other relevant aspects.
- **National OMC events (online) in different MS and a main (hybrid) OMC event in English** to crosscheck with the market the findings of the SOTA, the selected common security use cases, the TRL of the technologies that justify the implementation of a PCP and the legal and financial assumptions of the upcoming procurement procedure.
- Based on the **results of the OMC and the e-Pitching sessions**, the procurement challenges, the common security use cases and the legal and financial assumptions of the upcoming procurement procedure will be fine-tuned and potential suppliers that can provide a solution will be identified. All these steps will provide a thorough **justification on why a PCP is the best approach** to bridge the innovation gap between what is currently available on the market - based on the user requirements and COTS - and the procurement challenge represented in the three use cases.

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How to conduct an OMC?

1. **Open and clear communication of the Challenges or Identified needs**
   - ✓ Costs of the current solution.
   - ✓ Share information obtained from the state-of-the-art analysis → validate and identify alternatives.

2. **Emphasise on the innovative outcome**
   - ✓ Specific technologies discovered in the state-of-the-art analysis.
   - ✓ Performance-based or functional

3. **Efficient planning of time and resources**
   - ✓ In advance to disseminate the information and reach the audience.
   - ✓ Ensure broad participation.
   - ✓ Give the market operators enough time to ask questions, share their views and prepare for the upcoming procurement procedure.

4. **Guarantee security of confidential information, trade secrets and intellectual property**
   - ✓ Encourage the participation of the private sector → CLARIFY what will be public and what will not be public. ASK participants to indicate and justify what information is confidential.

5. **No regulations on how to engage in the dialogue → TFEU principles**
   - ✓ Clear separation between the tender and the ***preliminary*** market consultation → INFORM participants!
   - ✓ Both the participants of the OMC and potential bidders under equal conditions and with the same information.

6. **Publish and disseminate the report - Transparency**

Conducting an Open Market Consultation

- ✓ Meet the Market Event (MTM)
- ✓ Industry Days
- ✓ Webinars
- ✓ Publication of the annual public procurement plans
- ✓ Market Surveys
- ✓ Information via (institutional) websites

⚠ During an Open Market Consultation, compliance with TFEU principles (equal treatment, transparency, non-discrimination, proportionality) is a must.

Preliminary market consultations are regulated under the 2014 EU Public Procurement Directives:

- Articles 40 and 41 Directive 2014/24/EU
- Articles 58 and 59 Directive 2014/25/EU

This project has received funding from the European Union's Horizon Europe research and innovation programme under grant agreement No101121171

Activities under the S4C OMC

Date	Activity
December 2023	Publication of the Prior Information Notice (PIN) on the Tenders Electronic Daily (in English). ✓ Announce the OMC. ✓ Ensure wide outreach in MS.
March 2024	Publication of the OMC documents on the project's website. ✓ Inform the market about the S4C objectives and PCP challenges. ✓ Set up the rules of the OMC.
March 2024	Publication of the Request for Information questionnaire in EU Survey. ✓ Validate the results of the SOTA analysis. ✓ Gather information about the requirements and set up of the future PCP.
April 2024	OMC Webinars (5 languages) ✓ Inform **the market about the S4C objectives and PCP challenges.**
May 2024	OMC Event in Warsaw, Poland (hybrid) ✓ **Inform the market about the S4C objectives and PCP challenges.** ✓ **Gather feedback on the different use cases (3 workshops).** ✓ Facilitate alliance of technology providers (matchmaking session).
June 2024	Publication of the OMC findings, including all questions and answers to the OMC questionnaire. ✓ Inform the market about the outcomes of the OMC.

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OMC Events

4 OMC events (ONLINE)

English	French	Slovakian	Italian	Spanish
2nd April	3rd April	4th April	4th April	5th April

E-Pitching events

Briefing event with providers	Challenge 1	Challenge 2	Challenge 3
8th April	15th April	16th April	17th April

Main OMC event in Warsaw (HYBRID) – 15th May

This project has received funding from the European Union's Horizon Europe research and innovation programme under grant agreement No101121171

The Request for Information questionnaire

- Three (3) sections and 22 questions.
- **PCP challenge and requirements**
  - technological developments, barriers, needs not identified, combination of technologies suitable to each of 3 use cases, time, budget
- **SOTA analysis results:**
  - TRL, patents and standards
- **Miscellaneous:**
  - Specific requirements, risks, suggestions

https://ec.europa.eu/eusurvey/runner/shield4crowd

This project has received funding from the European Union's Horizon Europe research and innovation programme under grant agreement No101121171

E-pitching sessions

A total of 50 e-pitchings:

- 18 e-pitchings for use case 1 “Coordinated bomb and CBRN attacks during major sports events”
- 12 e-pitchings for use case 2 “Concert venue chaos: disinformation – induced panic”
- 20 e-pitchings for use case 3 “Terrorist attack at train station and surrounding area”

Technology providers from 6 different countries:

- France
- Greece
- Italy
- Poland
- Slovakia
- Spain

They were asked to present the company, the existing solutions, and their R&D efforts and capabilities.

This project has received funding from the European Union's Horizon Europe research and innovation programme under grant agreement No101121171

Feedback e-pitching sessions

Coordinated bomb and CBRN attacks during major sports events

- Modelling
- Simulation-based decision/support
- Use of UAV
- 3D maps
- AI-awareness and detection
- 360 situational awareness
- Smart sensors
- Perimetrical protection
- Specialised clothing
- **Combination of technologies**

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Feedback e-pitching sessions

Concert venue chaos: disinformation – induced panic

- Crisis management tool
- Spatial behaviour and language models
- Simulation-based decision/support
- Use of drones – UAV
- Geospatial Intelligence
- AI-awareness and detection
- 360 situational awareness
- 3D digital twins
- Intelligent video analytics
- Social media security threat detection
- **Combination of technologies**

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Feedback e-pitching sessions

Terrorist attack at train station and surrounding area

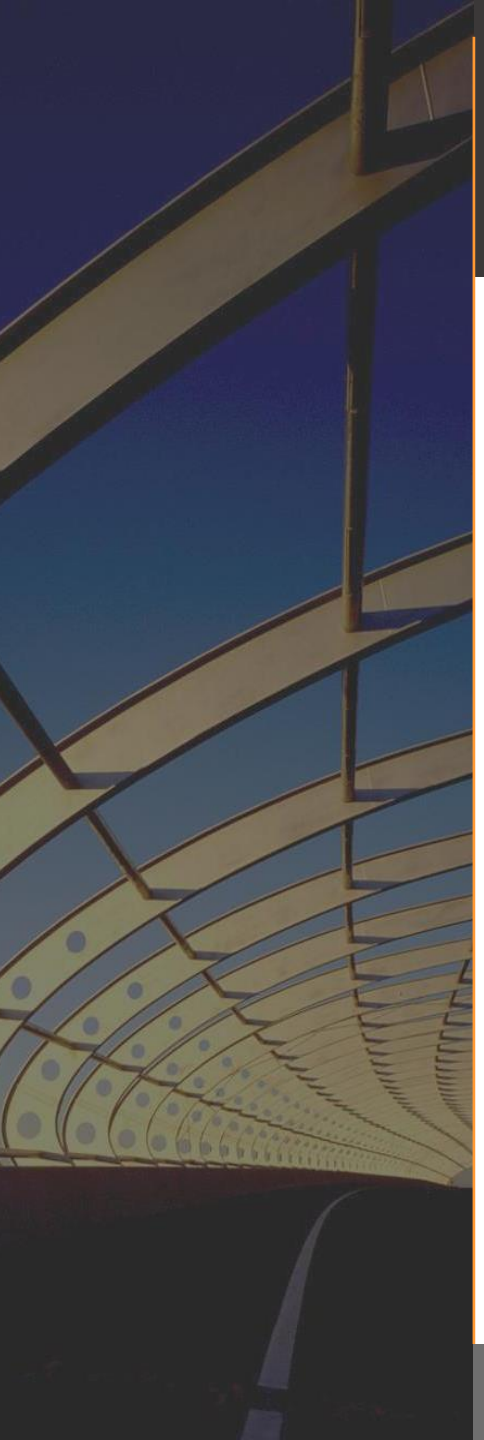
- Reliable and secure processing streaming and monitoring of IP audio streams
- Space-derived magnetic measurement and modelling combined with crowd sensing neural network
- Social media security threat detection
- Simulation-based decision/support
- Use of drones – UAV
- 3D maps/3D camera detection/3D digital twins
- Crisis communication platform, electronic logbook (TRL9)
- AI-awareness and detection
- 360 situational awareness
- Intelligent video analytics
- **Combination of technologies**

This project has received funding from the European Union's Horizon Europe research and innovation programme under grant agreement No101121171

Thank you!

This project has received funding from the European Union's Horizon Europe research and innovation programme under grant agreement No101121171


COFFEE BREAK



How to build a business case:

the case of IMPRESS to

expand the research capabilities with new era of TEM

Maria Kampa
Corvers Greece IKE
Greece

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CORVERS

COMMERCIAL & LEGAL AFFAIRS

How to build a business case:

The case of IMPRESS to expand the research capabilities with new era of TEM

Maria Kampa

CORVERS GREECE IKE

30th May 2024

The IMPRESS project has received funding from HORIZON EUROPE framework program for research and innovation under grant agreement n. 101094299.

Table of contents

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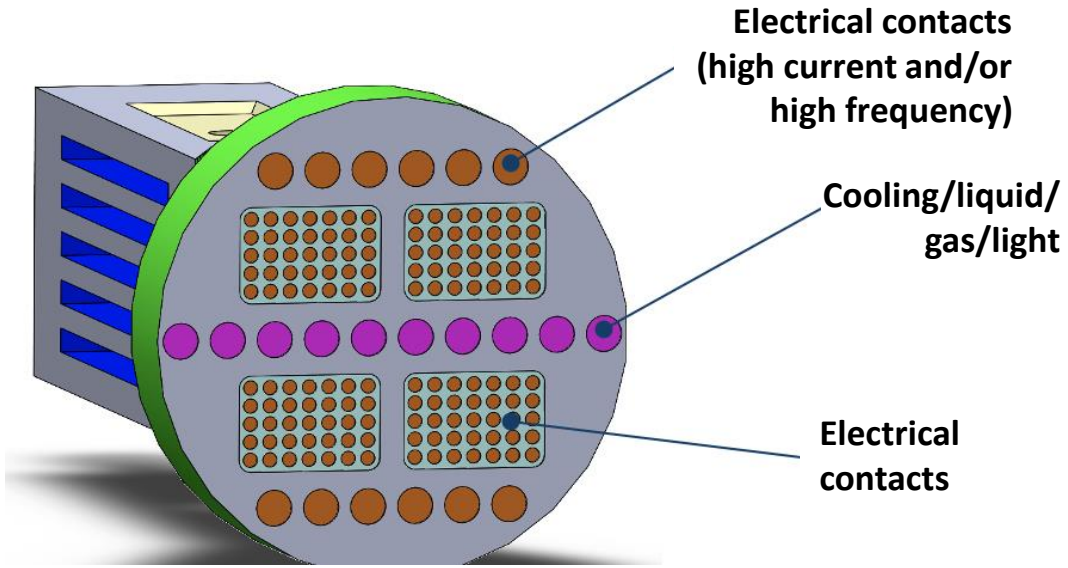
Introduction to IMPRESS

The IMPRESS project has received funding from HORIZON EUROPE framework program for research and innovation under grant agreement n. 101094299.

IMPRESS –it all starts with a need…

- Standardised interface
- Cartridge-in-cartridge solution



Use Cases

1. **Functional requirements.**
2. **Corrective maintenance.**
3. **Community of users.**
4. **Safety**.
5. **Adaptation.**

All the use cases provide a clear description of the aspect or aspects to which it refers (focus), the objective, the difficulty to achieve it (low, medium, high) and the rationale behind it. Furthermore, each of the specific use cases includes additional aspects that only apply to that use case.

PCP timeline

PCP PREPARATION

1. Definition Common Need
2. Market Analysis
3. Open Market Consultation
4. Business Case and Cost Analysis
5. Procurement and Testing Strategy
6. Tender Documents

TENDER PUBLICATION AND RECEPTION

1. Contract Notice
2. Q&A Document
3. Reception of Tenders

EVALUATION OF TENDERS AND CONTRACT AWARD

1. Evaluation of Tenders (technical & financial aspects)
2. Contract Award Notice

CONTRACT EXECUTION

1. Phase 1 – Solution Design
2. Phase 2 – Prototype Implementation
3. Phase 3 – Validation and Demonstration of the Solution
4. Execution Management and Monitoring

INTEGRATION AND VALIDATION

1. Development and implementation of electronics required for the interoperable platform.
2. Adaptation of the interoperable platform to other techniques and further developments

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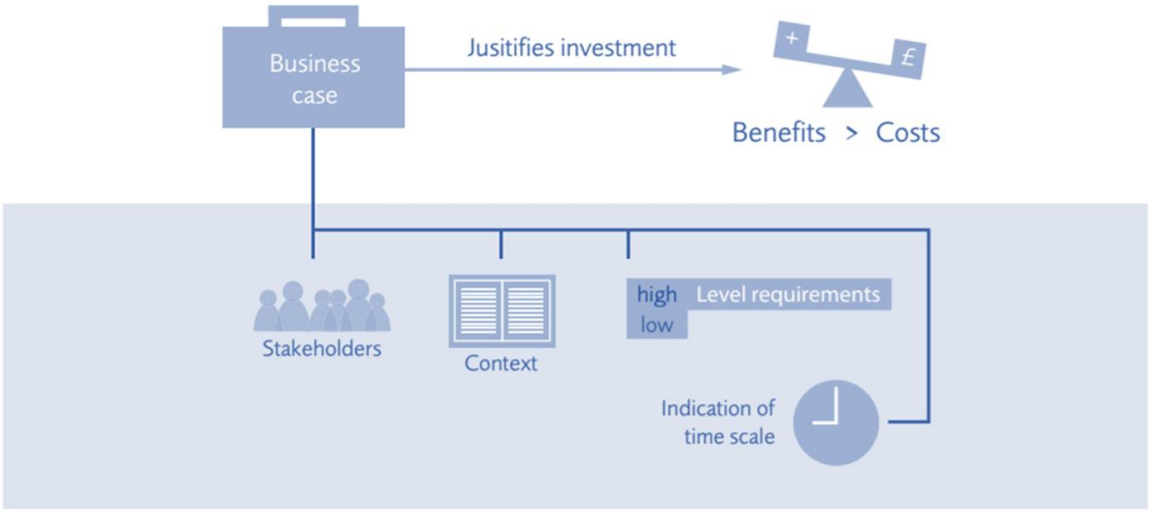
IMPRESS Business Case methodology

The IMPRESS project has received funding from HORIZON EUROPE framework program for research and innovation under grant agreement n. 101094299.

What is a business case?

- A **tool** to support investment decisions **before, during and after the project**.
- The Business Case shall be treated as a "living document".
- As such, revisions of its underlying assumptions can be entailed **before, during and after the project.**



Why a business case?

Assess the economic impact and viability of the PCP and to compare this approach with the purchase of solutions available in the market. It also provided information about the potential of commercialisation of the solutions.

Cost-Benefit Analysis

In IMPRESS we selected building a business case as a:

Cost-Benefit Analysis

A project can get the green light only if, comparing costs and benefits (quantitative & qualitative) of the project, the difference is substantially positive.

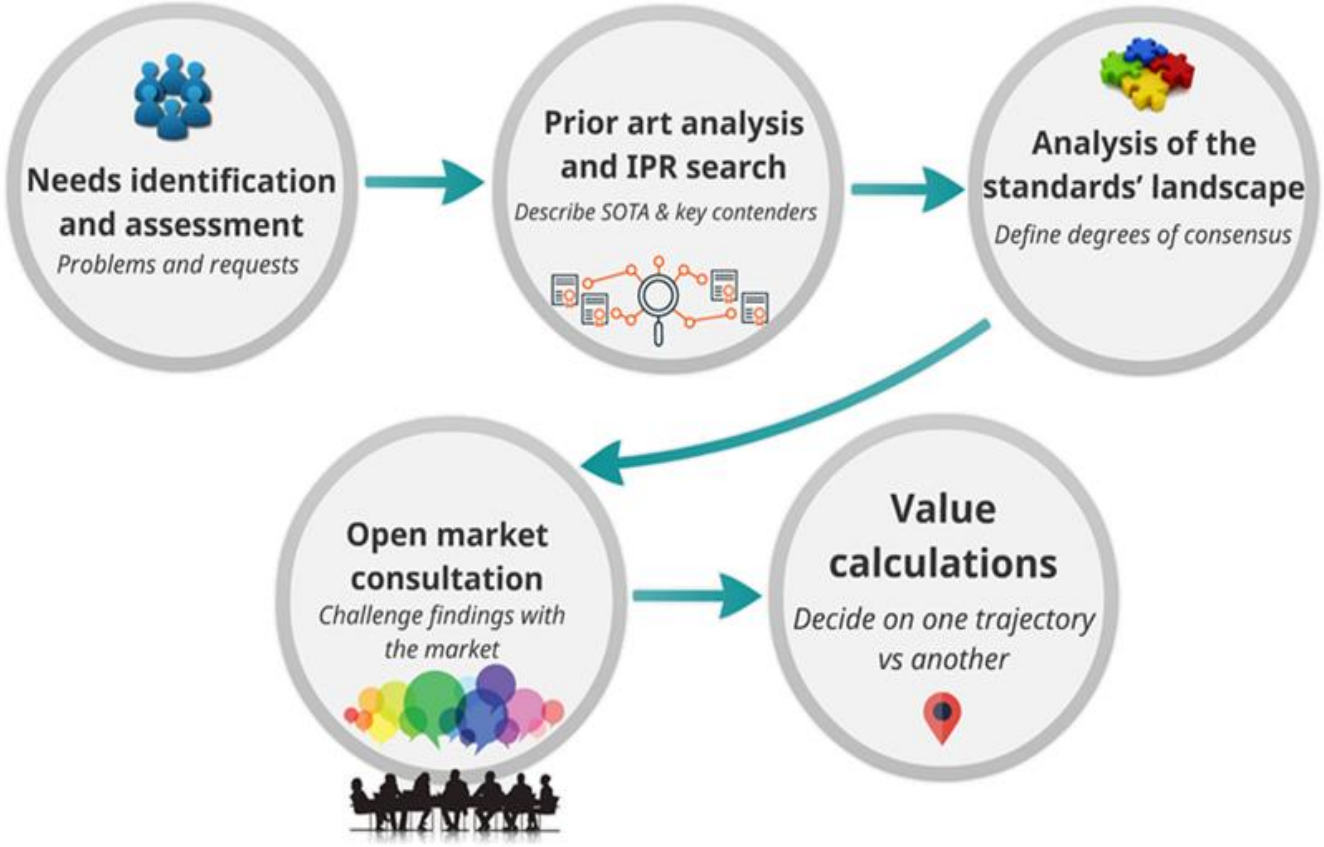
The CBA was conducted before the project to determine whether there are enough economic reasons to start the project

How to build a business case?

Based on the finalization of the SOTA and the implementation of the Open Market Consultation (OMC), the consortium concluded that there are no existing solutions to cover in full range the IMPRESS requirements.

Starting TRL level is estimated to be around 3 to 4.

The BC&CA compared the economic impact of the IMPRESS solutions on the annual operations of the Research Infrastructures (RIs).



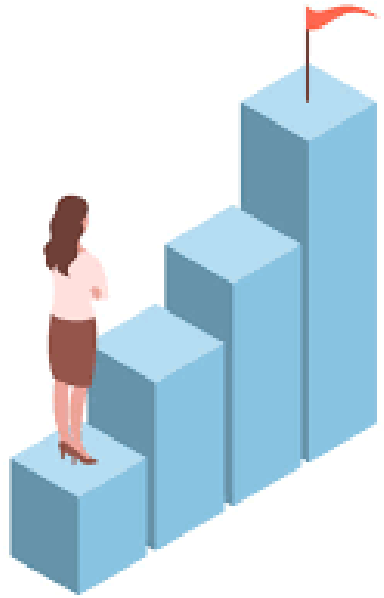
How to build a business case?

To build the business case and cost analysis, the following aspects have been considered:

- The targeted market, its situation (demand and supply side) and foreseen evolution.
- The expected benefits and costs provided by the solution.
- The necessary calculations to demonstrate the financial viability of the investment.

IMPRESS Business Case development steps

A. Map the Status quo
B. Recognition of Costs and Benefits
C. Value Calculations
D. Risk Assessment
E. Sensitivity Analysis



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Map the status quo

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The organisation’s status quo

A business case address the questions:

- What happens if we take this course of action?
- What would be the changes in my organisation?
- Are there any external impacts the we should take into account?

But in some cases we can also consider the consequences of doing nothing, as this will help you articulate the business need when you present your case.

Please note that sometimes doing nothing is a viable option!

IMPRESS_ Innovation Drivers

The drawbacks identified by the procurers in the current operations and led to the need for a new solution are the following:

- Lack of openness and of interoperability
- High maintenance costs
- Costly/difficult cooperation model
- No improvements in research potential
- Prevent comprehensive characterisation of specimens using a combination of different unique microscopes and correlative techniques.
- Increase the chance of sample damage during exchange when using different techniques.
- Duplicate the resource and effort from the community to develop same function for different platforms.
- Lack of standards in performance evaluation
- Difficult to reproduce identical conditions for TEM samples.
- Difficulty in complementary analysis of exact same samples (same sample situations) on different installations.

Impacts

The market

- **Market Overview**
  - Rapid expansion in the global market for transmission electron microscopes (TEMs)
  - Driven by demand for nanostructured materials' analytical and structural characterization
- **Market Value**
  - Valued at $825.44 million in 2022
  - Projected to grow to $1,064.09 million by 2028
  - CAGR: 4.32% over the forecast period

- **Market Drivers**
  - Emphasis on nanotechnology
  - Significant investments from governments and industries
- **Challenges**
  - High initial investment costs
  - Dependence on corporate funding
  - Difficulty in preparing thin specimens for electron passage

The market

- **European Market (Supply Side)**
  - Academia / Public Research Institutes
  - 52 private companies (TEM & TEM Accessory Manufacturers)
  - Private research institutes
- **European Market (Demand Side)**
  - Over 100 European Analytical Research Infrastructures
  - Academia and sectors such as:
    - Electron microscopy
    - Material science
    - Nanotechnology
    - Environmental sciences
    - Semiconductor sciences
    - Cultural heritage
    - Life sciences

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Costs

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Types of costs

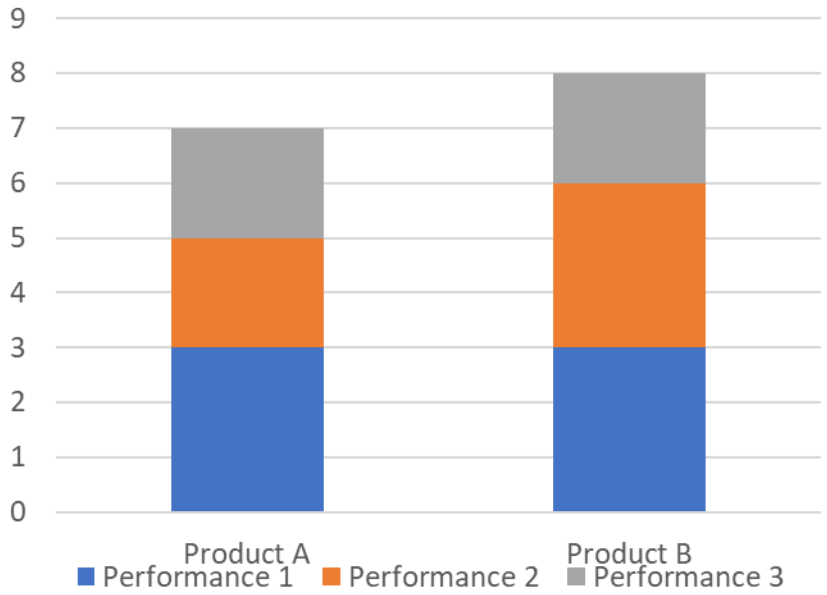
PROJECT COSTS

PROCUREMENT COSTS

OPERATING EXPENDITURES (OPEX) AFTER PCP

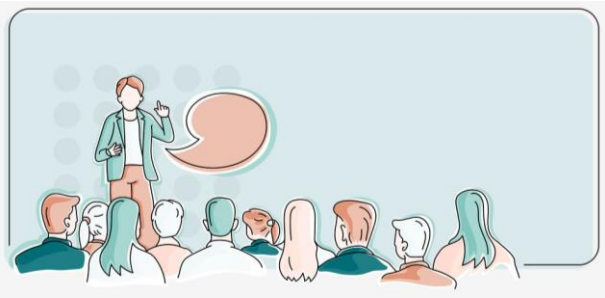
How to estimate the costs?

1. End-users previous knowledge



2. Market Analysis

3. Open Market Consultation



IMPRESS Costs

Type of cost	Impact
Manufacturing costs (Procurement Cost)	Already known costs- In our case these costs are provided by the EC
Project Costs (for the PCP)	Personnel costs (PCP preparation, contract management etc, travel costs, equipment) -In our case these costs are provided by the EC.
After PCP costs	Salaries for new team members
	Training Costs for the new equipment
	Maintenance and repair costs
	Disposal costs
	Operating costs
	Licenses
	Transition costs (from old to new)
	Sustainable development to optimise the solution for emerging requests from other scientific disciplines
	IP-related legal matters

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Benefits

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Types of Benefits

Benefits

01

Quantitative/Qualitative

Is the benefit readily available in financial terms?
e.g. productivity savings from greater efficiency

02

Monetary/Non-monetary

Can qualitative benefits be translated into financial terms?

03

Quantative benefits

Impact	Benefit
More flexible TEM instrumentation	Expand the TEM user base
Trans-disciplinary access to RIs -exchangeable sample cartridges Increase data sharing	Productivity increase
Standardisation(harmonise experimental procedures across facilities)	Reduction of dedicated personnel to carry out the experiments
Ability to use advanced techniques / plan comlex , multitechnique projects	Improvement of services (more experiments)
Storage for same experiments in the future	Improvement of services (easier experiments) – Decrease time for sample preparation
Automatic or semi-automatic loading into TEM	Saving time
Higher user satisfaction	Replacing costly equipment/procedures
Maintenance costs reduction	Costs reduction
Reduce the risk of sample damage	Costs reduction
Easier to use for regular users and therefore spare RI staff time from repeated work to innovative development Reduce the resource and effort from the community to develop same function for different platforms	Personnel cost reduction /More personnel time allocated to high value-added tasks
Promote community-driven development and troubleshooting	Reduction of development costs and time

Qualitative benefits

Impact	Benefit
Avoid vendor lock in	Lower commercial prices
Environmental	
Creation of new markets	
New scientific methodologies and workflows	
Creation of new job opportunities	
New research capabilities	Increase competition /components price reduction
Push certain manufacturer to adapt their environment to the new universal multi-fuctional cartidges	More scientific options
Lower entry barrier for SMEs to enter TEM development market because of the open-access and universal interface	More scientific options
RI can freely choose column manufacturers for different projects based on their best performance rather than prone to select single manufacturer because they share the same sample entry interface	Increased competition contributing to lower costs and better services for RI
Enhance cooperation capabilities.	Advanced research potential to other uses.

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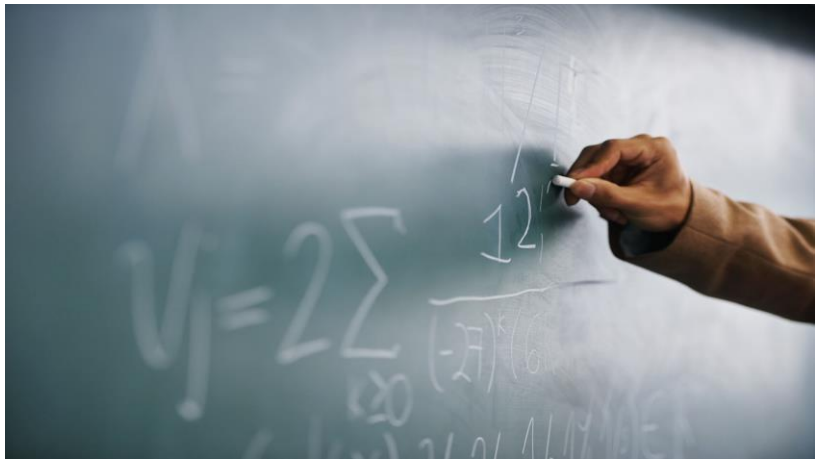
Value calculations



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Value Calculation

Don’t forget! The benefits and costs included in the formulas need to take into account the entire life-cycle of the solution. To do so, you should consider their present value.

Draft value calculations using Net present value (NPV)

Gain insight into project management

- Maximum cost to pay
- Break-even time
- Measure of financial performance

Perform a sensitivity analysis to evaluate the performance based on the key assumptions

Net Present Value Formula

$$NPV = \sum \frac{CF_n}{(1+i)^n} - \text{Initial Investment}$$

Business case assumptions

Funding basis will be the one from Dresden

Overall number of Funding from projects will increase by 10%.

Time for preparing a sample will get reduced by 80%.

Decrease of operator involvement by 30% due to automation.

Increased number of publications will grow the revenue by 15%.

Sample carriers decrease by 20%.

Baseline Scenario

The baseline case examined was dedicated to a small-medium RI (Dresden) defined based on the following three dimensions:

(1) Number of publications. A small-medium RIs has around 30 to 40 publications associated with TEM experiments.

(2) Number of TEM projects undertaken. A small-medium RIs has around 28 TEM projects on a yearly basis.

(3) Number of internal and external users. The current numbers for users are: 14 external and 20 internal.

- The current funding (revenue) used for TEM projects was estimated around 490K and was provided by RIs within IMPRESS Consortium.
- An average of 10% increase has been considered as a basis of the business case calculations, leading to an estimated future revenue of 539K.

Baseline Scenario

The current annual operational costs are estimated to be 194.200 euros. This amount corresponds to:

- 150 k€ per year for service contracts of the TEMs.
- personnel costs due to training of users (2 weeks per year): 4200 € per year.
- climatization + power supply of the TEM rooms: 15 k€ per year
- consumables (TEM grids, etc.): 20 k€ per year.
- overhead (eg. administration): 5 k€ per year

- Moreover, other costs that were taken into account represent the RIs' personnel costs concerning the expenses currently beard by the RIs including salaries to perform the TEM experiments. This amount was calculated to be a full-time person on a yearly basis with a cost of 92.400 euros.
- Total annual current costs were estimated to be 281.600 euros, while with an average decrease of 20% annually this amount will be 225.280 euros for the baseline scenario

Net Present Value

Initial Investment	314.285,71 €
Discount Rate	3.64%
Savings based on an annual operational basis	106.320,00 €

Net Present Value

Year	**1**	**2**	**3**	**4**	**5**
Discount Factor	0,96	0,93	0,90	0,87	0,84
Undiscounted Cash Flow	106.320,00 €	106.320,00 €	106.320,00 €	106.320,00 €	106.320,00 €
Present Value	102.585,87 €	98.982,90 €	95.506,46 €	92.152,12 €	88.915,60 €

Net Present Value (Baselines RI)	**163.857,24 €**

Sensitivity Analysis

In an attempt to consider the impact of the different factors in our calculation, a sensitivity analysis has been performed on the following four main parameters:

- **The range 3%-13% percentage increase revenue due to IMPRESS solution**
- **The range of 10%-30% percentage for the decrease in connected costs**

Based on sensitivity analysis results, it can be concluded that the monetarized benefits have a positive impact on the NPV increasing the benefits even for the small-medium sized stations.

Most importantly, the NPV is in general positive indicating that the investment is viable for all potential buyers, besides the worst-case scenario where the minimal increase in revenue and the minor decrease in costs seem to do not have a positive investment impact.

Risks

Foreseen risks	Impact	Likelihood of occurance
The solution not being user friendly- End user do not adopt the solution	High	Medium
Delays will conclude on the end solution not to be relevant	High	Low
Contractors not able to deliver the technical solution	High	Medium
Impossibility to manufacturing the solution due to IPR barriers.	Medium	Low
If the proposed solutions don’t result in major modifications compare to the commercially available products.	High	High

Takeways

- **Baseline scenario** prepared for the calculations using as an example a small -medium RI (like the one in Dresden).
- **Benefits:**
  - Partners have taken into consideration the necessary methods and equipment that they currently use to perform a TEM experiment and information regarding the manpower, man hours, number of experiments, associated publications and costs spent.
  - an estimation of the IMPRESS solution' expected performance in terms of the reductions in costs and increase in revenue. The first part was calculated based on the operation costs needed and the personnel costs associated with the experiments. This estimation was translated on how this performance will benefit the RIs in terms of percentage reduction in their current losses.
- Partners made an estimation on the **increase in earnings** from the introduction of the new IMPRESS solution.
- Savings have been calculated as a percentage estimated reduction from the current situation
- The abovementioned estimations have concluded on a positive NPV, indicating that the investment is profitable for the IMPRESS public buyers.
- The worst-case scenario has also been elaborated providing the indications under which the investment is not profitable. - it is advisable for the Buyers to re-evaluate these initial results in PCP Phase 1 contractors

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Lessons Learnt

The IMPRESS project has received funding from HORIZON EUROPE framework program for research and innovation under grant agreement n. 101094299.

Lesson Learnt

- A number of interactions are needed for the identification of the aspects of a business case
- Information relevant to the future solution costs need to be provided by the market during the OMC phase.
- In some cases, monetarizing the benefits is a difficult task, so assumptions needs to be drafted for the definition of a baseline scenario
- When the calculation of the costs is difficult, the estimation should be based on information available (current costs)
- Involvement of the financial and procurement departments of the Buyers organizations is needed.
- Since we are evaluating innovative solutions, a sensitivity analysis is a “must”

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THANK YOU

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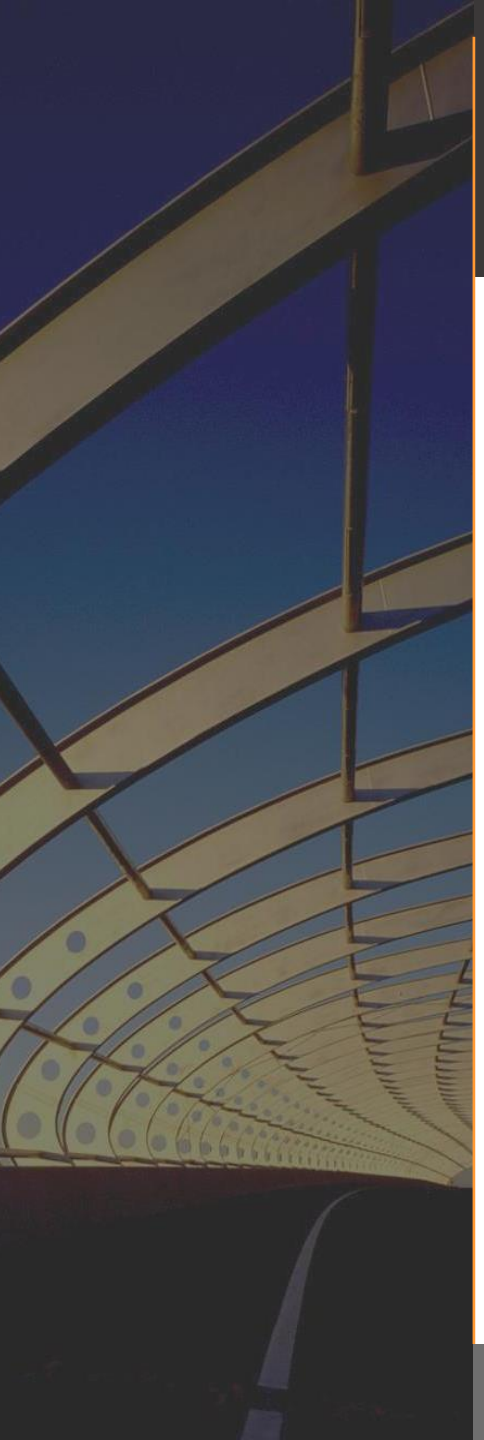


How to draft tender documents:

participation agreement of SPRIND for the EUDI Wallet PCP

Eva Vogt
SPRIND
Germany

SPRIN-D

HOW TO DRAFT TENDER DOCUMENTS:

Participation Agreement of SPRIND
for
EUDI Wallet PCP

WHO I AM

EVA VOGT

IN-HOUSE LAWYER
SPRIND GMBH

ATTORNEY-AT-LAW

EVA.VOGT@SPRIND.ORG

WHO WE ARE

SPRIN-D

FEDERAL AGENCY FOR
DISRUPTIVE INNOVATION

A HOME FOR
PEOPLE WITH RADICAL NEW IDEAS

POWERED BY:

Bundesministerium
für Wirtschaft
und Klimaschutz

Bundesministerium
für Bildung
und Forschung


THE HOME OF RADICAL INNOVATORS

SINCE
DECEMBER
2019

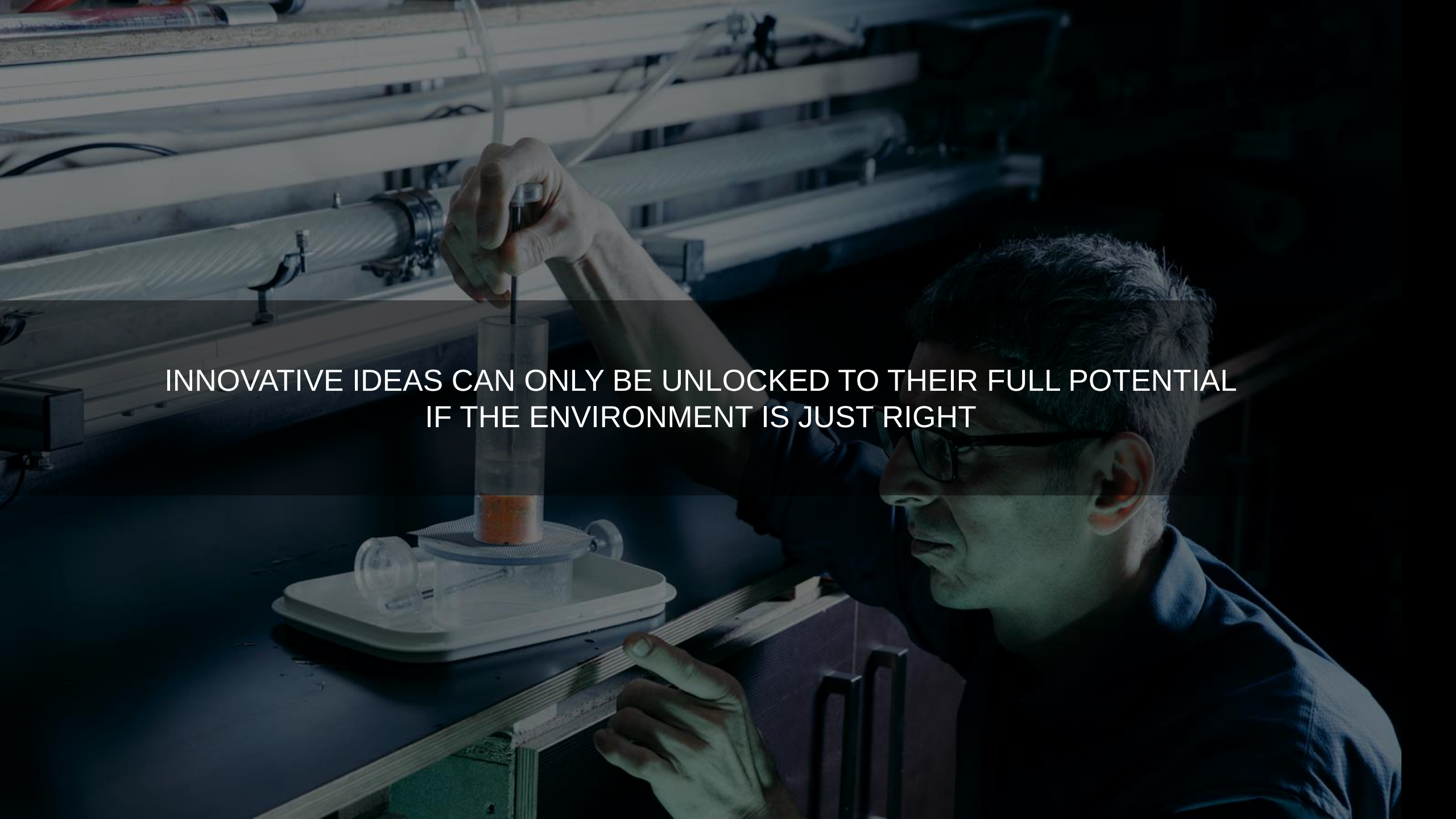
80+

COLLEAGUES
IN LEIPZIG AND REMOTE

1500+

PROJECTS SUBMITTED

OUR MISSION


INNOVATIVE IDEAS CAN ONLY BE UNLOCKED TO THEIR FULL POTENTIAL
IF THE ENVIRONMENT IS JUST RIGHT

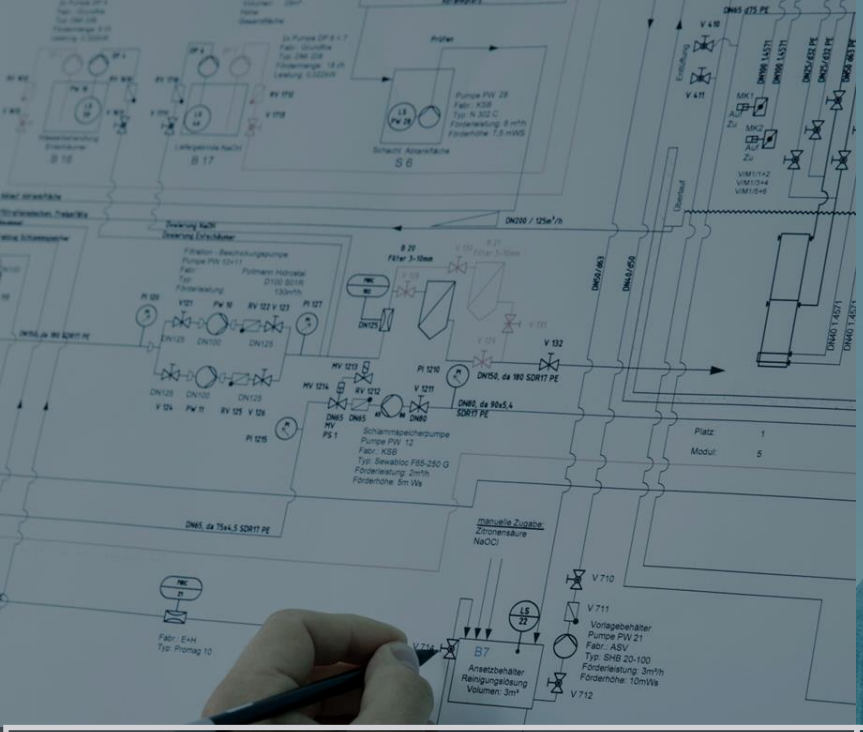

AND THE RIGHT PEOPLE
– INNOVATORS – ARE BEHIND THEM.

DISRUPTIVE INNOVATIONS

DISRUPTIVE INNOVATIONS

PROVIDE ANSWERS TO UNDERLYING PROBLEMS	INVOLVE UNCONVENTIONAL METHODS	HAVE THE POTENTIAL TO OPEN UP NEW MARKETS

OUR PROCESS



WE LOOK FOR POTENTIAL BREAKTHROUGH INNOVATIONS

WE SUPPORT OUR INNOVATORS BY BECOMING THEIR PARTNER

WE BUILD A BRIDGE BETWEEN BUSINESS AND SCIENCE

OUR PROJECTS

HOW DO WE APPROACH PROJECTS?

BOTTOM UP:
PROJECTS
SUBMITTED

TOP DOWN:
CHALLENGES &
FUNKEN
(= PCP)

FREE CHOICE OF FIELD/PROJECT SUBMISSIONS ACCEPTED AT ALL TIMES	SPECIFIC OBJECTIVE IN MIND LIMITED TIME FRAME IN PLACE

GERMAN SPRIND FREEDOM ACT

(SPRIND-Freiheitsgesetz)

BEFORE ”FREEDOM ACT”

Before the law was introduced in December 2023, SPRIND funded projects via public contracts and by establishing subsidiaries. As a result, many projects could not be adequately supported.

- SUBSIDIARIES
- PROCUREMENT (PCP, procurement procedures)

AFTER “FREEDOM ACT”

The SPRIND Freedom Act provides additional funding instruments in order to guarantee customized support for projects. Existing methods remain.

- SUBSIDIARIES
- PROCUREMENT (PCP, procurement procedures)
- EQUITY CAPITAL
- MEZANINE CAPITAL
- GRANTS
- ...

CHALLENGES & FUNKEN

(PRE COMMERCIAL PROCUREMENTS)

HOW WE USE THE PRE-COMMERCIAL PROCUREMENT

CHALLENGES & FUNKEN

Teams taking part in our innovation contests can currently receive payment of between appr. 500,000 and 3 million EUR, depending of the stage and topic of the Challenge/Funken.

Usually there are 3 stages, starting with up to 6 teams in stage 1.

WHERE ARE WE AT RIGHT NOW?

7

300+

38

5 CHALLENGES, 3 FUNKEN SINCE 2021	300+ SUBMISSIONS HAVE BEEN RECEIVED	38 CHALLENGE TEAMS ARE STILL IN THE RACE, 61 STARTED SO FAR

CHALLENGE

BROAD-SPECTRUM ANTIVIRALS

CHALLENGE

CARBON TO VALUE

CHALLENGE

CIRCULAR BIOMANUFACTURING

CHALLENGE

LONG-DURATION ENERGY STORAGE

CHALLENGE

NEW COMPUTING CONCEPTS

FUNKE

TISSUE ENGINEERING

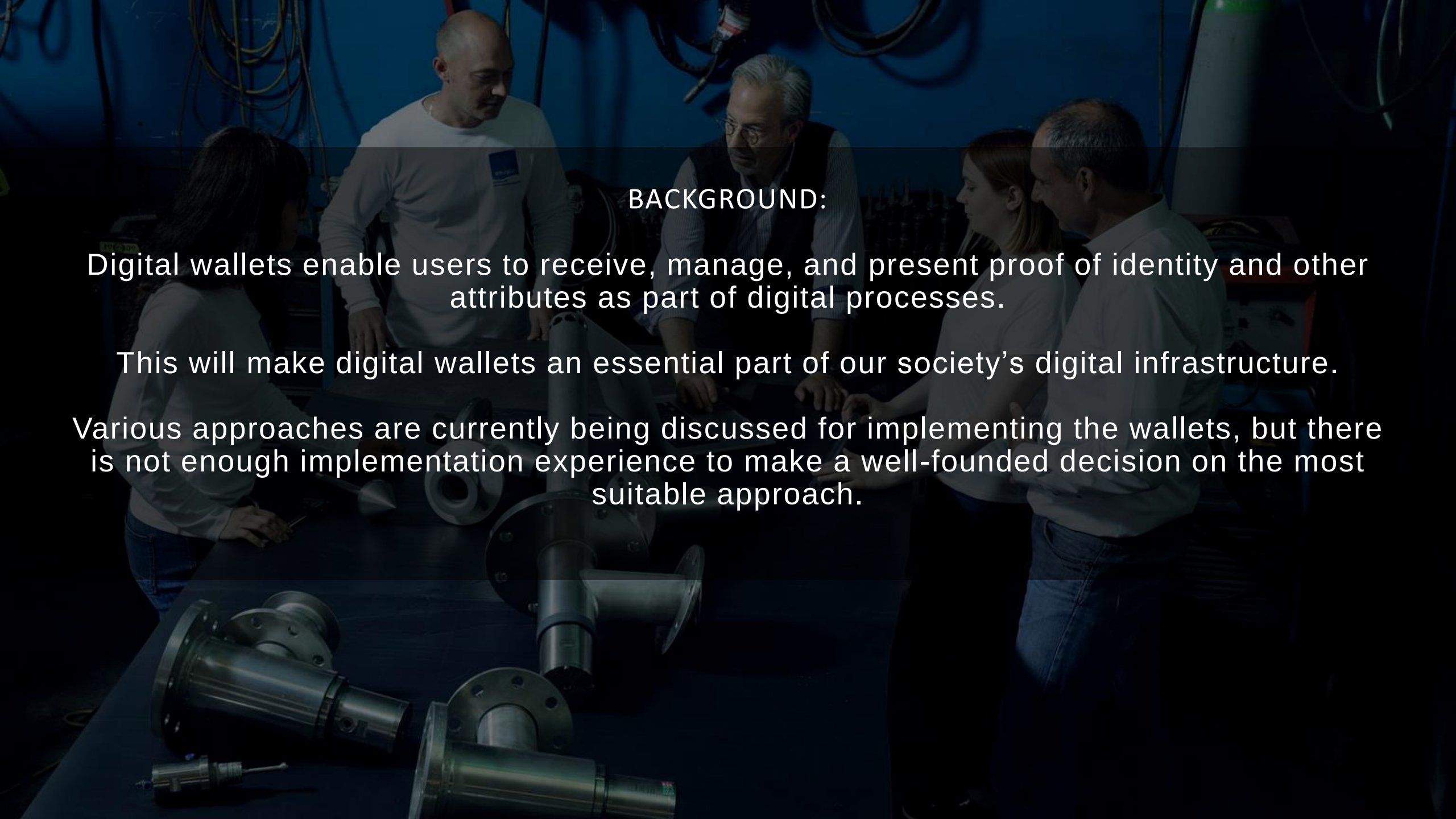
FUNKE

FULLY AUTONOMOUS FLIGHT

FUNKE

EUDI WALLET PROTOTYPES

EUDI WALLET PROTOTYPE



BACKGROUND:

Digital wallets enable users to receive, manage, and present proof of identity and other attributes as part of digital processes.

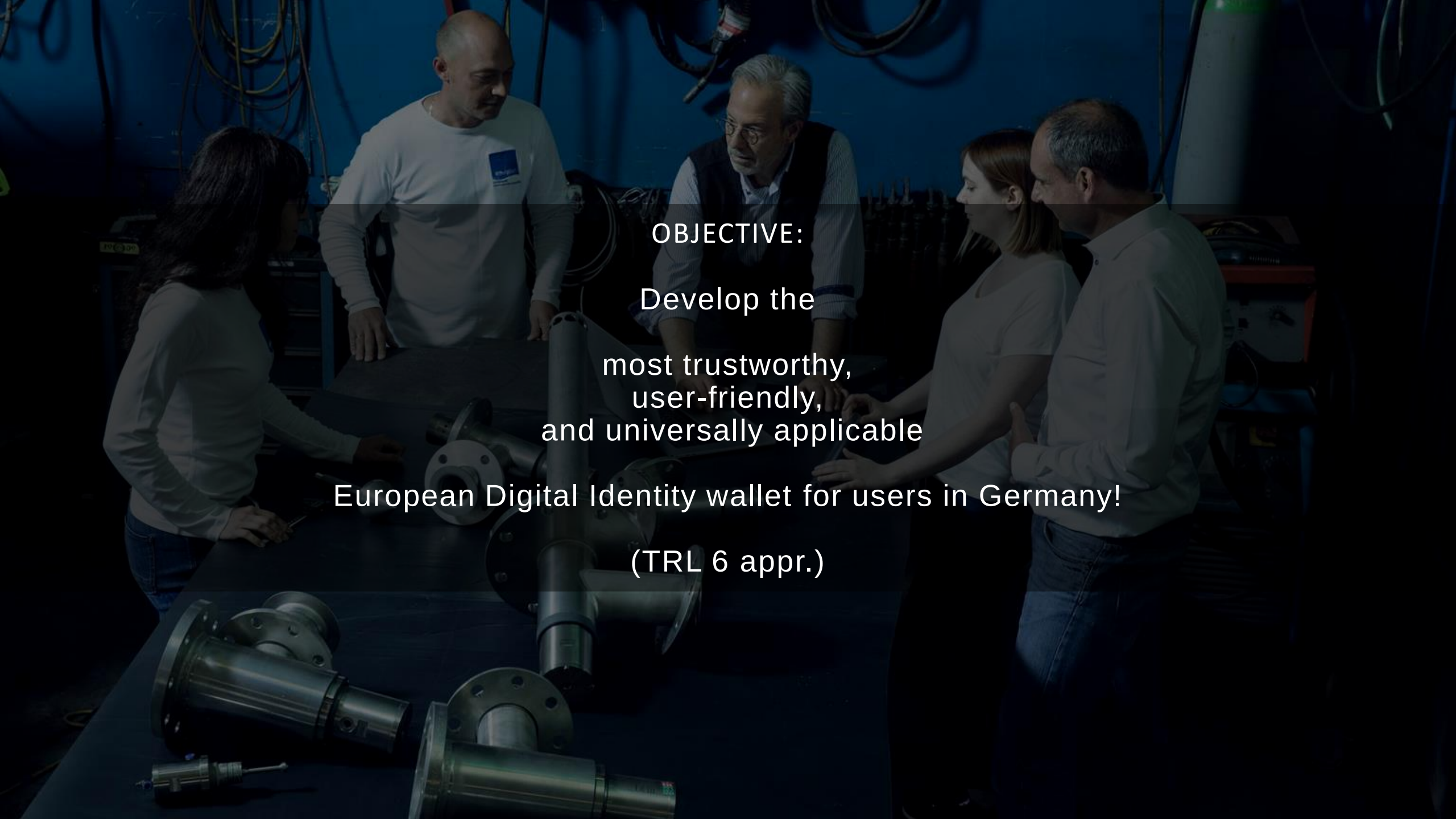
This will make digital wallets an essential part of our society’s digital infrastructure.

Various approaches are currently being discussed for implementing the wallets, but there is not enough implementation experience to make a well-founded decision on the most suitable approach.

BACKGROUND:

SPRIND is conducting the architecture and consultation process for the implementation of the EIDAS 2.0 regulation in Germany on behalf of the Federal Ministry of the Interior and Community (BMI).

The PCP will provide valuable insights for further developing the concept for eidas implementation in Germany.



OBJECTIVE:

Develop the

most trustworthy,
user-friendly,
and universally applicable

European Digital Identity wallet for users in Germany!

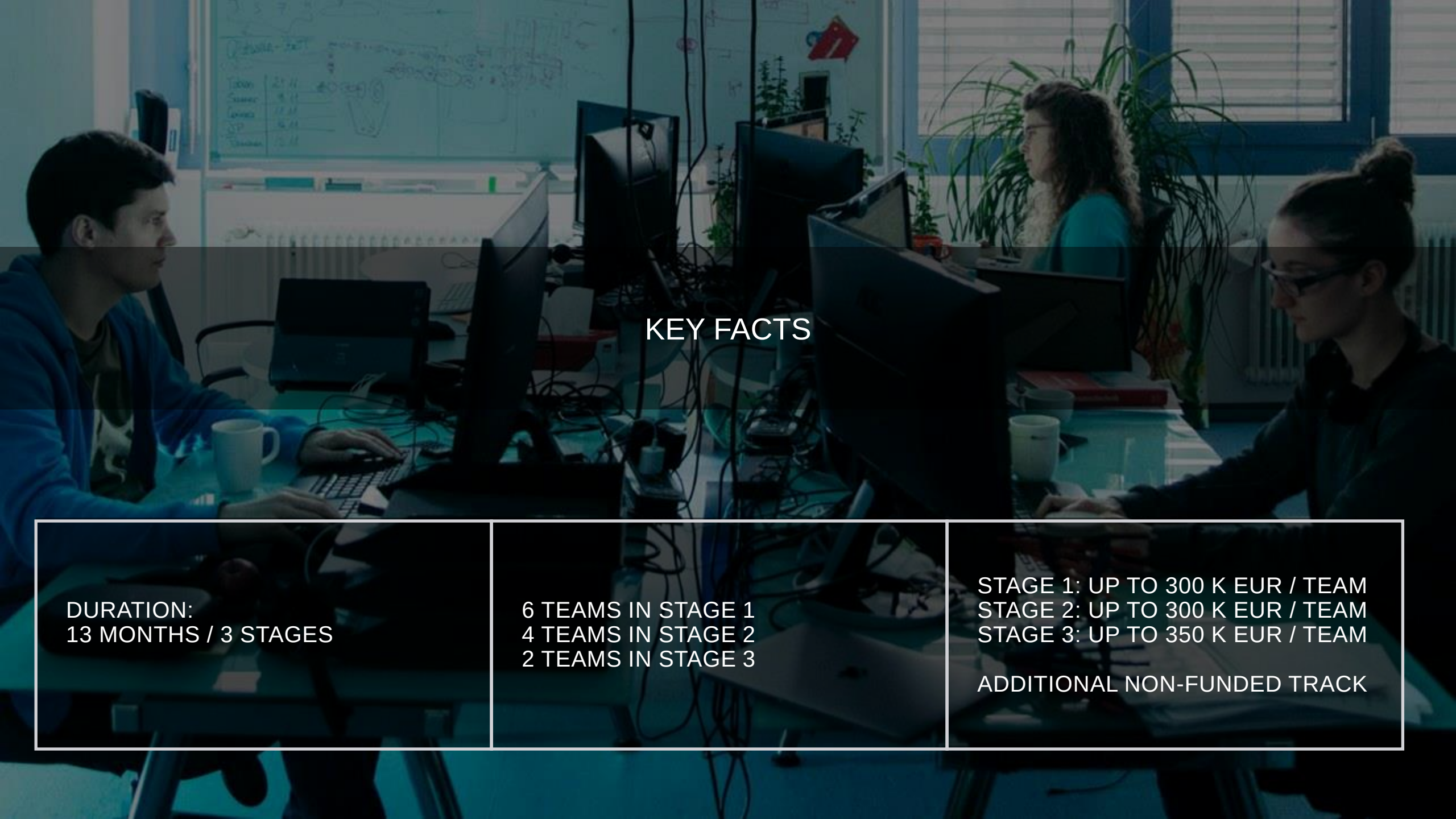
(TRL 6 appr.)

OVER 270 INTERESTED PARTICIPANTS
ON THE WEBINAR BEFORE APPLICATION DATE

58 APPLICANTS

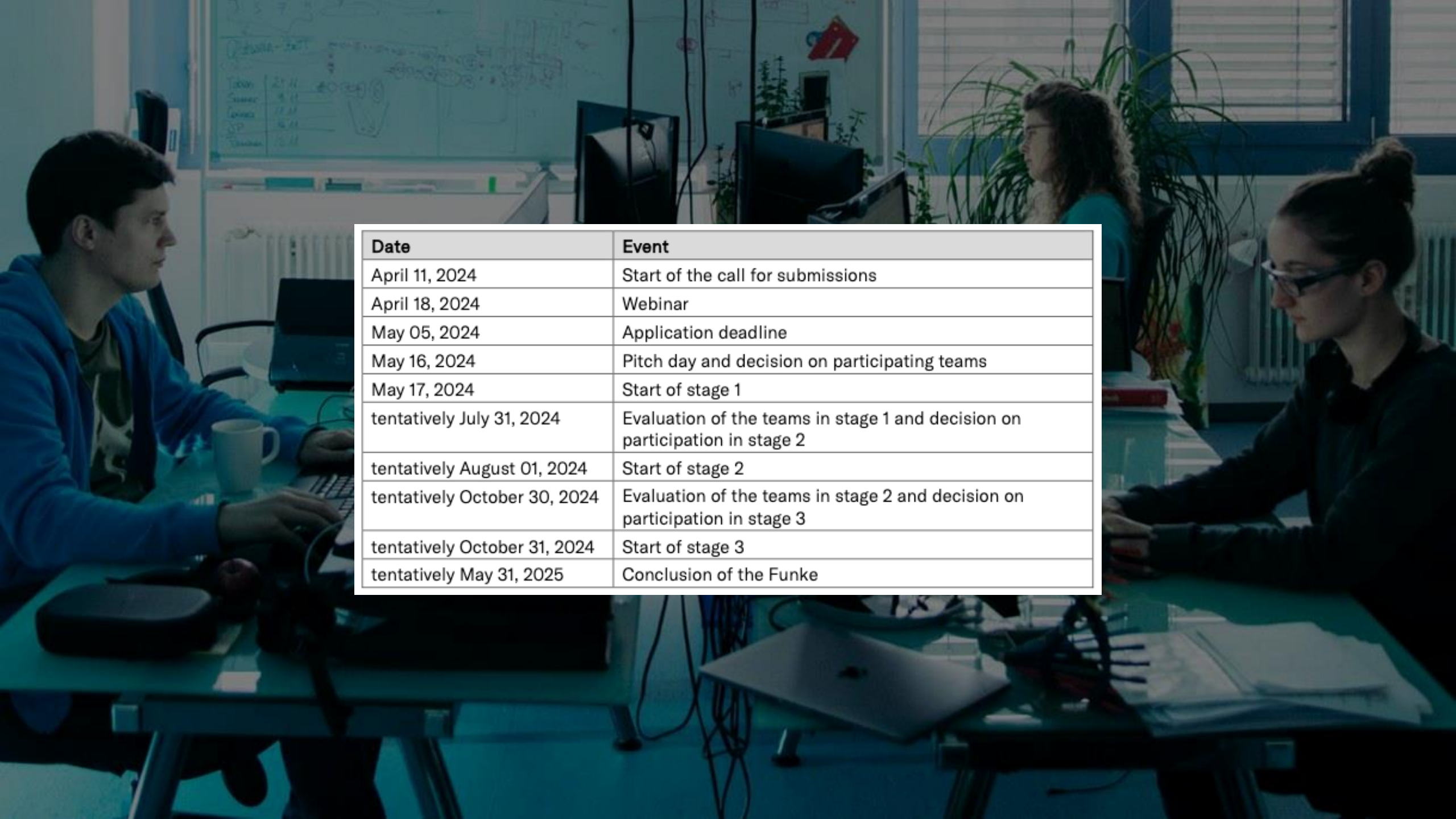
FROM 14 COUNTRIES

10 PITCH DAY PARTICIPANTS (FUNDED TRACK)



KEY FACTS

DURATION: 13 MONTHS / 3 STAGES	6 TEAMS IN STAGE 1 4 TEAMS IN STAGE 2 2 TEAMS IN STAGE 3	STAGE 1: UP TO 300 K EUR / TEAM STAGE 2: UP TO 300 K EUR / TEAM STAGE 3: UP TO 350 K EUR / TEAM ADDITIONAL NON-FUNDED TRACK



Date	Event
April 11, 2024	Start of the call for submissions
April 18, 2024	Webinar
May 05, 2024	Application deadline
May 16, 2024	Pitch day and decision on participating teams
May 17, 2024	Start of stage 1
tentatively July 31, 2024	Evaluation of the teams in stage 1 and decision on participation in stage 2
tentatively August 01, 2024	Start of stage 2
tentatively October 30, 2024	Evaluation of the teams in stage 2 and decision on participation in stage 3
tentatively October 31, 2024	Start of stage 3
tentatively May 31, 2025	Conclusion of the Funke

TENDER DOCUMENTS - STRUCTURE

Objective: Lean!

- **Call for Submissions** (Desicription of stages, specifications, tasks and evaluation criteria) – 9 pages

  (+ link to the architecture concept on opencode)

- **Participation Agreement Funded-Track** (OPEN SOURCE SOLUTION) – 21 pages

- **Patricipation Agreement Non-Funded Track** (PROPRIETARY SOFTWARE APPROACH) – 20 pages

- **Declaration regarding RUS-Sanctions**

That‘s it!

PARTICIPATION AGREEMENT -

HIGHLIGHTS / SPECIAL REGULATIONS

TABLE OF CONTENT

§ 1 PARTICIPATION

- teams selected for the second and third stages of the competition **accompany the EU-wide testing of their wallets as part of the Large Scale Pilots POTENTIAL**.
- Potencial follow-up procurement or further development of SPRIND, ministry or use within the European context.

→ Provision taking into account other beneficiaries:

(4) The German Federal Ministry of the Interior and Community and its institutions as well as the European Commission and its institutions are also entitled to the relevant rights of SPRIND set out in this Agreement, in the case of possible follow-up assignments or projects in connection with this competition. The participant is also obliged to fulfil the obligations set out in this Agreement vis-à-vis the German Federal Ministry of the Interior and Community and its institutions as well as the European Commission and its institutions.

§ 5 INTELLECTUAL PROPERTY RIGHTS

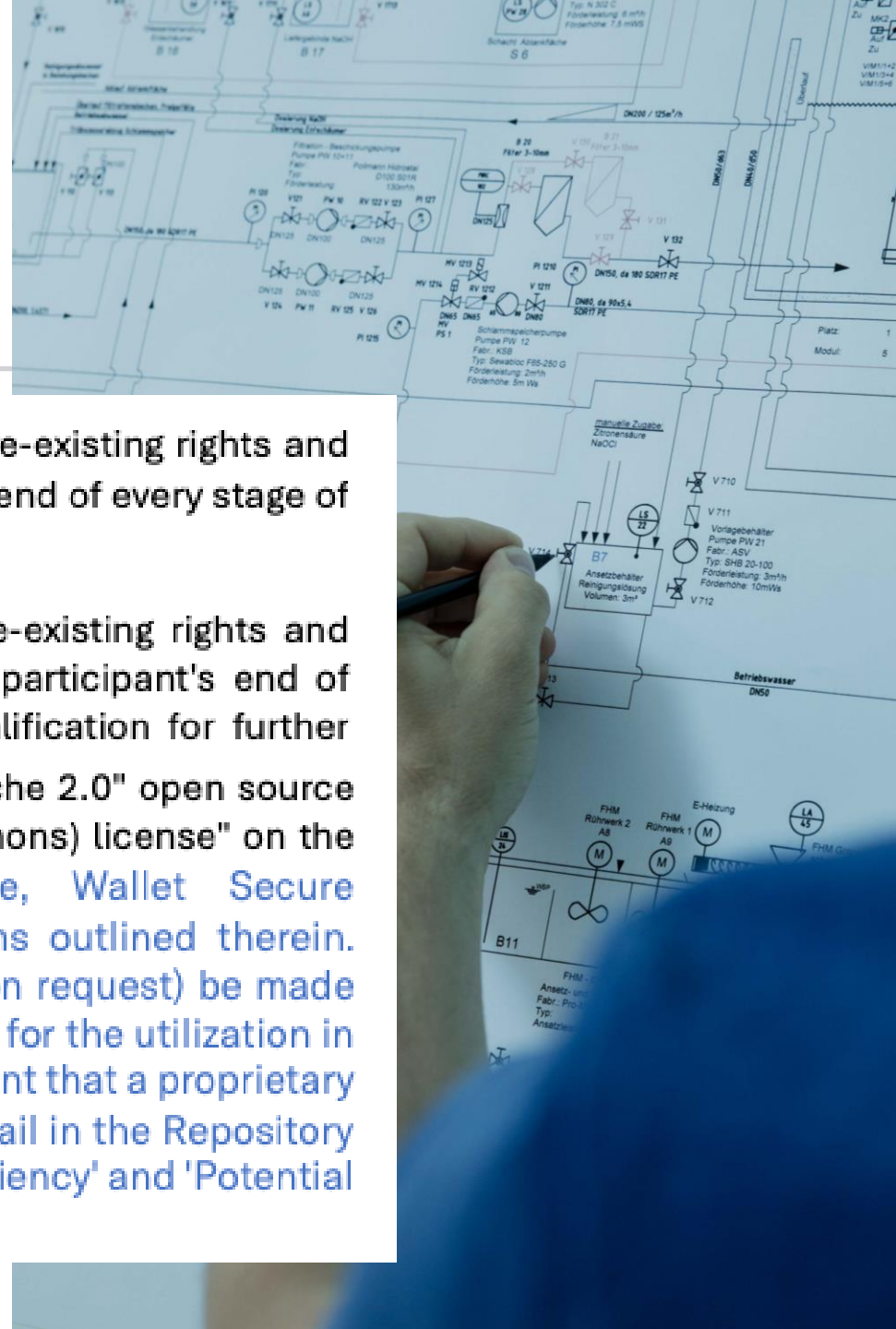
- Clauses for:
  - IP-Management
  - Granting of licenses & release of information
    - → *Open source approach*
  - rights and obligations of participants regarding pre-existing rights and sideground IPRs
    - → *Open source approach but freedom to use also pre-existing rights and sideground IPRs in different contexts than the PCP as desired*
  - Ownership, commercial exploitation and monitoring of the foreground
    - → *To be sure that exploitation **doesn‘t** harm the EUDI Wallet project or EU interests*
  - General provisions
    - → *„Safety net clauses“*

§ 5 INTELLECTUAL PROPERTY RIGHTS

Granting of licenses & release of information

5. The participant shall release the results as well as all the necessary pre-existing rights and sideground IPRs immediately within seven (7) calendar days before the end of every stage of the competition in the Repository.

6. The participant shall publish the results as well as all necessary pre-existing rights and sideground IPRs, immediately within seven (7) calendar days of the participant's end of participation (e.g. through withdrawal, end of competition or no qualification for further stage), under the open-source licensing terms and conditions of "Apache 2.0" open source software license and "Attribution 4.0 International CC (Creative Commons) license" on the platform OpenCoDe. Notwithstanding the foregoing sentence, Wallet Secure Cryptographic Devices (WSCDs) shall not be subject to the terms outlined therein. Instead, WSCDs do not have to be open source, however shall (upon request) be made available for use by SPRIND or third parties at fair market conditions for the utilization in the context of the Wallet Code published in the Repository. In the event that a proprietary WSCD is offered by the Participant, it must be described in such detail in the Repository as to also allow for evaluation based on the criteria of 'Economic Efficiency' and 'Potential Reach'.



§ 5 INTELLECTUAL PROPERTY RIGHTS

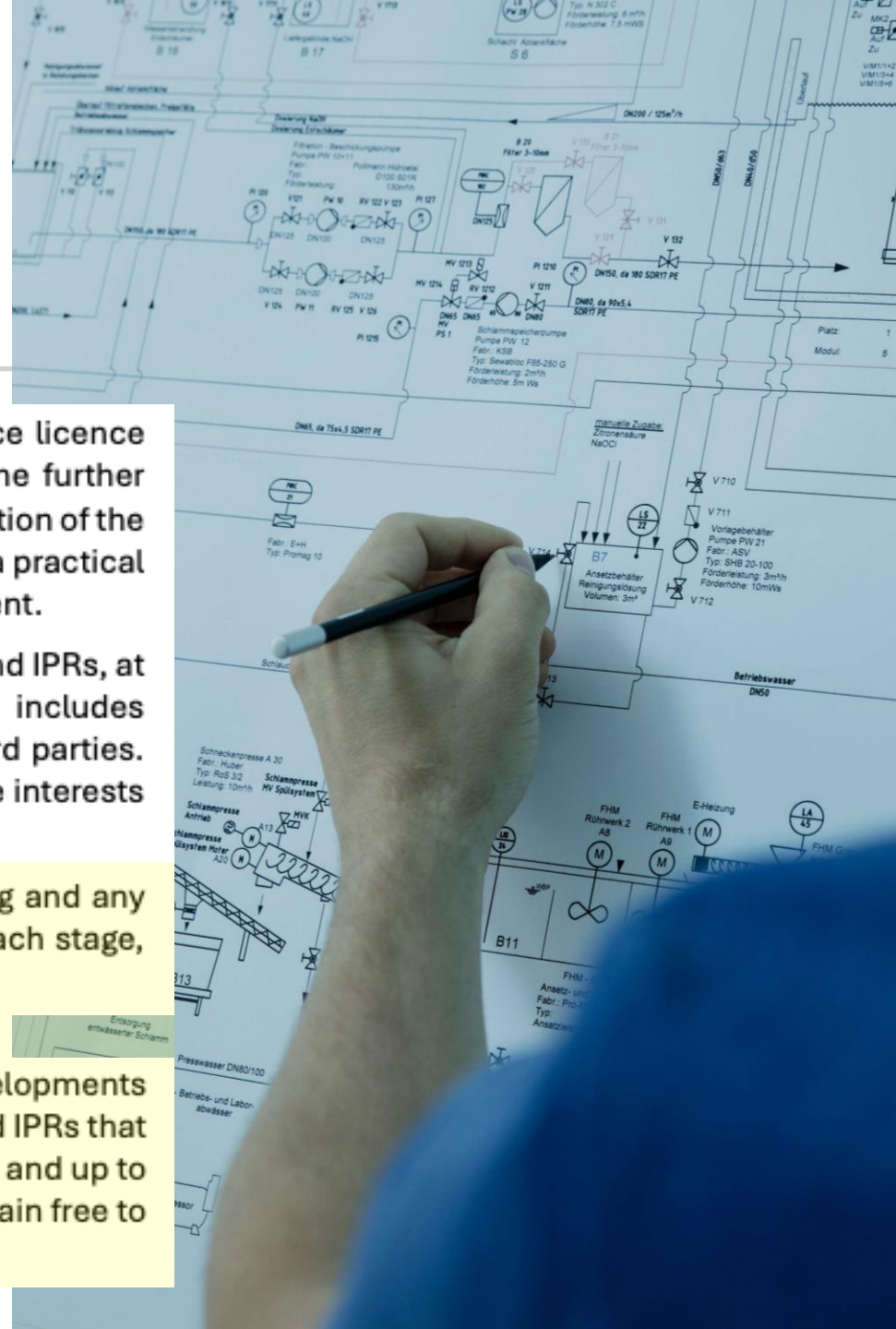
Rights and obligations of participants regarding pre-existing rights and sideground IPRs

7. Due to the open source approach of the EUDI Wallet project and the open source licence under which all the pre-existing rights and sideground IPRs shall be licensed, the further modification and any potential commercial exploitation resulting from the modification of the pre-existing rights and sideground IPRs of this PCP is allowed by default and from a practical perspective to its participants of all stages and SPRIND, even for further development.

8. The participant is and will remain fully entitled to use the pre-existing and sideground IPRs, at its own discretion and as it sees fit, without prior approval of SPRIND. This includes commercially exploiting by licensing of any pre-existing or sideground IPRs to third parties. However, the execution of this right by the participant may not harm the legitimate interests of SPRIND or the competition and project per se.

9. The participant must provide a complete and detailed overview of the pre-existing and any potential sideground IPRs using the declaration in Annex 3, to be updated after each stage, uploaded and stored in the Repository of the project.

12. The participant shall pro-actively inform SPRIND about any (innovative) developments outside the scope of the Project that could concern the pre-existing and sideground IPRs that might affect the execution of the Participation Agreement and/or the Project during and up to five (5) years after the end of the Participation Agreement. In that case, Parties remain free to conclude a new agreement.



§ 5 INTELLECTUAL PROPERTY RIGHTS

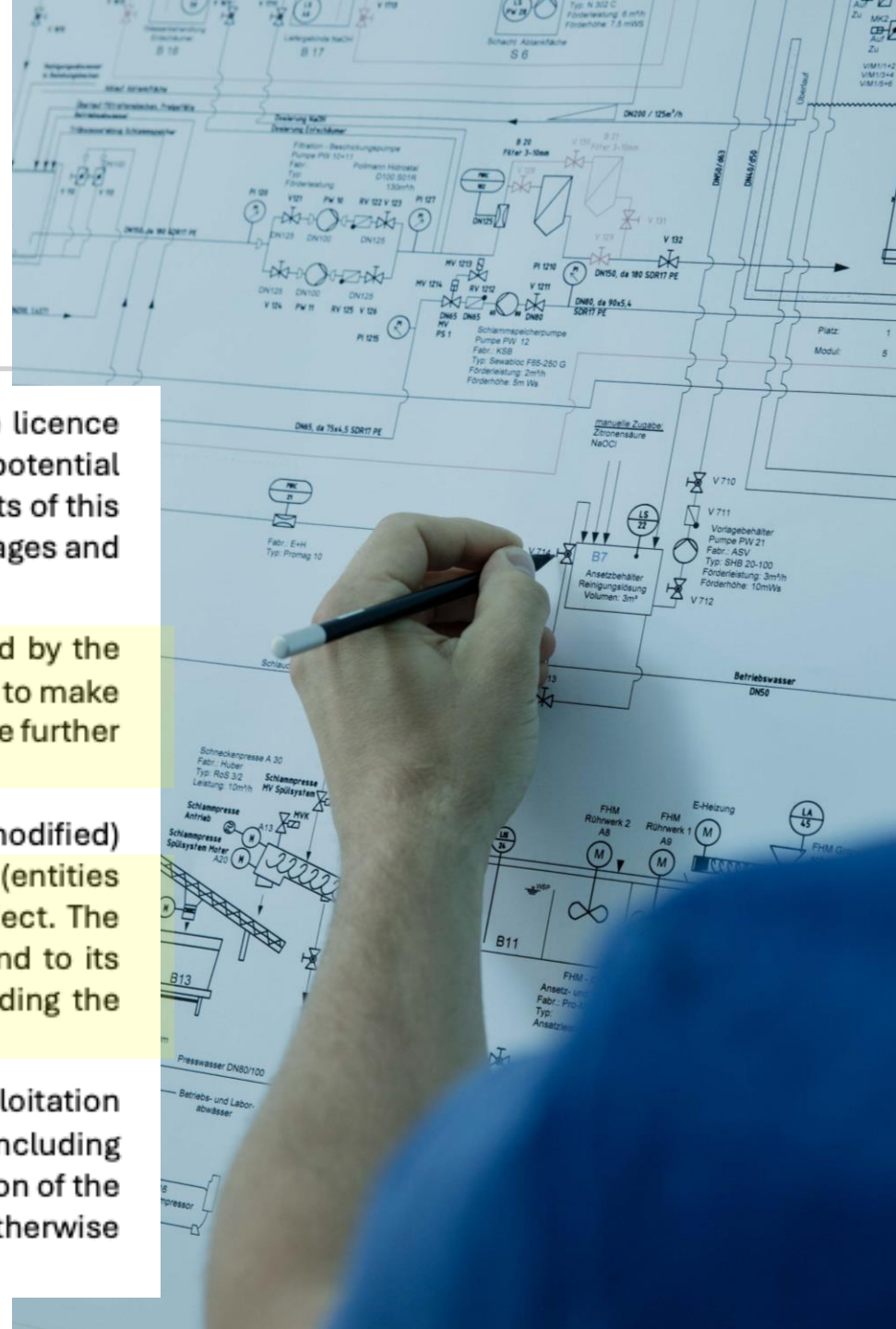
Ownership, commercial exploitation and monitoring of the foreground:

13. Due to the open source approach of the EUDI Wallet project and the open source licence under which all the foreground shall be licensed, the further modification and any potential commercial exploitation resulting from the modification of the foreground and Results of this PCP is allowed by default and from a practical perspective to its participants of all stages and SPRIND, even for further development.

14. SPRIND is entitled to monitor the exploitation of the (modified) Results/Foreground by the participant during and up to five (5) years after the end of the Participation Agreement to make sure that it does not occur in a way that harms the legitimate interests of SPRIND or the further development of the EUDI Wallet project.

15. The participant must ensure that, when commercially exploiting the (modified) Results/Foreground, any cooperation with entities established in or controlled by (entities from) other countries does not affect the EU interests due to the nature of the project. The participant must ensure that this obligation also applies to its legal successors and to its subcontractors, affiliated entities, and other third parties it cooperates with regarding the commercialisation of the Results/Foreground.

16. The participant expressly agrees and acknowledges that any form of commercial exploitation of the foreground and Results of the EUDI Wallet is strictly prohibited at all times, including but not limited to any interim periods between project stages or prior to the publication of the project results on OpenCoDe, until the end of this Participation Agreement, unless otherwise stipulated in this participation agreement.



§ 5 INTELLECTUAL PROPERTY RIGHTS

General provisions:

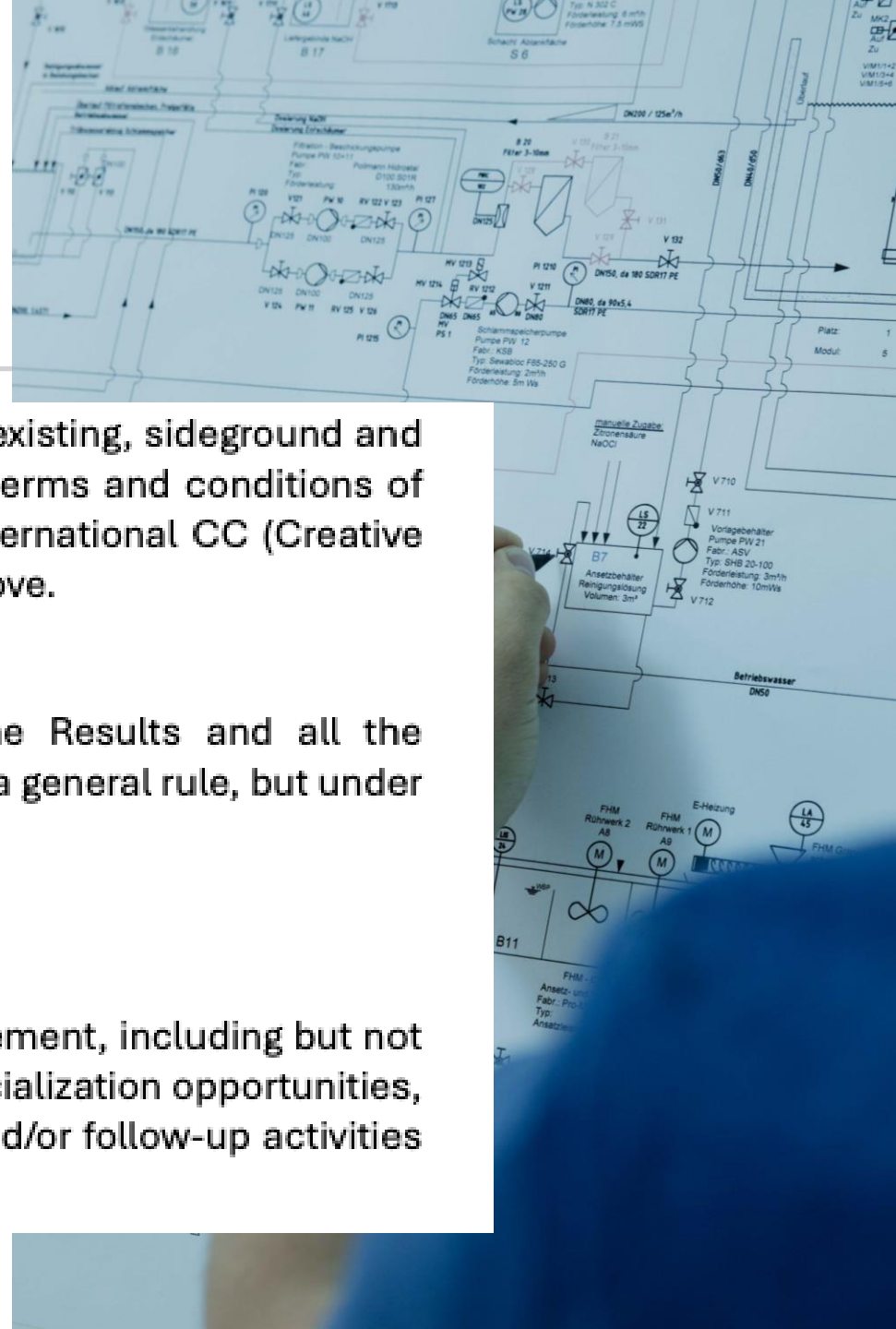
17. In any case, in the context of the EUDI Wallet project, all IPRs (pre-existing, sideground and foreground) need to be licensed under the open-source licensing terms and conditions of "Apache 2.0" open source software license and "Attribution 4.0 International CC (Creative Commons) license" when published, the latest as stated in No. 6 above.

18. For results that are not IPRs, the same rules apply as for IPRs.

19. SPRIND shall possess the non-exclusive right to sublicense the Results and all the competition's IPRs (pre-existing, sideground and foreground) not as a general rule, but under the following conditions:

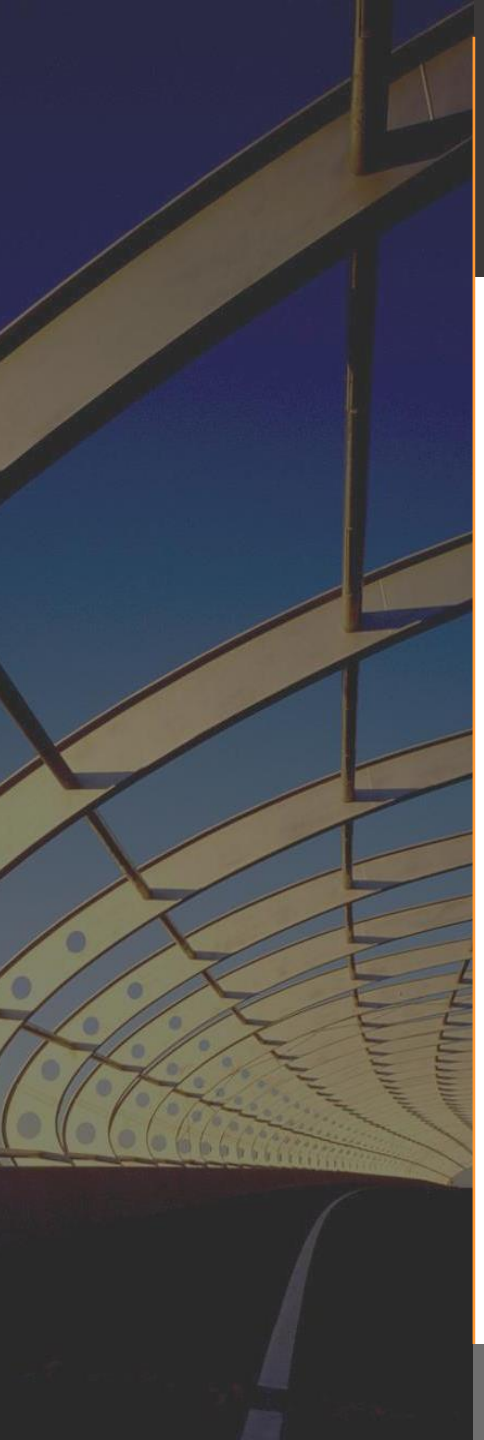
    a) in case of financial bankruptcy of the participant
    b) in case of further development of the prototype to a TRL 6-9

20. SPRIND reserves any right not explicitly granted in the present agreement, including but not limited to the right to pursue further licensing agreements, commercialization opportunities, competitions for the development of the EUDI Wallet prototypes and/or follow-up activities on the deployment of the subsequent solutions.



SPRIN-D

EVA.VOGT@SPRIND.ORG



EAFIP in the broader European context:

cooperation with other EU initiatives

European Commission

Lieve Bos
DG-RTD - European Commission
Policy Officer

EAFIP in the broader European Context

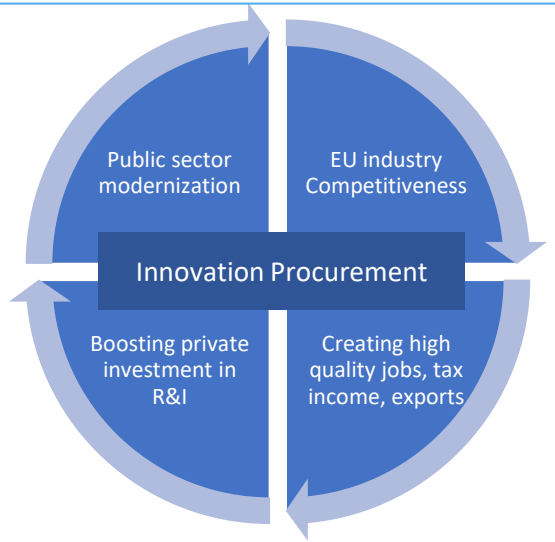
EU initiatives on Innovation Procurement

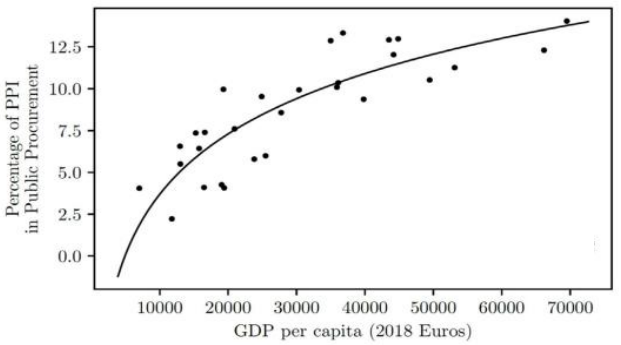
Lieve Bos (lieve.bos@ec.europa.eu)

Policy officer Innovation procurement
Innovation policy and access to finance unit
DG Research and Innovation -European Commission

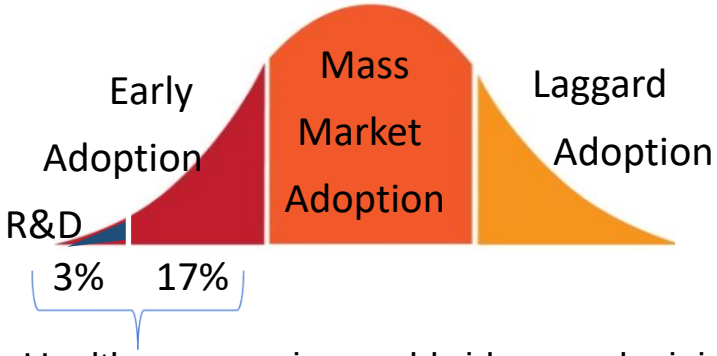
Strategic importance of innovation procurement

Many societal challenges unsolvable
via public procurement of ‘existing’ solutions.
Public procurement of R&D / innovative solutions needed.





Studies: Innovation procurement essential for economic growth.
Direct relation between innovation procurement investments
and growth of GDP per capita.



Healthy economies worldwide spend minimum:
20% of public procurement on innovation procurement.
EU average is ~10%. (EU wide Benchmarking)

ICT
is key catalyzer

Healthy economies worldwide spend minimum:
10% of public proc (or 60% of innov proc) on ‘ICT-enabled’ solutions.
EU average is ~3,5% of public proc (or ~40% of innov proc)

EU initiatives

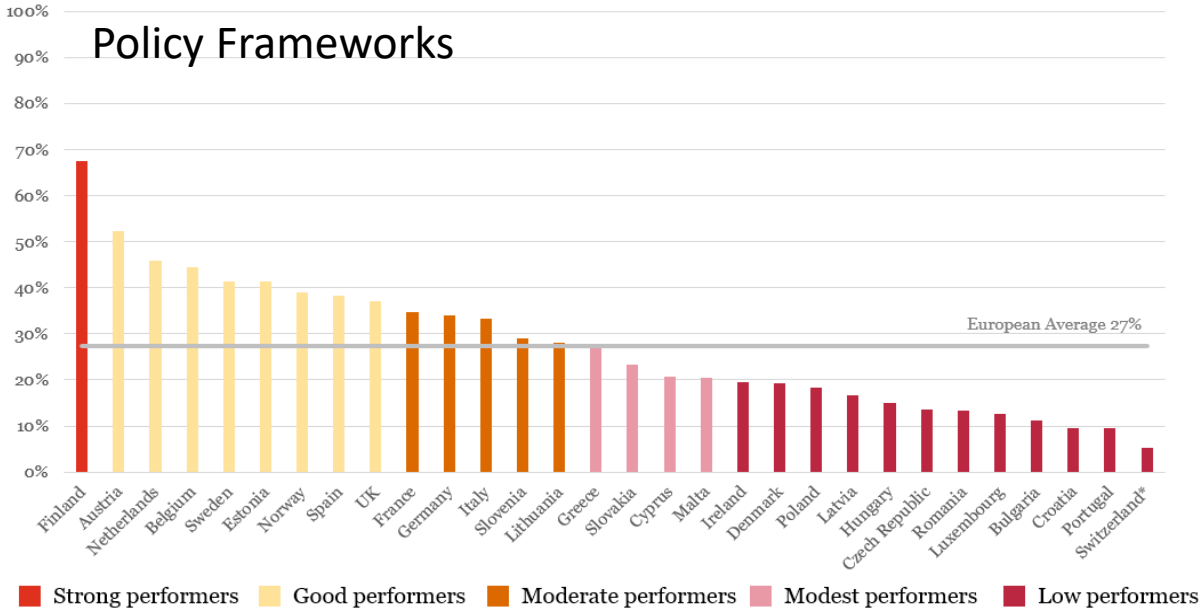
www.eafip.eu

EU funding

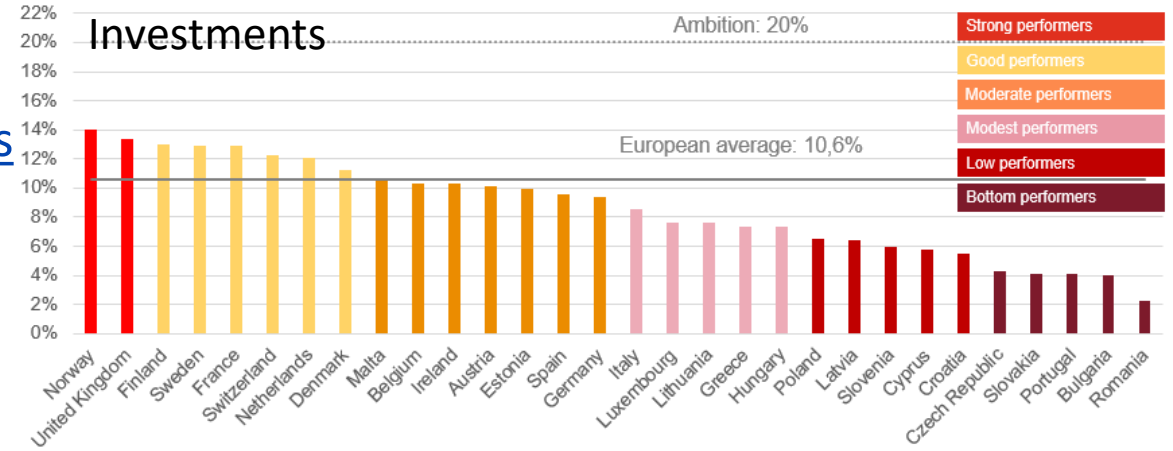
SPIN4EIC

De-risking innovation procurements

EU Network of national competence centers



Benchmarking national policy FWs and investments in innovation procurement



Several EU programs (2021-2027) in which innovation procurement plays a growing role

Reinforcing PCP / PPI support and
the link with startup / SME support
EIC and startup Europe

Deploying innovations
National health programs /
regulation & certification

New Defense program
Support for PCPs

RECOVERY AND
RESILIENCE FACILITY

DIGITAL EUROPE

Deployment of digital technologies
to modernize the public sector
Training / education on digital
Testing / experimentation with public sector - DIHs

INNOVATION FUND
Driving clean innovative technologies towards the market

Support for green
innovation procurement &
Demonstration / go to market

Regional Development programs
Support for innovation procurement

Horizon Europe: 2023-24 calls in support of PCP & PPI

Call deadlines in green

2023 (109 M€)

CSA actions

- ESFRI - European research infrastructures: 3 M€ (DEV-01-08; 9/3/2023)
- Preparing the ground for PCPs in security: 2 M€ (2023-SSRI-01-01; 23/11/2023)
- Specialist advisory services to build capacity on innovation procurement: 4 M€ (CONNECT-02-02; 21/9/2023)

RIA actions involving PCP

- Proposers can propose themselves to undertake PCPs under the subcontracting activities of every RIA action in the WP that does not require industry partners in the consortium (any call)

Programme Cofund actions

- Personalised medicine: 100 M€ (CARE-08-01; 13/4/2023)

2024 (178,5 M€)

PCP actions

- Greening healthcare: 20 M€ (HLTH-2024-CARE-14; 26/11/2024) NEW
- Demand led innovation in security: 10,5 M€ (2024-SSRI-01-01; 20/11/2024) ENLARGED CALL
- Climate change adaptation and mitigation: 19 M€ (GOVERNANCE-01-5; 28/2/2024)

RIA actions involving PCP

- Scientific Instrumentation: 62 M€ (TECH-1, 12/3/2024)
  The use of PCP in the RIA is encouraged
- Proposers can also propose themselves to undertake PCPs under the subcontracting activities of every other RIA action in the WP that does not require industry partners in the consortium (any call)

CSA actions

- Startup Europe: 12 M€ (CONNECT-01-03; 25/4/2024)

Programme Cofund actions

- Regional Innovation Valleys: 55 M€ (CONNECT-01-01; 25/4/2024)

The European Innovation Procurement Awards 2024
Online info session 30 May (14h00-15h00): registration link

European Innovation Council

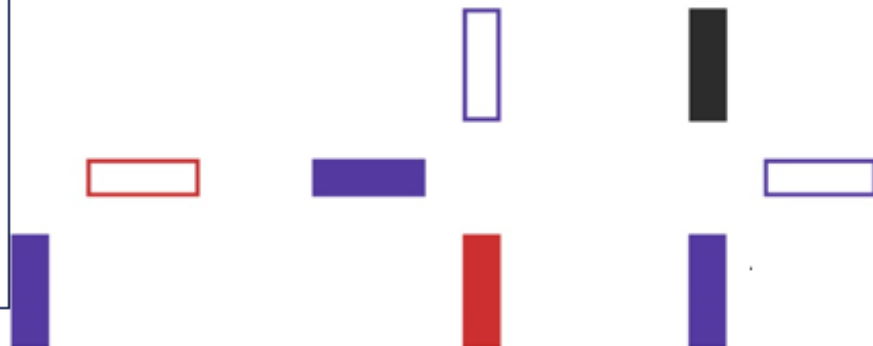
Both categories are open to innovation procurements / innovation procurement practices in any sector (e.g. transport, construction, energy, manufacturing, health, security, education etc)

Innovation procurement initiative category	to reward innovation procurements / innovation procurement practices focusing on any challenge
Facing societal challenges category In 2024: "Net Zero transition"	to reward those innovative procurements / innovation procurement practices that support Europe's transition to a Net Zero economy

In each category: 1 winner (€75 K) + 1st runner up (€ 50K) + 2nd runner up (€ 25K)

Both categories are open to different types of innovation procurements / practices :

a) Procurements of research and development
b) Procurements of innovative solutions
c) Initiatives that triggered several innovation procurements (e.g. innovation procurement strategies /programmes / action plans)



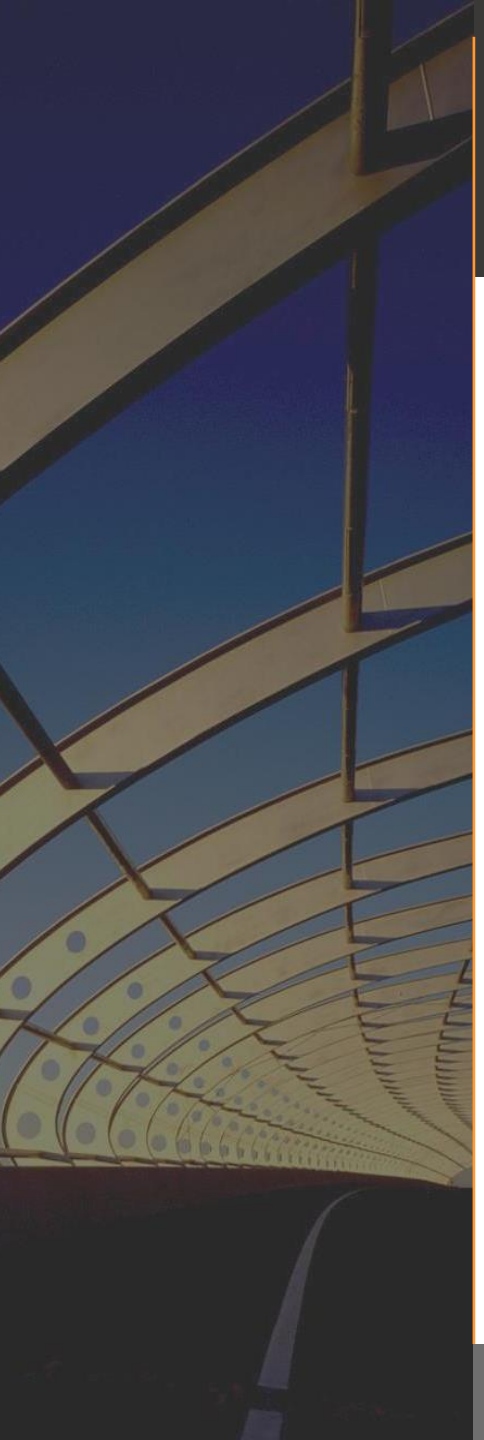
Interesting links

- Website about EU initiatives on innovation procurement
- Subscribe to the EU Innovation Procurement newsletter to receive regular info on EU initiatives, news from around Europe, funding opportunities etc.

- How to prepare a successful **innovation procurement proposal** in Horizon Europe (video)

Thank you!


Discussions and Q&A



Conclusions

Stephan Corvers
CEO & Founder
Corvers Procurement Services BV

Conclusions

- Innovation Procurement projects take time and good preparation.
- To prepare a PCP or PPI, it is important to have a structured work approach and follow a methodology.
- The EAFIP methodology can guide you step-by-step.
- EAFIP offers 4 types of assistance to public procurers:
    1. **Needs assessment** (including prior art analysis and scoping of the procurement need).
    2. **Business case development** (value calculations)
    3. **Open Market Consultation** (possible e-pitching sessions).
    4. **Drafting the tender documents** (and launching the procurement).

Apply for free assistance

For more information – see: www.eafip.eu

Or apply directly via:

https://ec.europa.eu/eusurvey/runner/EAFIP2024

Thank you for your attention

Corvers Procurement Services BV

The Netherlands

Tel: +31 73-612 6566

info@corvers.com

www.corvers.com

For any questions regarding EAFIP-Assistance and/or applying for free assistance, please contact:

Analucia Jaramillo

Tel: +31 6-20552773

a.jaramillo@corvers.com

www.eafip.eu

EAFIP WORKSHOP-WEBINAR #1 2024

HOW TO PREPARE AN INNOVATION PROCUREMENT:

Best Practices & Lessons Learned

30th May 2024

Q&A

How to identify and assess needs: *pain point workshops, value methodologies and use cases in PROTECT*

Speaker: Hans van Leeuwen, *STOWA, The Netherlands*

	Question	Answer
1.	Is this project already funded or to be submitted in the open call? (in reference to PROTECT CSA and PCP WISE)	PROTECT CSA is a project already funded by the Horizon Europe Framework Programme (HORIZON) under grant agreement No. 101060592 to prepare the grounds for a future PCP. In the context of PROTECT CSA, several challenges were identified, among which the water challenge was further scoped by several public buyers to present a PCP proposal. The water challenge is reflected in the PCP WISE proposal to implement the PCP. The proposal has been submitted and the EC decision is expected in the upcoming weeks.
2.	What key aspect would you highlight to achieve interoperability of geo information?	There are four dimensions to be considered: (1) standards and processes; (2) boundary and technical requirements; (3) interoperability chain; and (4) interoperability levels (technical, semantic, legal, organisational, political).

How to conduct a market analysis to identify the state of the art of solutions: *the experience of PROCURE4HEALTH*

Speaker: Karsten Lemke, *Zenit, Germany, Partner of PROCURE4HEALTH*

	Question	Answer
1.	There is a pivotal moment where a contracting authority realises there is not an exact solution that could solve the true problem in the viable way. What if though the need is pressing, the (political) decision to procure (to share risk with the market) is pressing because of the real problem and the internal capacity to use innovation procurement is low, while it	Start as soon as possible within your organisation to understand your needs and build internal capacity to be prepared to implement innovation procurement. Follow the step by step approach to verify whether the PCP approach (i.e. R&D) is really justified by the lack of solutions available in the market.

	will take a while to get the solution through innovation procurement. How could this realisation not be happening too late and what could be done to convince decision makers to embark on a PCP journey early on instead of going down the mainstream more "mature" competitions?	A market analysis can provide insights about the feasibility to start a PCP. Moreover, it is important to note that the PCP allows public buyers to develop a solution tailored to the organisation's needs and provides crucial insights that may be used for the future purchase of the final solution.
2.	How to measure if the Market Analysis was "complete" (broad enough to proceed to the next step?	Some complementary techniques can help ensure a reasonable level of completeness. For example, a thorough search in sources of public domain, participation in events and exhibitions, patent and standards search worldwide, and further consulting the market about the findings to verify the conclusions obtained.

How to prepare an Open Market Consultation and e-pitching on 3 use cases: *the experience of SHIELD4CROWD*

Speaker: Jorge Garzón, *Ministry of Interion of France, Partner of SHIELD4CROWD*

	Question	**Answer**
1.	For the OMC, are you assisted by a consulting firm?	In some projects the support of a consultancy firm may be convenient, in particular where the staff of the procuring entity does not have expertise in this matter and where technical or legal aspects need to be considered.
2.	How to ensure no competitive advantage and ensure the request is broadly published?	One of the measures to ensure an open and broad publication is to use the European public procurement portal Tenders Electronic Daily (TED) where interested market operators find the Prior Information Notice (PIN) announcing a market consultation and the Contract Notice (CN) announcing a tender. This portal is open to any economic operator and accessible worldwide.
3.	How effective is OMC in relation to the level and quality of solutions formed or surfacing, retrospectively?	An early communication of the needs to the market can help providers prepare themselves better to respond to a tender and submit a competitive bid. They can create synergies and

		join efforts to participate in consortia, which can be beneficial for the final outcome.
4.	Are the costs involved in organising the OMC covered in the PCP / PPI fund or is it to be carried by the requesting organisations themselves?	In the case of EU projects, the costs to perform the OMC activities may be covered. In other cases, the organisations cover the costs themselves.
5.	Is the Open Market Consultation centralised? Meaning, can the interested solution providers find these easily or is it opportunity specific?	Prior Information Notices (PINs) are published on TED by the contracting authority. It is convenient to centralise the communication in one channel to facilitate the understanding of and communication with technology vendors. This decision needs to be made internally.
6.	How to ensure no competitive advantage and ensure the request is broadly published?	One of the measures to ensure an open and broad publication is to use the European public procurement portal Tenders Electronic Daily (TED) where interested market operators find the Prior Information Notice (PIN) announcing a market consultation and the Contract Notice (CN) to announce a tender. This portal is open to any economic operator and accessible worldwide.

How to build a business case: *the case of IMPRESS to expand the research capabilities with new era of TEM*

Speaker: Maria Kampa, *Corvers Procurement Services, Partner of IMPRESS*

	Question	**Answer**
1.	What would you say are the 3 main challenges in the process you followed and what advice would you give to someone embarking now in either a PCP, an building a business case?	The preparatory steps are fundamental for a successful PCP. Some challenges are: (1) to define the functional requirements; (2) creating a good baseline where some information is not available; (3) decision making to start an innovation procurement. The advice is to have a multidisciplinary team and involve end-users to assess the needs, the costs and benefits of solving a problem. Work together on a business case that provides information on the net present value, the return of investment and the benefits that cannot be monetized. Make the decision based on the data obtained from the analysis of scenarios.

How to draft tender documents: *participation agreement of SPRIND for the EUDI Wallet PCP*

Speaker: Eva Maria Vogt, *SPRIND, Germany*

	Question	Answer
1	What does the LEAN approach entail?	A LEAN approach to draft tender documentation considers that creative innovators need to understand the core aspects of the problem and the rules of a tender, but this should be balanced with the need that the tender documents are clear, legally secure but not too complex or long so that these can be understood by innovators without the need to hire legal experts.
2.	What are the safety net provisions?	The safety net provisions in this specific PCP particularly aim to ensure that the results of the PCP are accessible and available to SPRIND and also other beneficiaries in the future. These provisions also include measures to safeguard the public interest.

EAFIP in the broader European context*: cooperation with other EU initiatives*

Speaker: Lieve Bos, *DG-RTD, European Commission*

	Question	Answer
1.	Could you please provide a link where to consult all the Innovation Procurement initiatives funded under Horizon 2020 and Horizon Europe?	Please check Website about EU initiatives on innovation procurement Subscribe to the EU Innovation Procurement newsletter to receive regular info on EU initiatives, news from around Europe, funding opportunities etc.
4.	In 2023 several suppliers from Digital Health PCPs were asked by the EC (through a contracted consulting company) for their feedback on their experience. Is this report publicly	Please see the information of the Horizon Results Booster The success stories are published here: Success stories (horizonresultsbooster.eu)

	available? When/where are the conclusions shared and implemented? Ecorys is part of a consortium that was contracted by the EC to implement the Horizon Result Booster framework, which aims to bring a continual stream of innovation to the market and maximise the impact of public funded research within the EU. Within the framework, Ecorys was tasked to evaluate the impact of Pre-Commercial Procurement projects in health on both the procurers and the suppliers and to collect information on what happened with the devised solutions. The report aimed to provide the Health cluster with a basis for future decision regarding the use of innovation procurement instruments such as Pre-commercial procurement and Public Procurement Innovative Solutions.	