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COMMERCIAL & LEGAL AFFAIRS

In strategic alliance with Bartels Sueters Rassa Aanbestedingsadvocaten



WEBINAR

Opportunities to tackle the COVID-19 Crisis through Innovation Procurement

– a legal and economic perspective –

3 April 2020 - 11 CEST

Logistical details

- Questions during webinar
 - use the chat function (which is in private modus) or
 - send an email (*see below*)
- A replay will be made available after webinar
- Presentation will be made available after webinar

You can send in questions directly to: M.vansloten@corvers.com

www.eafip.eu: Q&A (10 most frequently asked questions)

www.eafip.eu: video's and the presentations

Agenda

- *Introduction & Overview of Eafip-initiative*
- *What You Can Do Now*
- *Eafip methodology for Innovation Procurement*
- *Recommendations and Next Steps*

Speakers

- Lieve Bos (DG Connect)
- Stephan Corvers (Corvers)
- Anne Rainville (Vtrek)
- Ramona Apostol (Corvers)



Key Message

- The COVID-19 crisis demands out-of-the box thinking
- The procurement directives and the Eafip methodology provide this flexibility and possibilities to accelerate timelines.
- Innovation procurement is and remains a vital strategy to target the needs of the CA's
- Innovation procurement forms an integrated and indissoluble part of a full blown procurement program.



Actions undertaken by the EC

- [€37Bn from Cohesion policy](#) for MS to tackle COVID-19
- [Joint Procurement EU and Member States](#): PPE equipment, ventilators, lab equipment and test sets
- EU creates [stock-pile of medical and PPE equipment](#)
- [Rec \(EU\) 2020/403](#) faster conformity assessment
- H2020 funding for innovation procurements that can increase preparedness for public health emergencies
 - [DTH-14](#): PCP - Digital health and care (€ 9M, 18 June 2020)
 - [BHC-20A](#): PCP – Integrated care
 - [BHC-20B](#): PPI – Diagnostics

€ 25M, 4 June 2020

Actions undertaken by the EC

- [EC Guidance](#) on using the public procurement FW in the emergency situation related to the COVID-crisis
- JRC models link between COVID-19 & climate conditions
- [Repository of deployable AI and robotics solutions](#)
- [European supercomputers](#) contribute to create drug
- [COVID19 Hackatons](#) & [Digital Innovation Hubs](#) test beds
- Work with cybersecurity auth. for safe online buying, platforms/telcos reduce fake news/network congestion

Eafip 2015-2021

- European Assistance for Innovation Procurement (eafip)
- Initiative European Commission DG CONNECT
- Knowledge transfer about how to conduct innovation procurement to contracting authorities throughout Europe
 - Workshops & conferences
 - Toolkit
 - Local assistance (18 PCPs and PPIs)
- Network-approach
- Demand driven policy – no support to companies
- www.eafip.eu



Innovation Procurement

- **Pre-Commercial Procurement (PCP)**

is an approach to public procurement of research and development (R&D) services that is outlined in the PCP communication and associated staff working document (COM(2007)799final and SEC(2007)1668). It is an important tool to stimulate innovation as it enables the public sector to steer the development of new solutions directly towards its needs. PCP is published openly using simple existing procedures: open, restricted or negotiated procedure with publication.

- **Public Procurement of Innovative solutions (PPI)**

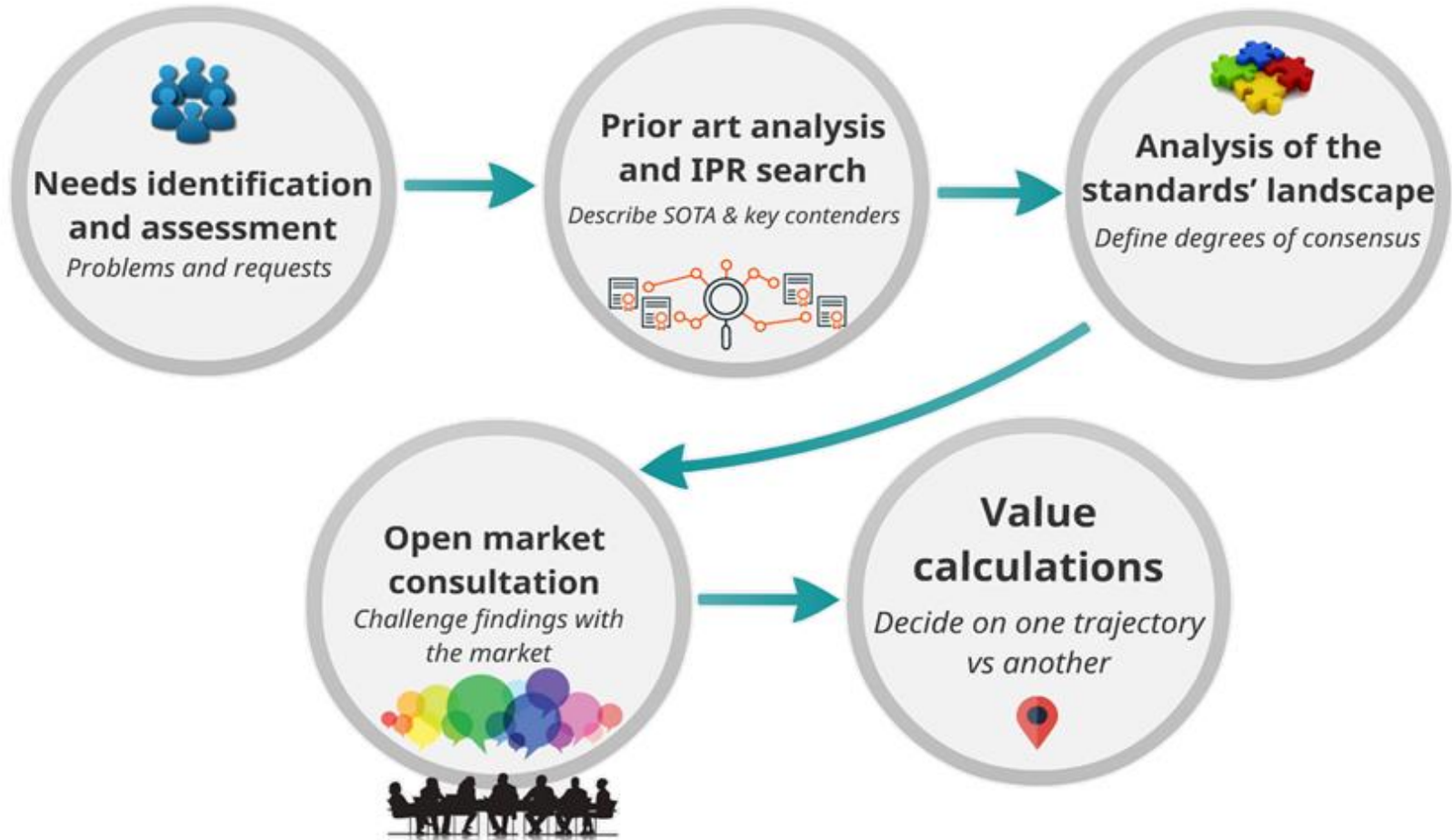
happens when the public sector uses its purchasing power to act as early adopter of innovative solutions which are not yet available on large scale commercial basis and can include conformance testing. PPI can use any existing procurement procedure that does not include the procurement of R&D.

Selected projects 2019-2021

- WBL: Artificial Intelligence - PCP (NL)
- Gobierno de Canarias: Big Data for Personalised Medicine - PCP (ES)
- MVB-STIB: Muntstroom Living Lab - PCP (BE)
- Austrian Patent Office: Chatbot Albert - PPI (AT)
- Smart Dublin/Dublin City: Smart Tech, saving lives - IoT Network to monitor and report on Life Rings - PPI (IE)
- Renfe: autonomous freight operation



What You Can Do Now



What You Can Do Now

- Identify **needs**; determine which are *extremely urgent, urgent, or non-urgent (standard)*
- Understand the **legal possibilities** for procuring to meet these needs
- Draft a **business case** to *justify* the urgency of needs, identify cost-effectiveness, and inform the tender
- **Find suppliers** who could deliver supplies and services on short notice
- Draft **technical specifications** and **award criteria** to reflect the business case; draft contracts

Accelerated timing

- EAFIP-methodology accelerated time frame:
 - appr. 3-4 weeks
- *Needs analysis:* 1-2 days
- *SOTA & standards analysis:* 2-6 days
- *OMC:* 14-16 days
- *Business case:* 2-6 days

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Methods for End-User Needs Identification



Potential Needs/Topics

- **Robotics** – food delivery, medical equipment transportation, hospital disinfection, surgeries, prevention and diagnosis, patient interaction
- **Supercomputing** and **Artificial intelligence** – pattern identification (diagnostics imaging, chemical compounds), diagnostic imaging, epidemiological modelling
- **ICU bed** availability monitoring (local, regional, country-wide)
- **Dynamic prediction** of needs (testing, containment measure, ICU beds, etc.); integration with vaccine, testing, and containment
- **Communication and coordination** between hospitals and transporters, local and regional facilities
- **Social wellbeing** – Connectedness during social distancing, senior-specific services, interactive digital community programs
- **Digital education** - Digital schooling, educational efforts for disease awareness and vaccination

Needs Identification and Urgency

Applicable needs identification method will depend on the **degree of urgency**

TIME for needs identification: 3-8 days standard; 2 days urgent; 1 day extremely urgent

- **Extreme urgency:** critical needs may be **immediately evident**
 - Leaves little need (or time for) needs assessment
- **Urgency:** user needs assessment can justify accelerated procedure
- **Non-urgency / standard:** more comprehensive user needs assessment can take place

Needs Identification Methods

- Determine **end-user needs** using methods such as interviews, surveys, collaborative workshops
- **Prioritize needs** using transparent, semi-quantitative methods to support consensus
- Must report **justification** for chosen procurement procedure
Methodology used, identified needs, source of need (e.g., could not be foreseen), rationale for procedure selected
- Justification can be provided by a **business case**

(Extremely) Urgent Needs Identification (1-2 days)

1. Identify **end-users**
2. Describe current **challenges** faced by end-users
3. State **consequences** of these challenges
4. Describe (innovation) **needs** in term of function and performance

NOTE: Not technical specifications!!

*For help identifying functional units, also consider relevant organizational policy goals, peer-reviewed articles, etc.
Eg, for patient outcomes: <https://www.sciencedirect.com/science/article/pii/S2352013214000088>

Overview of Changing Procurement Approaches over the Course of COVID-19



Changing States and Possibilities

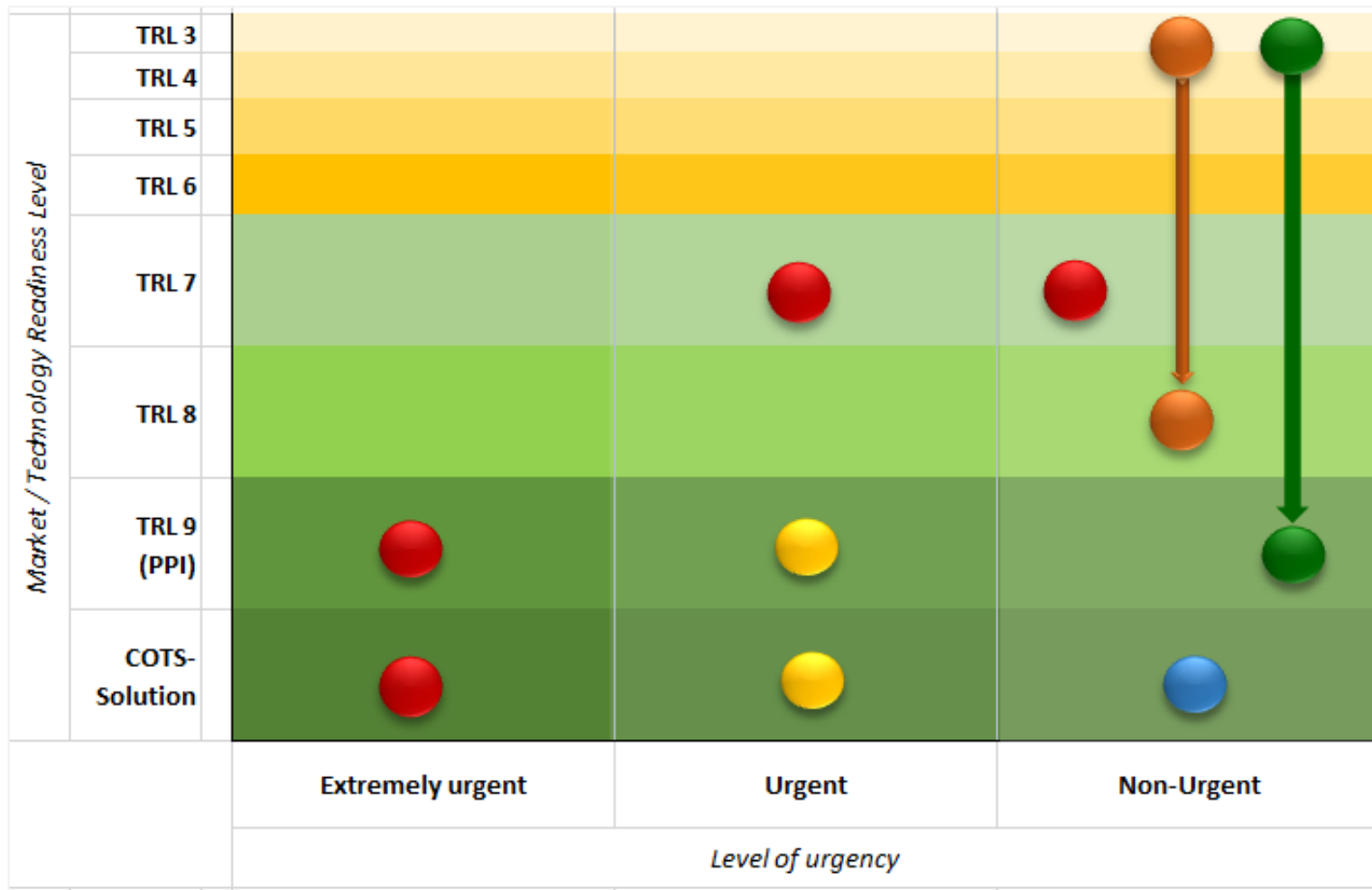
- **COTS solutions** (COTS = *Commercial Off The Shelf*):
 - **Extremely urgent needs** – negotiated procedure without prior notice (for most immediate needs; direct negotiations; duration of weeks)
 - **Urgent needs** – accelerated open, restricted procedures and competitive procedure with negotiation (short procurement timelines)
 - **Non-urgent needs** – standard procurement procedures (regular procurement timelines)






- **Innovative solutions:**
 - **TRL7 Urgent and non-urgent needs** - negotiated procedure without prior notice for testing of innovative prototypes (flexible short procurement)
 - **TRL3-TRL8 Non-urgent needs** (medium- to long-term time lines) – pre-commercial procurement (PCP)
 - **TRL3-TRL9 Non-urgent needs** (medium- to long-term time lines) – innovation partnership
 - **TRL9 Extremely urgent, urgent, non-urgent needs** – public procurement of innovative solutions (PPI)
 - standard procurement procedures;
 - accelerated procedure
 - negotiated procedure without prior notice

See also [Guidance from the European Commission on using the public procurement framework in the emergency situation related to the COVID-19 crisis \(2020/C 108 I/01\)](#)

	Extremely urgent	Urgent	Non-urgent
COTS Solutions <i>(Commercial Off The Shelf)</i>	Negotiated procedure without prior notice (Art.32(2)(c) Directive 2014/24/EU; Art.50(d) Directive 2014/25/EU; Art.28(1)(d) Directive 2009/81/EU)	Accelerated procedures (Art. 27(3), 28(6) and 29(1 in fine) Directive 2014/24/EU; Art.45(3), 46(1)(2), 47(1)(2), 48 and 49 Directive 2014/25/EU; Art.33(7) Directive 2009/81/EC)	Standard procurement procedures (Art.26 & 31 Directive 2014/24/EU; Art.44 & 49 Directive 2014/25/EU; Art.25 Directive 2009/81/EC)
TRL7		Negotiated procedure without prior notice (prototype testing) (Art.32(3)(a) Directive 2014/24/EU; Art.50(b) Directive 2014/25/EU; Art.28(2)(b) Directive 2009/81/EC)	Negotiated procedure without prior notice (prototype testing) (Art.32(3)(a) Directive 2014/24/EU; Art.50(b) Directive 2014/25/EU; Art.28(2)(b) Directive 2009/81/EC)
TRL3 – TRL8			PCP (Art.14 Directive 2014/24/EU; Art.32 Directive 2014/25/EU; Art.13(j) Directive 2009/81/EC)
TRL3 – TRL9			Innovation Partnership (Art.31 Directive 2014/24/EU; art.49 Directive 2014/25/EU)
TRL9 (PPI)	PPI (negotiated procedure without prior notice) (Art.32(2)(c) Directive 2014/24/EU; Art.50(d) Directive 2014/25/EU; Art.28(1)(d) Directive 2009/81/EU)	PPI (accelerated procedures) (Art. 27(3), 28(6) and 29(1 in fine) Directive 2014/24/EU; Art.45(3), 46(1)(2), 47(1)(2), 48 and 49 Directive 2014/25/EU; Art.33(7) Directive 2009/81/EC)	PPI (standard procurement procedures) (Art.26 Directive 2014/24/EU; Art.44 Directive 2014/25/EU; Art.25 Directive 2009/81/EC)

TRL – Urgency Matrix



-  Negotiated procedure without prior notice
-  Standard procurement procedures
-  Accelerated open / restricted procedure, Accelerated competitive procedure with negotiation
-  Pre-Commercial Procurement (PCP)
-  Innovation Partnership

TRL 1 – Basic principles observed

TRL 2 – Technology concept formulated

TRL 3 – Experimental proof of concept

TRL 4 – Technology validated in lab

TRL 5 – Technology validated in relevant environment

TRL 6 – Technology demonstrated in relevant environment

TRL 7 – System prototype demonstration in operational environment

TRL 8 – System complete and qualified

TRL 9 – Actual system proven in operational environment

Product Idea

Curiosity-driven Research

Solution Design

Solution Exploration

Prototype

Prototyping

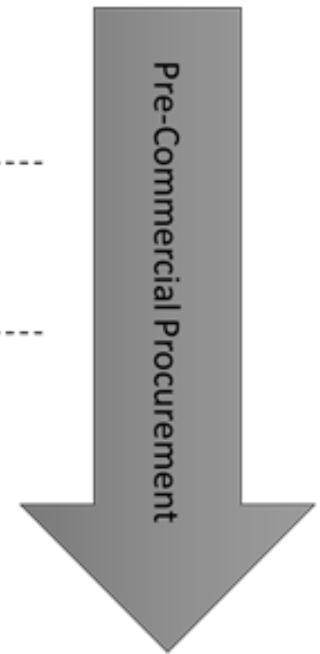
First Test Products

Original development of a limited volume of first products/services, in the form of a test series

Commercial End Products

Commercialisation of

products/services (may include commercial development activities, e.g. quantity production, customization, integration, etc.)



COTS Products:

Extremely Urgent, Urgent, Non urgent (negotiated procedure without publication, accelerated or standard procedures)

TRL 1 – Basic principles observed

TRL 2 – Technology concept formulated

TRL 3 – Experimental proof of concept

TRL 4 – Technology validated in lab

TRL 5 – Technology validated in relevant environment

TRL 6 – Technology demonstrated in relevant environment

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TRL 9 – Actual system proven in operational environment

Product Idea

Solution Design

Prototype

First Test Products

Commercial End Products

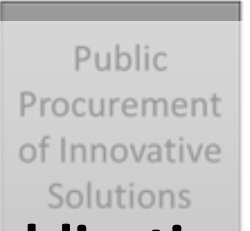
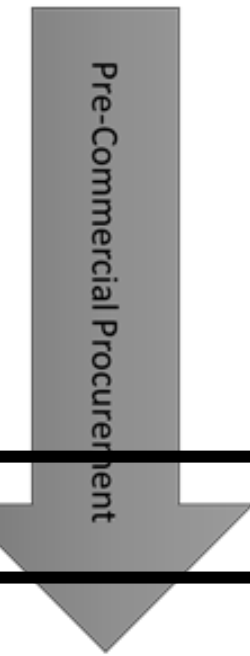
Curiosity-driven Research

Solution Exploration

Prototyping

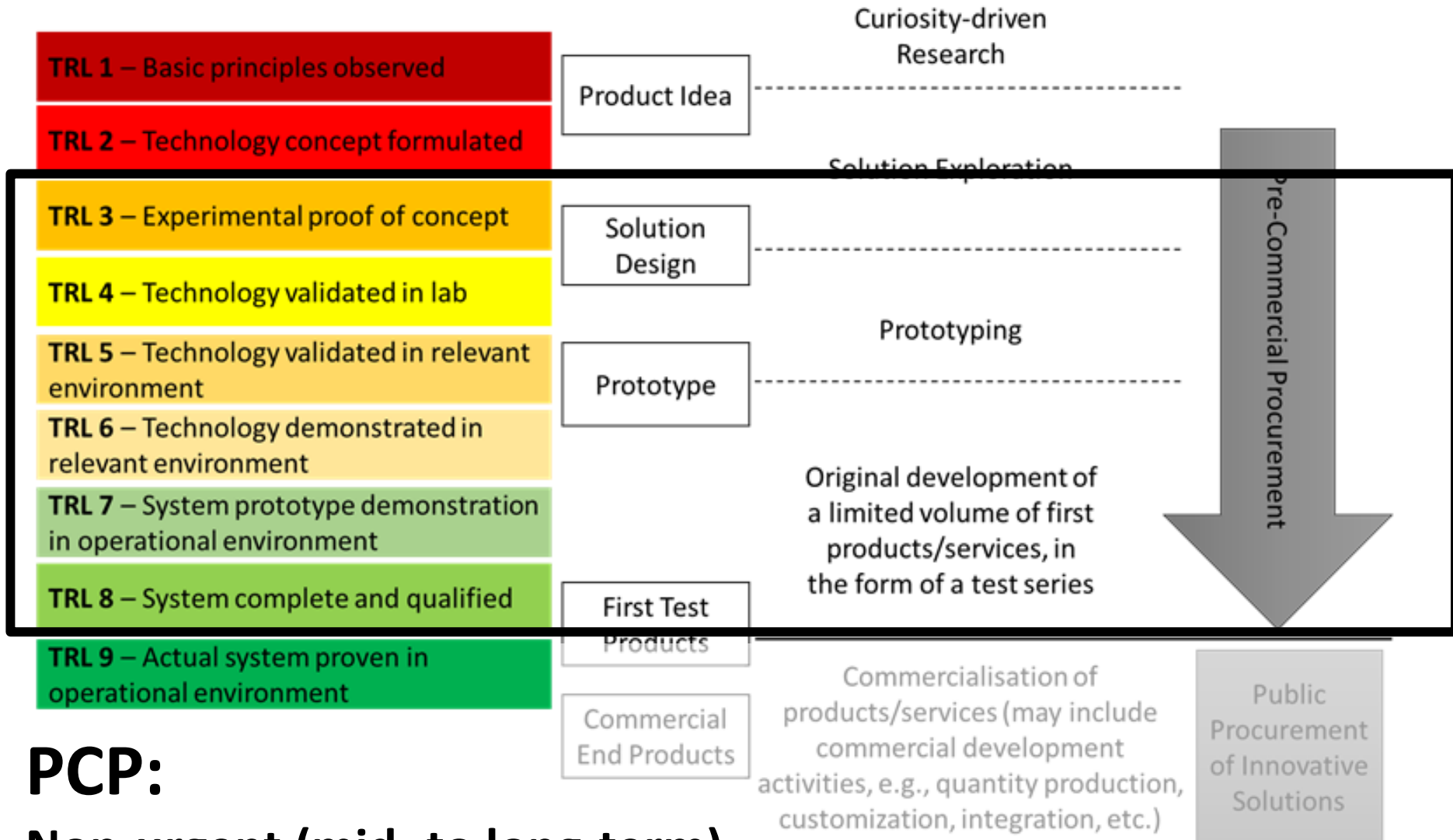
Original development of a limited volume of first products/services, in the form of a test series

Commercialisation of products/services (may include commercial development activities, e.g., quantity production, customization, integration, etc.)

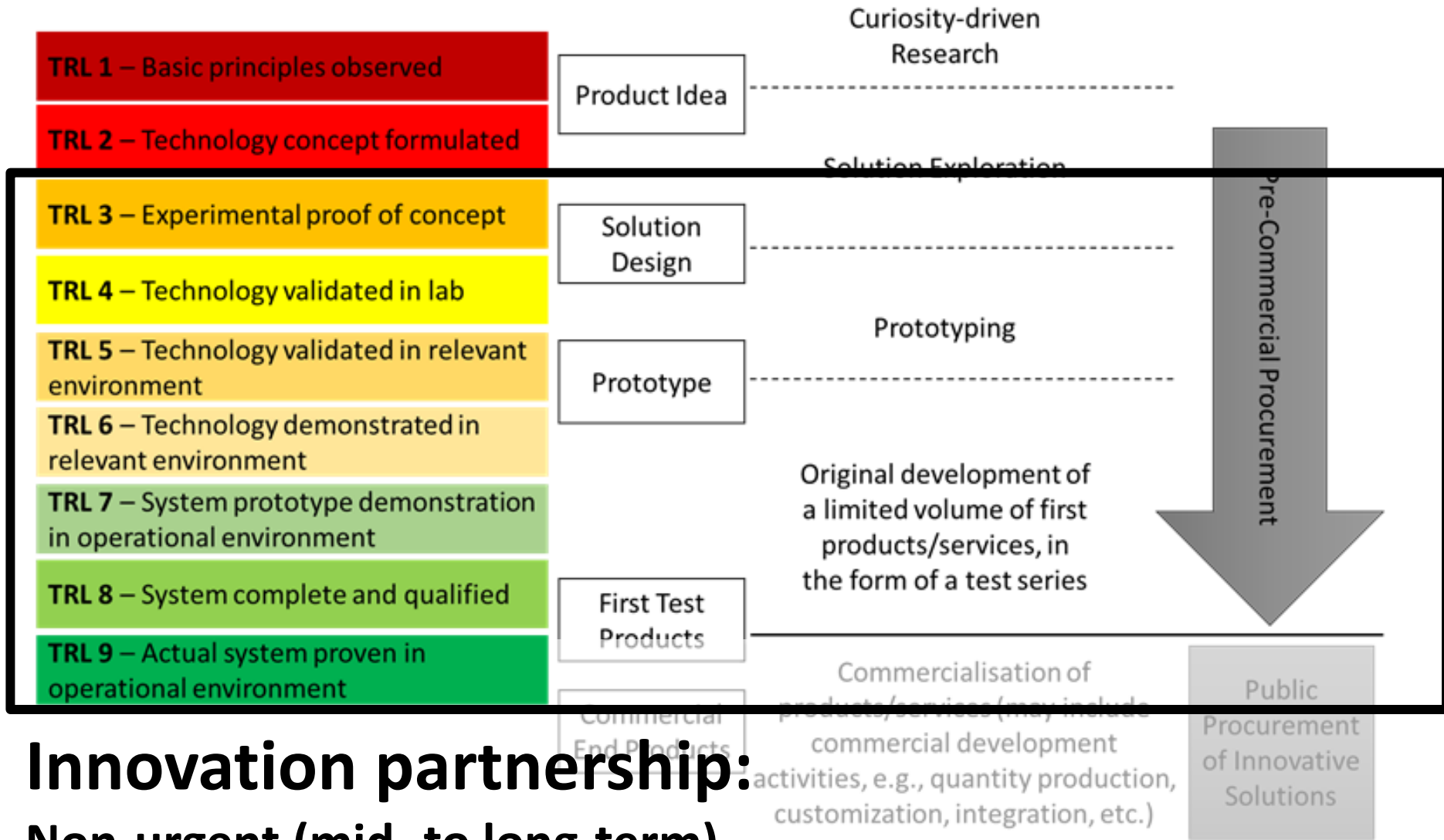


Prototype testing:

Urgent and non-urgent (negotiated procedure without publication)



PCP:
Non-urgent (mid- to long-term)



Innovation partnership: Non-urgent (mid- to long-term)

TRL 1 – Basic principles observed

Product Idea

Curiosity-driven Research

TRL 2 – Technology concept formulated

Solution Exploration

TRL 3 – Experimental proof of concept

Solution Design

TRL 4 – Technology validated in lab

Prototyping

TRL 5 – Technology validated in relevant environment

Prototype

TRL 6 – Technology demonstrated in relevant environment

Original development of a limited volume of first products/services, in the form of a test series

TRL 7 – System prototype demonstration in operational environment

TRL 8 – System complete and qualified

First Test Products

TRL 9 – Actual system proven in operational environment

Commercial End Products

Commercialisation of products/services (may include commercial development activities, e.g., quantity production, customisation, integration, etc.)

Public Procurement of Innovative Solutions

Pre-Commercial Procurement

PPI:

Extremely urgent, urgent and non-urgent (negotiated procedure without publication, accelerated or standard procedures)

COTS solutions: Extreme Urgency (I)

Negotiated Procedure without prior publication for reasons of extreme urgency

- **Suitable for the most urgent needs during the outbreak**
(e.g. face masks, ventilators etc.)
- **Cumulative conditions:**
 - Unforeseeable event (e.g. rising number of patients)
 - Extreme urgency
 - not attributable to the CA
 - prove that accelerated procedures cannot be applied
 - Causal link
- **Individual report**
 - case-by-case assessment
 - Repeat for each subsequent and additional procurement
 - keep a log
 - provide reasoning for future auditing

COTS solutions: Extreme Urgency (II)

Negotiated Procedure without prior publication for reasons of extreme urgency

■ Conditions for conducting the procedure:

- limit purchase to what is strictly necessary (both quantities and length of contract)
- negotiate directly with potential contractor(s)
 - Phone calls, visits to suppliers who have required stocks etc.
 - No minimum number of candidates to be consulted, but negotiate with 1 pre-selected contractor only if the only one able and capable of delivering according to technical specs, required time and quantities
- no publication requirements
- no minimum time limits, BUT award in less than accelerated timelines
- no other procedural requirements

■ Good practice:

- aim to achieve value for public money (plan efficiently to allow negotiations with multiple contractors)
- secure price reductions contractually

COTS solutions: Urgency

Accelerated open, restricted procedures and competitive procedure with negotiation for reasons of urgency

- **Urgency:**
 - Duly substantiated
 - Renders impracticable the applicable time limit
- **Reduction of timelines**
 - 15 days for submission of bids (open procedure);
 - 15 days for request to participate and 10 days for submission of bids (restricted procedure and competitive procedure with negotiation)
- **Ensures transparency and equal treatment**
 - Publication of the procurement documentation
 - Submission and evaluation of requests for candidacies and/or bids

Innovative solutions TRL7:

Negotiated Procedure without prior publication for prototype testing

- Applicable for urgent and non-urgent needs
- Purchase a prototype of improved testing/detection tool for the purpose of studying its performance
- Different from conformity testing and standard testing in PPI and standard procurement
- Support to contractor to bring its solution to the market (Prioritization of conformity assessment and flexibility in market surveillance for Personal Protective Equipment and medical devices)*

** [Commission Recommendation 2020/403 on conformity assessment and market surveillance procedures within the context of the COVID-19 threat](#)*

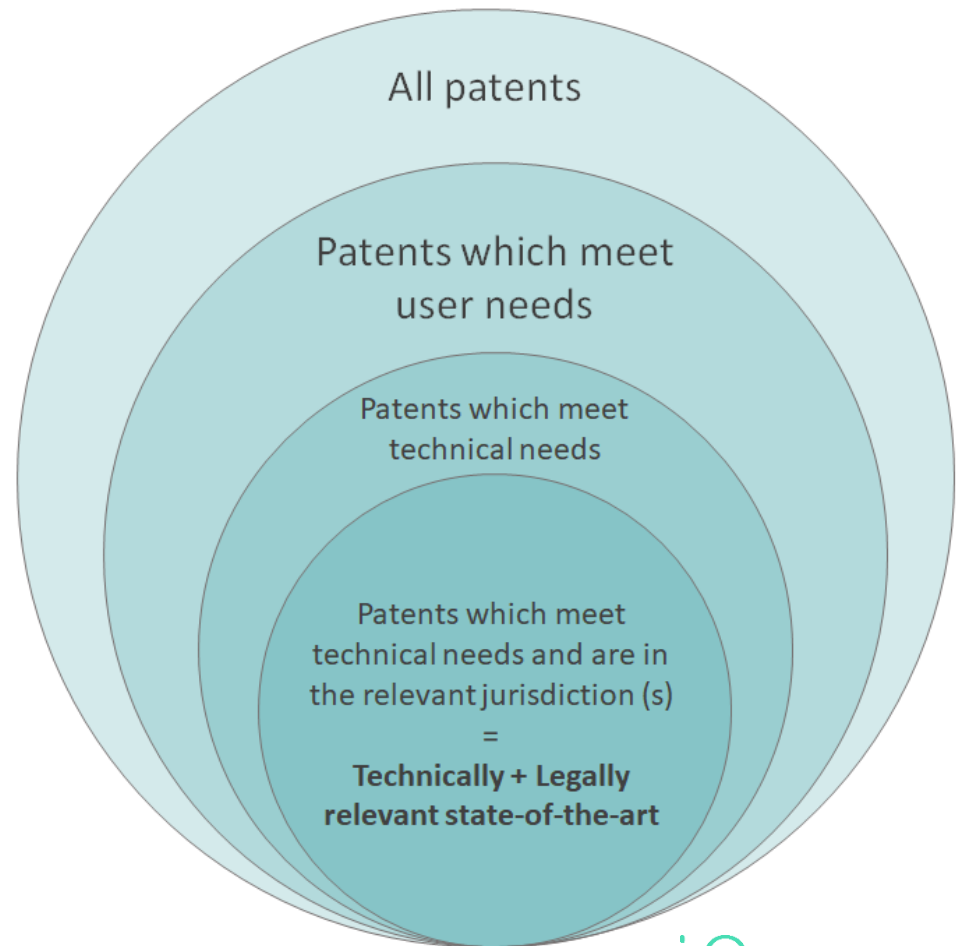
Identify Suppliers via State-of-the-Art (SOTA) Analysis & Open Market Consultation (OMC)



Finding Suppliers with State-of-the-Art

- State-of-the-Art (SOTA)
Analysis: Identify **prior art** through intellectual property (IP) in public domain
- **SOTA in the COVID-19 Crisis** – new alliances, rapidly changing landscapes, high uncertainty, extreme & dispersed demand
- Identify **suppliers** who own IP in the relevant jurisdiction which meets user needs and any technical requirements

→ Fast track possible in case of urgency



iP LYTICS

(Extremely) Urgent SOTA Analysis / Supplier Identification (1 day)

Need the right tools and skills to do in 1 day!

Using search and analytics platform such as IPlytics

1. Derive **keywords** to reflect user needs in solution space
2. Include **functional units**
3. Input into search platform
4. Search and analyze results
5. Reiterate for a reasonable number (~15)
6. **Technical expert** reviews patents and abstracts
7. **If solution is on the market**: Contact relevant manufacturers, distributor, broker e.g. by using OMC

Sample Patent Search Result

Security - Patents

1. **Prioritize** supplier list based on metrics (e.g., forward and backwards patent citations)
2. **Contact** directly (if procedure allows for); e.g., phone
3. **Check** if can provide required quantity in sufficient time

Example: Top 12 companies, by patent count

Applicant	Pat. Count	Fam. Count	Fam. Share	MC	TR
Hasan Syed Kamran	10	1	3.13%	1.3	0
NSS Labs, Inc.	9	2	6.25%	1.38	0.44
Battelle Memorial Institute, Inc.	5	2	6.25%	1	0
Hoosier Energy Rural Electric Cooperative, Inc.	5	2	6.25%	0.8	0
Cuculus GmbH	4	1	3.13%	1.05	0.24
Ips Engineering Corp.	3	1	3.13%	1.09	0
Net Insight Intellectual Property Ab	3	1	3.13%	1.04	0
Protected Mobility Llc	3	1	3.13%	0.7	1.07
Adar Eyal	2	1	3.13%	1.12	0
Digital Doors Inc.	2	1	3.13%	0.66	2.02
Inov Inesc Inovação - Instituto De Novas Tecnologias	2	1	3.13%	0.98	0
University Colorado Regents	2	1	3.13%	1.35	2.33
University of Colorado Denver	2	1	3.13%	1.35	2.33

Accelerating Open Market Consultations (OMC)

- Needs analysis & SOTA analysis is input for OMC
- Provisional findings – to be verified with the market
 - **Scenario I: electronic survey (about 16 days)**
 - **Scenario II: webinar (about 16 days)**

***Tip** – make use of outreach through other channels (e.g. EASME)*

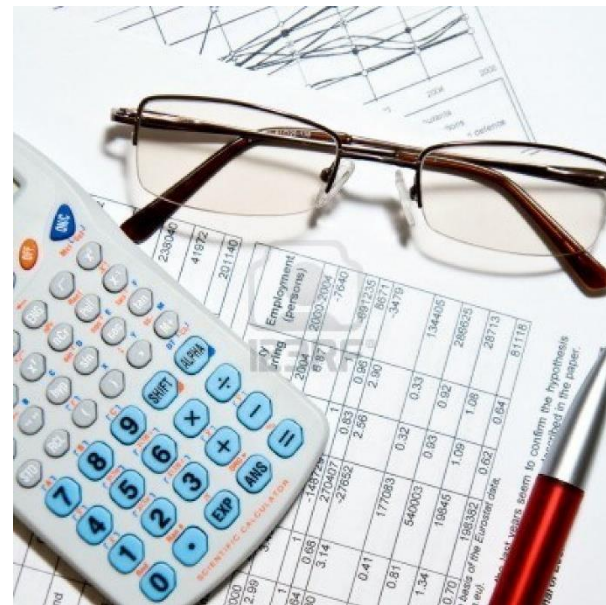
*Eafip has joined up with EASME / project EIC
Outreach to 6000 European high tech companies
(40% working in the health sector)*

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Draft the Business Case



Drafting the Business (Value) Case

- The business case is a **decision-support tool** to help identify the highest-value option
- Use to **justify the urgency of needs**, identify cost-effectiveness, and inform the tender
- Compares **costs, benefits, and risks** of different scenarios using various calculation methods

Business Case Toolkit

- **Cost-benefit analysis (CBA)** – all costs and benefits are monetized – NPV, ROI, CBR, IRR
- **Cost-effectiveness analysis (CEA)** – benefits in non-monetary units, costs in monetary
- **Multi Criteria Decision Analysis (MCDA)** – semi-quantification for comparison
- **Risk and Probability** – dependencies, uncertainties
- **Sensitivity Analysis** – rigor of analysis and conclusions

(Extremely) Urgent Business Case (2-6 days)

1. Quantify **functional units** from needs assessment
2. **Model relationships** between functional units to an outcome
3. Define **scenarios**, including do-nothing
4. Choose appropriate **tool** to compare between options
5. **Calculate** according to tool chosen
6. Compare results and determine **best scenario**
7. Plan **future** procurements using results

(Extremely) Urgent Business Case (2-6 days)

Units	Weight	Baseline (BAU)	Solution Option #1	Solution Option #2
Timeline	/	48 months	48 months	48 months
Discount Rate	/	1.5%	1.5%	1.5%
Expected Patients*		500/month	500/month	500/month
CAPEX	/	0	680,000 EUR	1000000 EUR
OPEX	/	300 EUR/month	100 EUR/month	150 EUR/month
Personnel time diagnosis	/	2h/patient @ 40 EUR/h	1h/patient @ 40 EUR/h	½ h/patient @ 40 EUR/h
Diagnostic accuracy	100%	85%	94%	99%

Innovation procurement & supporting schemes

- Regional expert centres supporting their regional contracting authorities / regional public buyers
- Spain (Aragon region): IACS (Health sector)
 - Services relating to needs analysis, SOTA-analysis, technical evaluation, testing facilities, brokering towards national notification bodies for conformity testing
- Belgium (Brussels region): Innoviris (Health & ICT)
 - Funding schemes
 - Services related to technical evaluation, brokering towards national notification bodies for conformity testing
- Eafip-initiative initiated the bilateral cooperation between IACS and Belgium

Q&A

Published on the eafip website



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Conclusions



In times of crisis

More urgency

Possibility to use Accelerated procedure (open / restricted / competitive procedure with negotiation) for products readily available (TRL9)

Lessons learned Problems with availability

- Shortage of components / supplies
- Lock in from third countries
- Technical specifications: quality issues (current solutions do not meet the needs)

Innovative alternatives

Business Case Methodology

Needs Assessment

SOTA - State of the Art Analysis
Establish technology readiness level (TRL)

Open Market
Consultation (OMC)

Conclusions

- Innovation procurement is **more relevant than ever** (need for innovative, creative, out of the box solutions)
- Innovation procurement forms an **integrated and indissoluble part** of a full blown procurement program
- Innovation procurement is ***possible as a fast track*** and ***on a small scale*** with the right methodology, tools and expertise

Recommendations Innovation Procurement I

Policy Perspective

- Re-think the lock-in from third non-EU countries and translate that into beyond-state-of-the-art needs
- Steer and coordinate regional, national and cross border joint innovation procurement
- Rethink the procedures to avoid competitive demand behaviour between regions & Member States

Recommendations Innovation Procurement II

Business & Economic Perspective

- Make use of the synergy between procurement and economics: early needs identification can drive and speed up innovation
- Use the business case methodologies of Eafip
- Use market analysis to understand the market capabilities and prevent opportunistic behaviour of suppliers

Recommendations Innovation Procurement III

Legal Perspective

- Draft legal justification report using the procedures
- Use open sources like EAFIP & team up with national / regional experts (e.g. eafip Lawyers Network)

Apply: New call for applications



The 1st 2020 call for applications is now open!

[More information!](#)

The EAFIP initiative currently welcomes project applications on ICT solutions **aimed to tackle COVID-19 or similar crises** through innovation procurement – open until May 31, 2020.

Apply for free assistance here:

<https://ec.europa.eu/eusurvey/runner/EAFIP2020>

Resources

- **Public Procurement and COVID-19**
<http://publicprocurementinternational.com/>
- **Module 2** of the *eafip* Toolkit - clarifies the pre-requisites and key steps to design and implement an innovation procurement process (PCP and PPI). <https://eafip.eu/toolkit/module-2/>
- **Academic Publications** of Corvers (legal), Vtrek (economic) and their network partners <https://www.vtrek.eu/publications>
- Rainville, A. & Apostol, R. (2017). **Capturing Value in Innovation Procurement: A Business Case Methodology**. [Working Paper No. 2017/2](#). Maastricht: Maastricht School of Management.



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Thank you for your attention



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