Horizon 2020 Overview

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Horizon 2020:
A break from the past

The Union's new **funding programme for R&I**

Designed to support the **Europe 2020 strategy**, which promotes smart, sustainable and inclusive growth

A key tool in implementing the **Innovation Union flagship initiative**, which provides a comprehensive set of actions for R&I performance

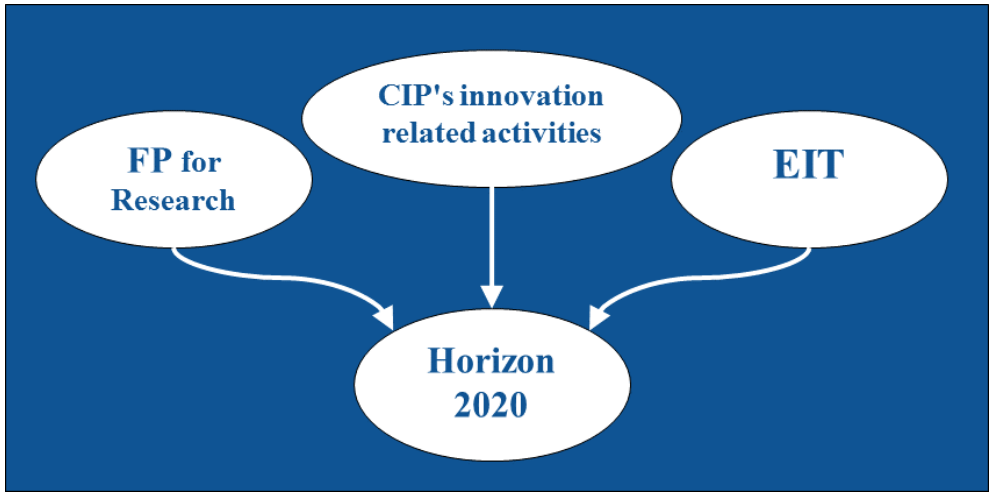
What's new?

A single programme *bringing together three separate programmes/initiatives*

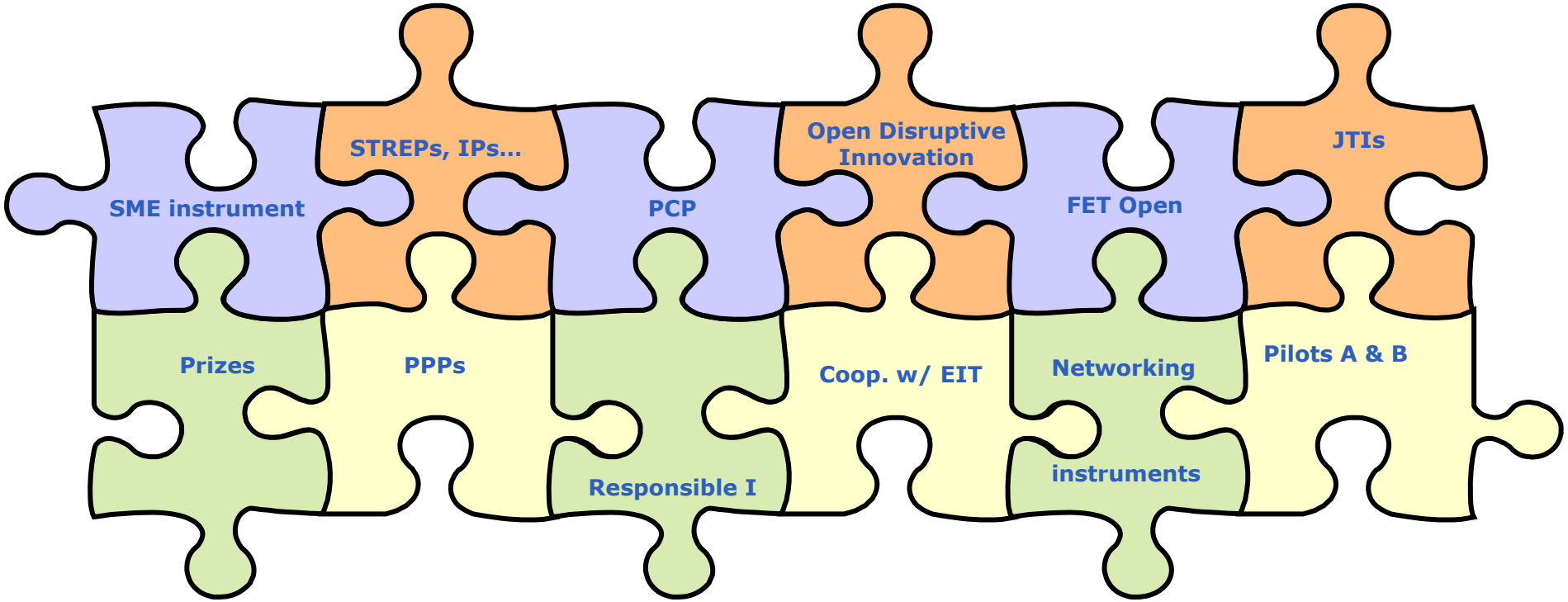
More innovation*, from research to retail, all forms of innovation*

Focus on societal challenges *facing EU society, e.g. health, clean energy and transport*

Simplified access*, for all companies, universities, institutes in all EU countries and beyond.*



A richer toolbox



Instruments in H2020

Grants for Research and Development *– 100% funding of all activities and participants*

Grants for Innovation *– 70% funding of all activities and participants*

Support and Coordination Actions

Programme Co-funding Actions

SME-Instrument *– Instrument to support specific SME activities in three phases*

Pre-Commercial Procurement (PCP) *– Steer development to public sector needs*

Public Procurement of Innovative Solutions (PPI) *– First buyer for innovative solutions*

Prizes *– Support for two key categories of prizes (recognition and inducement)*

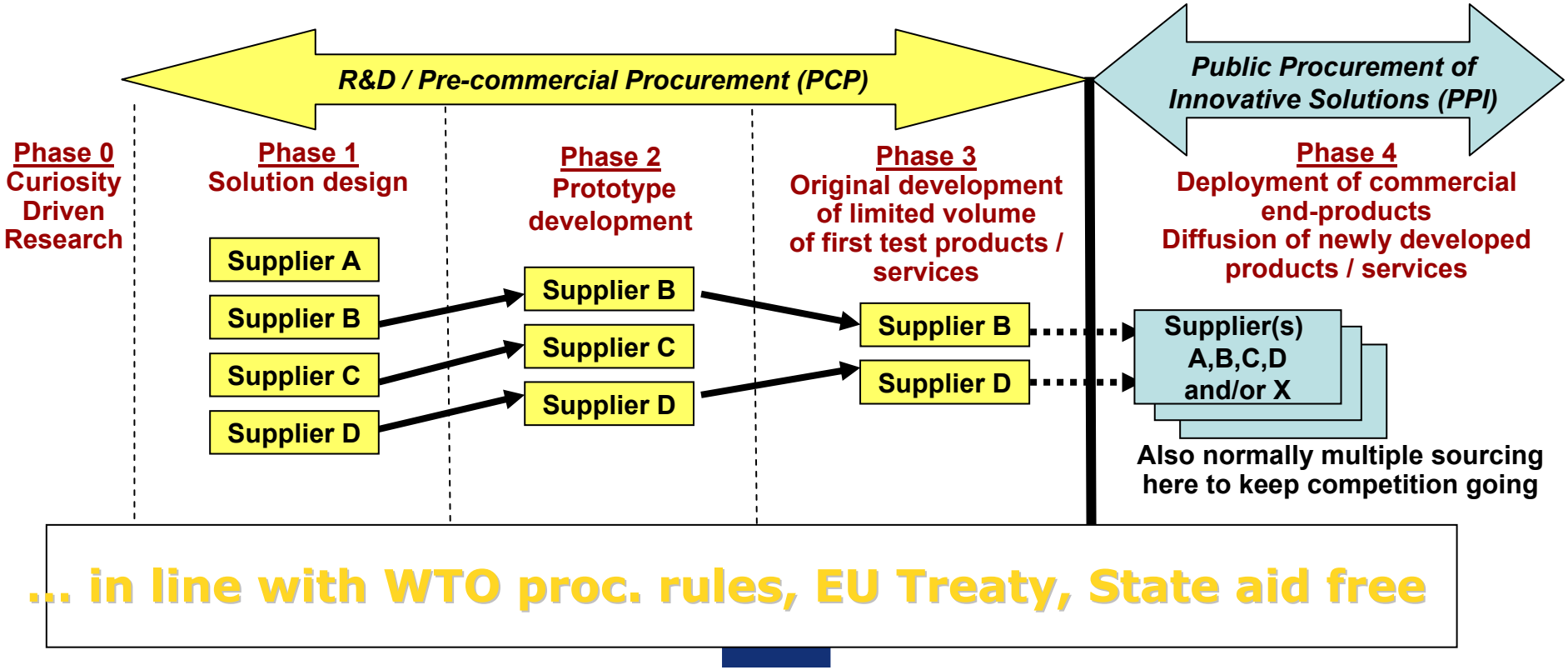
SME instrument

Idea/Concept = Business plan I

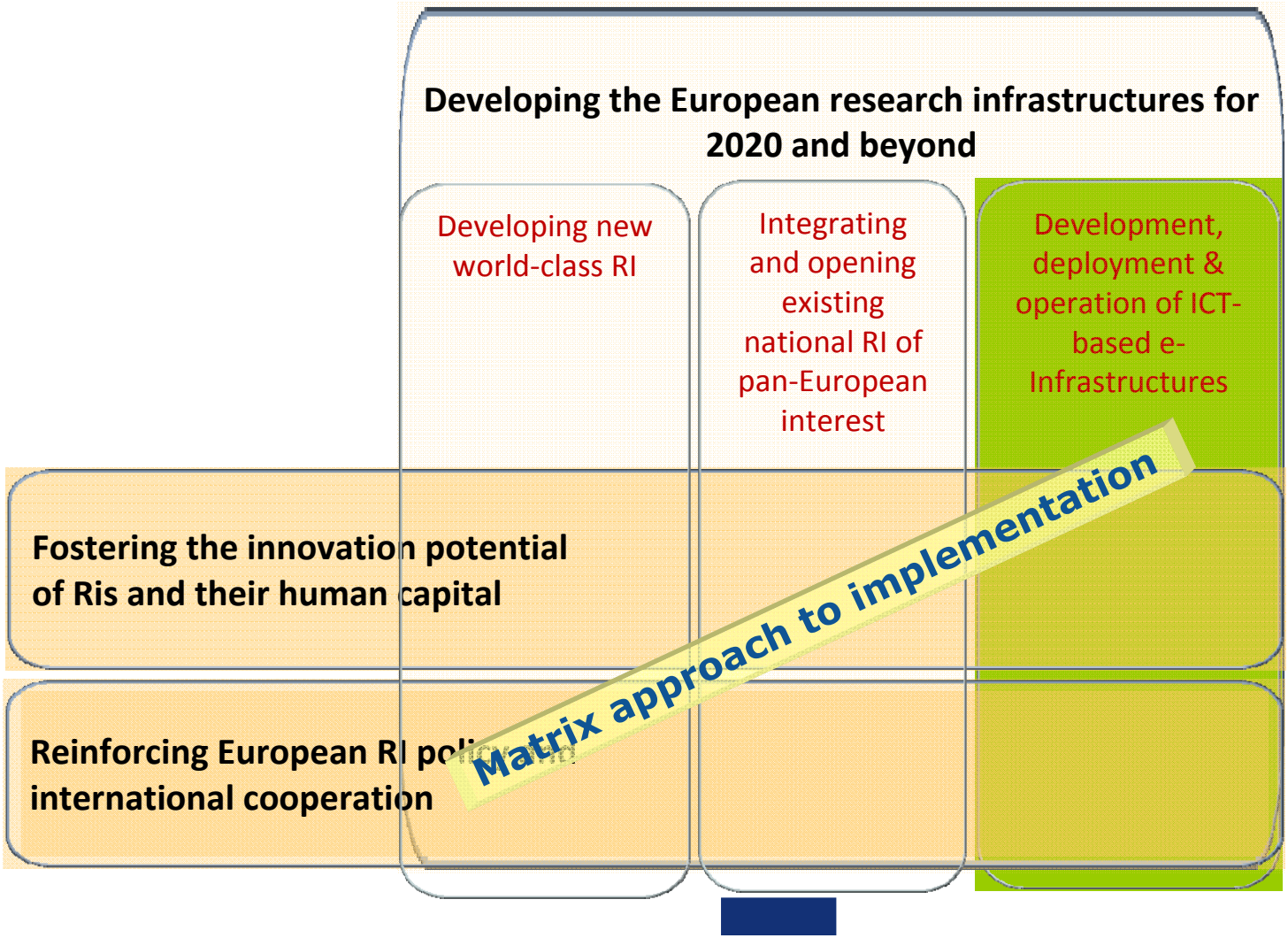
Phase 1: Concept and feasibility assessment	Phase 2: R&D, demonstration, market replication	Phase 3: Commercialisation	Complementary to SME instrument
Feasibility of concept	Development, prototyping, testing	Quality label for successful projects	SME window in the EU financial facilities (debt facility and equity facility)
Risk assessment	Piloting innovative processes, products and services	Facilitate access to private finance	….
IP regime	Miniaturisation/design of products	Support via networking , training, coaching, information, addressing i.a. IP management, knowledge sharing, dissemination	
Partner search	Planning & developing scaling-up (market segments, process etc.)		
Design study	Market replication		
Pilot application intention	Business plan III		
Business plan II			
Lump sum: 50,000 – 75,000 €	Cost reimbursement: 1 to 1.5 M€ EC funding	No direct funding	
6 months or longer	12 months or longer		

PCP and PPI

- PCP to steer the development of solutions towards concrete public sector needs, whilst comparing/validating alternative solution approaches from various vendors
- PPI to act as launching customer / early adopter / first buyer of innovative commercial end-solutions newly arriving on the market



Research Infrastructures in H2020



Staying Competitive in Science

- Large scale collaborations becoming the norm
  - ***often global***
  - ***virtual research communities***
  - ***access to rare/remote resources***
- Data-intensive science and innovation
  - ***Use and manage exponentially growing sets of data***
- Experimentation in silico, simulation
  - ***Use of high-performance computing***

e-Infrastructures Vision:

to make every researcher digital, through the development and deployment of e-infrastructures – achieve the digital ERA

Approach - integrated and service-driven

- *De-siloing: **integrated services** for a wide range of research communities*
- *Maximising coordination and **synergies with MS** e-infrastructure development - also taking advantage of structural funds*
- *Going beyond science -> **triangle science – industry – society***
- *Mapping **societal and policy needs** to e-infrastructure development*
- ***Integrating innovation** activities in e-infrastructure development*
- *Implementing **strategic international cooperation***
- *Achieving **financial sustainability** with proper positioning on the user pays/provider pays axis*
- *Optimising **governance** so as to maximise EU-added value.*

Main Priorities

- *Implementing the e-infrastructure needed for **riding the wave of "big data**", supporting seamless access, use, re-use, and trust of data*
- *Providing support to the e-infrastructure for **Open Access** as defined in the Communication on Scientific Information, and **federating researcher electronic identities** as defined in the ERA Communication*
- *Implementing the **HPC strategy**, through a PPP that brings together the development of services (PRACE), applications (Centres of Excellence) and exa-scale technology development (ETP for HPC)*
- *Implementing the recommendations of the **GÉANT** Expert Group aiming at developing GÉANT as the European communications commons*

Priorities

- Data-centric science and engineering
  - ✓ Infrastructure for open access, management of extremely large research datasets, persistence and trust, as well as community-driven data infrastructures, and global coordination for research data
- Computational infrastructure
  - ✓ Support to setting up of HPC Centres of Excellence, deployment of HPC Tier-0 services, support to open computing platforms and services
- GÉANT
  - ✓ Continued development and operation of the GÉANT infrastructure, support to international links and opening and strengthening innovation activities
- VRCs and virtual research environments
  - ✓ Supporting VRE's as an open call (bottom-up)
- Policy development and international cooperation
  - ✓ Global reach and connectivity; governance; sustainability; coordination with MS