Joint Research Centre



European Commission

Building sustainable technology transfer ecosystems: recipes for success

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1st Forum – Science and Innovation: 2030 Vision for the Western Balkans
Ulcinj, 9th April 2019

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"Research transforms money into Knowledge…

….Technology Transfer transforms knowledge into money"



Geoffrey Nicholson, 3M, father of Post-It

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"**Technology transfer** specifically refers to the process conveying results stemming from scientific and technological research to the market place and to wider society, along with associated skills and procedures, and is as such an intrinsic part of the technological innovation process."



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The Technology Transfer Ingredients

People

- Policies
- Protected IP
- Promotion

Finance

- Proof of Concept
- Prototyping
- Private Equity (VC)

Places

- Plan
- Partnerships
- Parks and Clusters

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Horizon Europe

SMART SPECIALISATION PLATFORM

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The smart specialisation

THE SMART SPECIALISATION PLATFORM

Why it was created

TO UNLOCK REGIONS' GROWTH POTENTIAL

EUROPE WILL INVEST IN INNOVATION

€123 bn

IN 2014 - 2020

35% of cohesion policy funds

€123 bn

€351.8 bn

- Research & Innovation
- Digital Growth
- Shift to Low Carbon Economy
- Competitiveness of SME

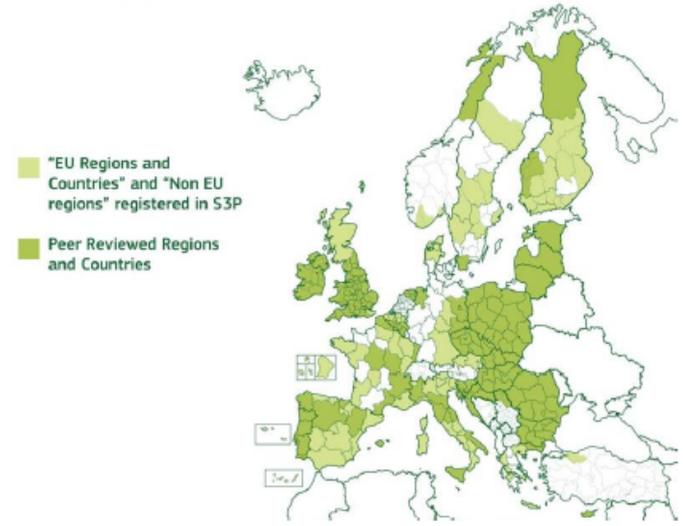
What is happening

S3

178 regions

18 countries

>70 peer reviewed regional / national innovation strategies



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Regional Innovation Systems

Objective

Smart Growth (economic growth, jobs, sustainability)

Strategy

Smart Specialisation (focus on competitive sectors, build consensus among stakeholders)

Policies

R&D (funding, mobility, talents, infrastructure,..)
Education (university, Academies, Erasmus, ..)
Business (environment, SME, internationalisation,..)
Markets (regulatory, fiscal incentives,..)
Skills (curricula, training, quality, mutual recognition, …)

TT at the interface



Local Innovation. Ecosystems

Implementation

…

Tech Trans »»

…

…

TTO

- Business Intelligence
- Proof of Concept
- Market Research
- Entrepreneurship
- IP management
- Contract Research
- Licencing
- Spinoffs / Startups

»»

- Decentralised (TTO)
- Centralised (Regional)
- Mixed (Hub & Spoke)

»»

- Financial Instruments
- Innovation Vouchers
- Business Angels
- Venture Capital
- Bankable Projects
- Accelerators & incubators

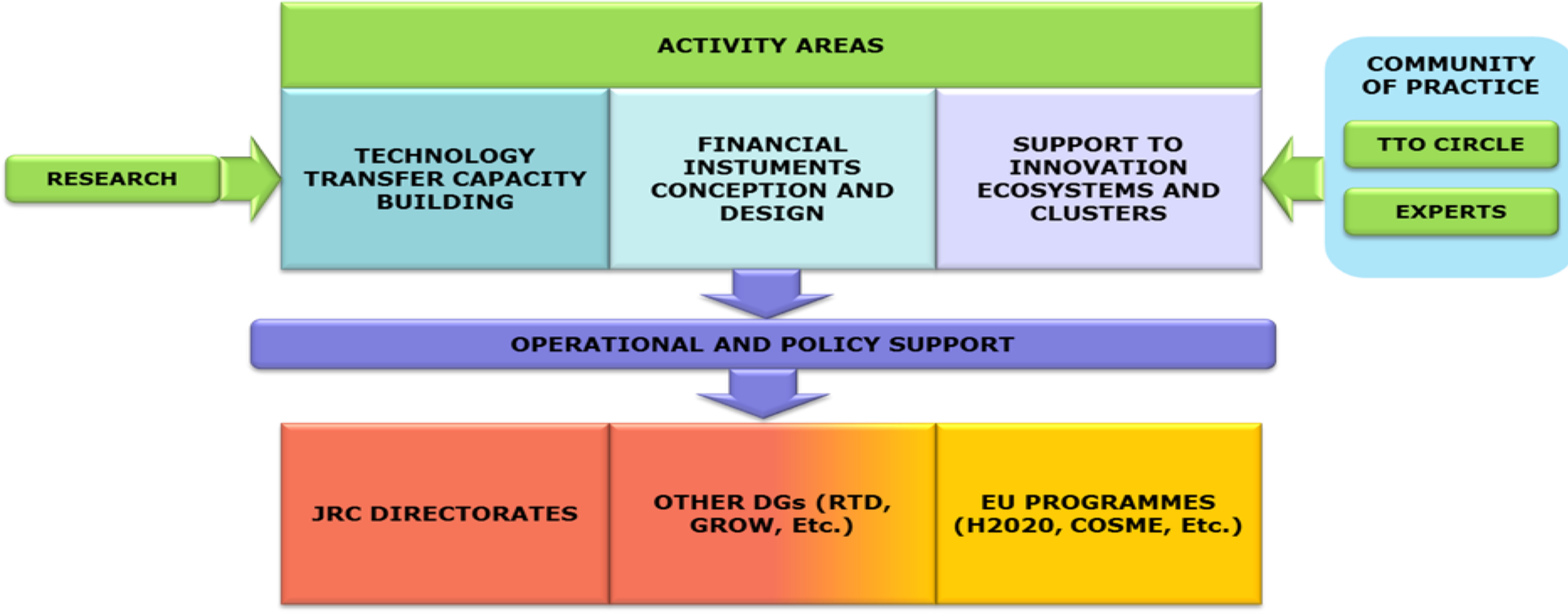
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Competence Centre for Technology Transfer

- Single reference point for expertise on technology transfer at the EC
- To support EU policy development, from upstream concept stage to the downstream implementation phase
- To deepen understanding and knowledge of technology transfer through research and aggregation of results and best practices

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Competence Centre for Technology Transfer



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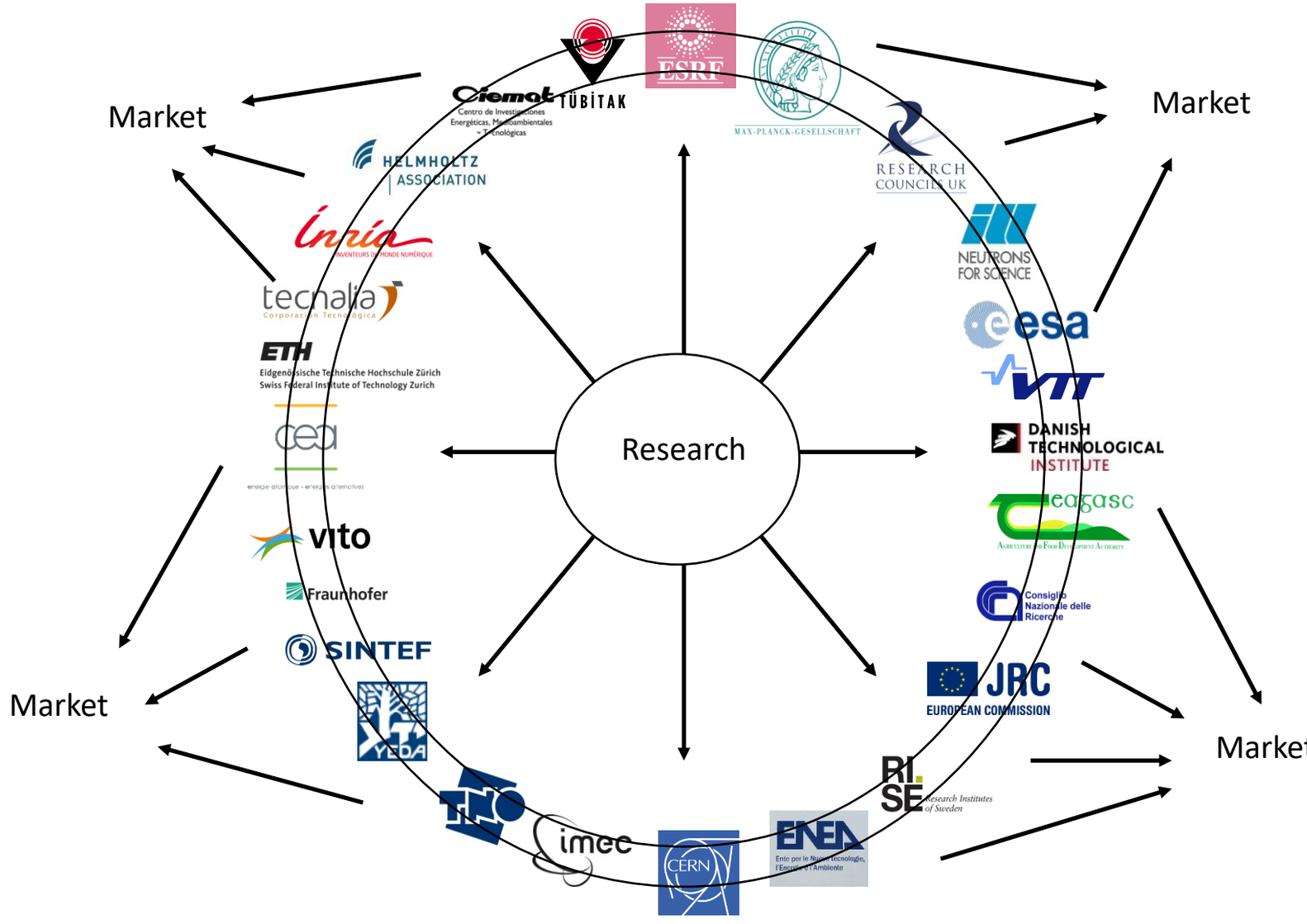
30+ Public Research Organizations

200.000 staff

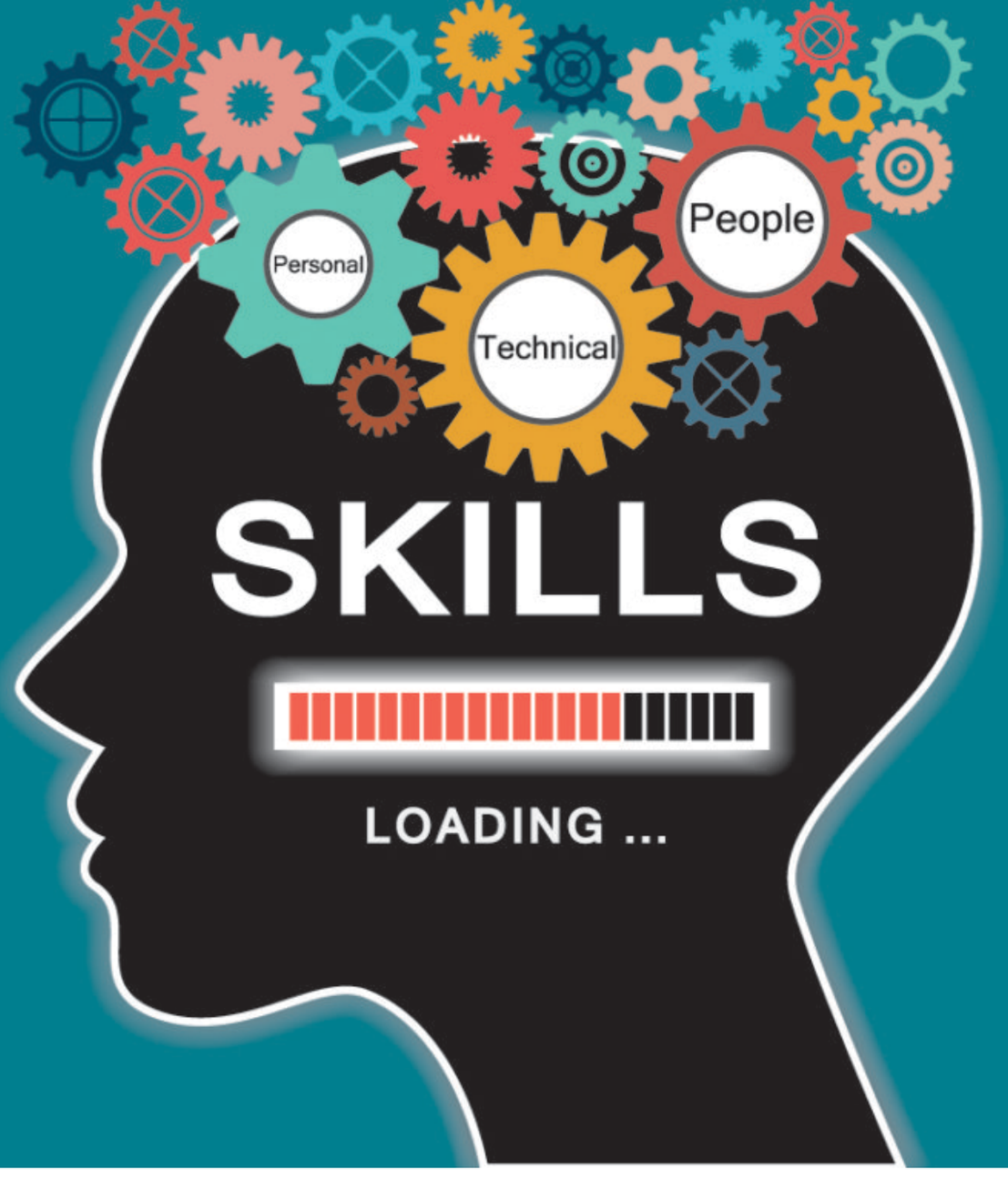
35.000 patents

4.200 Startups

5.200 software



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Urban Innovation Hubs on the rise in Europe

Paris - Station F (opened on 29/6/17)

Hosts up to 1000 start ups (3000 desks), 38,000 m², 310m x 58m, 20 accelerator programs, dismissed freight station, hotel (800 rooms) + restaurant (1000 seats)





Lisbon - Criativo do Beato (gradual opening)

35,000 m² in 20 buildings in former army food factory, 200m€ VC fund + tax incentives, plans for 100,000 m² extension to 3000 start ups



London – Plexal (opened on 12/6/2017)

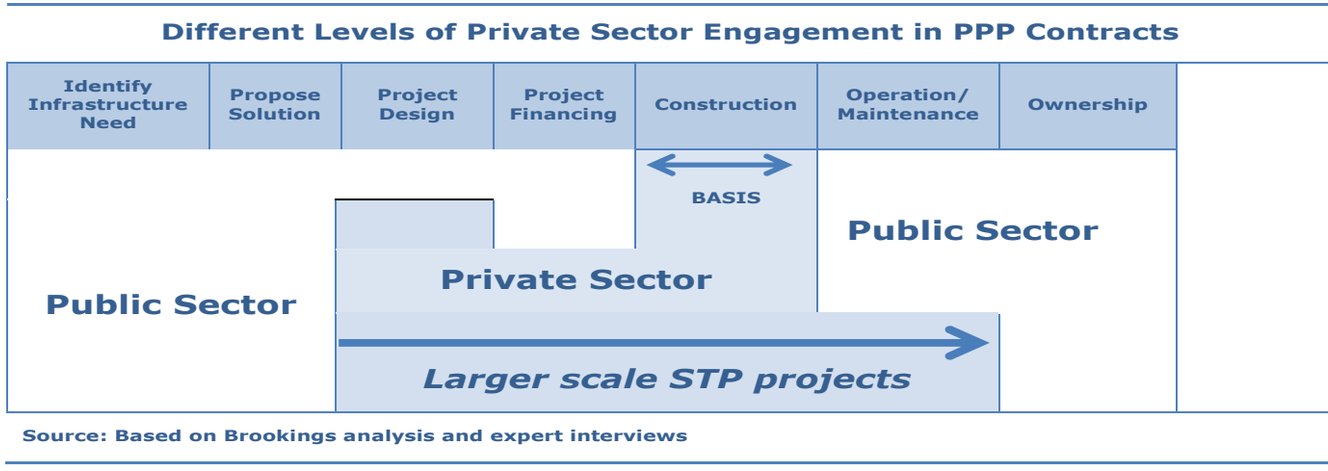
6,300 m² incubator in Queen Elisabeth Olympic Park (250ha). 800 desks, several acceleration programs.

Milan – Arexpo (masterplan in development)

New S&T park in Expo 2015 area of 100ha, focus on health, big data, agrifood and biotech. Includes university, hospital and large research centre.



Public-private partnerships (PPPs) and Innovation Ecosystems





Arexpo's science, technology and innovation park

Advantages:

- **Transfer risk** to private sector
- **Expertise** and know-how of private sector
- Increased **efficiency and quality**
- Make **R&I policy more responsive** to the nature of innovation

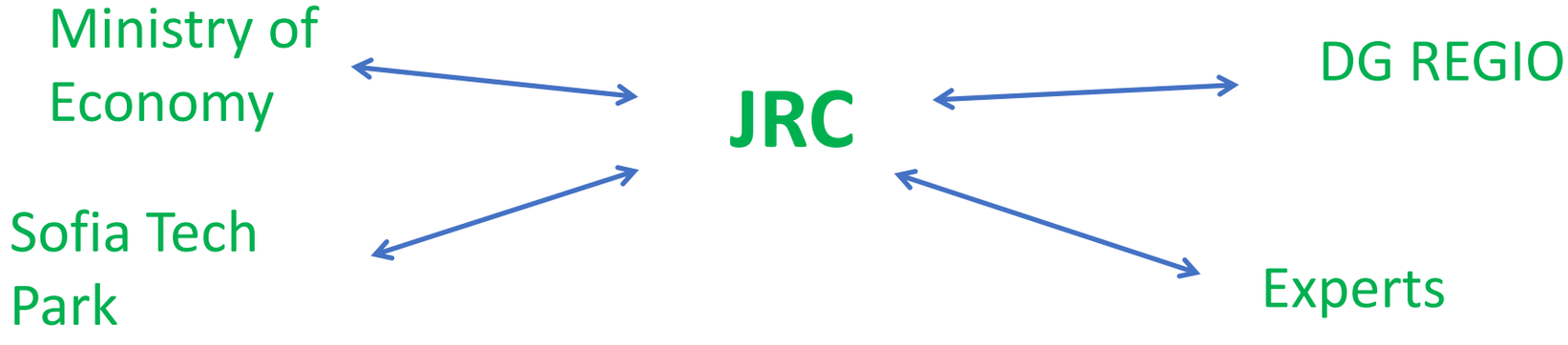
Example of an ongoing large scale redevelopment (600,000 sq.m) through the use of a PPP giving a **99 years long concession** (source: Arexpo)

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Reshaping the functional and operational capacity of Sofia Tech Park"



- Request from Ministry of Economy through DG REGIO
- Identify bottlenecks and recommend tailor-made solutions
- Evaluation managed by JRC, which set up an independent panel composed of experts in the domain
- On site fact finding visit and stakeholder meetings
- Finalised 04.2018 and transmitted to the Bulgarian authorities

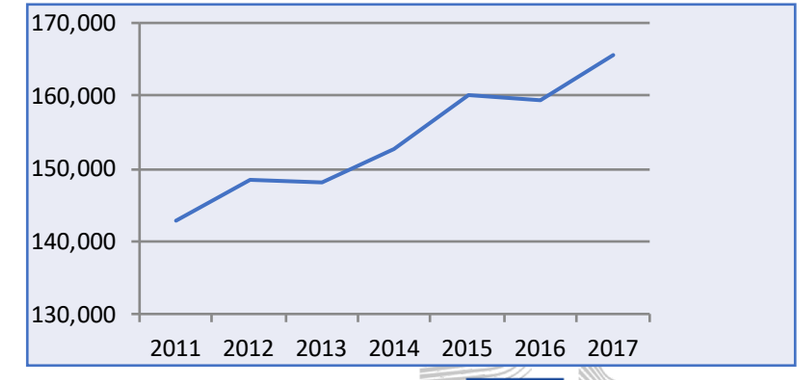


Patent & PCT applications to EPO (2017)

(by country of residence of first applicant)

EU-15 (West)	**67,884** (1/3 from DE)
EU-13 (East)	**1,246** (1/3 from PL)
US	**42,300**
China	**8,330** (doubled in 3 years)
Japan	**21,712**
→ **6 Western Balkans**	**13**
North Africa	**14**
Eur. Partnership:	**27**

UA:21 BY:2 AM:2 GE:1 AZ:1 MD:-



Total # of Applications

Source: EPO, 2018

TT Capacity Building in 6 Western Balkans
(WWW.EU4TECH.EU)

- TT training, clinics and workshops
- Assistance in the setup of TT offices
- Business coaching and advice
- Support the creation of local S&T park network
- Investment readiness support
- To complete by end 2019



Focus on 15 universities in regions performing research