Examples of Synergies

The Synergies between Research and Innovation Funding: Stairway to Excellence (S2E)

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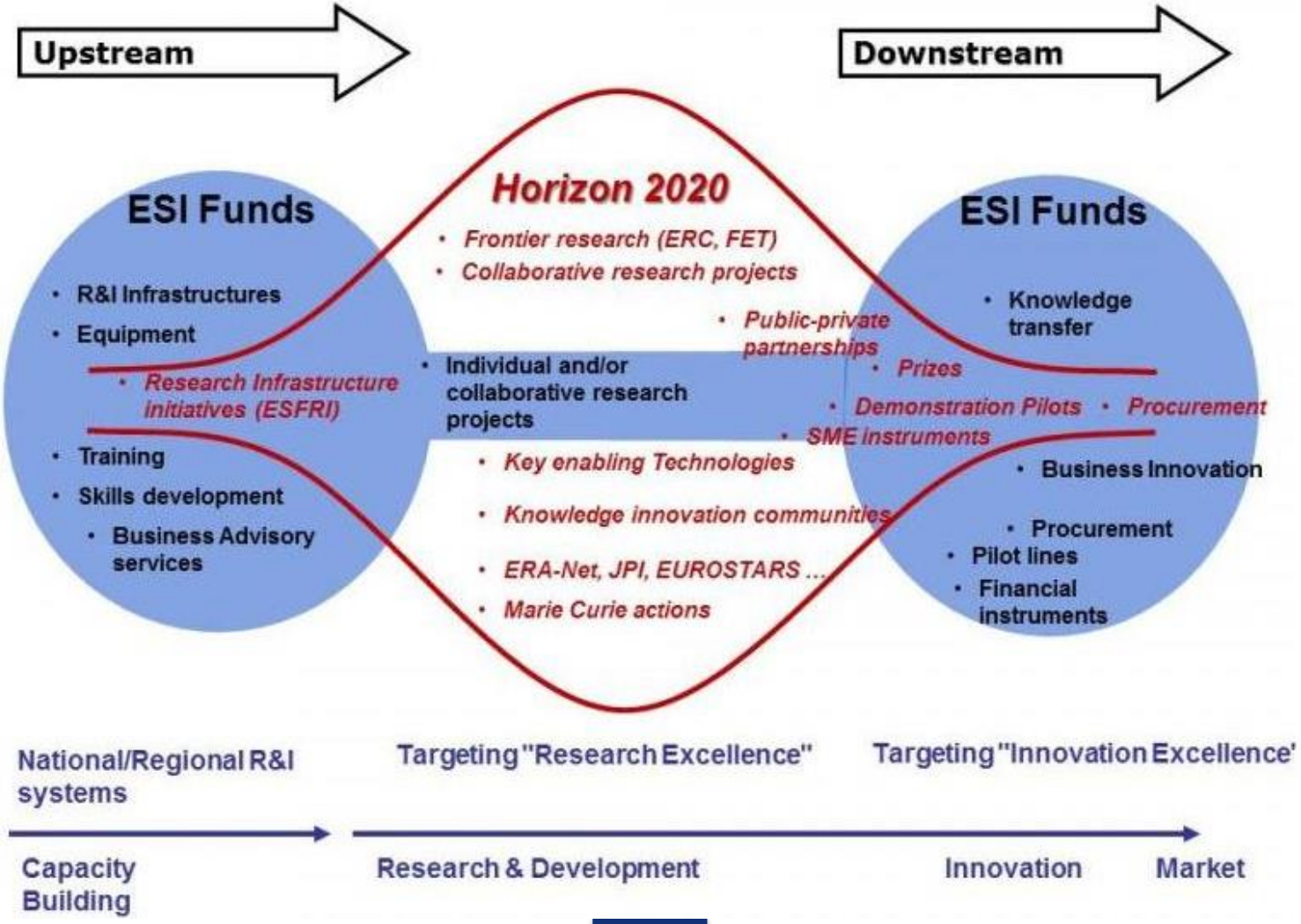
Examples of Synergies - Summary

- Case studies - examples of synergies between ESIF and Horizon 2020 implemented across the EU – NOT ONLY EU13
- 6 Developed in-house (IPTS) and 19 by national experts (EU13)
- Aim to:
  - Identify the facilitating mechanisms and the bottlenecks in the implementation of synergies
  - Identify specific rules and legal aspects at different policy levels that may enhance or limit the creation of such synergies
  - Provide suggestions to improve the synergies
  - Overall to support policy learning

Synergies concepts



Centre for Nanohealth

Produced by IPTS

Background

- Started in 2009 with support from the ERDF Convergence Programme
- Establish the region (West Wales and the Valleys) as a world leading interdisciplinary centre for Research and Development, Demonstration and Deployment, and Skills for NanoHealth
- Also aims to promote Welsh SMEs to work on the development of new healthcare technologies
- ~10M€ ERDF funding (2009-2015)

Type of synergy

- Sequential upstream synergies

Centre for Nanohealth

SF Project 1: *Research centre in nanohealth*
£10mil ERDF and £11.3mil local funding

January 2009 until June 2015

National Project: Engineering and Physical Sciences Research Council (EPSRC), UK call - Nanoparticle Cytometrics: a quantitative analysis of the toxic effect of nanoparticles -
October 2009 until 30 September 2013

FP7 Project 1: SME FP7 – Ambulatory Magneto-Enhancement of Transdermal High Yield Silver Therapy (AMETHYST) -
November 2009 until August 2013

2009

2015

Centre for Nanohealth

Factors facilitating synergies

- Strong institutional support – Department for Research and Innovation
  - Support for academics providing support when apply for funding and managing the award (financial and administration) including both FP7/H2020 and Structural Funds
  - Business development supports both businesses and academics with advice on collaborative projects and funding schemes
- Active regional authority – and improved in current period with financial support for proposal preparation and H2020 office

Limiting factors

- Administrative complexity of combining different funding sources – time sheets etc
- General issue related to sustainability of the facility

ITME – Warsaw, Poland

Produced by National Expert

Background

- Institute of Electronic Materials Technology (ITME) - Research into novel materials with unusual electromagnetic properties
- Initial research through FP funding
- Subsequent SF funding developed research including practical applications and industrial collaborations
- National funds awarded and funding from US Air Force

Type of synergy

- Downstream sequential (also parallel): SF allowed movement towards potential exploitation

ITME

Diagram of chronology of the main projects involved in synergies

FP Project 1: "METAMORPHOSE" (FP6 NoE), networking researchers in the emerging field of metamaterials (2004-2008, 4.4m EUR)

FP Project 2: "ENSEMBLE" (FP7 NMP), empirical research of metamaterials (2008-2012, 5m EUR)

SF Project 1: "Self-organization approach towards photonics/optoelectronics" (POIG TEAM), empirical research of materials with potential industrial applications (2009-2013, 0.5m EUR)

SF Project 2: "TOP 500 Innovators" (POKL), training in commercialisation of research results (2012)

National Project 1: "New generation plasmonic materials" (MAESTRO, 2012-2016, 0.7m EUR)

National Project 2: "NOE" (US Air Force Office for Scientific Research MURI, 2014-2017)

National Project 3: "Eutectics and metamaterials at a crossroads" (HARMONIA, 2014-2018, 0.5m EUR)

ITME

Added Value

- Exploration of an emerging technological field, analysis of development methods, properties and possible applications of advanced materials
- Support international mobility, collaboration with leading foreign researchers => embedded in the Western research landscape

Factors facilitating synergies

- Creativity of researchers
- Careful selection of FP consortium partners
- Support of the Brussels-based PolSCa (Polish Science Contact Agency)

Limiting factors and suggestions

- H2020 regulations concerning researcher salaries
- SF applications and reporting more closely aligned to FP7/H2020
- Need for better administrative support for researchers at their home institutions

CEITEC - Central European Institute of Technology (CZ) *Produced by IPTS*

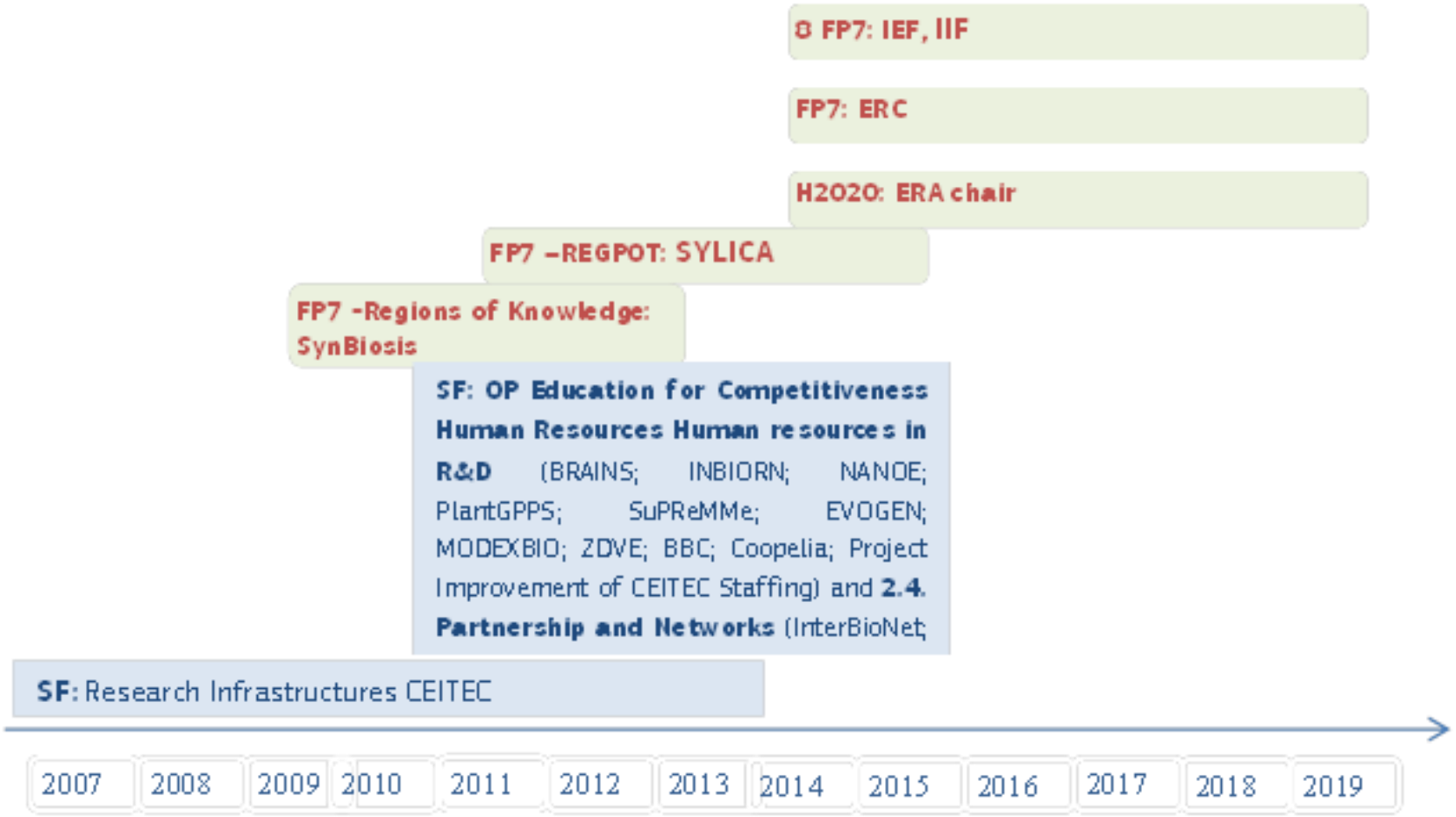
Background

- Centre of scientific excellence in the fields of life sciences and advanced materials and technologies
- Research facilities created with an investment of around 300 M€ (85% from ERDF) ➔Provide top quality equipment and laboratory facilities in one place
- Various funding mechanisms subsequently combined in a complementary manner, using the "core facilities" as motivator to attract top experts and engage in international and inter-sectorial research projects.

Type of synergy

- Upstream sequential: ESIF investment that has enabled FP7/H2020 participation

CEITEC


FP7: IEF, IIF
FP7: ERC
H2020: ERA chair
FP7 –REGPOT: SYLICA
FP7 -Regions of Knowledge: SynBiosis
SF: OP Education for Competitiveness Human Resources Human resources in R&D (BRAINS; INBIORN; NANOE; PlantGPPS; SuPReMMe; EVOGEN; MODEXBIO; ZDVE; BBC; Coopelia; Project Improvement of CEITEC Staffing) and 2.4. Partnership and Networks (InterBioNet;
SF: Research Infrastructures CEITEC
2007
2008
2009
2010
2011
2012
2013
2014
2015
2016
2017
2018
2019

CEITEC - Mechanisms facilitating synergies

Early Regional (South Moravia) Strategy for R&I (2002), combining and concentrating funds for research, education and innovation activities in the S&T field in which the region had prior strength (life science and material)

CEITEC has clear vision /mission supported by a strategy

- **Attract best scientists ➔** transparent, flexible and clear rules for career progress, intersectoral and international mobility, regular evaluation, competition
- **Cutting-edge equipment ➔** to attract and support top experts from around the world**.**
- **Focus on high-quality scientific research ➔** independent evaluation of the quality of scientific performance performed according to international standards

CEITEC - Main problems implementing synergies

- Complex institutional structure
- Exchange of information and data, communication between managing authorities is limited

- Very high administrative burden related to the whole project cycle in the case of SF financed projects.
- Repeated and frequent controls/audits with inconsistent interpretation of the rules and regulations

- For FP7/H2020 lack of efficient support from the national contact points (NCP). Support from the NCP is highly heterogeneous. CEITEC addressed this weakness by training and financing internal staff with adequate knowledge and experience.

Main issues from examples

- Administrative burden
- Different rules and protocols for the different funds
- Importance of support mechanisms
- Disincentives for EU13 countries to participate in H2020 – competition, salary, accessing networks….
- Good governance
- Really discussing funding mix – to get genuine benefits perhaps need to consider more policy and strategy synergies

Thank you!

http://s3platform.jrc.ec.europa.eu/stairway-to-excellence

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