

# Synergies and the Stairway to Excellence (S2E) project

Identificación de las sinergias entre diferentes instrumentos de financiación y herramientas básicas para la ejecución. Casos prácticos

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*Serving society  
Stimulating innovation  
Supporting legislation*

# Main S2E activities so far

1. Country & Region Information through national and regional profiles and Country reports
  - A set of 35 national and regional facts & figures reports
  - 13 S2E country reports drafted by a pool of independent experts
2. Examples of Synergies that show existing combinations of funding sources during the previous financial period
  - 25 case studies showing concrete examples of combination of fund (developed by independent experts and in-house)
3. Organisation of 13 National events
  - 10 already done, 3 to come in the next few months - Romania, Bulgaria, Cyprus

# 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
- More details at: <http://s3platform.jrc.ec.europa.eu/synergies-examples>

# Centre for Nanohealth

## Background

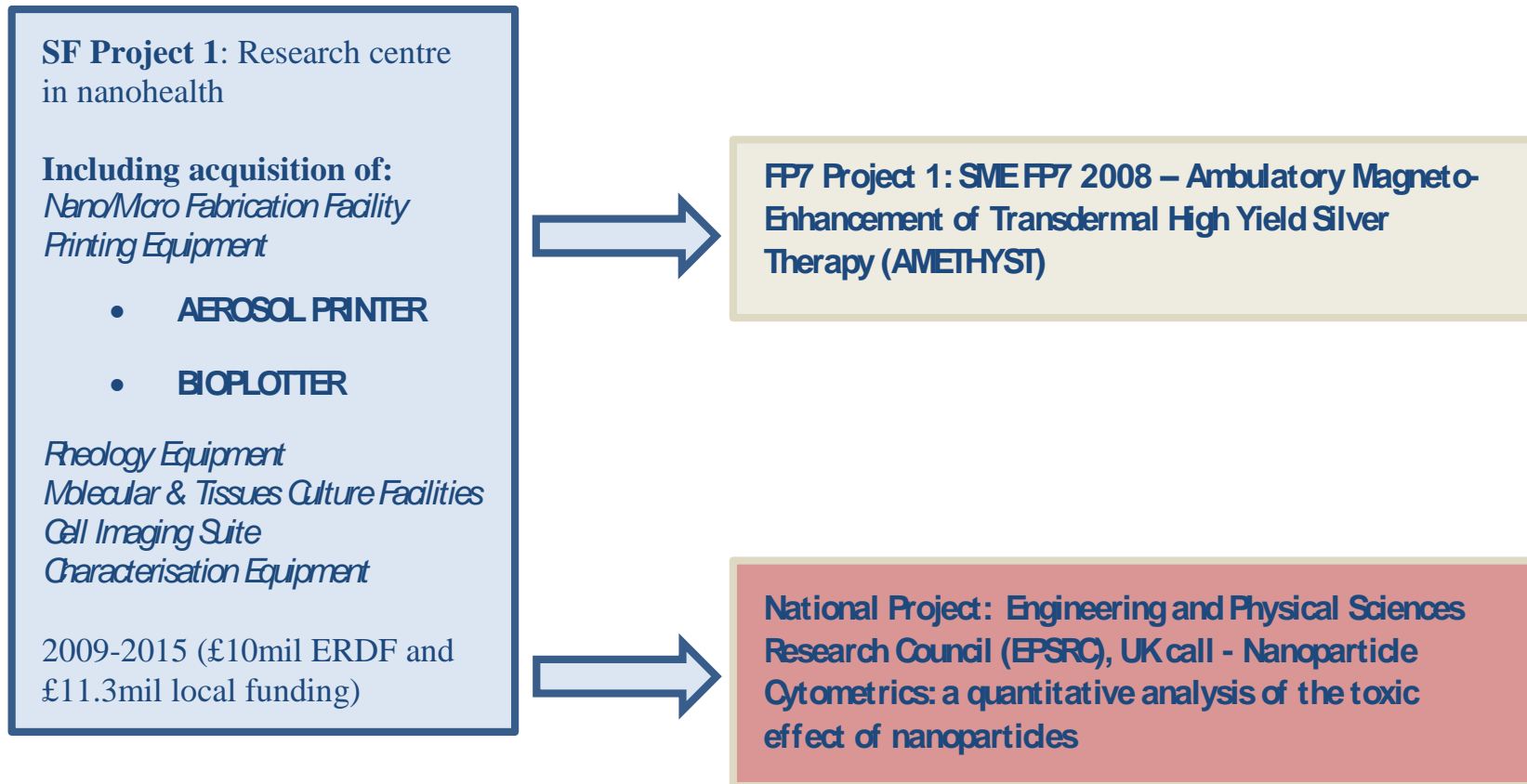
- Started in 2009 with support from the ERDF Convergence Programme
- Establish the region (West Wales and the Valleys) as a world leading interdisciplinary centre for Research and Development, Demonstration and Deployment, and Skills for NanoHealth
- Also aims to promote Welsh SMEs to work on the development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

## Type of synergy

- Sequential upstream synergies

# Centre for Nanohealth

## Diagram



# Centre for Nanohealth

## Other Projects

- INTERREG Ireland and Wales - Celtic Alliance for Nanohealth (CAN)
- REGPOT New Molecular Solutions in Research and Development for Innovative Drugs (INNOMOL) – Realise the research potential of Institut Ruđer Bošković (Zagreb)
- National Funding - EPSRC Building Global Engagements in Research
- Many links with local businesses

# 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

## 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

# SME Rhenovia-Pharma - Alsace Region

*Produced by IPTS*

## Background

- Rhenovia Pharma is an R&D pharmaceutical and biotechnology SME in the field of central and peripheral nervous system
- Founded in 2007 and currently employs fewer than 20 people
- Dependent on public support to develop its R&D
- Current focus in two main areas
  - Biosimulation
  - Drug and Trans-dermal therapy delivery using "smart" patch
- Uses variety of funding sources – National, FP and Structural Funds

## Type of synergy

- Upstream and downstream activities
- Sequential and parallel funding



# Rhenovia-Pharma

# Alsace

Biosimulation platform

**ERDF Project:** Development of a biosimulation platform (2010, Total cost: 390 K€  
ERDF funding 56 K€)

**FP7 Project 1:  
MOD ENP TOX**  
Application of Biosimulation (2013-2015, 1.4 M€)

**National Project 1: Project selected by the Cluster Alsace Biovalley and funded by the Ministry of Economy  
RHENEPI**  
Development of a biosimulation platform for epileptic crisis to identify and test new

**National Project 2: RAPID programme on dual technologies  
RHETOX**  
Development of a biosimulation platform to analyse the impact of neurotoxins on brain function antidotes (2011-2014, 1.1 M€)

Trans-dermal patch

**EUROSTARS programme:  
ALTHERAS**  
Development of a new medical treatment tool  
(2008-2011, 913 K€)

**FP7 Project 2:  
SELFMEM**  
Application of filtration technology  
(2009-2012, 5.2 M€)

**National Project 3:  
French Worldwide Innovation Challenge  
SMARTT e-Patch**  
New electronic transdermal patch (2014-?, 200 K€+ ?)

2008



2015

# SME Rhenovia-Pharma

## Factors facilitating synergies

- Funding opportunities information from cluster Alsace Biovalley
  - The non-profit association supporting the cluster can also act as intermediary between the company and organisations abroad
- Alsace Innovation Agency and the H2020 national contact point
  - Agency has developed a 'toolbox' - identifies the most appropriate source of funding corresponding objectives of the company
- As more public support is provided for biotech activities, the company dedicates resources to monitor new funding opportunities

## Limiting factors

- Lack of tailored support for activities such as proposal writing and IPR
- Eligible costs and funding thresholds are not the same. This creates an important loss of time and prevents focus on scientific aspects of a project

# 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

3 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 preventing inbreeding, intersectoral and international mobility, regular evaluation, competition
- **Cutting-edge equipment** → motivator 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
- **Transparent rules for cooperation** – set by CEITEC



# CEITEC

## ***Institutional framework***

- Management structure
- International Scientific Advisory Board
- Science Support Office

## ***Regional support***

- Brokerage events
- South Moravian Centre or International Mobility
- South Moravian Innovation Centre and Innovation Park
- Innovation Vouchers

# CEITEC - Main problems implementing synergies

- Complex institutional structure – despite strong management 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 lessons from examples

- Need for an 'institutional' strategic approach in order to successfully combine funds, while ensuring long term sustainability;
- Too many distinct regulations (H2020, ESIF, national calls). Need for simplification;
- Need of clear objectives and rules for each funding source. Complementarity or duplication ?
- National/regional support is very important. When this fails, provide internally the support

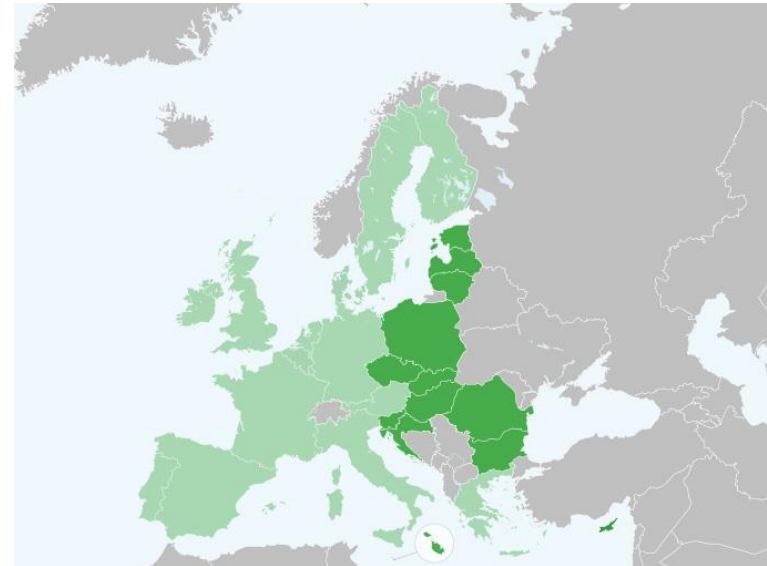
# National S2E Events

- A better understanding of the national innovation ecosystem
- Raising awareness of the actions needed to enable synergies between different EU funding programmes
- Sharing experiences in combining different EU funds

The events are open to national and regional MAs, NCPs, national authorities in charge of RIS3, selected experts and representatives from business and research organisations.

## Romania/Bulgaria/Cyprus

<u>Hungary</u>	(May 2016)
<u>Poland</u>	(April 2016)
<u>Slovenia</u>	(April 2016)
<u>Estonia</u>	(March 2016)
<u>Czech Republic</u>	(March 2016)
<u>Lithuania</u>	(October 2015)
<u>Malta</u>	(July 2015)
<u>Slovakia</u>	(June 2015)
<u>Latvia</u>	(April 2015)
<u>Croatia</u>	(March 2015)



# National Events – Main issues

## *Coordination/Governance*

- Lack of coordination between H2020, ESIF, national/regional authorities
- Lack of policy coordination across the knowledge triangle policies; tension between the Ministries / Agencies dealing with ESIF and national funds for R&D
- Instability of administrative structures of the EU13 Member States; constant fluctuation in staff and changes of institutions in charge of the management of EU funding programmes
- Quality of governance, efficient use of EU funds and enhancement of national /regional administrative capacity is needed
- Administrative burden at all levels: institutional; regional; national; EU
- Differences between the rules for different programmes

# National Events – Main issues

## *Upstream*

- The career system does not motivate researchers to participate in Horizon 2020 – international collaboration is not rewarded
- Career track is too rigid
- Lack of experience and support in proposal preparation and project implementation
- H2020 salary rules are a disincentive to participation for some countries
- EU13 researchers complain that it is difficult to enter the "club" of successful applicants:

## *Downstream*

- Communication between research and innovation actors is fragmented
- Low motivation for SMEs to participate in H2020 projects
- Difficult to have links with industry in region/country if the research units of firms are not situated there

# Thank you!



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

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