

## Networking Workshop on the Smart Specialisation Cooperation in Central Europe

8-9. December 2016. Zagreb

### CONCLUSIONS

#### Background

The Directorate General for Regional and Urban policy (DG REGIO) of the European Commission has launched an initiative in mid-2016 that aims at contributing to the setting up of a type of long-term dialogue for an efficient and enhanced cooperation and exchange of knowledge between actors of the knowledge triangle (Business/Government/Research&Education) in Central Europe. The participating Member States are the following: Austria, Croatia, the Czech Republic, Germany (Bavaria, Saxony), Hungary, Poland, Slovakia and Slovenia.

The project consists of 2 initial phases:

1/ A prospective comparative analysis of the Smart Specialization Strategies of the MS/regions concerned – Expert assessment of synergies and areas of potential cooperation related to Smart Specialization Strategies in Central Europe;

2/ a networking workshop (held in Zagreb on 8-9 December) with as main objective to facilitate cooperation and connect different stakeholders of the national knowledge triangles.

***The overall target of the initiative is to stimulate cooperation between these regional players in implementing RIS3s, to coordinate RIS3s over borders and to overcome the inward-looking approach.***

#### Objectives of the Workshop

A key objective for this operational networking meeting was to identify and agree on the areas with the highest potential for cooperation in the field of Smart Specialisation among partners from the Central European Member States. The event aimed to result in initialising several working parties to be led by leading organisations / regions for certain of the identified Technology Priority Areas (TPAs) or sub-areas.

The next steps should allow regions/key partners to collectively activate such partnerships and encourage partner regions to focus on jointly-funded pilots and demonstration projects leading to the elaboration of a pipeline of bankable investment projects and/or cooperation agreements.

## Participants

At the closure of the registration the event had **68 registered participants from 8 Member States**, with a good balance between authorities responsible for the implementation of smart specialisation, research organisation, universities and enterprises. Croatia and Slovenia had the highest number of representatives.

Further overview:

Nationality	Amount
Austria	5
Croatia	14
Czech Republic	6
Germany	6
Hungary	12
Poland	7
Slovakia	3
Slovenia	15
<b>Sum</b>	<b>68</b>

TPA	Amount
Energy and Environment	24
Public health, medicine and life sciences	24
Agro- and bio-economy	21
Advanced materials and nanotechnology	15
Transport and mobility	13
Advanced manufacturing systems	13
ICT and electronics	17

Type of Participant	Amount
National / Regional authorities in charge of S3	23
Regular Participant	45
<b>Sum</b>	<b>68</b>

## Main conclusions and ways forward

There appeared to be a high interest among the Central European Member States regarding cooperation in the area of RTDI. The workshop has identified a series of specific CE priorities and topics of possible cooperation which are usually below the radar of macro data.

The workshop represents the first step in the process of *identification of common interests* but also in the *process of identification of interested stakeholders* and TPA champions or organisations that see their objectives as being closely linked to establishing and enhancing CE cooperation in their respective areas of activity.

There are already existing forms of collaborations, but their activity is not always well coordinated and mostly lacks funding. Cooperation between the different stakeholders within the knowledge triangle and the policy are not sufficient and may lead to overlapping projects thus double funding. The Workshop also confirmed the diversity of sub-sectors within the identified 7 TPAs in the preparatory study. In general, forms of cooperation have to be elaborated at the level of well-defined sub-sectors. Such sub-sectors may be linked to different parts of the product value chain.

It has emerged from the exchanges in the respective working groups that the need for filtering out crucial pillars of possible cooperation among relevant stakeholders from CE, determining the focus areas, and providing targeted support to come as soon as possible to break-through results regarding products, technologies, and services.

### The workshop identified the following areas for action:

TPAs identified with the highest potential for collaboration:

- Slovenia proposed to lead the follow-up in **Agro-food** and **Smart cities**
- Hungary proposed to take the lead role in **Industry 4.0**
- Czech Republic proposed to take the lead role in **Health**, especially related to translational (?) medicine and biomarker research (a working group meeting is foreseen on 2 March, as a side event of the Biomedicine conference in Prague)
- Bavaria offered to provide support in **Energy efficiency**. An event is organised on 9th March with Bavarian stakeholders in the field of Energy efficiency. A side event for Central Europe (CE) partners may be organised in parallel if sufficient interest.
- Bavaria and Slovenia agreed to discuss further cooperation in the **automotive sector** –a bilateral meeting is foreseen for Spring 2017 but other regions may join.

- Participants have agreed that establishing Central European platform for **the circular economy** should be a priority.
- CE partners may be interested to cooperate in order to prepare common applications for the planned Interreg Central Europe call for proposals in the field of innovation and S3. This call is foreseen for Autumn 2017.
- Other potential stakeholders/partners will consider what type of follow-up actions (sub-sectors/regions) may be considered and their role therein.

### Next steps:

It is proposed that each of the interested lead **regions** will prepare a first overview of planned follow-up actions including the list of interested stakeholders in a specific area, including a preliminary time schedule and options for funding.

**EC** support would remain very much needed, both as a facilitator and organiser of specific events; EC will evaluate and notify the MSs of potential follow-up possibilities including potential sources of funding. REGIO however cannot take the role of gate keeper or champion in this respect. In this regard, the best use of other existing initiatives – e.g. platforms, networks, events - should be made.

**As a next step, each confirmed TPA working group** will need to prepare coordinated and clear cooperation action plan. This action plan may include an initiative to elaborate a common proposal for submission to the Interreg CE calls in autumn. For bringing together stakeholders, the lead region may request funding support under the Commission Peer to Peer initiative.

If the distinctive **working groups** will be formed and start their active planning of possible cooperation and of concrete areas / projects (with identified, and linked stakeholders and main role players), a matchmaking event by (sub-)TPA with a large number of stakeholders may be organised over the summer.

Each TPA will evolve at a different speed and will also adopt a unique governance model. The most challenging task will be to involve managers from the current relevant EU-networks to ensure synergetic effects and maximise the success of possible cooperation.

## Main conclusions per specific TPA

**Environment and energy** – most active players: Bavaria, Hungary, Croatia and Austria

- Topics: energy savings, energy efficiency, smart cities and communities (pollution), waste water treatment
- Issues discussed:
  - lack of visibility of players from the CE region (excellent engineers and results, but lack of marketing)
  - Fragmentation of research is a big problem and obstacle for efficiency
  - Circular economy in the context of resource efficiency and energy harvesting
  - Potential to cooperate in projects related to Danube river and micro plastics in water
- Sources of funding are various: H2020m Teaming, ERA-Chairs to national and ESIF
- Problems – that may be solved through future collaboration:
  - Knowledge transfer
  - Access to data, common data
  - Access to finance, funding
  - Competence about each other
  - efficiency in supply and planning
- Expectations from the S3 CE cooperation
  - competitive products and content
  - Commercialization of ideas
  - specification of topics
  - meeting focusing on real project development
  - facilitation support from DG REGIO in fostering the collaboration

Bavaria offers its knowledge and expertise, but will not act as a lead partner itself, therefore there is a need for finding lead partners for one or several of the subsectors identified.

**Possible sub-areas for Interregional cooperation:**

- ✓ **renewables, bio energies**
- ✓ **energy efficiency**
- ✓ **smart energy planning**

**Health** – most active players: Czech Republic, Hungary, Poland

- Topics: innovative therapies, diagnostics, ICT and communication – e-health, medical devices
- Issues discussed:
  - Translational research
  - Innovative drugs
  - Regulatory requirements

- Coordination of legislation
- Personal data protection laws vary between member states which can be a problem for cooperation; a wide variety of medical data is available in most of the Visegrad 4+2, common analysis of this data is of high importance for detecting areas of potential common research.
- Cancer registers are extremely important and should be financed
- Brain drains from the region
- Sources of funding- various: Potential to collaborate with big pharma, ESIF, interreg....
- Problems – that may be solved through future collaboration:
  - need to support translational research in medicine
  - Combination of bricks, brains and experience in CE
  - Mapping studies need to be done on the genetics of people living in CE
  - There is no venture capital funding in this field and there is a need to attract high risk project venture capitalists due to the fact that these projects cost a lot and it is highly regulated
- Expectations from the S3 CE cooperation
  - Critical mass
  - Open access to infrastructure
  - Coordination of legislation and analysis of available medical data
  - Benchmarking expertise
  - working group which would benchmark legislation opportunities and barriers
  - facilitation support from DG REGIO in fostering the collaboration

**Possible sub-areas for Interregional cooperation :**

- ✓ **translational medicine**
- ✓ **Biomedical therapeutics**
- ✓ **Bio markers and diagnostics**
- ✓ **ICT applications for e-health**

**Agro and bio economy** – most active players: Slovenia, Hungary

- Topics: Implementation of circular economy priority areas (sustainable energy, biomass, alternative raw materials, recycling, functional materials, processes and technology); application of ICT and manufacturing solutions in the food chain
- Issues discussed:
  - Local food
  - Short food supply chains are important for local food which should be supported
  - Solutions from the other sector should be used in food sector
  - In order to be sustainable the social component is also important. Forming new jobs and businesses involving young people - projects for students promoting new food products - Boost new competences, skills, jobs
  - There is strong correlation with the health areas as the results of the food sector directly impact it
  - Environmental sustainability
  - Limit or reuse of food by products
  - Models for better functioning food systems
  - Entrepreneurship and open innovation
  - Consumer led new product development

- Nutrition, public health
- Sources of funding- various:, national and ESIF funds, interreg, H2020
- Problems – that may be solved through future collaboration:
  - New products
  - New services
  - New solutions and new approaches
  - Interdisciplinary collaboration
  - Improving the technology transfer and knowledge in the sector
  - there are a lot of already existing networks that need to be connected and supported
- Expectations from the S3 CE cooperation
  - Support of platforms
  - Support for pilot actions
  - Networking
  - Higher involvement of SMEs
  - Facilitation support from EC

**Possible sub-areas for Interregional cooperation:**

- ✓ **Circular economy – Suggestion to establish a CE circular economy platform**
- ✓ **Agro food**

**ICT** – active players: Poland, Hungary, Slovenia, Croatia

- Topics: security, smart cities, joint solutions, test beds
- Issues discussed:
  - Crosscutting with smart cities and industry 4.0 most commonly but in general across all areas
  - creating test beds for different solutions from different countries in order to commercialize
  - Cybersecurity
  - Slovenia and Croatia cooperation in the field of fibre to home projects
  - Skills
  - testing
- Sources of funding: different sources but may be difficult to access
- Problems – that may be solved through future collaboration:
  - There is a lack of cooperation in open data, data protection and IP rights there are different regulations which should be unified and benchmarked
  - IP policy (patenting) and data production – different regulations, need to harmonise
- Expectations from the S3 CE cooperation
  - improving staff capacities and skills
  - build joint value chains
  - In the framework of smart cities there is a concrete idea for creating test beds of cloud connecting all smart cities (large and midsized cities)
  - Cybersecurity
  - The workshop was the beginning which should be followed by a series of workshops, dedicated to different areas
  - It is essential to get to know each other and what partners in the different MS do, to build trust is crucial

- cooperating over large distances can sometimes be difficult – suggestion was set out to first focus on neighbouring countries and region, before going EU wide or global
- build testing environment for different solutions created in different regions, to commercialise them in international environment

**Possible sub-areas for Interregional coop :**

- ✓ **wide range of areas**
- ✓ **cyber security**

**Advanced manufacturing** – active players: Slovenia, Slovakia, Bavaria, Hungary

- Topics: robotics, photonics, nanotechnology, new materials, mechatronic, logistics, value chains, ICT...
- Issues discussed:
  - Adaptive manufacturing
  - cooperation exists between Slovakia and Slovenia, working on sensors and geo smart drive systems that connect machines and humans
  - Tooling in combination with robotics – in connections with the automotive sector
- Sources of funding: various
- Problems – that may be solved through future collaboration:
  - Options for industry 4.0 need to be further identified
  - Knowledge and people need to be combined to obtain better results
  - A challenge is self-adaptive manufacturing including human resources
  - Ways to work together for the long run
  - Issue of finding sufficient competent staff
  - Successful technology transfer is still an issue
  - faster adaptation from research to industry
- Expectations from the S3 CE cooperation
  - Bavaria and Slovenia intend to cooperate on the automotive sector with tooling from SI feeding into the car production – partners may start discussions in the Spring 2017
  - combining "little pieces" from different regions
  - filter out crucial pillars, see the positive and negative things, and determine focus areas and support them in order to achieve results. Business driven issues should be supported
  - The main direction is definitely industry 4.0 - the SME manufacturing paradigm needs to be changed. Competitive sustainable manufacturing needs to be achieved
  - Support business driven issues

**Possible sub-areas for Interregional cooperation:**

- ✓ **New process solutions**
- ✓ **New business models**
- ✓ **Tooling in combination with robotics – in connections with the automotive sector**

**Mobility and transport** – active players: Bavaria, Poland, Croatia, Slovenia, HU

- Topics: use of water waste, CO2 reduction, various automotive topics
- Issues discussed:
  - New mobility concepts, new mobility services, and related technologies (digitalisation, connectivity, new materials)
  - Electrification of the drive train
  - Safety and Comfort
  - Car2X communication systems
  - Inland water transportation (HR, PL)  
  
use of waterways and shipping is important for Croatia and Poland. Ship manufacturing is a key element for Croatia. Bavaria has engine production which could fit into shipbuilding.
  - Automotive sector and cooperation has significant importance, especially taking into account the cross cutting nature of the sector.
  - The question is what is coming up next, these are new automotive concepts and here the cooperation of many fields is needed.
  - Cybersecurity – an issue that has to be tackled.
- Sources of funding: Structural Funds, Interreg, national and private funds
- Problems – that may be solved through future collaboration:
  - future of vehicles, common infrastructures, common test fields and communication between them is crucial
  - Future vehicles
  - Concrete steps towards sustainable transport
  - Establishing a common understanding and infrastructure
- Expectations from the S3 CE cooperation
  - Test beds - smart mobility in cities, e-mobility projects, communication between these fields to share data etc.
  - Cooperation of stakeholders – potential partners cover Different regions
  - Way forward: meet, discuss, put together a proposal , apply to next interreg call together
  - need for new platforms of bringing stakeholders together

**Possible sub-areas for Interregional cooperation:**

- ✓ **test beds**
- ✓ **automotive – new concepts**
- ✓ **e-mobility**

**Advanced materials** – active players: Bavaria, Slovenia (*linked to transport*), CZ, HU and PL

- Issues discussed:
  - Lightweight structures
  - Multimaterials
  - Hybride Design (extreme conditions, e.g. in high temperatures)
  - Functional surfaces
  - Additive manufacturing
- Sources of funding: Structural Funds, Interreg, national and private funds

- Problems – that may be solved through future collaboration:
  - Reduction of fuel consumption, energy and raw materials
- Expectations from the S3 CE cooperation
  - intelligent cooperation to bring these material together
  - Development of traditional branches for new industrial applications
  - Potential forms of cooperation between Bavaria and Slovenia is being discussed in a follow-up meeting
  - Mobilising the existing networks in other CE countries and regions will be required

**Possible sub-areas for Interregional coop :**

- ✓ **automotive**
- ✓ **aeronautics**