

ClusterPoliSEE Project
Smarter Cluster Policies for South East Europe
Cod. SEE/C/0008/1.3/X

WP 1 – Transnational project and financial management
act. 1.1 - SC, STC and WGs setting up and project management

CALL FOR EXPRESSION OF INTEREST
FOR THE SETTING UP OF
CLUSTERPOLISEE WORKING GROUPS
CONCEPT PAPER

WORKING GROUP N. 1

PRIORITY AREA - “INNOVATION, R&D DRIVEN CLUSTER DEVELOPMENT”

1. BACKGROUND

1.1 Aims of WGs

WGs' main objective is to contribute to a broader understanding of the tackled policy area, to anticipate future needs, and to foster greater cooperation among policy researchers and decision-makers from both government and business sectors. The employment of Working Groups (WGs) is intended as the preferred way of **engaging stakeholders in the co-design of new policy mechanisms**.

Each WG focuses on an established thematic priority area as defined in WP1, facilitating the breakdown of cluster development policies in specific discussion topics of interest to SEE countries and beyond, all WGs will touch upon the horizontal issue of multiple-level and cross-department cluster policies.

At this purpose, each WGs, coordinated by the WGs Leader, will bring together representatives of partnership (max. n. 3) and experts (max. n. 2) to share their insights and experiences and to debate on issues of interest and concern. Ad hoc participants among relevant stakeholders are eligible to participate on a case-by-case basis in specific meetings and activities.

1.2 WGs Leaders

The leadership of WGs was agreed and defined in approved project application form:

WG	LEADER
1 - Innovation, R&D driven Cluster Development	ERDF PP 1 - Emilia Romagna Regione, Directorate for Industry, Trade and Tourism - IT
2 - Sustainability through Cluster Development	IPA-I PP 1 – Istrian Development Agency - HR
3 - International Cluster Cooperation and networking	ERDF PP 5 - Bulgarian Small and Medium Enterprises Promotion Agency – BG
4 - Financial Framework Improvement (Cluster Financing)	ERDF PP 18 – MAG, Hungarian Economic Development Centre - HU
5 - Clusters and Regional Specialization	ERDF PP 8 - Athena Research and Innovation Center in Information, Communication and Knowledge Technologies / Corallia Clusters Initiative Unit - GR
6 - New skills and Jobs creation	ERDF PP 11 North East Regional Development Agency - RO

WGs Leaders are assigned to lead and coordinate the thematic priority areas and are responsible for:

1. WGs setting up
 - Elaboration of WGs concept paper and Expression of Interest;
 - Collection and evaluation of Partnership EoIs (also providing partnership with necessary additional information and/or explanations);
 - Short-listing of experts to be involved in WGs.
2. Coordination of WGs activities through all project phases;
3. Structuring and documenting WGs' outputs and deliverables.

1.3 Overview of WGs' task

The tasks of WGs in relation to the project activities are as follow:

- Act.3.1 - Provide feedback and share “ClusterPoliSEE Platform concept” including specific recommendations on concerned topics;
- Act.3.2 - Support the definition of “ClusterPoliSEE Platform operative plan and functional architecture”;
- Act.3.3 - Costant feeding and coordination of the ClustePoliSEE on-line repository on the respective WG thematic priority area and support the stakeholders consultation in the Platform on 6 central topics, as follows: development of the questionnaire for public consultation, coordination of public consultation, collection of questionnaires and elaboration of data;
- Act.5.1 - Organization and participation in WGs meetings (one physical and the others conducted through the policy learning platform);
- Act.5.1 - Provide a final report on the new policy learning mechanisms in n. 6 specific thematic priority areas, generation of six new policy learning mechanisms in support of Cluster development and definition of reflective mutual policy approachon cross-department multiple policy level understanding and coordination;
- Act.5.2 - Support the definition of the Guideline for Pilot Actions implementation (scheme), that will be based on the set of policy measures defined in WP5.1 and the Pilot Action implementation monitoring, through the close cooperation (also by platform) with the PPs that are assigned to lead and coordinate the Pilot Actions implementation,
- Act.5.3 - Support the evaluation activity of the pilot actions;
- Act.5.3 - Organization and participation in WGs final transnational Workshop in Brussels.

Output	Target value	Period of deliver
Concept papers for WGs setting up (including Eol format)	n.6	period 01
Expression of Interests for WGs setting up	n. 23	period 01
WGs setting up documents	n. 6	period 01
Platform concept - recommendations on specific topics	n. 1	period 01
Platform operative plan and functional architecture	n. 1	period 01
On line repository/database on the 6 central topics results and best practices	n. 1	period 06
Questionnaire for Stakeholder public consultation on 6 cluster central topics	n. 6	
Result of public consultation report and statistical data	n. 6	period 06
New policy learning mechanisms developed	n. 7	period 04
Reflective policy making mechanism pattern	n. 1	period 04
WGs meetings – reports	n. 5	period 05
Guideline for pilot actions implementation (scheme)	n. 1	period 04
Evaluation Report of Pilot action	n. 1	period 05
WGs Final Transnational Workshop	n. 1	period 05
Results	Target value	Period of deliver
Staff members with increased capacity on Learning mechanisms though platform management (knowledge/skills)	n. 78	period 02
policy makers with increase awareness through platform public consultation (knowledge/skills)	n. 52	period 06
stakeholders with increased awareness involved in platform public consultation (rate 1 to 20 for each PPs involved in mutual learning activities)	n. 260	period 06
Policy makers with enhanced capacities to identify and evaluate factors of competitiveness (critical mass) and concentrate resources on key priorities	n. 50	period 04
Established cooperation network, by platform, in support of cluster development	n. 6	period 05
Policy makers with enhanced ability and capacity due to a reflective policy making	n. 50	period 05
Regional based Cluster Policies improved by mutual learning	n. 13	period 05

2. STRATEGY OF WORKING GROUP n. 1

2.1 Description of the WG's topic

The cluster concept recalls concepts of “externalities” and “agglomeration economies” developed by Alfred Marshall with the study on industrial district at the end of 19th century implicitly introducing a *meso* analysis level, different from the micro level (where enterprises are considered as autonomous and independent units interacting as single units) and the macro level (where economy as a whole is represented by the convergence of results of the single agents).

Marshall studies received inputs for many decades. The concept of agglomeration economy became a static vision where the productivity of the single enterprise benefits from the co-location (proximity) and from an undetermined “industrial atmosphere”.

In this meaning cluster concept is confined to the analysis of the agglomeration economies in an “orthodox” vision, where the coordination of enterprises is played by the market institutions and interactions are mainly ruled by prices or played by hierarchy where interactions are ruled by the authority.

Just more recently, after 1980, contributions of many researches made in different countries by non orthodox economists on industrial districts (Beccattini,1990; Brusco,1982), on flexible production systems (Piore e Sabel,1984), on clusters (Porter, 1998), on the value chain (Gereffi et al, 2005) showed that these specific forms of organisation of the production made by decentralized productive structures and with low level of vertical integration, cannot be part of a static vision.

The results of these researches led with different approaches show that the competitive advantage and its effects on development and employment are to trace back to: growing increasing return, innovation and technology development coming from interactions, from connections of competences and processes of diversification caused by productive interdependence, from the growing local labour division, from the reduction of transaction and education costs thank to the processes of *learning by doing and learning by using and emulation*.

The relevant contribution of these researches is that clusters, industrial districts, value chains, networks have been considered as a consolidated form of coordination of enterprises. Networks are a distinct alternative of coordination to market mechanisms and that these forms of coordination are based on trust, skills and reciprocities (Bianchi, Giordani, 1993).

Nevertheless, it s important to underline that reciprocity forms are a continuum when they are balanced and produce cooperation relationships among enterprises, when they are not balanced they produce subordination.

The large literature developed on these specific forms of organisation of the production introduced an analytic perspective and methodology problems in cluster conceptualisation that may have a significative impact in terms of identification, definition and sharing of policies of the different WGs.

Sharing the analytic perspective and the methodology is a common issue of all WGs since without a clear sharing, comparison of different productive systems would result quite difficult.

When defining t he concept of clusters a first methodological problem arises related to the analysis unit that can't be referred to the single isolated company, but should better refer to the relationships developing among enterprises and institutions and more in general to the interdependences within the clusters among companies and supporting structures, the so called "scaffolders".

Clusters are systems open to exchange flows of goods and information, but located in an identifiable space where delimitation of the area is an aspect that can't be divided from the analysis unit.

When analysing clusters, the location of the companies both in the specific activity of production (on own account or on behalf of a third party, producing intermediate or final goods, consuming or investment goods) as well as in their markets (within the cluster, National, European or world markets) is crucial.

Another methodological problem strictly connected to the analysis unit is the level of indicators that should be disaggregated for systems of enterprises spatially identifiable. Furthermore in the selection of indicators, sometimes it isn't paid enough attention to the operational aspects of the economic systems that may be very different. This is particularly true with reference to the innovation activities with respect to the size of the enterprises.

The incidence of the expenditure in R&D on the turnover is considered the main explicative factor (and thus also the main indicator) of the innovation activities of enterprises. Since this incidence grows with the size of the enterprises, automatically it descends that the small size penalizes the innovation activity and thus the development of the economic system¹.

¹ Criteria used to describe and to survey the expenditure in R&D have been originally sert by OECD in 1959 in Frascati and contained in the Frascati Manual, that in its last updating of 1993 still is considered the basis for gathering of statistical data all over the world. Criteria for the expenditure of the private sector were based on the experience of the large American companies. They still are conceived to exclude a number of activities that in SMEs are put in place even though they are not formally devoted to R&D. Nevertheless the same OCDE document states that

"Care must be taken to exclude activities which, though undoubtedly a part of the innovation process, rarely involve any R&D, e.g. patent filing and licensing, market research, manufacturing start up, tooling up and redesign for the manufacturing process. Some activities, such as tooling up, process development, design and prototype construction,

The concept that the indicator of R&D comes from an idea defining innovation as the introduction of a new function of the production makes a difference among the inventive, innovative and dissemination phase of innovation, focusing on the exogenous character of the inventive aspect and on the breaking and discontinuity character of the innovation.

Anyway, an ever growing part of the economic research considers that these ideas may be an obstacle to the correct interpretation of the innovation dynamics and goes in a different direction underlining the process, context and social character of innovation. It would be reductive thinking of innovation as a merely technological element, regardless of the organizational aspects and of the aspects related to the functionality of the products. Following Rosenberg (1987), "technology change enters the economy through different doors" and not necessarily through the main door of scientific research.

The articulation in phases according to which science comes before the technology as well as invention is before the innovation, led to disregard a consistent part of the innovation activity laying in the complex mix of science, technology, applications, adapting, experiences in doing and using. Feedback mechanisms through which the innovation phenomenon progress or exhaust are thus excluded.

This approach focuses on the incremental character of innovation and on the relationship character (frequently silent and or/non formalised) of the skills originating innovation. Also in that case a different perspective is generating phenomenon involving systems of small and medium enterprises that the previous approach overlooked.

Therefore WG1 will deal with this "larger" concept of innovation where policies go beyond the mere technological research and its applications and include innovation in services, improvements of processes and organisational change, business models, marketing, branding and design.

Promoting research and innovation is considered as a key policy instrument to enhance competitiveness and job creation, address major societal challenges and improve quality of life.

Public action in all relevant policy areas including education and skills, the functioning of product and service markets, financial markets, labour markets, entrepreneurship and the business environment, industrial policy, infrastructure/ICT should be designed and implemented in a strategic, coherent and integrated framework geared towards fostering innovation and strengthening the knowledge base and fundamental research.

Within this frame, the activities of the WG1 will tackle the following main issues:

A. Positioning of clusters in the knowledge economy and competitive framework

❖ knowledge skills and education

- Policies and incentives are in place to ensure a sufficient supply of skilled people in the medium-to-longer term?
- Education and training curricula focus on equipping people with the capacity to learn and to develop transversal competences such as critical thinking, problem solving, creativity, teamwork, and intercultural and communication skills. Special attention is paid to address innovation skills gaps?
- Entrepreneurship education and training is widely available or included in curricula?

❖ scientific capacity/knowledge resources

- are universities and innovation centres playing an active role in the development of the cluster?

❖ industrial structure and technology intensity

- is there an industrial structure oriented to technology?
- is there a leading capacity of the cluster for the competitiveness of the area?

❖ public support to research and innovation

- is there is a limited number of well targeted, clearly differentiated, and easy to access support schemes consistent with support available at EU level and that address well identified market failures in the provision of private funding for innovation?
- funding support is tailored to the needs of companies, particularly SMEs. The emphasis is placed on outputs rather than on inputs and controls?
- rules, procedures and time-tables are aligned in order to facilitate participation in EU programmes and co-operation with other Member States.

❖ finance for research and innovation

- it is recognised that public funding assumes an important role in providing a high quality knowledge infrastructure and as an incentive for maintaining excellence in education and research including access to world-class research infrastructures, building regional S&T capacity and supporting innovation?
- public funding aims at leveraging greater private sector investments?
- innovative financing solutions (e.g. public-private partnerships) and the use of tax incentives are explored and adopted?

B. Networking and complementarity: the cluster community

- Nature of relationships within the cluster, existence of consolidated/organised relationships
- Level of integration of the cluster: horizontal , vertical integration
- Relationships between suppliers and buyers
- Relationships among enterprises and universities, research centres, technology intermediaries
- Role of the enterprises in orienting the research

C. Smart Specialisation Strategy

❖ role of clusters in the definition of S3

- Policies and instruments are targeted at exploiting current or emerging strengths of clusters?
- Have districts/networks representatives been involved in the definition of the “strategy”?

2.2 Consistency of the topic with EU policies

To recover from the economic downturn, the European Union needs smart, sustainable and inclusive growth. This requires a comprehensive European innovation strategy, as set out in the ‘Innovation Union’ where the focus is on investing in research, innovation and entrepreneurship in every EU Member State and region, so as to fully exploit Europe’s potential.

Research and innovation have been placed at the centre of the Europe 2020 strategy to promote smart, sustainable and inclusive growth.

Smart growth means strengthening knowledge and innovation as drivers of our future growth. This requires improving the quality of the education system, strengthening the research performance, promoting innovation and knowledge transfer throughout the Union, making full use of information and communication technologies and ensuring that innovative ideas can be turned into new products and services that create growth, quality jobs and help address European and global societal challenges.

To implement the Strategy with particular reference to the smart growth, European Commission is putting forward the Innovation Union² flagship initiative aimed at improving framework conditions and access to finance for research and innovation so as to ensure that innovative ideas can be turned into products and services that create growth and jobs. The biggest challenge for the EU and its Member States is to adopt a much more strategic approach to innovation. Innovation Union sets out such a bold, integrated and strategic approach, exploiting and leveraging our strengths in new and productive ways – and thereby maintain the economic foundation that supports our quality of life and our social model as our population ages.

The specific aim of this initiative is to re-focus R&D and innovation policy on the challenges facing our society, such as climate change, energy and resource efficiency, health and demographic change. Every link should be strengthened in the innovation chain, from 'blue sky' research to commercialization.

In particular the strategy addresses the following major aspects of innovation:

- Tackle unfavorable framework conditions: private investment in research and innovation is being held back and ideas prevented from reaching the market by poor availability of finance, costly patenting, market fragmentation, outdated regulations and procedures, slow standard-setting and the failure to use public procurement strategically.
- Avoid fragmentation of effort: national and regional research and innovation systems are still working along separate tracks with only a marginal European dimension. This leads to costly duplication and overlap which is unacceptable at a time of tight finances. In a global environment, Europe must also develop its own distinctive approach to innovation which builds on its strengths and capitalizes on its values by:
 - Focusing on innovations that address the major societal challenges identified in Europe 2020, strengthening the leadership in key technologies, reaping the potential these markets offer for innovative businesses, and enhancing EU competitiveness. Innovation must become a key element in EU policies and the EU must use the strong potential of the public sector in areas such as energy and water, health, public transport and education, to bring new solutions to the market.
 - Pursuing a broad concept of innovation, both research-driven innovation and innovation in business models, design, branding and services that add value for users and where Europe has unique talents.

The approach to innovation is also at the based of the concept of the **Innovation Strategies for Smart Specialization** (RIS3 strategies), integrated, place-based economic transformation agendas that do five important things:

- focus policy support and investments on key national/regional priorities, challenges and needs for knowledge-based development.
- build on each country/region's strengths, competitive advantages and potential for excellence.
- support technological as well as practice-based innovation and aim to stimulate private sector investment.
- get stakeholders fully involved and encourage innovation and experimentation.

The European Commission wants national and regional authorities across Europe to draw up research and innovation strategies for smart specialization, so that the EU's Structural Funds can be used more efficiently and synergies between different EU, national and regional policies, as well as public and private investments, can be increased.

Smart specialization means identifying the unique characteristics and assets of each country and region, highlighting each region's competitive advantages, and rallying regional stakeholders and resources around an excellence-driven vision of their future.

It also means strengthening regional innovation systems, maximizing knowledge flows and spreading the benefits of innovation throughout the entire regional economy.

² Communication from the European Commission, "Europe 2020 Flagship Initiative Innovation Union" COM(2010) 546, 6.10.2010

Smart specialization is essential for truly effective research and innovation investments. In the European Commission's proposal for cohesion policy (3) in 2014-2020 it will be a precondition for using the European Regional Development Fund (ERDF) in 2014-2020 to support these investments.

RIS3 requires smart, strategic choices and evidence-based policy making. Priorities are set on the basis of strategic intelligence about a region's assets, its challenges, competitive advantages and potential for excellence.

RIS3 requires an integrated and place-based approach to policy design and delivery. Policies must be tailored to the local context, acknowledging that there are different pathways for regional innovation and development.

These include:

- a) rejuvenating traditional sectors through higher value-added activities and new market niches;
- b) modernizing by adopting and disseminating new technologies;
- c) diversifying technologically from existing specializations into related fields;
- d) developing new economic activities through radical technological change and breakthrough innovations; and
- e) exploiting new forms of innovation such as open and user-led innovation, social innovation and service innovation.

However, regions also need to be outward looking, to position themselves in European and global value chains, and to improve their connections and cooperation with other regions, clusters and innovation players. This is important for the internationalization of their companies, to achieve a critical potential of cluster activities and to generate inflows of knowledge relevant to the region's existing knowledge base.

Another key tool in the implementation of the European strategy for innovation is **Horizon 2020** aimed at implementing an Innovation Union flagship initiative and bringing together all existing Union research and innovation funding, including the Framework Programme for Research, the innovation related activities of the Competitiveness and Innovation Framework Programme and the European Institute of Innovation and Technology (EIT).

Horizon 2020 will focus resources on three distinct, yet mutually reinforcing, priorities, where there is clear Union added value. These priorities correspond to those of Europe 2020 and the Innovation Union.

- **Excellent Science.** This will raise the level of excellence in Europe's science base and ensure a steady stream of world-class research to secure Europe's long-term competitiveness. It will support the best ideas, develop talent within Europe, provide researchers with access to priority research infrastructure, and make Europe an attractive location for the world's best researchers.
- **Industrial Leadership.** This will aim at making Europe a more attractive location to invest in research and innovation (including eco-innovation), by promoting activities where businesses set the agenda. It will provide major investment in key industrial technologies, maximize the growth potential of European companies by providing them with adequate levels of finance and help innovative SMEs to grow into world leading companies.
- **Societal Challenges.** This reflects the policy priorities of the Europe 2020 strategy and addresses major concerns shared by citizens in Europe and elsewhere. A challenge-based approach will bring together resources and knowledge across different fields, technologies and disciplines, including social sciences and the humanities. This will cover activities from research to market with a new focus on innovation-related activities, such as piloting, demonstration, test-beds, and support for public procurement and market uptake. It will include establishing links with the activities of the European Innovation Partnerships.

Within WG1 the policies listed above will be referred to in the discussion and they will be both a benchmark for regional policies as well as a condition of final recommendations on innovation and R&D policies.

The large, qualified and differentiated number of project partners will allow to have a complete view of SEE area and to draw some conclusions also on policies for the large area identifying possible specialization fields as called by the EU strategy.

³ Communication from the Commission, Horizon 2020 - The Framework Programme for Research and Innovation, COM(2011) 808, 30.11.2011

2.3 Working Methodology

Major final output of WG1 is the **definition of conditions to set up an effective R&D and innovation policy for clusters to be shared within the learning platform.**

Main aims of **WG 1** are:

- to analyse regional policies on innovation and R&D with particular reference to clusters
- to make a benchmark with EU most relevant policies
- to share policies and experiences with stakeholders
- to discuss proposals for future evolution of clusters also with reference to the new EU funded opportunities
- to provide inputs to the definition of the Smart Specialisation Strategy at regional level, starting from a SEE approach

All the activities will thus be directed to analyze, starting from cases of existing clusters, discuss and elaborate implemented policies in order to identify the more relevant aspects to be considered when designing a policy for R&D and innovation for clusters.

The activities should thus be articulated according to the following steps:

- Sharing and defining a common understanding of the basic concepts related to clusters in order to make the analysis comparable
- Definition of the criteria to select clusters to be analysed by each participant in the WG
- Identification of the clusters object of the analysis (one for each WG participant)
- Definition of a common methodology for the analysis, including data gathering and statistical tools to be used
- Analysis of the clusters made by each participant
- Common sharing of the results of the analysis and definition of a methodological tools to pull from the analysis the relevant aspects
- Drawing conclusions and preparing a final report with the conditions to set up an effective policy for R&D and innovation to be the main contribution of the WG to the contents of the learning platform.

As the topics of WG1 may be horizontal to the different topics of the other WGs since R&D and innovation may be considered in relation to the topics of finance, internationalisation, human resources, specialization, it is extremely relevant to have quite intense coordination with the other WGs both in the elaboration of the methodology and in sharing the results that in many case may greatly contribute to the effective work of the groups.

This is particularly true with reference to WG5 Clusters and regional specialization also dealing with the Smart Specialization Strategy concept and that more than the others requires cooperation between the two groups.

The activities of the group will result in the following outputs:

- Collection and analysis of cluster positioning conditions (qualitative and quantitative assessments)
- Identification and active involvement of stakeholders at cluster level (meetings, workshops, study visits)

- Pilot actions
- Production of papers, guidelines, reports and recommendations

The activities will be ideally developed over five meetings out of which the first and the last will be physical meetings while the others will be on-line, using the platform devices. Exact number as well as location of the physical meetings will be agreed with the LP after the expression of interest. During the first meeting the detailed working methodologies and the specific work plan will be shared among the WG participants.

At least two reports will be delivered as output of the WG sessions: a first one detailing the working steps and a conclusive report on the final results of the activities intended as a contribution to the definition of policies of innovation and R&D in clusters. Anyway each WG sessions will produce detailed minutes containing the progress of the work.

Within the group will be discussed the opportunity to start some pilot actions where participants may experience a single element of the studied policy in its own cluster.

Number of possible pilot cases will be decided in agreement with the LP according to the budget availability.

2.4WG composition

The composition of the WG will ideally be the following:

- Emilia Romagna Region as WG Coordinator
- 3 project partners representing areas having already experienced dedicated research and innovation policies for clusters (best combination would include at least an ERDF and an IPA partner as well as a national level representative partner)
- 2 experts with a scientific background on clusters and/or with experiences in international institutions/organisations/networks

The role of the expert within the group should be of a critical counterpart to the partner representing in many cases regional administrations or agencies implementing the relevant policies. They will also act as facilitator of the discussion bringing in their views based on the experiences gained in different contexts.

Considering the topics of the WG, when appropriate, stakeholders of research and innovation (i.e. innovation centres, universities) may be invited to contribute to the discussion of the group and be recipient of conclusions reached.