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# **Cross-fertilization methodology**

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# 1 Introduction: what are Creative Industries?

The present document is summarizing many inputs capitalized during the project implementation concerning cross-fertilization methodology addressed to Creative industries. Among others, the Study concerning Cross-fertilization elaborated in the frame of Creative Alliance: Creative Industries - Policy recommendations – promotion of cross-innovation from creative industries, has been particularly taken into consideration for the development of the methodology.

Creative industries have become a major focus of industrial policy throughout Europe. There are huge expectations put towards this industrial sector as it is expected to contribute to the industrial renewal of the European economy – “In the recent decades the world has been moving at a faster pace. These considerations apply to the Mediterranean area too. For Europe and other parts of the world, the rapid roll-out of new technologies and increased globalization has meant a striking shift away from traditional manufacturing towards services and innovation. Factory floors are progressively being replaced by creative communities whose raw material is their ability to imagine, create and innovate. [...] If Europe wants to remain competitive in this changing global environment, it needs to put in place the right conditions for creativity and innovation to flourish in a new entrepreneurial culture. There is a lot of untapped potential in the cultural and creative industries to create growth and jobs “.

In this context CO-CREATE project has implemented several activities aiming to improve the integration of creative services, such as design, with traditional manufacturing sectors to add value and enhance the economic performance and robustness of Mediterranean industry. Although there is agreement that collaboration between the creative industries and traditional industrial sectors results in cross-innovation of new products, services and processes, there is still no proper understanding of the mechanism behind.

CO-CREATE project experienced some methodologies to support the collaboration between Creative Industries and traditional industrial sectors, that are summarized within the following report in form of methodology and analysis how to carry out cross-fertilization actions and how to support the establishment of cross-fertilization clusters.

This output has been drafted in form of recommendations to be addressed to institutions and agencies that interested to strengthen this model of collaboration. The methodology developed by CO-CREATE is the results of the capitalization of previous experiences and is based on a mapping of case studies on cross-innovation the partners were provided with by other projects on cross-innovation. The methodology includes and suggests a definition of cross-innovation and discusses what the specific characteristics of creative industries are and what they do mean for policy intervention that aims at facilitating cross-innovation.

## 2 Defining the process of cross-innovation

It is important to define the concept of cross-innovation. Several concepts are close to this definition, among other “spillover”. Let’s have a look at this concept first of all.

Spillover effects and cross-innovation are popular terms in today’s innovation policy debate. However, following the debate one cannot help feeling that it is not that clear among the stakeholders in the debate what is actually meant by the two terms and that there is confusion about the difference between these two terms.

It is important to clarify them first of all:

The terms “spillover” or “spillover effects” capture the phenomenon that an incidence or a condition in one particular area has an effect on a different area. To put it more tangibly: what happens in one industry affects other industries. Spillovers in the context of innovation policy refer to what is being called knowledge spillover. This is eventually nothing else than the exchange of knowledge between individuals that can be a starting point for the development of new products, services and processes. Economists have identified two types of knowledge spillovers that are important for innovation and growth:

- “MAR spillovers” that develop from concentrations of companies in the same industry in a city or region which allows for “knowledge travel” among companies and
- “Jacobs spillovers” that are related to the diversity of industries in an area; according to this concept industrially diverse urban environments encourage innovation because it encompasses people with varied backgrounds and interests, thereby facilitating the exchange of ideas among individuals with different perspectives

Knowledge spillovers can happen through a variety of channels including imitation of innovations, mobility of skilled personnel, reverse engineering, using freely available “open” or public knowledge, infringing of patents, access to international scientific literature, foreign direct investment or communication between R&D personnel.

The methodology to implement a spillover process see the following number of factors:

1. Existence of technology gaps that encourage lagging companies, regions or countries to learn from their more advanced counterparts;

2. Absorptive capacity of the recipients of knowledge transfer who in order to imitate or utilize spilling over from others need certain capabilities (background knowledge, production experience and skilled personnel) to understand and apply that particular knowledge;
3. Technological congruence facilitates knowledge transfer;
4. Geographic distance plays an important role as knowledge or technology are to a substantial degree local which results in the fact the “amount of knowledge spillovers” is reducing with increasing distance from the knowledge’s point of origin.

In a complex environment such as today’s global economy that is structured by a confusing network of individual and institutional relationships and communication channels, **spillovers take place by coincidence unless they are not governed through interventions.**

After explaining “spillover” now we can talk about cross-innovation.

In recent years the term cross-innovation gained more relevance in the debate about spillovers. Although cross-innovation refers to the same phenomenon of mutual fertilization of industries, there is a slight, but important difference. While spillovers describe effects that result from knowledge transfer, cross-innovation leads to spillovers and should be understood as a managed innovation process that facilitates interdisciplinary entanglement of products, services and trends or in other words the entanglement of complementary knowledge. Spillovers are not necessarily the result of such a structured approach, they can also happen by coincidence (Figure 1). This can happen through two ways:

- Transfer of knowledge and solutions by identifying and communicating analogies between industries or
- Promotion of cross-industry collaboration.

**Cross-innovation is about transferring existing technologies, systems, concepts or general principles from one industry to another industry in order to solve problems or answer questions experienced in that industry.** This can happen through technologies, patents, specific knowledge or business models. Cross-innovation is a specific form of open innovation which

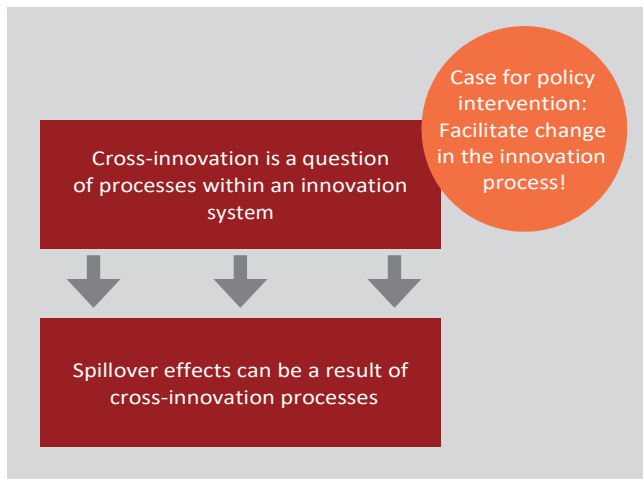


Figure 1: Cross-innovation results in spill-over effects.

means that in order to benefit from this approach companies need to revisit their innovation processes to make sure that both internal and external ideas are considered when developing new products, services and processes.

There are two forms of cross-innovation each linked to a specific process:

Process n.1: Outside-in process: transfer of solutions or ideas from outside the industry;

Process n.2: Inside-out-process: search for novel applications of own ideas and solutions in other industries.

**Key barriers to cross-innovation are the identification of other industries and the access to relevant stakeholders in other industries in which either solutions can be sourced for own problems or own solutions can be offered to solve their problems.**

In order to promote the processes of cross-innovation and to overcome the barriers to cross-innovation a structured approach is required that changes existing innovation processes both within companies, but also within regional or national systems of innovation. CO-CREATE project identified Design Thinking and related tools as key processes to promote cross-innovation. The toolkit for Cross-innovation including design thinking method and tools was developed by POLIMI and is part of Output 3.3.

## 3 Creative Industries' specificities

### 3.1 What are creative industries?

There are several definitions of CCI (Creative and Cultural Industries), among others, CO-CREATE project adopted that one coming by the EU Commission.

The European Commission defines creative industries as "industries which use culture as an input and have a cultural dimension, although their outputs are mainly functional. They include architecture and design, which integrate creative elements into wider processes, as well as subsectors such as graphic design, fashion design or advertising."

To be differentiated from this are cultural industries including industries that are "producing and distributing goods or services which at the time they are developed are considered to have a specific attribute, use or purpose which embodies or conveys cultural expressions, irrespective of the commercial value they may have.

Besides the traditional arts sectors (performing arts, visual arts, cultural heritage – including the public sector), they include film, DVD and video, television and radio, video games, new media, music, books and press. This concept is defined in relation to cultural expressions in the context of the 2005 UNESCO Convention on the protection and promotion of the diversity of cultural expressions."

Additional inputs to the definition can be found by the Conference of German Ministers of Economic Affairs, for which "culture and creative industries comprise of all cultural and creative enterprises that are mainly market-oriented and deal with the creation, production, distribution and/or dissemination through the media of cultural/creative goods and services."

They include eleven core branches: music industry, book market, art market, film industry, broadcasting industry, performing arts market, design industry, architectural market and press market.

Common to all definitions is that cultural and creative industries are considered as market-oriented and that they are an integral part of the economy.

For CO-CREATE Project, this approach (Creative Industries are market-oriented) is crucial.

Like any other industry the creative sector has its specific

characteristics, but in terms of economic logic it functions the same way. This provides the opportunity to collaborate along similar value chains (Figure 2) which supports cross-innovation.

For CO-CREATE Partners, the cross-fertilization actions and the cross innovation processes can happen all the production line along.

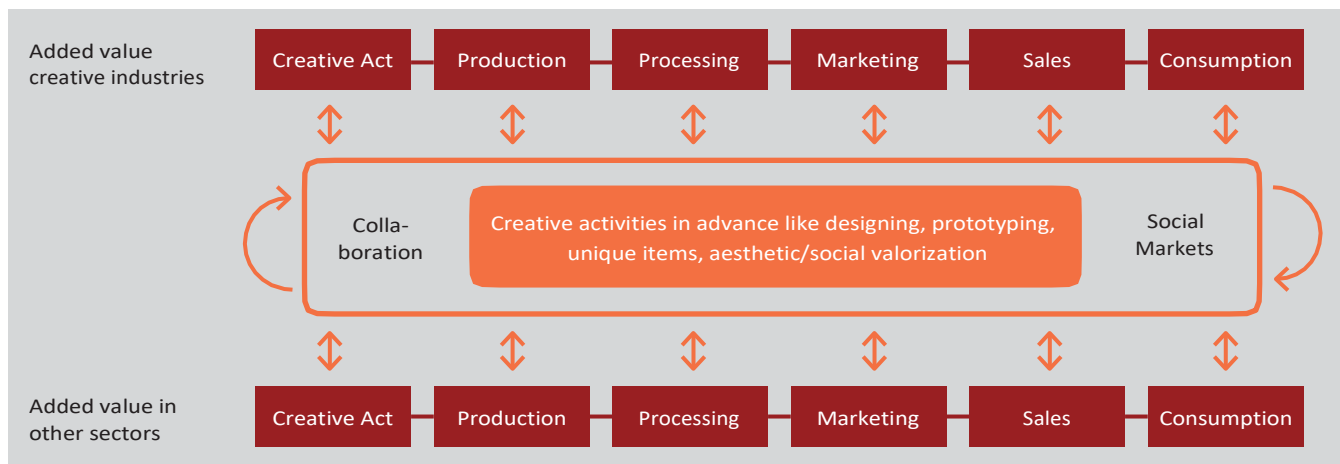


Figure 2: Value chain characteristics of creative industries (Fraunhofer ISI, 2012).

### 3.2 How to facilitate cross-innovation processes?

Even if Creative Industries are market oriented, research has shown that creative industries differ to large extent from traditional industrial sectors. First of all for the size: there is no one size- fits-all picture of the creative industries as its individual branches are very heterogeneous in terms of company structures, turnover, employment, markets, distribution channels and business models. Common to creative industries is that the economic relevance of micro enterprises is much higher than in other industry sectors.

Secondly, another difference to traditional industrial sectors is to be seen in the low capital intensity which in conjunction with the heterogeneity of markets results in low market entry barriers and high start-up dynamism. However, this effect is countered by an insufficient availability of capital that inhibits growth of enterprises because investments in market development and research and development cannot be made. As a consequence, human capital is of prime importance to economic success

Thirdly, another key feature is the specific spatial dimension of creative industries. A recent analysis demonstrates that although creative industries can be increasingly found in rural areas, they are still closely linked with urban areas.

**Creative industries are very much open to collaboration along the entire value chain. They are also very much customer- and service-oriented which helps to access internal innovation processes of suppliers and clients. This contributes to spillovers to and cross-innovation between other branches within the creative industries and to other industrial sectors.** But spillovers or cross-innovation are not that easy to initiate across the entire economy as the following findings show: A survey of German creative industries has highlighted that companies in creative industries feature high innovation intensities (more than 85% of companies have introduced new products or services to the market within the last three years), but they have

Limited contacts with (potential) clients from traditional industries such as the manufacturing industry. Clients of creative industries are predominantly households, public administration or from the sectors of education, health, construction and tourism (Table 1).

The comparatively weak relationships between creative industries and traditional industrial sector suggest a potential for innovation.

Key to unlocking this potential is that “new approaches, techniques and thought processes develop in traditional industries.

**This requires both knowledge of the actors and their offers and a corresponding openness towards these “.** But it is not only that the potential clients in traditional industries have to shift their minds, a change of thinking is also required from the creative industry. Creative entrepreneurs are still very much focused on social and cultural values. Communication and networking across these borders between the creative and traditional industry sector is required to facilitate mutual understanding. Creative entrepreneurs need to be encouraged to think and act economically. This means nothing else that a common mental basis for collaboration needs to be established.

There is a strong need to contribute to the lively debate throughout Europe how to “unlock the potential of cultural and creative industries”. There is consensus that creative industries are a specific industrial sector with specific needs of assistance both in terms of access to funding (both private and public investments) and business development. There is also consensus that the promotion

of spillovers and cross-innovation are important key elements on the policy agenda. But today’s challenge for policy making is to create the mental basis for collaboration. This is confirmed by practitioners who claim – being asked why cross-innovation is not happening – that there is “a myriad of challenges – from entrenched cultural and language barriers between the disciplines to practical issues such as a lack of contact, proximity and opportunities to work together.

It was acknowledged that not everyone wants to work in mixed teams and that it requires the ability to step outside domain expertise, appreciate the role of other disciplines and to develop new skills such as teamwork, empathy, listening and communication skills”. Complimentary effects following the entanglement of complementary knowledge of creative industries and companies from other are either the result of collaboration along their value chains, jointly used innovation platforms and intersectoral mobility of skilled labour. **The establishment of contacts is vital not only for nurturing the mental basis for collaboration, but also from a very practical point of view: without contacts there are no ideas, no projects and no effects that develop from cross-sector collaboration.** Thus, networking the creative industry with traditional industry and vice versa should be at the core of each programme that aims at facilitating cross-innovation and the mission of CO-CREATE Project. Together with Mediterranean Institutions, SMEs from different traditional industrial sectors have been encouraged to establish durable relationships with Creative and Cultural Industries for the development of new product and services.

Customer structure of creative industries: other industrial sectors				
Private households, public administration	Education, health and construction	Tourism	Financial services, wholesale / retail, electronics / IT, machinery /vehicles, textiles/paper /wood, furniture	R&D and business services, transport, chemicals, plastics, food and materials
> 25 %	21 – 25 %	16 – 20 %	11 – 15 %	1 – 10 %

Table 1: Customer structure of creative industries: other industrial sectors (Prognos/Fraunhofer ISI, 2012, p. 65)



## 4 To identify elements for the methodology with inputs by successful cross-innovation experiences

### 4.1 What should be mapped?

Preceding definition of cross-innovation describes cross-innovation as transfer of knowledge between industries through promotion of cross-industry collaboration. It can either occur in the context of an outside-in process (ideas and solution are transferred from outside the industry) or an inside-out process (in form of a search for novel applications of own ideas and solutions in other industries).

These elements are important, but the development of a methodology, it is important to identify the actual mechanisms that govern cross-innovation. Which mechanisms? Looking at companies that make proportionately greater use of services from the creative industries, one can find that they perform significantly better on innovation. Although the specific mechanisms by which this occurs are not yet well documented, it seems that creative innovation services provided by CCIs are inputs to innovative activities by other enterprises and organisations in the broader economy, thereby helping to address behavioral failures, such as risk aversion, status quo bias and myopia.

**There is no clear-cut-answer to the question which button needs to be pressed to make cross-innovation happen.**

Analysis made at local level and involving SMEs from the Mediterranean area focusing on “cross-innovation practitioners” revealed a broad range of possible instruments demonstrating that the blueprint for cross-innovation facilitation is not yet there: the array of instruments is ranging from government-funded programmes to catalyze cross-sector collaborations such as incentives for traditional businesses to experiment with creative or the facilitation of networks to the identification of “intermediaries” – heavily networked individuals that understand the language of business and creativity – who can broker contacts and initiate cross-sector activities.

In order to take step towards identifying the specific mechanisms behind, cases of cross-innovation already analyzed have been capitalized within this study according to two dimensions:

- 1) Whether the observed cross-innovation was triggered in the context of an individual project or the result of a broader networking approach.
- 2) Analysis focused also on the question whether there is a cross-innovation following the definition applied by CO-CREATE or rather a mere cross-sector provision of a service. In fact, cross-innovation may appear to be little more than a description of services provided by one sector – web designers for instance – for those in another.

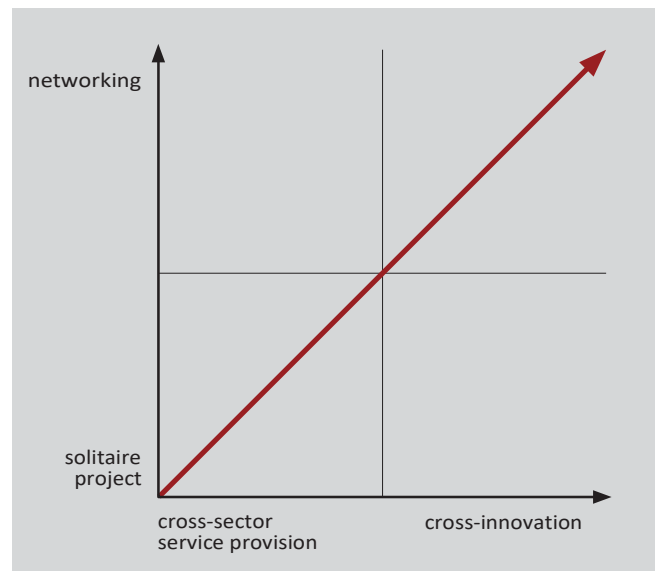


Figure 3: Analysis matrix

actual cases of cross-innovation are rather the result of networking than of individual projects: the more networking the more cross-innovation. The two dimensions of analysis can be “mapped” into a matrix that allows for structuring the cases (Figure 3).

CO-CREATE cross-innovation methodology aims at establishing durable and well-structured relationships between the Creative Industries and Traditional Sectors, considering the chance to set-up new cross-innovation clusters



## 4.2 Analysis of cases

The CO-CREATE Methodology capitalized existing studies aiming at defining the cross-innovation process. This paragraph is considering those inputs and transferring here those results that were not in the scope of the Project CO-CREATE but useful for the output.

Analysis used already existing case descriptions from different sources – for an overview of cases see Table 2. Collection of data was done through desk research only as the budget of this project did not allow for a thorough revisiting of the cases by additional surveys or expert interviews. This would have been definitely useful as – quoting Paul Long's conclusion

for his case study report – “the cases studies are couched in rather promotional terms. While this offers an encouraging tone to ideas of cross-innovation there is a need for details from these examples, and elsewhere, about things that have not worked, about misunderstanding, frustrations, barriers to cross-innovation, cultural parameters and dead ends. Negative examples have an equal part to play in determining advice and planning for future policy and this is a signal absence”.

Case		
1. TED – Brokerage	15. Luckywaste	29. The Architecture Creative Cluster of Palácio Sinel de Cordes
2. Spaces: FabLabs	16. John Altmann Cookies	30. Edison
3. Smart Finance: Kickstarter	17. Bee Urban	31. Festival Madas Infekcija – Fashion Infection
4. Space Makers – Culture-led innovation	18. Street Musician's Day	32. Garage 48
5. Fits.me Virtual Fitting Room	19. Native Instruments	33. Creativity
6. Lukáš Bellada	20. Slamp and Leading Light	34. Stockholm School of Entrepreneurship (SSES)
7. Digital Life Sciences and the Maverick Television Consortium	21. Tallinn Creative Incubator	35. Netzwerk Gründen
8. HE-STEM Interactive Multi-Touch Table	22. EnLabs	36. Planet Modulor
9. SmartGateCargo The Game	23. Design2	37. Club Consult
10. Sampad	24. Beepart	38. Design Transfer Bonus
11. The Golden Square	25. Fluxus Ministry	39. Lisbon Municipality
12. Smart Vilnius	26. Kolonien	40. Officina Innovazione
13. MILES	27. Start Up Lisboa	41. EU1 TV Platform
14. The CulturApp	28. Forno do Tijolo Fab Lab LX and co-working space	42. Innovativ Kultur

Table 2: Overview of cases that were used for mapping analysis

The hypothesis that successful cross-innovation depends on networking rather on the initiation of “solitaire” projects was confirmed through the mapping of the cases (Figure 4). **This is not to say that cross-innovation cannot be triggered through isolated projects, but it is more likely to happen the more networking opportunities are provided.** Networking can happen through different mechanisms or instruments respectively.

The CO-CREATE methodology of cross-fertilization took this input into account when elaboration a 3-level piloting addressed to cluster managers, SMEs and policy makers (to

develop innovative financial instruments). The examples presented in the case studies that give an account of cross-innovation have a strong networking component. In these examples networking happens either through the establishment of company networks, incubation, scouting, financial support for pilot projects that cover both creative industries and traditional industrial sectors or cross- industry conferences and fairs.

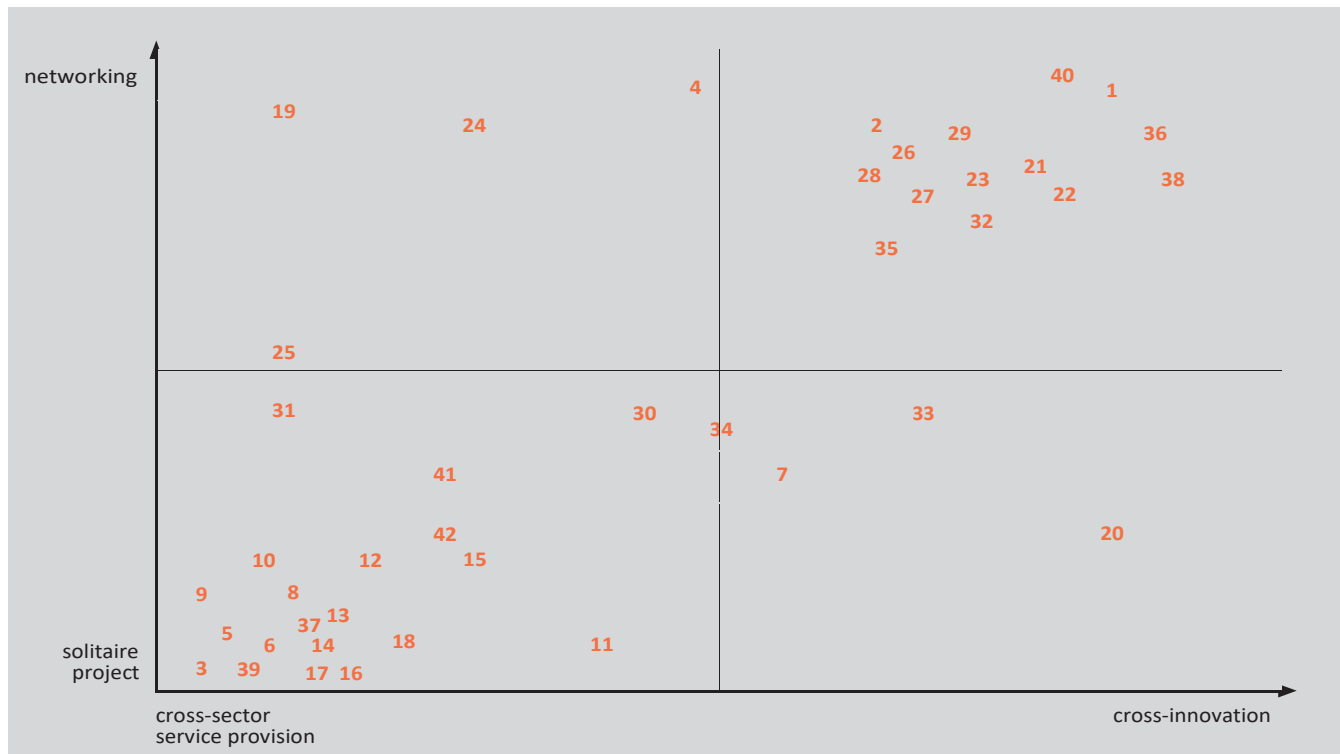


Figure 4: Case study analysis – mapping what works

## 5 Transferring of ideas across industry sectors

**Analysis of the case studies confirms the underlying hypothesis of the study: the more networking the more cross-innovation.** But networking is only one chapter of the story of successful programme intervention supporting cross-innovation. It is also about knowing **where the knowledge is as “knowledge flows are invisible; they leave no paper trail by which they can be measured and tracked”**. Only if you know where the knowledge is you can network it, thus industry analysis is a first step. As Mediterranean competitiveness on the global market cannot be maintained by nursing or renewing existing industries only, but also by developing new industries – or to introduce a new buzz word of innovation policy: emerging industries – industry analysis should be a forecast analysis

Further key elements of successful programme intervention supporting cross-innovation should be incubators and supporting instruments for projects such as innovation vouchers. CO-CREATE project transferred all of that into the piloting phase: actions at 3 levels to promote innovation and cross-fertilization; action at policy maker level to promote dedicated Financial Instruments. Involvement of Cluster manager and establishing a MED clusters' network to achieve the results.

To put the methodology or policy programme intervention simple: a) make knowledge visible through forecast analysis, b) network the knowledge and its bearers in clusters through cluster management organisations and c) nurture cross-sector collaborations through supporting instruments such as innovation vouchers (Figure 5).



Figure 5: Elements of a programme supporting cross-innovation

There is no doubt that the eventual success of such a strategy depends also on framework conditions that cannot be influenced by local or regional governments such as the macroeconomic situation or policies or programmes of the national government.

### 5.1 The role of Creative Industries into emerging industry sectors

Today European and particularly Mediterranean traditional industry is undergoing a huge change as a consequence of increasing global competition and digital transformation. Traditional industries are facing increasing competitive pressures in particular from their Asian peers. It is clear that the European economy can maintain its competitive edge only by developing new industries which give birth to new products, services and processes. Consequently, in recent years increasing attention has been paid by both policy makers and industry on the.

development of emerging industries

**The emergence of new industries is much more than the renewal of traditional industries, but the creation of entirely new value chains across different industrial sectors**

These changes also offer opportunities for creative industries as the example of electromobility demonstrates that is described in the following.

Furthermore, the manufacturing industry is undergoing a change in terms of production and service patterns. The so-called “Internet of Things” and the anticipated “Fourth Industrial Revolution” or “Industry 4.0” offer also huge opportunities for products and services from creative industries both in terms of design and communication.

Which potential for cross-innovation is associated with these two major lines of industrial development demonstrates the example of the development of the electromobility industry in Germany. What started with a mere focus on the development of cars and batteries revealed in recent times to be a much broader pattern of industrial development. Today electromobility is no longer looked on from the perspective of the car industry, but from an angle that includes several industries that yet have not much or no linkages with each other at all. Beside electricity generation and grid infrastructure and of course the car industry it covers also creative industries that play a role when it comes to the development of mobility concepts or even smart homes (Figure 6).

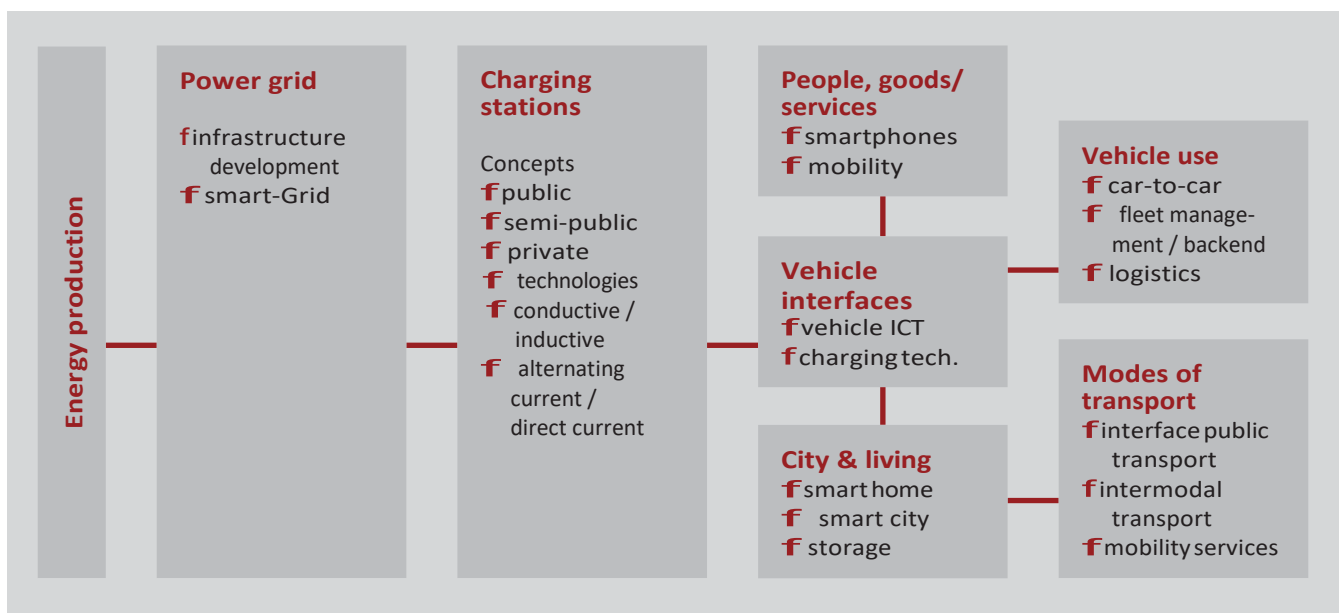


Figure 6: Electromobility is much more than just cars – links to other industries. Source: Fraunhofer Institut für Arbeitswirtschaft und Organisation

The example can be enlarged to many other countries. Coming also from the angle of electric mobility the Japanese government is heavily promoting the concept of smart communities which aims at integrating the sectors of energy, transport and mobility, water supply and – very important with regard to creative industries – health, leisure time and modes of communication.

Such kind of industries linkages need to be identified by corresponding analyses. **How this can be done in practice shows that creative industries play a role in these value chains;** in particular with regard to the development of mobility concepts that aim at attracting traditional car users to new forms of mobility by ICT solutions and design (Figure 7).

New value chains are developing which integrate different industries. There is a huge potential for cross-innovation between the traditional sectors (like automotive) industry and creative industries which yet is not fully tapped into because of a lack of understanding and coordination. This example shows which potential lies in forecast analysis that aims at identifying emerging industries and the value chain elements where creative industries can easily connect with. Such analysis can be easily implemented even by local and regional authorities that want to strengthen their industry basis by promoting cross-innovation of creative and traditional industries.

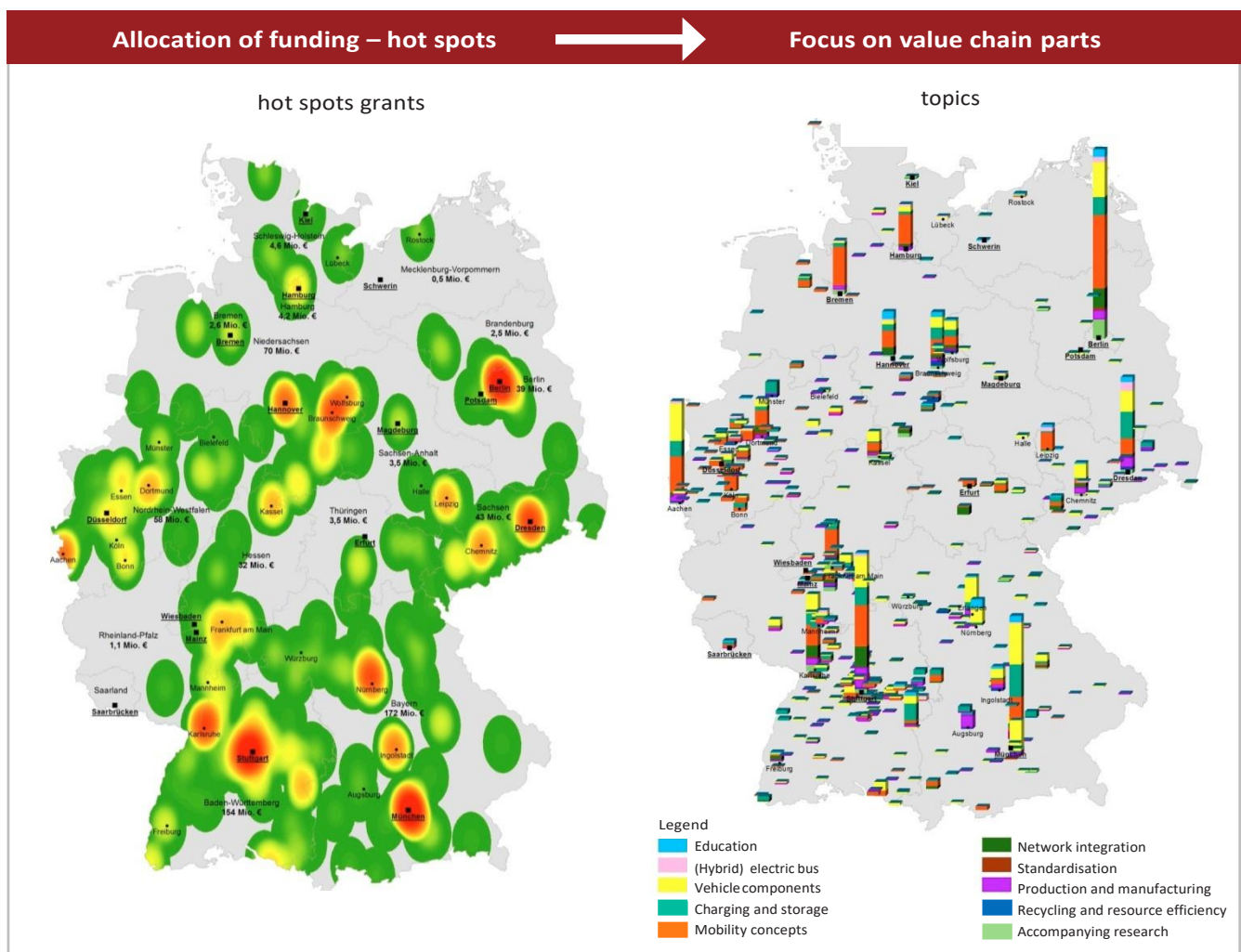


Figure 7: Hot-spots of the German electromobility industry and their value chain characteristics (Institute for Innovation and Technology (iit))

## 5.2 To create cross-industry clusters

CO-CREATE project aims at connecting cross-fertilization actions with clusters and the establishment of cross-innovation clusters.

Clusters are among the fanciest, but also frequently misconceived instruments of industrial policy. Michael E. Porter's famous definition of a cluster as a regional agglomeration of industry is often referred to when policy makers discuss clusters as tools of industrial policy. In general, the instrument "cluster" rather describes an industrial network that is governed by a cluster management organisation through specific activities following a common strategy agreed upon by the participants in the industrial network. Such clusters/ industrial networks have their specific characteristics depending on their level or status of development. Depending on this they face specific developmental challenges which can be addressed by policy intervention.

Creative industries clusters (understood as industrial networks governed by a cluster management organisation) are not very much different from clusters in traditional industries. More relevant to mention is that they share a commonality with the vast majority of clusters in Europe: they are locked into their own industry with no or very limited outreach to other industries. Yet, even the European economy is facing the challenge to develop new industries by combining different industries and creating new value chains **there are only a few examples of clusters that are actually aiming at crossing industry boundaries and "marrying" into other industries**. The reason for this is quite clear: there is a "myriad of challenges – from entrenched cultural and language barriers between the disciplines to practical issues such as a lack of contact, proximity and opportunities to work together". Although this quotation is from creative industry practitioners, the very same could be stated by representatives of traditional industries.

**In order to overcome the lock-in of both creative industries and traditional industrial sectors into their own industry, CO-CREATE project should aim at establishing cross-industry clusters that include both creative industries and traditional industrial sectors.**

Such a cross-industry cluster should focus on well-defined emerging new industry sector. The new industry sector should be identified through a thorough forecast analysis and a link to emerging industries.

Yet there are only a few cross-industry clusters and none of them has an explicit focus on linking creative industries with traditional industrial sectors. Examples of cross-industry clusters or clusters that are outreaching to other industries than their own one are the German cluster initiatives "Electric Mobility South-West" ([www.emobil-sw.de](http://www.emobil-sw.de)) and "Virtual Dimension Center (VDC) Fellbach" ([www.vdc-fellbach.de](http://www.vdc-fellbach.de)), the Danish cluster initiatives "Innonet Lifestyle Interior & Clothing" ([www.innonetlifestyle.com](http://www.innonetlifestyle.com)) and "Service Platform Denmark" ([www.serviceplatform.dk](http://www.serviceplatform.dk)) as well as the Norwegian Centre of Excellence "NCE Systems Engineering" ([www.nce-se.no](http://www.nce-se.no)). As results from benchmarking projects and quality audits of cluster management organisations (Gold Label of Cluster Management Excellence) of the European Secretariat for Cluster Analysis (ESCA) **show creative industry clusters in their vast majority lack a cross-industry perspective**. Although many of the cluster managers mention in the benchmarking interviews that they try to get traditional industrial sectors "on board", strategies and activities of these clusters are in most cases not geared toward this objective. **If there is cross-industry collaboration it is rather about cross-industry service provision than cross-innovation.**

In order to establish successful cross-industry clusters the cluster management organisation should have a well-developed strategy, a service portfolio geared towards the objectives identified in the strategy and should be managed – very important – the right team that brings together knowledge and experiences from different industry backgrounds.

**How should the ideal strategy and the ideal service portfolio look like? In terms of strategy it is very important that it is based on a sound analysis that identifies the challenges to be addressed by the cluster and the way they should be addressed. It should also identify the right cluster participants – companies, research institutes or universities and relevant other stakeholders from both industry and public administration.**



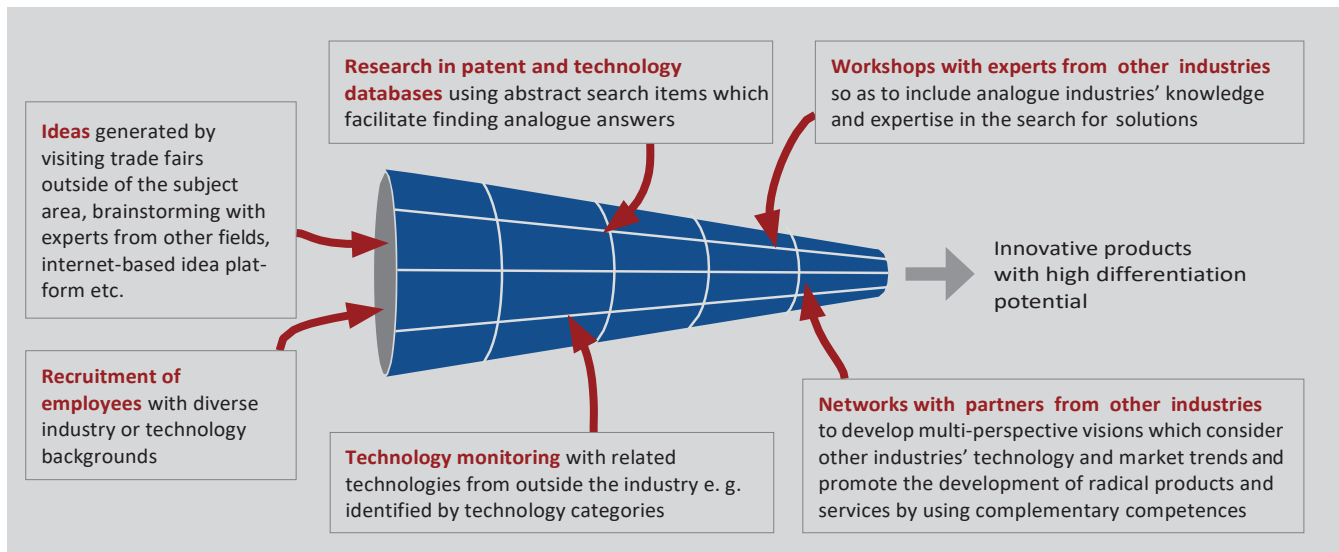


Figure 8: Tools for „narrowing down“ ideas into cross-innovated products and service (based on Enkel, Ellen/Horváth, Annette, 2010, p. 297)

For cross-sector clusters it is of outmost importance that the strategy is based on a sound understanding of the different business models in the different industrial sectors, which requires an analysis of the different value chains and value systems for the existing industrial/technological sectors and the value chain that one wants to develop through a cross-sector cluster based on the forecast of the emerging industry sector. Strategy should be developed in a comprehensive and open communication process that involves all relevant stakeholders in the cross-sector value chain that is to be developed. CO-CREATE project developed a set of actions directly address to the Clusters managers including gamification tools. The aim of this action was to encourage the establishment of solid relationships between clusters (traditional and Creative clusters, for example)

The strategy should be implemented through a set of activities (service portfolio of the cluster management organisation) that is geared to the objectives of the strategy. For the promotion of cross-innovation it is very important to search for ideas and narrow them down to tangible projects. This can be done by means of technology monitoring, patent survey, fair visits, workshops and networking with partners from other industries (Figure 8). CO-CREATE focused its action on IPR assistance.

Cluster management organisations are an excellent instrument for such “funnelling”. There are key impact-relevant services that should be offered by any cluster

management organisation in support of activities of cluster participants. It is not about an “either/or” of services, but about the integrated offer of services to commercialize R&D results and thus to trigger innovation-based economic growth. Cluster management organisations that feature such an integration of services are typically based on a strategy that addresses the support needs of the cluster participants.

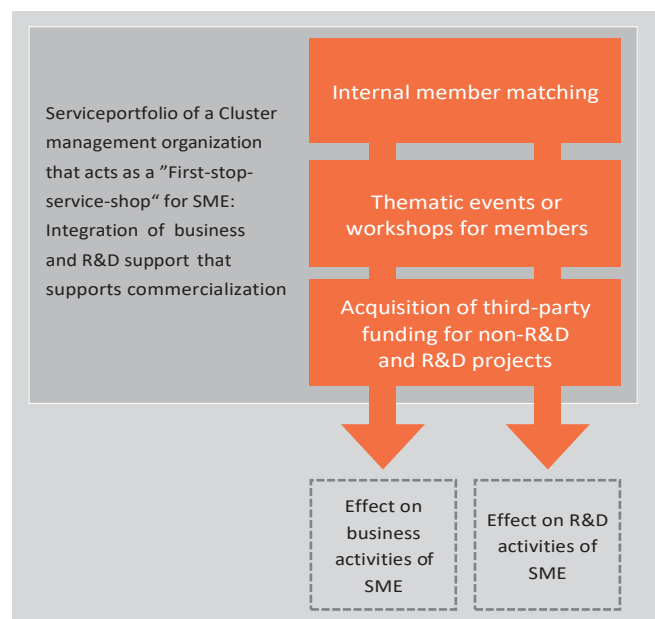


Figure 9: Service portfolio of a cluster management organisation (Christensen, Thomas Alslev/Lämmer-Gamp, Thomas/Meier zu Köcker, Gerd, 2012, p. 34)

Figure 9 shows such an integrated portfolio of key impact-relevant services that has an effect on business and R&D activities of SME cluster participants by sequencing services such as internal member matching to bring cluster participants together, organizing workshops or thematic events to further discuss ideas that developed from the matchmaking and apply for funding for projects that are the outcome of workshops or thematic events.

It is not only about networking, workshop facilitation and project development – cluster management organisation should also host cross-sector incubators. In contrast to the majority of existing incubators which focus on one single industry such cross-sector incubators should actively connect creative industry start-ups with companies from traditional industrial sectors by providing not only networking services but also other business support resources and services that are required to communicate and work with traditional industrial sectors. As Figure 10 demonstrates business development through consulting and coaching of entrepreneurs and other services /activities such as incubation is already an important element of the service portfolio of creative cluster management organisations, but still not – as indicated above – sufficiently tailored forwards cross-sectoral innovation.

### 5.3 Instruments to support the establishment of cross-innovation clusters – recommendations

It is common sense that due to their specific nature creative industries require specific support through programmes or even an industrial policy geared towards creative industries. It is also true that the solution does not lie in clusters and cluster management organisations alone, although they are key with regard to bridging the communication gap between the creative and traditional industries: a communication gap that results in the non-perception of how the potential creative industries can contribute to innovation and value-chain development in traditional industries. **But what is to be done once the communication gap has been bridged by a cross-industry cluster?** Priorities for action in this regard are – besides raising awareness of the innovation potential of creative industries:

- a) the improvement of access to innovation funding with innovative financial instruments implemented by Regional Authorities and Managing Authorities in general and
- b) the facilitation of business development processes of creative industries with proper instruments, such as those design thinking oriented (proposed by CO-CREATE).

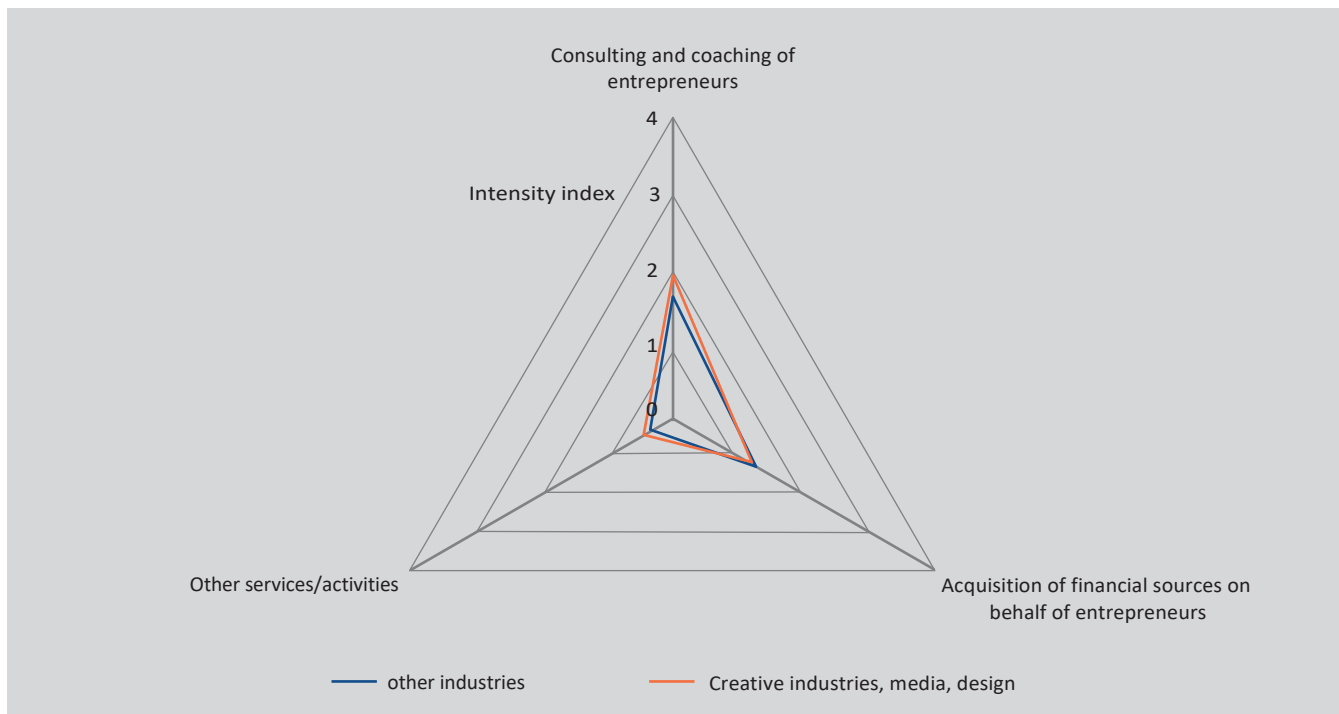


Figure 10: Business development through consulting and coaching of entrepreneurs and other services/activities such as incubation (benchmarking date of the European Secretariat for Cluster Analysis, 2014, n = 28 cluster organisations from creative industries, media and design and n = 83 cluster organisations from various industrial sectors)



1. Innovative financial instruments combining grant, tax credit, venture capital schemes or even crowdfunding.
2. Among other, **innovation vouchers** are promising instruments to facilitate cross-industry collaboration and thus cross-innovation.

There is no doubt that such financial schemes (particularly vouchers) create the intended results in terms of creating new products, services and processes through cooperation among companies or companies and research institutions/universities that have not cooperated until then. However, in terms of cross-innovation such innovation funding schemes obviously create results only if the “look outside the network” means that one is looking beyond the networks of his very own industry.

3. Cross-innovation would only work if the two that should collaborate know of each other. Therefore, **information campaigns** of local or regional authorities that are informed by forecast analysis are an important instrument to inform relevant stakeholders about the benefit of “looking beyond the boundaries of the industry”. Only if you knew your potential partner you can take action.
4. Industry-to-industry dialogues are another important tool in the tool box of supporting instruments. Once stakeholders became interested in others on the other side of the industry boundary it is time to establish a platform for the exchange and development of ideas for cross-industry projects.
5. Another important element of supporting instruments is **business coaching and advice** for the small creative industries’ companies whose staff either lacks the “cultural proximity” to traditional industries or does not have the knowledge how to set up and run a company. This includes also the issue of how to secure intellectual property from a cross-industry collaboration. This set of instruments have been particularly implemented with CO-CREATE project.

The supporting instruments can be implemented either by a cluster organisation as part of its service portfolio or by a regional development agency. As there are already numerous programmes available that include such supporting instruments, there is no need to reinvent the wheel. Existing programmes should therefore be identified and used in the context of the implementation of the strategy.

CO-CREATE project implemented the above described methodology with parallel line of actions:

- a) PILOT ACTION addressed to cluster managers with capacity and awareness actions (based on gamification tool too) to improve their attitude to support cross-fertilization campaigns
- b) PILOT ACTION addressed to SMEs with two main actions: assistance to implement cross-fertilization processes with design driven innovation processes; IPR assistance to promote collaborations between industry&traditional industrial sectors from one side and Creative and Cultural industries from another.
- c) PILOT ACTION addressed to Policy Makers with the development of ex-ante assessment report able to support the implementation or the optimization of existing financial schemes under OP ERDF 2014-2020 or 2021-2027.

