EUROPEAN UNION

Committee of the Regions

EDUC-V-031

101st plenary session, 30 May 2013

OPINION

CLOSING THE INNOVATION DIVIDE

THE COMMITTEE OF THE REGIONS points out that:

- As many phenomena of the digital society have already demonstrated, significant transformation takes place from the bottom up, and a pervasive mindset of "entrepreneurial discovery" is critical.
- Innovation communities operate as ecosystems through systemic value networking in a world without borders.
- Regions need new arenas as hotspots for innovation co-creation. These could be described as "innovation gardens" and "challenge platforms", which together form prototype workspaces for inventing the future.
- The CoR endorses new investments in open innovation and crowdsourcing. These are the key concepts associated with the smart city and citizen participation.
- The concept of "connected smart cities" needs to be further developed and extended throughout Europe.
- The CoR encourages the Commission to set up "entrepreneurial discovery" programmes to work at different levels and discover what is most effective for local needs and European scaling.
- A circular economy for knowledge: the results of European Commission and national research and innovation funders' programmes and projects must be reused.
- The best pioneers for developing and running Europe-wide projects should be financed through Horizon 2020 and cohesion funding – the aim being also to test effective methodologies and tools in real life collaboration and cross-border learning.

CDR2414-2012_00_00_TRA_AC

Rapporteur

Markku Markkula (FI/EPP), Member of Espoo City Council

Opinion of the Committee of the Regions – Closing the Innovation Divide

I. CREATING FAVOURABLE CONDITIONS FOR INNOVATIVENESS

1. At the request of the Irish presidency, the Committee of the Regions is drawing up informed and well-grounded proposals on how to increase innovativeness and close innovation gaps. The objective under this mandate is to submit proposals on (1) measures required of the regions and all their various players, and (2) measures required under EU Commission programmes, funding and other activities.

2. The challenge set by the Irish presidency can only be met by enumerating and describing a range of measures to be implemented in parallel, and which are linked by the need to change the working culture in a broad sense. Action in the EU and most of its Member States, as well as the regions, in recent years has been typified by the production of a massive number of high-quality reports and plans. The EU flagship programmes and plans from various Directorates-General are unquestionably good in themselves, but they are still no more than plans, and they fail to guarantee the change in intellectual approach needed at a practical level in the regions across Europe. As many phenomena of the digital society have already demonstrated, significant transformation takes place from the bottom up, and a pervasive mindset of "entrepreneurial discovery" is critical. The term "entrepreneur" is inadequate here because it is often interpreted rather narrowly. Discovery also means more than innovation. It is rather a new activity – exploring, experimenting and learning what should be done in the relevant industry or subsystem in terms of research, development and innovation to improve its situation. Entrepreneurial discovery means experimentation, risk-taking, and also failing. It means individuals often working together with others in networks, assessing alternatives, setting goals and creating innovations in an open-minded way. This development also requires that citizens, communities and businesses be given the opportunity to have their say, as traditionally they have often felt that they do not have a voice.

3. Because this opinion is about increasing innovativeness and narrowing innovation gaps, with the help of EU programmes in particular, the following policy guidelines and proposals show that the changes needed are feasible. In Europe, we need to:

   i. support the targets to be achieved on competitiveness and innovation by 2020, especially through continued investment in education and training;
   ii. stress the importance of balancing technological, design and social innovation in both the public and private sectors, all of which are influenced by far-reaching digitisation;
   iii. strive for societal innovation, with living labs, testbeds and open innovation methods in regional innovation policy-making, while getting citizens on board;
   iv. highlight the role of a local and regional environment that supports the integration of higher education, research and business;
   v. implement the Knowledge Triangle as a key principle in European university reform (greater synergies between research, education and innovation);

vi. underline the key role of research infrastructure in knowledge-based innovation systems;

vii. focus more on the active use of innovative public procurement, combined with simplification of procedures;

viii. stress the importance of Europe-wide collaboration and transnational cooperation projects between regions, building on innovation support and smart specialisation strategies;

ix. highlight the potential of cross-border cooperation, including inward investment to and outward investment from the EU;

x. improve competences for innovation and fostering a new innovation mind-set built on dialogue, collaboration and co-creativity to learn from best practice;

xi. encourage bottom-up activities: co-creation, co-design and co-production, working in true "know-how" collaboration instead of just urging governments to develop new "solutions" for citizens. This broad collaboration, which includes people from local communities, is also necessary to implement innovative ideas in real life, in different cultures throughout Europe;

xii. engage business interests not just in innovation, but in "innovation for wealth creation", where wealth has a richer meaning than just profit and refers to enhancing quality of life and the development of a happy and healthy world.

However, these approaches are not enough: the essence of innovation must be explored more deeply.

II. GENERAL OBSERVATIONS AND POLICY RECOMMENDATIONS

4. Measures to implement the Europe 2020 strategy have not produced enough results in the sphere of innovative activity. A lot of useful material and proposals has been generated at EU level. It is essential to move the focus of EU funding and programmes to practical action at local and regional level.

5. Close cooperation must be achieved between R&D projects and programmes relating to the creation, performance and effectiveness of local innovation ecosystems. For this we need new types of European research partnership. Renewal and transformation are often based on concepts for orchestrated collaboration and innovative and effective use of key enabling technologies. Making these more widely accessible for European projects will refine and further develop their capacity to create actionable results and real impact. With EU funding for regional partnerships and collaboration based on smart specialisation, they can become building blocks for European cross-border innovation and regional ramps for societal innovation.

6. A paradigm shift: digitisation has already brought about an all-pervasive change. Local and regional decision-makers should seize the opportunities available, with reform of service processes topping the agenda. At the same time, the widespread dissemination of digital

services in the public sector, development of all citizens' e-skills, and start-up and high-growth entrepreneurialism that generates mobile applications should all be promoted.

7. *Digitisation drives change*, and convergence towards digital services is speeding up. New business ecosystems and value creation arenas are often driven by new consumer behaviours – as a result of user-centric designs and openness. They challenge top-down construction approaches inherited from the old, analogue world. While digitisation is making service development more global than ever, Europe's position is not optimal: we are not the ones leading the way in this global race.

8. Cloud technologies provide access to the best service available, independently of time and place. This way of developing and producing services will in the next few years already replace a considerable number of traditional services in which "being on the spot" is a defining factor of the service. It will no longer be necessary to have hardware in every corner. This will also entail managing and developing the ICT services and global networked cooperation of businesses, public administration and other communities. The Commission should encourage this development, known as e-leadership, through active partnership programmes.

9. We cannot address societal challenges through minor adjustments and conventional management methods. Boosting renewal capital is critical to success: creativity, innovation and the confidence to innovate and reform are also the keys to success for local and regional decision-makers. At the same time, rigid government administrative systems must open up to allow more scope for promoting creativity on the part of decision-makers.

10. Motivated people are at the centre of regional innovation policy. People create innovations and therefore innovation is above all a human and social process. The factors that affect innovation are not confined within organisations: the most significant drivers of the innovation process at different stages often emerge through human interaction at various interfaces.

11. Research should meet both short- and long-term needs. Only a small proportion of cities, businesses and other communities make optimum use of research output. It should also be pointed out that only a small number of researchers know how to make their knowledge and research findings interesting and useful for public authorities, industry and others in addressing their challenges. Europe must therefore make major cultural changes and re-focus funding to ensure active application of the latest research knowledge at local and regional level. The CoR believes SMEs are an important catalyst for realising the market introduction of research output by translating it into concrete applications. The CoR believes it is necessary to facilitate better access to finance for SMEs through investments in start-ups, venture capital and less complex regulation.

12. The focused translation of research into practice requires a good understanding on both sides of what research there is, what issues are being discussed, and how relevant research can impact on local and regional issues. A new kind of knowledge triangle is needed for this, linking the world of research and science with the world of business and government through a kind of two-way mediating service. This requires further development and active implementation of the EU Knowledge Triangle concept in strengthening the societal role of universities.

13. Scientific and technological research, and the active application of ideas based on that research, make it possible to be pioneering. At the same time, the innovation vision should be broadened to include not just technological innovations but also process, business, service and design innovations, and both public sector and social innovations to remodel community cultures, as well as societal innovations to modernise broader activities and structures. It is essential that a broader vision of innovation be internalised not just in business activity but also in the public sector.

14. Given that in some regions, and particularly in rural regions, the public sector is a driver for change and a key player in raising local awareness, there should be a focus on innovation in the public sector itself, as well as on rethinking management processes in public institutions. This will enable these regions to catch up.

15. A circular economy for knowledge: the results of European Commission and national research and innovation funders' programmes and projects must be reused.

16. A circular economy is an economy in which things are not thrown away or lost, but allowed to circulate and be reused so that their value is not lost, but enhanced. The term derives from new thinking about next-generation concepts for sustainable development. In a circular economy for knowledge, the results of research programmes and completed projects – ideas, insights, recommendations, materials, methodologies, practical proposals, prototypes and inventions – can be rediscovered, accessed, and applied in current programmes and projects in related and relevant areas. The Committee points again to the economic and innovation opportunities for regions and cities in the bioeconomy and ICT, which are key elements of smart, sustainable and green growth[1].

17. In moving towards a circular economy for knowledge, national funding bodies could revisit and explore the results of projects completed during the last 5-10 years, and unlock their treasures for reuse in new regional and national contexts. Directorates-General in the Commission could do the same, making results accessible more broadly across different domains, in order to address societal challenges. University research could be made more directly relevant to policy-makers and project teams. Results from all these domains could be

1 CdR 1112/2012 fin.

reviewed to match needs at regional and local levels and make new ideas, materials and methods ready for application in developing regional innovation ecosystems across Europe.

18. An active and stimulating environment is created through the combined effect of many different factors. Innovative people are eager to be involved in events, projects and operations in general when these are supported by good concepts, methods and effective and novel applications from RDI.

19. Uncertainty factors, doubts and tensions are present in all interpersonal activities. The point is to modify tensions in particular so that they serve as a source of creativity and innovation, and so that the principles of the learning organisation are fulfilled. The creative process itself becomes a clear creative tension that can be used to change activities in systems and to change systems as a whole. It is important to have methods and concepts that increase the amount of learning, raise its quality and enhance sustainable social development. Knowledge exploitation and capacity-building processes, and knowledge exploitation in organisational learning, are concepts that are becoming important, as well as exploration and knowledge co-creation.

20. Regions need new arenas as hotspots for innovation co-creation. These could be described as "innovation gardens" and "challenge platforms", which together form prototype workspaces for inventing the future. These are needed to address challenges - from small local challenges to major societal challenges at global level. RDI activity is therefore required that will pilot and create prototypes of (1) spatial configurations with physical, intellectual and virtual dimensions, and (2) orchestration and knowledge management toolkits needed to address challenges.

21. The once-lauded Triple Helix approach is not dynamic enough to meet new challenges: a Quadruple Helix at least is required, where community is the fourth strand. The approach needs to be modernised, and intensive engagement with the activities of regional innovation ecosystems is needed in order to bring this operational concept and culture up to date.

22. It is particularly important from Europe's perspective to explore regional innovation ecosystems and the role, importance, activity, spatial solutions and success enablers of communities and institutions that spur new and dynamic innovation activity in such ecosystems. The new innovation institutes focus on the new mind-set and environment required for user-centric design, co-creation and rapid piloting.

23. These new institutes, most of which have only been set up in the past few years, are flexible entities with a collaborative approach. Examples include: Incubators and Accelerators, Living Labs, Entrepreneurial Hubs, Development Labs, Social Innovation Labs, Fab Labs, Societal Innovation Learning Camps and Future Centers. They usually operate as associated entities of universities, municipalities and businesses. They combine new, open operating practices, use

of social media, new intellectual property rights and funding practices, a broad stakeholder network and entrepreneurship.

24. It is essential to simplify procedures for innovative public procurement in order to enhance its active use. There are relevant examples of successful simplification throughout Europe and other parts of the world. These should be studied, adapted, prototyped and applied.

III. ADDRESSING MAJOR SOCIETAL CHALLENGES AT REGIONAL LEVEL

25. Discussions about the major societal challenges often seem too abstract and far removed from the practical concerns of key stakeholders across Europe - LRAs, SMEs and ordinary citizens. Yet this is where the innovative power of Europe lies. Big challenges must be explicitly linked to challenging issues at local and regional level and dealt with there. This will enhance local innovativeness and bring huge amounts of unused potential and collective intelligence into play. Citizens are not simply the beneficiaries of innovation, but actors at the heart of the innovation process. We need to focus more on why this need for change is real and how it will motivate and incentivise those who go on this innovation journey. Social programmes need to be created in the regions that exploit the dialogue and cooperation made possible by digitisation, and which are aimed at achieving the social change needed. Everyone should be encouraged to tackle major social shortcomings and to work towards achieving pioneering change.

26. The CoR urges the Commission to set up programmes for implementing what it calls "grand societal challenges" at national, regional, local levels: how does a "grand societal challenge" translate into national needs? Into regional priorities? Into local issues? These programmes, in the framework of Horizon 2020 and other EU programmes, should allow citizens and small business to tell the Commission what challenges they face and to provide facilities (methodologies, innovation-enhancing environments, facilitators) for translating these local challenges into innovative programmes at the appropriate level. Rapid prototyping is an essential methodology here.

27. The CoR recommends experiments and specific initiatives to achieve rapid prototyping for each of the "grand societal challenges", to be carried out in several European regions within a linked co-learning programme. Networking of connected smart cities should also be stepped up to encourage experimental innovation and learning. Europe needs pioneer cities as well as effective partnership programmes to promote innovativeness, which will guarantee the development of all regions regardless of their current situation. This means making issues relevant at regional and local level, so that they can be addressed as innovative change processes at local level. Learning and experience would be exchanged across the different participating regions, and codified through rapid reporting with clear visuals and accessible language, also for active use by others. Solutions arrived at in one region could then be tested and validated in the other participating region and effective solutions could be scaled to other regions in Europe. These measures would be characterised by flexibility and sound local

application in a way that minimises the administrative burden on businesses, educational institutions, public authorities and other stakeholders.

28. The CoR points out to the regional decision-makers that this approach, combined with using cohesion and local funding in synergy with EU programmes, will generate practical innovations for use throughout Europe. It will also enhance local innovativeness and help to create a culture of innovation across Europe.

29. Universities play a crucial role in this development. Unfortunately, with diminishing resources, universities are "tightening their belts" and retreating into their traditional modes of teaching and research. External engagement seems to be taking a back seat. The Committee of the Regions would like to see activities to encourage universities to play a strong societal role and prepare coaching and learning approaches for the necessary social and societal change processes.

IV. SMART SPECIALISATION

30. The embedded role of smart specialisation in the Europe 2020 policy framework has been highlighted by the Council of the EU, especially in its conclusions on the Innovation Union. The EU Guide to Research and Innovation Strategies for Smart Specialisation (RIS3) defines these strategies as integrated, place-based economic transformation agendas.

31. The CoR stresses that smart specialisation is a regional policy framework for innovation-driven growth. What distinguishes smart specialisation from traditional industrial and innovation policies is mainly the process defined as "entrepreneurial discovery" - an interactive process in which market forces and the private sector discover and produce information about new activities and government assesses the outcomes and empowers those players most capable of realising the potential. Smart specialisation strategies are much more bottom-up than traditional industrial policies.

32. The Smart Specialisation platform (S3Platform) needs to give more support for local and regional level activities, with particular emphasis on the less-developed regions. This means above all supporting the processes that help to identify high-value added activities in each region. It also means providing the best opportunities to strengthen region’s competitiveness and the policy portfolio that should be put in place to draft their smart specialisation strategies.

33. The CoR highlights that the RIS3 approach is consistent with the aims and tools of EU cohesion policy, promoting growth and jobs across EU countries and regions. It suggests a strategy and a global role for every national and regional economy, including both leader and less advanced regions. It embraces a broader concept of innovation, to include not just investment in research or the manufacturing sector, but also building competitiveness through

design and creative industries, improved innovation capacity in public sector activities, social and service innovation, new business models and practice-based innovation.

34. The CoR strongly supports the following proposal of the European Parliament's ITRE Committee for inclusion in the Horizon 2020 rules: "Instruments for the connection between Research, Innovation and the Smart Specialisation Strategies shall be implemented both in Horizon 2020 and the Structural Funds in order to create objective indicators for the stairway of excellence and building the ERA".

35. Regions and cities should include research, development and innovation (RDI) as part of their core policy agenda. Horizon 2020 and cohesion funding should be used to create the concepts, tools and other pre-conditions through which local and regional authorities can actively promote innovation, take risks and invest in the practical application of RDI, so as to provide a tailored regional dimension.

36. In order to achieve the objectives of the Europe 2020 strategy, it is important that EU cohesion policy should contribute to enhancing the skills base and innovation capacity at local level, as well as to developing instruments and cooperation that promote intra-European cooperation between regions. Such instruments and cooperation are needed to implement the results of Horizon 2020 at regional and local level. To meet this objective, the CoR recommends that the potential of the EU's INTERREG initiative be fully exploited and that it be given sufficient resources by establishing platforms for mutual learning and also by fostering the international exchange on innovation strategies.

V. SMART CITIES

37. The "smart city" concept has been one of the EU focus areas in driving sustainable growth and improving quality of life. The enablers are investments in modern ICT infrastructure and e-services, as well as in human and social capital. The drivers of change are above all regional renewal capital and the effectiveness of innovation ecosystems – targeted especially at modernising the Triple Helix collaboration culture and increasing regional responsiveness through citizen participation. The CoR notes the crucial importance of smart applications operating through open and interoperable digital service interfaces as a way of connecting people in their own region and globally, and in connecting cities for European partnerships. The concept of "connected smart cities" needs to be further developed and extended throughout Europe.

38. The development and production of smart services that are adapted to both local cultures and local businesses and public services should be initiated in the EU's regions as an aspect of implementing the smart specialisation strategy. The Committee of the Regions proposes that development activities at local and regional level should be firmly backed by EU-funded

research projects designed to secure the best research findings for regional use, to distil those findings and to support their application in different regions.

39. Programmes should be launched in the regions to create innovation poles with international pull. The programmes should be used to encourage urban areas to make strategic priority choices based on their own identity, demand and multidisciplinary knowledge and to initiate knowledge-based business activities. The Committee of the Regions recommends that programmes be funded with both regional resources and EU structural funding; their activities should be supported by a range of EU measures, programmes and funding instruments.

40. The CoR stresses that the key success factor in regional innovation strategies is effectiveness in bridging the gap between existing global research knowledge and actual regional practice. Structures and processes in cities and regions must be developed, even radically changed, in accordance with the latest research results. To tackle these issues, the CoR believes that:

- The Commission should focus in Horizon 2020 on value chains and value networks as a whole. This means conducting more research on how to create and implement innovations at a practical level, based on local cultural values and approaches, in order to achieve concrete results for the well-being of citizens.
- Political decision makers should consistently demonstrate the courage needed to aim for the highest results and bring forth something radically new.
- Regions and cities should create pioneering initiatives that are genuinely European in nature: multicultural, human-centred, focused on societal innovations and capabilities to create better structures for the welfare society and lay the groundwork for developing the digital single market.
- Practical examples of successful initiatives should be showcased and made widely accessible, so other regions and cities can learn from the practical results and effective processes of past and ongoing programmes.
- Regions and cities should play a key role in ensuring that the public is as aware as possible of the need for innovation and in developing ideas on the basis of feedback from members of the public, thus ensuring a solid basis for successful innovation. This requires Europe-wide development of regional innovation ecosystems and city innovations.

41. The CoR is aware that societal innovativeness can be substantially increased by mobilising citizen participation. In particular this means harnessing digital technology in a human-centred way: crowdsensing and crowdsourcing. In smart cities, development is strongly based on bottom-up participatory processes, sensing the dynamics of all forms of societal activities, and on individual and shared responsibility – much more than in traditional top-down city-operated services. The essential change is that citizens are directly involved in societal processes through data generation and content-sharing platforms. Citizens can be said to play the role of change agents by sensing, reporting and also taking care of different activities.

42. The CoR endorses new investments in open innovation and crowdsourcing. These are the key concepts associated with the smart city and citizen participation. Crowdsourcing is the method of involvement whereby companies, cities and other organisations seek input from communities of people, and it is essential here. Another factor is insufficient knowledge – and understanding – of each other's good practices, how they work, and why.

43. The CoR recognises the need for close cooperation between different tiers of government and civil society, and notes that this is already emerging in various cities and regions across Europe. But cities and regions are not good at employing good practices: promising pilot projects tend to remain local without delivering full benefits to users and without providing business opportunities for supplier companies. This insufficient scaling-up is due to the complex nature of many urban innovations and the context in which they are adopted.

44. The CoR recommends that the Commission issue calls for tender for city innovations. The focus should be on creating new collaborative models for finding new solutions to tackle urban development and service needs, and to scale up and share these innovative solutions with other cities and regions. These should include new kinds of collaboration between citizens, businesses, educational and research institutes, and governments. This involves both opportunities and challenges. Citizens across Europe are already taking initiatives to change their own environment and experiment with new forms of collaboration. The opportunities include leveraging a rich and active local community life, mobilising large numbers of volunteers, and the wide range of resulting initiatives. These activities should be aimed at discovering new forms of collaboration and should strengthen the connection between existing partnerships, in such a way that they become more open to innovative discovery, and are more clearly based on using the global knowledge resources and on learning from each other. Showcasing is needed to bring successful examples to the attention of similar regions throughout Europe.

VI. REGIONAL INNOVATION ECOSYSTEMS AS LABORATORIES FOR ENTREPRENEURIAL DISCOVERY

45. A major challenge to crossing the innovation divide is breaking through the structural silos in which issues and challenges are addressed. Societal problems are not confined to administrative silos, nor can they be addressed through individual projects or national and regional ministries. Traditional projects – even large ones – are not a solution. Europe needs to break out of silo thinking and silo operations: new growth and jobs come from open innovation and value networks. Europe needs to create a transdisciplinary mindset geared to entrepreneurial discovery aimed at dealing with challenges in a systemic way. Interlinked problems need systemic solutions.

46. The CoR notes that there are exciting developments emerging in university laboratories around Europe, and even globally, which tackle major societal and industrial challenges. However, the best laboratories for breakthrough innovations today are no longer traditional

university facilities, but regional innovation ecosystems operating as testbeds for rapid prototyping of many types of user-driven innovations, based on transformative and scalable systems. To transform science and technology research results into strong flows of new products, services, and processes, Europe needs to stimulate innovation in systems of production different from old-style manufacturing. This also necessitates mutual understanding of requirements, questions, and opportunities across the domains of business, science and government.

47. The CoR calls for more research and development activities on ways of stimulating innovation and business development beyond the outmoded structures of sectors and clusters, and thinking in terms of ecosystems, which can be orchestrated to enhance the innovative potential of regions and foster their entrepreneurial spirit.

48. The CoR stresses the importance of EU- and regional-level funding of innovation and production ecosystems with strong local, regional, or trans-regional characteristics. Broad-based innovation policy creates the preconditions for systemic operating models that combine in a co-creation dialogue the needs of users, consumers and citizens, alongside knowledge, creativity and competence.

49. There are many research and innovation focus areas to support the drivers of change urgently needed during the 2014-2020 programming period. The CoR highlights the following ones as the success factors in inventing the future:

- Innovation communities operate as ecosystems through systemic value networking in a world without borders.
- Innovation processes are strongly based on demand and user orientation and customers as crucial players in innovations.
- Innovation strategies focus on catalysing open innovation and encouraging individuals and communities towards an entrepreneurial mindset and effective use and creation of new digitalised services.

50. EU experience with joint programming and cross-national partnerships needs to be further developed in order to enhance regional processes combining a bottom-up approach to the EU 2020 strategic priorities and European high-level research knowledge. The Committee of the Regions stresses the importance of increasing funding for running more European partnerships and regional bench-learning through INTERREG and other similar programmes.

51. The CoR encourages the Commission to set up “entrepreneurial discovery” programmes to work at different levels and discover what is most effective for local needs and European scaling. The funding for these should come from different sources: Horizon 2020, COSME, cohesion funds and other sources. Pilot projects in which several regions participate can enhance the potential for cross-regional learning. Regions where there is cultural resonance – for example the Baltic Sea region, the Danube region, or the outermost regions – should work

together on tackling specific societal challenges which they share. Successful innovations in one region can be tested and validated in others; city innovations can be scaled for regional application, and later scaled to other regions across Europe. These projects should involve key stakeholders at all levels, including local and regional authorities, SMEs, NGOs and especially all educational institutions.

52. Design in its diverse forms has been associated with entrepreneurship for a long time. Strategic design means applying familiar principles when developing responses to major societal challenges such as population ageing and climate change. Design means more than just giving form to something. Design can be used to find new perspectives for problem-solving, to identify possible measures and to create effective comprehensive responses without the silo formation that is typical of the public sector.

53. Innovative design offers important opportunities to produce economic and cultural benefits in society. Design-focused ecosystems should be promoted in the regions. Experienced researchers, business representatives and various design professionals, as well as their companies, universities and other communities, work effectively together in these ecosystems producing new initiatives. In this way they are all brought on board to be pro-actively involved in raising the level of activity and in taking forward innovation policy as a whole.

54. The CoR challenges regions and cities to use innovative public procurement in creating new innovations. Public-private collaboration in experimenting and prototyping should be encouraged, and daring to take risks and to fail should be seen as the entrepreneurial option, not a social humiliation. Public representatives of cities and regions should develop methods and exchange experiences in relation to managing the risks of this type of project. By fostering an entrepreneurial spirit of experimentation, piloting and prototypes, these projects will also increase the self-organising power of European citizens.

VII. SYNERGISTIC COOPERATION DURING THE NEW PROGRAMMING PERIOD

55. The key reforms of the next programming period include focusing projects on the strategic priorities of smart specialisation, simplifying project management and switching to much larger-scale initiatives by closely coordinating a number of projects. Another important principle is close coordination between the Horizon 2020 programme and cohesion policy, and synergistic pooling of funding under these policies and local/regional funding.

56. The CoR notes that consistent application of these principles to implement the proposals contained this opinion will inevitably mean targeting Horizon 2020 funding at the research needs fixed in the EU regions' RIS3 strategies so that the Horizon programme works as a catalyst, produces knowledge from research and develops methodological concepts for regional RDI. Key research areas to be funded under Horizon 2020 should thus be identified from the RIS3 strategies.

57. The Committee of the Regions stresses the importance of listening to the regional level when planning coordination of the various programmes. A crucial factor in getting action and encouraging innovative activity at regional level is namely that the Commission DGs should listen to those that speak for the regions, such as the CoR, when deciding on research areas. In addition, material and methodological support for projects carried out in the regions with cohesion funding, in addition to the usual obligation to share findings, should inform Horizon project implementation rules and the way funding is used. This cooperation would take place as follows:

- The Horizon projects include regional twinning projects to be carried out with cohesion funding in which research findings are transferred and applied as practical innovation activity. This generates big EU-wide partnership project systems based on cooperation and trust which target in particular the *Industrial leadership* and *Societal challenges* pillars of Horizon and where, using cohesion funding, the regions seek to apply the latest research findings in areas of strategic development.
- There is a particular need for such project systems when developing the know-how and methods that the dynamic of regional innovation ecosystems require in a way that ensures that they serve both as local hubs for European innovation activity and as innovation facilitators for the whole region. Based on regional decisions, they also support the innovation activities of various target groups, such as schoolchildren, university and college students, as well as pensioners.
- These regional innovation ecosystems focus on themes chosen with reference to regional strategic decisions and they structure the innovative activity of change agents in the regions. Activities also include a variety of Living Lab schemes and similar trial and pilot projects. The Twinning and ERA Chairs measures under the Horizon 2020 programme could also substantially develop the activities of such ecosystems.

58. The CoR notes that the global science and business communities have entered an era of open innovation and co-creation in which cross-border collaboration is the new competitive edge. To address difficult and complex issues successfully, the CoR recommends that the Commission set up challenge platforms for European solution-seeking through transdisciplinary networks. These platforms would address specific challenges relevant across participating regions, and use structured methodologies to take good ideas from the prototype stage to realisation in pilot projects. This would mobilise the transformational power of regions.

59. The CoR stresses that these platforms should be based on both bench-learning (validating ideas that work in one region by testing them in other regions) and bench-doing (giving added value to new ideas by turning them into practical innovations in several regions at the same time). In the pilot phase, several regions would take part in order to address real challenges they face, e.g. healthcare, opportunities in an ageing society, energy, a zero-carbon footprint, agriculture and food, etc.

60. The CoR emphasises the importance of top-level methodological development and effective dissemination of results. Challenges and outcomes should be published on cloud platforms and addressed both locally and across regions. The best pioneers for developing and running Europe-wide projects should be financed through Horizon 2020 and cohesion funding – the aim being also to test effective methodologies and tools in real life collaboration and cross-border learning.

61. The CoR recognises the need for active coaching to foster a spirit of multigenerational engagement, which can be a key factor in bridging the innovation gap. All target groups in different regions and cultural environments – scientists, civil servants, SMEs, and students – need to be coached in understanding and actively complementing each others' perspectives, and in how to apply relevant ideas in practice. Schools and all educational bodies play a particularly crucial role here.

62. Creativity and the ability to assimilate everything new come very naturally to young children during their early years. It is worth asking why the social environment and school system are often unable to crystallise these qualities into an interested, open and innovative way of living. All players should join forces to ensure that schools across the EU put creativity and the ability to learn at the heart of a range of goals and requirements. This is a period during which the basis for European innovativeness is evolving.

63. Finally, the CoR understands the importance of bridging the gap between science and society. The CoR encourages all parties concerned to actively engage in science-society dialogues that explore and underscore how to translate the results of research into real-life practice. All societal challenges have a strong local dimension, which can be of benefit when scientists become aware of issues and societal stakeholders understand what science can offer. During dialogue, the focus should be on explicitly linking local needs to the research outcomes of Horizon 2020 pillars: societal challenges, industrial leadership and excellent science. Idea nurseries and social incubators can then be created to take new insights from the realm of discussion to actual prototypes that can be tested in real life.

64. These proposals will truly work to close the innovation divide when they apply to all regions in Europe. The CoR recognises the need to address the requirements of pioneering regions, well-functioning regions, and more vulnerable, poorer performing and less advantaged regions. Of course, specific targeted actions and programmes are required at each level. Beyond this, we stress the importance of supporting transregional cooperation and collaboration of every kind: active partnering in knowledge exchange and co-creating the processes and practices that will work in each particular situation, cross-regional coaching and mentoring, bench-learning and bench-doing initiatives that allow less-advantaged regions to benefit from experiences elsewhere while at the same time contributing their own strengths, and specialised expertise to feed and support innovation in other regions. This powerful regional diversity should be central to Europe's new collaborative advantage.

VIII. WHAT NEXT?

65. The CoR strongly believes that the process of defining how the many suggestions and recommendations in this opinion can be realised in practice, and collaboratively exploring promising approaches for implementing them within and across regional boundaries, is the most effective way to turn excellent intentions into real results with a powerful impact on the streets of Europe. This is key to closing the innovation divide.

66. Responsibility for the changes needed lies with all levels and all players. Responsibility for implementing the proposals made in this opinion will of course lie chiefly with the European Commission, as well as local and regional decision-makers and other players. Responsibility also lies with the Irish presidency and also the forthcoming presidencies, which can put some or all of the proposals made here into effect as soon and as far as possible.

67. The Committee of the Regions recommends that LRAs, the Commission and other players ensure follow-up by collecting examples of good practice. The objective is to accelerate the desired change both in general and through a number of measures designated as priority projects. Some of these should also be put on the agenda of future presidencies.

Brussels, 30 May 2013.

The President
of the Committee of the Regions

Ramón Luis Valcárcel Siso

The Secretary-General
of the Committee of the Regions

Gerhard Stahl

IX. PROCEDURE

Title	Closing the innovation divide – how can local and regional authorities best use EU programmes to better link research, innovation and regional development
Reference	EU Irish Presidency referral
Legal basis	Article 307 TFEU
Procedural basis	Optional consultation
Date of Presidency letter	15 November 2012
Date of President's decision	20 November 2012
Commission responsible	Commission for Education, Youth, Culture and Research
Date adopted by commission	25 April 2013
Result of the vote in commission	Adopted by unanimity
Date adopted in plenary	30 May 2013
Previous Committee opinions	The European research area - new perspectives[2] Towards joint programming in research[3] Strategic European Framework for international science and technology cooperation[4] Developing a common strategy for key enabling technologies in the EU[5] Simplifying the implementation of the research framework programmes[6] Europe 2020 Flagship Initiative – Innovation Union (research and innovation plan)[7] Green paper – From Challenges to Opportunities: Towards a Common Strategic Framework for EU Research and Innovation funding[8]

2 CdR 83/2007.

3 CdR 283/2008.

4 CdR 11/2009.

5 CdR 15/2010.

6 CdR 230/2010.

7 CdR 373/2010.

8 CdR 67/2011.

	Horizon 2020[9] European Research Area[10]
Date of subsidiarity monitoring consultation	n/a

_____

9 CdR 402/2011.

10 CdR 1672/2012.