

INNOVATION AWARD

A Feasibility Assessment of a European Capital of Research and Innovation Award

Report to Directorate C

DG Research and Innovation



REPORT

EXPERT GROUP

Helena L. Nilsson

Anne Stenros (Chair) Richard Tuffs (Rapporteur) Cueto Álvarez de Sotomayor **Robert Firmhofer**

Preface

iCITY: A Systems Innovation

'Cities don't innovate – but they provide the support environment for firms, entrepreneurs and institutions within them to innovate. But cities are vital for innovation, they foster the creation of knowledge by bringing businesses, people and institutions together – the innovation ecosystem. They help the flow of ideas, facilitate localised knowledge spill-overs and enable innovation'.¹

'We can define systemic innovation as an interconnected set of innovations, where each influences the other, with innovation both in the parts of the systems and in the ways in which they interconnect'.²

Cities are the great powerhouses of innovation and trade in humankind. Despite the increase in the number and population of cities in Europe through the medieval period, in 1700 Europe there were few cities with over 100,000 citizens in Europe. Only Amsterdam, Lisbon, London, Madrid, Palermo, Paris, Naples, Rome and Venice were densely urbanized places.³ But then came a coffee shop, the hub for information sharing – an early format of innovation hubs. The Turks introduced coffee, first in London⁴, and these new establishments became meeting points for artists and writers to congregate and hold business meetings and for intellectuals and scientists to launch their latest projects to the press. But what the coffee-shop phenomenon was on the micro level – the cities echoed at the macro level. Because of the population density and the 'critical mass' of this 'creative class' and intellectuals, the urban environment supported all kinds of innovative actions through inspiration, involvement and serendipity⁵ by creating windows of opportunities. By 2050, a total of 6.4 billion people⁶ or seven out of 10 people will live in a city accelerating the urban innovation ecosystem and possibilities within it.

'Systems innovation will become the most important focus for companies and governments, cities and entire societies. In the last decade there has been a growing focus on innovation in products and services as a source of competitive advantage. In

¹ Lizzie Crowley , Streets Ahead: what makes a city innovative? The Work Foundation, November 2011 http://www.theworkfoundation.com/DownloadPublication/Report/306 Streets%20Ahead%20FINAL.pdf

² Geoff Mulgan in Joined-Up Innovation, in Systems Innovation, A Discussion Paper by Nesta, Jan 2013 http://www.nesta.org.uk/library/documents/Systemsinnovationv8.pdf

³ According to a Wikipedia entry, there are now 446

⁴ by the mid-17th century there were already over 600 coffee shops in London alone

⁵ See http://blogs.hbr.org/cs/2012/10/when success is born out of serendipity.html

⁶ http://www.who.int/gho/urban health/situation trends/urban population growth text/en/index.html#

the next decades the focus will shift towards the innovation of new kinds of systems.' - Charlie Leadbeater⁷

As pointed out in by Diamandis and Kotler in their book Abundance (2012), the future potential of innovation is even greater because of the World Wide Web – the virtual community that we have created beyond boundaries. Whatever limitations there are in geographical urbanisation, the virtual community is limitless. Diamandis and Kotler argue that,

'The net is allowing us to turn ourselves into a giant, collective meta-intelligence. And this meta-intelligence continues to grow as more and more people come online. Think about this for a moment: by 2020, nearly 3 billion people will be added to the Internet's community. That's 3 billion new minds about to join the global brain'

This means a huge impact on innovation – crowd sourcing as problem-solving, do-it-yourself innovators and crowd-funding will open up new avenues for innovation and grand challenges in the future. But the importance of cities will remain:

'Successful cities have a vision, and there has to be political leadership that allows the table setting to be done a little differently. We're also starting to see that cities are in a global competition with one another. So making your city attractive — designing key spaces and beautiful buildings — is actually economic development strategy. In this day and age, companies can move anywhere. Creating a city that people want to be in and grow in and start businesses in, that's what you need to be a success in the 21st century' Janette Sadik-Khan from the New York City Transportation Department

The future role of cities is still to enable, inspire and nurture innovation by encouraging, engaging and empowering talented innovators from different walks of life: professionals, policy-makers, pro-ams and people as well. The city itself has become a huge 'coffee shop', a true place for information and knowledge sharing – physically and virtually – where opportunities, possibilities and the dreams of a better future can come true.

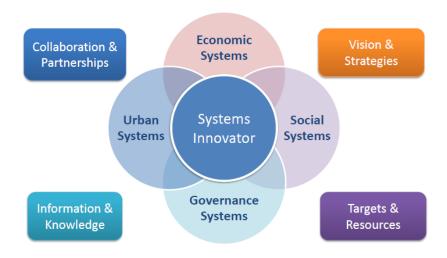
'So systems are a vital underpinning for modern life, especially in cities. Many of the systems we rely on in the developed world seem in need of far reaching overhaul. The developing world will need new systems on a vast scale over the next few decades. How should innovators go about trying to use these new technologies to reform, adapt and create better systems? —Charles Leadbeater⁸

Final Report Feb 28th 2013

⁷The Systems Innovator. in Systems Innovation. Α Discussion 2013 Paper Nesta. Jan http://www.nesta.org.uk/library/documents/Systemsinnovationv8.pdf in Systems 2013 Systems Innovator, Innovation. Discussion Paper Nesta, Jan http://www.nesta.org.uk/library/documents/Systemsinnovationv8.pdf

Image 1 A City as a Systems Innovation

City as a Systems Innovation



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1. Executive Summary

Innovation - critical for Europe's future prosperity

Innovation - the successful exploitation of new ideas - is critical to Europe's future prosperity. Innovation is a major drive of economic growth. To be able to rise to the challenge of new global competition and a decade of low economic growth, Europe must harness innovation-led growth. This is why innovation is at the heart of the Europe 2020 strategy. The EU has set itself a clear strategy of becoming an 'Innovation Union' and given that currently 68% of the EU population live in urban areas, it is these urban areas that will contribute most to enhancing European innovation capabilities.

The future role of cities will be to enable, inspire and nurture innovation by encouraging, engaging and empowering talented innovators from different walks of life: professionals, policy-makers, pro-ams⁹ and people as well. The city itself has become a huge 'coffee shop', a true place for information and knowledge sharing - physically and virtually - where opportunities, possibilities and the dreams of a better future can come true.

Image 2 iCITY - Systems Innovation of Four P's

Place
Inspiring

iCITY
Innovation
System

Public
Interactive

The PowerFlower of Four P's

The city at the heart of innovation ecosystems¹⁰

Increasingly, the city is seen as a place of systemic innovation, where the four P's - People, Place, Public, and Private - join together as an interconnected systemic whole where each player is interdependent on each other. Being a system means that changes in one part

⁹ Pro-ams means professionals and amateurs either competing against or with each other or collaborating together.

¹⁰ 'Successful cities are ones which have developed innovation ecosystems – where networks of entrepreneurs, firms, institutions, and supporting services come together to produce new goods and services' Lizzie Crowley op cit

affect other parts too. Innovation as system links the citizens (People) with the built environment (Place) and public organizations and policy-makers (Public) through business (Private) - creating an interactive innovation ecosystem of the city.

Proposed iCity - the European Capital of Innovation award

In order to enhance and encourage the development of effective innovation ecosystems in cities, the Expert Group recommends that a Capital of Innovation Award should be launched by the European Commission between 2014-2020 and that the first award should be launched in 2013 with a pilot competition.

It is proposed that the award should be called 'iCity - the European Capital of Innovation award'. An iCity is innovative, inclusive, inspiring, interactive, and integrated. The award would not supersede other awards by emphasising the various roles of the city in a broadbased approach to innovation and research.

Purpose of award

The purpose of the iCity Award is:

- to support the use and the role of innovation as a game-changer in wealth creation and sustainable well-being in the spirit of the Europe 2020 Strategy and the Innovation Union Flagship initiative.
- to enhance the coordination of activities and collaboration between different stakeholders in the innovation ecosystem and develop and steer a sustainable innovation vision, governance and strategies
- to create a unique, sustainable innovation culture throughout the society for meeting the targets of the Innovation Union flagship initiative
- to promote innovation capability and competence within the knowledge triangle; namely in education, research and technological know-how and business
- to inspire all cities in Europe to select relevant and transferable innovation good practice

Duration of the award

Although future awards might recognise more than one city per year (possibly different categories of population size or thematic categories), this report concentrates on the pilot award to be launched in 2013 which should be awarded to one city. It is proposed that if the pilot award is judged a success, the iCity - the European Capital of Innovation Award should continue as an annual award until 2020. Winning and finalist cities would also develop a network of iCities spreading good practice and act as a beacon for cities across Europe to improve their own research and innovation policies and activities.

Eligible cities and metropolitan areas

All cities and metropolitan areas of over 100,000 population from European Member States and FP7 associated countries would be eligible to apply. In the first year (the pilot phase) of the prize, it is recommended that three cities are selected as finalists and from these three finalists, one winning city is chosen along with two runner-up cities.¹¹

Only one application is accepted per city and must clearly demonstrate support from local government and stakeholders. The applicant must be the municipal authority but should also include a partnership approach either with public and private actors or within public services.

The application will be based on a template that will include sections outlining how the city is developing smart, sustainable, inclusive and responsible innovation based on the criteria outlined in the report and will include proposed future activities to be carried out if the city wins the prize.

Award criteria

The iCity award would focus, on the one hand, on the successful policies and activities that have created strong links between place, people and the public and private sector in building a sustainable research and innovation culture and, on the other, their future ambitions and projects building on their current activities.

The award would highlight cities that had developed many-folded, well-functioning innovation eco-system as a whole:

- Innovative both in terms of processes and the impact
- Inclusive illustrating citizen involvement and engagement
- Inspiring would have the power to attract (talent, funding, investment, partners...)
- Interactive encourages open communication between key players
- Integrated maximising a holistic viewpoint involving people and place.

Particular attention will be paid in the judging on originality and replicability, ambition and feasibility. The ability to add value to existing research and innovation capacity in the city is important as well as the expected impact and benefits for citizens in the city. Another interesting issue could be the way European policies (notably Structural Funds) eventually contributed to the creation of the local innovation eco-system. This might even become an asset while evaluating the applications.

Applicants should explain their planned spending of the prize money under two key areas of possible expenditure:

¹¹ In future years, more than one city may be recognized every year depending on the categories chosen for the award.

- Future innovation activities that would contribute to the city's innovation ecosystem, European policy implementation or innovation capacity building. A winning city must identify a specific future oriented challenge that it wishes to take on and put in place mechanisms to solve the challenge in the year of the award. Prize money should primarily help tackling this challenge. Relevant activities should emphasise synergies between the City's activities and EU policies and funding schemes such as the Europe 2020 Strategy, Horizon 2020 and the Innovation Union flagship initiative.
- **Support activities** that would include planned events and specialist seminars; the setting up of a dedicated Coordination Unit to coordinate and communicate innovation activities; budget to invite runner-up cities and key speakers to events in the city and for staff of the iCity to attend relevant events.

Cash prize

Winning cities might be offered a cash prize of at least €500,000 to be invested in the two areas defined above.

Selection procedure

For the pilot phase, the Expert Group recommends a committee of experts designated by the European Commission and evaluating proposals according to the Commission selection procedures.

Networking

Each winner will retain the award for one year. Unless a ceremony is organised by the European Commission at a high-level innovation conference e.g. the Innovation Convention¹², the winning city might organise the event for the hand-over to the next winning city in their city. This will enable networking and face-to-face contacts of innovation stakeholders from different cities.

The iCity – the European Capital of Innovation Award could help disseminating best practices and inspire all European cities to learn from the winning city. The runner-up cities should be invited to activities organised by the winning city in the year of the award. All of these cities should start to develop a network of 'iCities', recognised as frontrunners active in the domain of research and innovation. These cities can then act as 'think-tank' or forum for new ideas and will be cities of choice for innovation test-bed activities.

The European Commission should also use these cities as good examples and offer opportunities for these cities to disseminate their activities at relevant conferences and events both inside and outside Europe.

¹² According to the Innovation Union Communication, the Commission will convene an annual Innovation Convention to discuss the state of the Innovation Union. See page 31 <a href="http://ec.europa.eu/research/innovation-union/pdf/innovation-union-communication-union-communication-union-communication-union-communication-union-communication-union-communication-union-communication-union-communication-union-communication-union-communication-union-union-communication-union-union-communication-unio

Coordination with other prizes and awards

In its background research for this report, the Expert Group examined many other European awards and prizes (see annex). The Expert Group considers that the iCity - the European Capital of Innovation award is a unique award as it rewards cities that are developing a more holistic and systems view of innovation across the city both with and for citizens. The Expert Group strongly recommends the piloting of an iCity award in 2013, but it is also recommended that any future iCity prize (post 2014) should collaborate with other relevant prizes as identified in annex.

To sum up: the Experts' main recommendations

- 1) Innovation-led growth is key to Europe's future prosperity and the creation of jobs and growth and cities are the key players in this innovation-led economy.
- 2) An 'iCity The European Capital of Innovation' award will stimulate cities to showcase their innovation ecosystems and to use the prize money to implement future innovation activities.
- 3) The iCity award should be implemented by the European Commission starting with a pilot award launched in 2013 for the 'iCity 2014'.
- 4) All cities and metropolitan areas of over 100,000 population from European Member States and FP7 associated countries are eligible to apply.
- 5) A European Commission appointed expert jury will select the three finalists and the winning city by end-2013.
- 6) Three finalist cities should be selected with one winner chosen from the selected finalists.
- 7) The three finalists will be invited to present their cities at the Innovation Convention in early 2014.
- 8) A prize of at least €500,000 should be awarded to the winning city to cover future innovation activities and coordination activities during the duration of the award.
- 9) The winning city will retain the prize for 2014 and develop an iCity network with the runner-up cities that will expand in each year of prize.
- 10) Future winning cities will be awarded the prize of 'iCity the European Capital of Innovation' at the Innovation Conventions or will host dedicated events by themselves.

2. Introduction

Following recommendations from the European Research Area Board (ERAB) and related discussions, the European Commission DG Research and Innovation set up an 'Expert Group' to provide a feasibility assessment of an 'Award on 'European City of Science and Innovation'. This Report contains the Experts' main recommendations.

2.1. Objective of this report

To assess the feasibility and added-value of any new award and identify the design and main parameters of an award for cities which will provide recognition for those European cities which are making major efforts to promote innovation within their communities and thereby improving the quality of their citizens' lives.

Any agreed award must be attractive and the winning city (and possibly cities in the future) could be branded 'iCity – European Capital of Innovation'. The award would acknowledge successful policies in fostering local economic development, engaging a wide range of local stakeholders, building strong networks and cooperation between science, academia, business and civil society and the development of relevant infrastructures to support research and innovation. A key dimension will also be the leadership and vision developed by the city which will take into account the need for Europe to develop and deploy key enabling technologies, support frontier research and also to respond to societal challenges.

The award would also contribute to the transformational change regions and cities must make in supporting innovation and support their changing role from service delivering and political agents to a wider role they can play to improve innovation in their city.

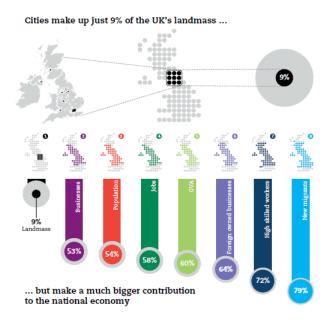
2.2 The Innovation dimension

Innovation is central to economic growth and business competitiveness, and is at the heart of the Europe 2020 strategy. The European Union has set itself a clear strategy to become an 'Innovation Union'. Cities are highly suitable as propellers of innovation in Europe. They are perceived at various levels as places where most creativity concentrates and crossfertilises, thus making them a unique stage to design innovative solutions for people and valuable models for world centres of excellence.

Currently 68% of the EU population lives in urban areas and in 2008, for the first time in human history, more people lived in urban areas than rural. By 2050 more than 70% of the global population will live in cities. Promoting sustainable urban development has constantly been at the heart of the EU's research and regional policies. To promote good

local governance, ensuring a sustainable urban environment, fostering social inclusion and equality, regenerating urban areas and boosting economic growth and jobs strongly contributes to the achievement of the Europe 2020 objectives.

Image 3 The increasing economic power of cities – a UK example¹³



Several proposals have been made to increase and promote the cities' crucial role within science, research and innovation 'innovation hubs of humankind'. However, this report focuses on specific recommendations from the 2010 European Research Area Board (ERAB) Second Report¹⁴ which proposed the creation of a European Capital of Research, Development and Innovation in order to 'foster the visibility of science and innovation, gain trust and strengthen the cooperation between researchers, innovators and society'. According to the ERAB Report, such a Capital would 'highlight quality and the European dimension of R&D and to gain the attention of the public'. In their third report in 2012, ERAB noted again that a 'City of Innovation' would create a 'critical mass, holistic and transferable technology or social innovation to make a step change in the way we innovate and live'.

Case Study 1: Zaragoza - Open place-making: a new paradigm for citizen enablement

In November 2012, the city of Zaragoza (Spain) organised a conference devoted to examine the Future Internet Public-Private Partnership Programme launched by the European Commission and their potential to reinforce the process towards smarter

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¹³ Cities Outlook 2013 http://www.centreforcities.org.uk/assets/files/2013/CITIES_OUTLOOK_2013_FINAL.pdf

¹⁴ http://ec.europa.eu/research/erab/pdf/erab-2nd-final-report en.pdf

cities in a European context. The event included a 'walkshop' to meet some of the key people of the Zaragoza innovation ecosystem and the new facilities designed to accelerate the transition towards a true knowledge economy. The Conference included a session on the issue of "Open place-making: a new paradigm for citizen enablement": How citizens do, and could use open source and open innovation strategies, social media, real-time data streams, and digital technology to make and use the physical and virtual public environments in their city, their neighbourhoods and their personal space. This workshop is the fourth in a series that engages a network of leaders of New Century City development projects in North America, Europe, the Middle East and Asia. These projects promote advanced industry clusters, fostering new forms of 21st century work and life. They use planning processes and organizational alliances designed for the transformative and unpredictable times that have marked the first decades of the century.

The conference and workshop was part of the launch program for the Etopia Center for Art and Technology. This centre is the flagship institution of Zaragoza's Milla Digital (Digital Mile) a new urban district for creativity and innovation. Located in new facilities at the gateway to the city, Etopia is a catalyst and accelerator for open innovation ecosystems, gathering citizens, entrepreneurs, students, artists, businesses and social innovators into a global centre for digital place-making and entrepreneurship.

http://www.zaragoza.es/cont/paginas/actividades/documento/NCC Zaragoza2012 Eng.pdf

2.3 Policy context

'Perhaps the biggest challenge for the EU and its Member States is to adopt a much more strategic approach to innovation. An approach whereby innovation is the overarching policy objective, where we take a medium- to longer-term perspective, where all policy instruments, measures and funding are designed to contribute to innovation, where EU and national/regional policies are closely aligned and mutually reinforcing, and last but not least, where the highest political level sets a strategic agenda, regularly monitors progress and tackles delays'. ¹⁵ Europe 2020 Flagship Initiative: Innovation Union COM(2010) 546 final

As the ERAB Report indicates, a City of Innovation award is an innovative method of supporting the implementation of a European policy that has supported an increased focus

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http://ec.europa.eu/research/innovation-union/pdf/innovation-union-communication en.pdf#view=fit&pagemode=none

on research and innovation to drive European competitiveness since the launch of the Lisbon Strategy¹⁶ in 2000 which has been continued by the Europe 2020 Strategy.

Europe 2020, the EU's growth strategy for the coming decade, encompasses three priorities of smart, sustainable and inclusive growth. These three mutually reinforcing priorities support the EU and the Member States to deliver high levels of employment, productivity and social cohesion. Concretely, the Union has set five ambitious objectives - on employment, innovation, education, social inclusion and climate/energy – to be reached by 2020. In terms of innovation, this target is for 3% of the EU's GDP to be invested in R&D.¹⁷

These priorities and targets are driven by seven flagship initiatives that provide more concrete roadmaps of objectives and milestones. Three flagships are linked with smart growth and these are the Digital Agenda, Youth on the Move and the Innovation Union. It is this latter flagship that is the main driver of innovation policy in Europe.

With an ageing population and strong competitive pressures from globalisation, Europe's future economic growth and jobs will increasingly have to come from innovation in products, services and business models. A recent OECD Report notes that,

'Evidence shows the critical role of innovation as a durable source of regional growth. The effects of innovation-related investments are longer lasting than those in physical infrastructure'. 18

This is why the Innovation Union flagship is placed at the heart of the Europe 2020 strategy for growth and jobs and contains over thirty action points. 19 The Innovation Union aims to improve conditions and access to finance for research and innovation in Europe, to ensure that innovative ideas can be turned into products and services that create growth and jobs.

Future EU research and innovation programmes will focus on Europe 2020 objectives and particularly the Innovation Union. Horizon 2020 is the financial instrument implementing the Innovation Union and aims at securing Europe's global competitiveness. With a proposed budget of around €70 billion for the period 2014-2020²⁰, Horizon 2020 the EU's, new programme for research and innovation, is part of the drive to create new growth and jobs in Europe by:

strengthening the EU's position in science;

¹⁶ In March 2000, at the Lisbon Summit, European Union leaders set out a new strategy, based on a consensus among Member States, to make Europe more dynamic and competitive. The initiative became known as the 'Lisbon Strategy'. The Strategy was re-launched in 2005 with more focus on growth and jobs. http://ec.europa.eu/education/focus/focus479 en.htm

¹⁷ See http://ec.europa.eu/europe2020/europe-2020-in-a-nutshell/targets/index_en.htm http://ec.europa.eu/europe2020/index_en.htm

http://www.oecd.org/gov/regional-policy/49956063.pdf

http://ec.europa.eu/research/innovation-union/index_en.cfm

²⁰ In February 2013, negotiations between the European Council and Parliament were on-going regarding the final budget for Horizon 2020.

- supporting European industrial Horizon 2020 will also leadership in key technologies along with greater access to capital and support for SMEs;
- tackling major societal challenges such as climate change, developing sustainable transport and mobility, making renewable energy more affordable, ensuring food safety and security, or coping with the challenge of an ageing population.

Horizon 2020 brings together all existing EU 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 differs from the preceding research framework programmes by placing more emphasis on the integration of research and innovation by providing seamless and coherent funding from idea to market along with more support for innovation and activities close to the market, leading to a direct economic stimulus and a strong focus on creating business opportunities by responding to 'societal challenges'. This link between research and innovation directly related to societal challenges is thus of core interest to cities and regions.

This stronger emphasis on broad-based innovation, including non-technical innovation, indicates the stronger role for a wider set of actors in the innovation process including regions and cities and supports the development of innovation ecosystems based on the four Ps mentioned above. This 'four P' approach corresponds to the ambition of Horizon 2020 to be open to a wide range of participants, including new entrants, and that while excellence will continue to be the watchword of the programme, it is important that research and innovation is developed across all regions and cities in Europe. Talent therefore needs to be nurtured and supported to grow into excellence, enabling all researchers and innovators across Europe to benefit from Horizon 2020's instruments, networks and funding.

Image 4 The urban innovation ecosystem²¹

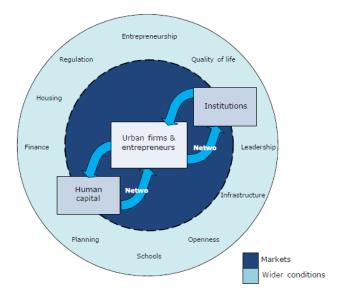


Figure 7: The urban innovation ecosystem

Research and innovation funding is not just confined to Horizon 2020. The European Council Conclusions (February 8th 2012) on the negotiations of the future 2014-2020 budget note that 'all policies will be called upon to contribute to increase competitiveness and particular attention will be paid to the coordination of activities funded through Horizon 2020 with those supported under other Union programmes, including through cohesion policy'.²²

While 'excellence' and 'trans-nationality' will be the watchwords of Horizon 2020, Structural and Investment Funds will equip Member States, regions and cities with the means for place-based research and innovation activities and capacity building²³ aiming in particular to boost business innovation and economic transformation, as developed in their smart specialisation strategies.²⁴ This will reduce the gaps in performance and capacity in research and innovation across Europe and support innovative actions for sustainable urban development, social innovation, public sector innovation and stimulate demand for innovation.

Future Structural Funds set out eleven thematic investment priorities amongst which research and innovation, Information and communication technologies (ICT), the

²¹ http://www.theworkfoundation.com/DownloadPublication/Report/306 Streets%20Ahead%20FINAL.pdf

http://www.consilium.europa.eu/special-reports/mff/summary-of-the-european-council-agreement

²³ Up to €100 billion from ERDF, ESF, EARFD and EMFF will be invested in research and innovation between 2014-2020. The ERDF may support innovative activities in the field of sustainable urban development, subject to a ceiling of 0.2% of the total annual ERDF allocation. Moreover the Cohesion Fund gives substantial purchasing power to deploy innovative environmental, energy and transport solutions.

http://s3platform.jrc.ec.europa.eu/home and http://ec.europa.eu/regional_policy/sources/docgener/informat/2014/smart_specialisation_en.pdf

competitiveness of small and medium-sized enterprises (SMEs) and the shift towards a lowcarbon economy. Given their crucial Importance for jobs and growth, a larger share of ERDF budgets will be concentrated on these topics both in developed and less-developed regions.

Research and innovation is a priority for Europe in terms of making Europe smart, sustainable and inclusive. This drive towards a smart, sustainable and inclusive society is not just a top down initiative but must involve all regions and cities. Cities and regions are key players in implementing the policies and activities that will improve European competitiveness and create jobs and growth. All cities and regions need to play their part in reducing the gaps between the richer and poorer regions and cities so that all cities and regions can share in increased prosperity and improved living standards.

3 Why a European award?

'New approaches such as inducement prizes, that reward the achievement of specific goals, will encourage the involvement of a wider range of innovators.'²⁵

'To achieve a 'New Renaissance' in Europe, we must foster the visibility of science and innovation, gain trust and strengthen the cooperation between researchers, innovators and society. Research development and innovation should be shown to be valuable and attractive...Currently the gap between the researchers and innovators on the one side and the public as well as politicians on the other side is too wide. If we call for a better understanding and a shared responsibility between science, policy and society we need an open and in-depth dialogue about chances and risks involved in innovation and examples of successful inventions.' ²⁶

3.1 Mission

The aim of the iCity award is to raise a profile of innovation within the community by making innovation culture a desirable aim of the city as whole and to promote a sustainable culture of innovation.

The award is intended to speed up innovation and the achievement of the Union 2020 targets and objectives with which it is aligned. By creating the growing network of award winning cities throughout Europe it will be possible to inspire and share best practices for future growth.

3.2 Vision

The award recognises cities that have developed an integrated, holistic and responsible innovation ecosystem involving people, public and private partners supported by the built environment and the urban development of the city

Prize-winning cities will contribute to developing a broad-based innovative culture involving both technological and non-technological innovation, design, social and public administration innovation that supports the smart, sustainable and inclusive development of the European Union and the objectives of the Innovation Union initiative.

²⁵ Horizon 2020, COM(2011) 808 final

²⁶ ERAB Second Report (2010) 'Realising the New Renaissance: Policy proposals for developing a world-class research and innovation space in Europe 2030'

Image 5 A view of a broad-based innovation culture





3.3 Objectives of the award

The objectives of the award are to encourage cities to focus on strengthening their broad-based research and innovation ecosystem. This ecosystem relies on strong players in both research and innovation but also an important role for the city in aligning policies and resources and making sure that key stakeholders in research and innovation communicate and collaborate with each other.

The award will encourage cities to engage citizens and support bottom-up innovation involving technological and non-technological innovation and social innovation and therefore involve both the public and private sector and have a direct influence on the city both in terms of place and people. This means raising the profile of innovation within the community by making innovation culture a desirable aim of the city as whole and to celebrate the culture of innovation.

The award will also focus more attention on demand-side policies that a city can actively influence to encourage innovation in SMEs and in the public sector. Highly innovative SMEs often require more finance because of the need for up-front investment. Innovative public procurement schemes run by cities and regions can mitigate the uncertainty inherent in innovative activity and cities and regions can support well functioning regulations and standard-creation mechanisms to facilitate new market creation.²⁷

In short, the award recognises cities that punch above their weight in terms of developing a well-governed innovation ecosystem, has ambitious plans of how this system can be improved or used to increase competitiveness and quality of life and can inspire other cities to follow their lead.

²⁷ Erkko Autio, 'Removing Bottlenecks to the Growth of Innovative Firms' at ERAC Conference January 2012 http://ec.europa.eu/research/innovation-union/pdf/erac-report-2012.pdf#view=fit&pagemode=none

3.4 What is new?

Given this need for a wider awareness of research and innovation, prizes and awards are able to provide a stimulus for cities to promote their assets and activities and also use the prize money for additional activities.²⁸

This award therefore focuses both on past achievements²⁹ and on future ideas on how the city will enhance its innovative capacity rather than purely a criterion-based award looking at past achievements.

There is no shortage of lists of innovative or smart cities³⁰ ³¹ but these tend to be benchmarking exercises and while all cities would like and aim to be at the top of the list there is often no award function. Among competitions with a linked award, different recognitions have been set up to encourage the leadership of the cities in specific activities such as the European Green Capital, the European Capital of Culture (see below). But there is not yet an award that could consider the city as a whole system, including built environment, municipal authorities and citizens, organizations and public structures as a platform capable of facilitating the growth and development of creativity and innovation in its different meanings.

This broad-based approach of innovation and research (Four P's: People, Public, Private, Place) will set this award apart from other prizes by looking for those cities in Europe that have a fully functioning 360 degrees innovation and research ecosystem with related visions, policies and strategies as drivers of wealth creation and well-being in the future. Recent studies show that successful research and innovation must be seen within a framework of the whole city and its development, its inhabitants, liveability, entrepreneurial spirit, and insightful/visionary policy-making and governance. The well-functioning urban innovation ecosystem is supporting the development of local innovation culture in general.

Therefore, the criteria for the iCity award are many dimensional; success in one or the other area only is not enough, but the proven success of collaboration and partnerships as well as networking between different stakeholders are demanded.

²⁸ Prizes have a long history in stimulating innovation. As far back as the 18th century, the British government offered more than €100,000 in prize money to anyone who could come up with simple and practical methods for measuring longitude to assist maritime navigation. Charles Lindberg, a relatively unknown aviator at the time, won the \$25,000 Orteig Prize for the very first non-stop transatlantic flight in 1927. The Breakthrough Prize for Life Sciences awarded in 2013 funded by Facebook and Google and other Silicon Valley organisations offers a \$3 million prize for winning scientists see http://news.sciencemag.org/scienceinsider/2013/02/new-breakthrough-prize-awards-mi.html

²⁹ Given the fast-moving pace of innovation, past achievements should focus on activities post 2010.

 $[\]frac{^{30}}{\text{http://www.innovation-cities.com/2011-innovation-cities-index-city-rankings-eu-germany-france-uk-spain-europe/1728}}{^{31}} \frac{\text{http://www.innovation-cities.com/2011-innovation-cities-index-city-rankings-eu-germany-france-uk-spain-europe/1728}}{\text{http://www.fastcoexist.com/1680856/the-top-10-smartest-european-cities#1}}$

3.5 Difference from other prizes³²

In a crowded landscape of European awards and prizes, the iCity award will be a unique award at the European level and differentiates itself from other similar prizes because of its broad-based approach to innovation culture.

Different awards have been set up to encourage the leadership of the cities and regions in specific activities.

The objective of the RegioStars Awards is to identify good practices in regional and urban policy including a 'CityStar' award category and to highlight original and innovative projects which could be attractive and inspiring to other regions and cities. The European Green Capital Award is awarded to a city that has a consistent record of achieving high environmental standards and that is committed to ongoing and ambitious goals for further environmental improvement and sustainable development and can act as a role model to inspire other cities and promote best practices to all other European cities.

The European Capitals of Culture initiative was set up to highlight the richness and diversity of European cultures celebrate the cultural ties that link Europeans together bring people from different European countries into contact with each other's culture and promote mutual understanding and foster a feeling of European citizenship.

In addition, studies have shown that the event is a valuable opportunity to regenerate cities and raise their international profile, boost tourism and enhance their image in the eyes of their own inhabitants and give new vitality to their cultural life.³³

In this sense, the iCity represents in the year awarded, the best of Europe; it is a demonstration of a European model, it represents Europe; it is our ambassador, not only through local authorities but the citizens and social agents too. Unlike other awards, this prize recognizes not only the excellence 'ad intra' but launches a strong message to the outside world, an icon, a reaffirmation of European values. Europe says, with this prize 'we can, in our way'.

³² See Annex 3 for a comparative table of some of the 'competitor' awards and prizes

³³ Košice and Marseilles are the current Capitals of Culture 2013. See Geo Magazine (France) February 2013 'La métamorphose de Marseille…' http://www.geo.fr/en-kiosque/magazine-geo-special-marseille-fevrier-2013-111342

4 Type of award

4.1 Design

The award is open to all cities in Europe who can illustrate that they are an innovative city in terms of broad-based approach, a clear vision and effective strategies. An innovative city also means combining a past, present and a future timeline. The award is not just for past behaviour or longevity of academic and research institutions but should allow all cities to develop a credible and persuasive storyline on what they have done and where they are now and where they want to go in terms of innovation.

Thus the understanding of innovation needs to be broadened to give cities a clearer understanding of what the award is looking for such as the 4P model developed below.



Image 6 The European Ecosystem of iCities.

The award would be called *iCity – the European Capital of Innovation*.

4.2 Target Cities

All cities and urban areas of over 100,000 population from European Member States and FP7 associated countries are eligible to apply.³⁴ In the pilot phase, it is recommended that only one city be chosen but with two runner-up cities identified.

According to Wikipedia this would mean 446 cities in Europe being potentialyy eligible http://en.wikipedia.org/wiki/List of cities in the European Union with more than 100,000 inhabitants
http://epp.eurostat.ec.europa.eu/statistics_explained/index.php/European_cities

Only one application will be accepted per city and must clearly demonstrate support from local government and stakeholders. The applicant must be the municipal authority but should also include a partnership approach with public and private actors.

4.3 Criteria

The iCity award is not directly linked with research and innovation statistics but will be based on a more narrative and visionary approach to appeal to a selection jury. Current thinking on innovation takes a more holistic view of the innovation process involving four interlocking criteria: place, people, public and private. It is the collective alignment of these four parameters that makes a city an iCity.

'The map of the city should tell a story. We call it narrative planning." (John Thompson, Architect, London).

Cities and metropolitan areas will be judged on a twofold basis:

- 1. How far they have successfully developed an <u>effective innovation ecosystem</u> in their city that captures the five I's of an innovative city i.e. innovative, inclusive, inspiring, interactive and integrated (*see below*). Cities will describe how they support innovation governance systems, how they ensures a sustainable urban environment for innovation and foster risk-taking, how they contribute to a quality of life that encourages innovators to move to or stay in the city, how good design and environmental policy improves the lives of all citizens. Cities also need to provide innovation infrastructures which could include higher education facilities, science parks, living labs, science museums, innovation hubs and start up and incubator facilities. Innovation is about getting new products and services on the market and here cities can support SMEs and start-ups, develop innovative procurement schemes and provide a positive environment for entrepreneurs that also includes inclusive policies for harder to reach target groups.
- 2. How far have they concretely identified a specific <u>future oriented challenge</u> relevant for the city and putting in place mechanisms to solve the challenge in the year of the award. Particular attention will be paid in the judging on the originality and replicability, the ambition and feasibility, the ability to add value to existing research and innovation capacity in the city and to act as a role model for other cities. Future projects and activities should emphasise synergies between the City's activities and EU policies such as the Europe 2020 Strategy, the Innovation Union Flagship

Initiative and the grand challenges identified in Horizon 2020.³⁵ Cities should also indicate whether proposed activities are linked to previous or future Structural Fund projects.

Image 7 Components of Sustainable Innovation Ecosystems

Built Environment Fasy Access PLACE Professionals Professionals PEOPL Innovation Ecosystem Public Public Public Public Public Services R&I Centers Public Services

Sustainable Innovation Ecosystem

Cities will be asked to create a storyline how they have developed a broad-based innovation eco-system that encompasses an integrated and holistic vision³⁶ and their focus on current activities and more importantly on future plans for city-led innovation activities. The award is aimed at cities that can demonstrate good governance of a sustainable, resilient and responsible innovation policy and have a vision of future activities that have an explorative and experimental aspect which can build on their current innovation capacity and competences. In short, the award is aimed at a city that punches above its weight in terms of innovation and can inspire other cities by telling a good story of its innovation capacity and activities.

Both key elements (<u>broad-based approach</u> and <u>future activities</u>) are further described below.

³⁵ Health, demographic change and well-being; Food security, sustainable agriculture, marine and maritime research, and the bio-economy; Secure, clean and efficient energy; Smart, green and integrated transport; Climate action, resource efficiency and raw materials; Inclusive, innovative and secure societies.

³⁶ The UK Technology Strategy Board has developed a prize that will invest up to £25m in a large-scale demonstrator for the winning city (Glasgow was selected in January 2013). The project will demonstrate at scale, and in use, the additional value that can be created by integrating city systems and ... test, in practice, new solutions for connecting and integrating city systems, and will allow UK cities to explore new approaches to delivering a good local economy and excellent quality of life, whilst reducing the environmental footprint and increasing resilience to environmental change.

4.3.1 The characteristics of an iCity: past and present approach

The iCity award would focus on the successful policies and activities that have built strong links between place, people and the public and private sector in building a sustainable research and innovation culture.

The iCity award could capture some or many of these aspects but would highlight cities that had developed many-folded, well-functioning innovation eco-system as a whole that were:

- Innovative both in terms of the processes and the impact
- Inclusive illustrating citizen involvement and engagement
- Inspiring would have the power to attract (talent, funding, investment, partners...)
- Interactive encourages open communication between key players
- Integrated maximising a holistic viewpoint involving people and place.
- A. *Innovative*. An iCity award will very much involve a translation of research and technologies to innovative products and services which can bring competitive advantage to companies within the city or metropolitan area and ensure a high level of collaboration between triple helix players.³⁷ This means fostering responsible partnerships between universities, research teams and institutes as well as start-ups, services and industry to encourage effective knowledge transfer. An iCity will also illustrate that it can exploit its research and innovation infrastructure and support open innovation and responsible research and innovation.
- B. *Inclusive*. An iCity will also involve citizens completing what is termed the quadruple helix. The value of innovation is that it is a strong determiner of economic wellbeing and it also contributes to the quality of life of citizens who should not just be 'end of pipeline' passive recipients of innovation but actively engaged in the research and innovation process. Innovation thus takes on a stronger social and cultural dimension which encourages the development of entrepreneurial and innovative mindsets. Therefore there is a strong communication dimension to a city of research and innovation and cities should use the facilities such as science and research centres, higher education, technology parks, incubators, Living Labs, creative hubs, chambers of commerce and cluster organisations as a way of encouraging sustainable innovation to acknowledge the fact that it is up to the citizens to foster the culture of creativity and innovation in city social, political and business environment.

Cities cannot be disconnected from the region in which they are located. The development process of smart specialisation strategies may also involve cities. Therefore an iCity should also make an effort to engage the national and regional authorities in charge of the development of and explore with surrounding territories or metropolitan areas the fields of competitive advantage and (potential) excellence, in

³⁷ The Quadruple Helix model is increasingly relevant as a conceptual framework for regional development. It involves close collaboration between University, Industry and Government and civil society at the city and regional level.

order to identify opportunities for building critical mass and the coordinated development of innovation ecosystems.

- C. Inspiring. An iCity should have the power to inspire both its own citizens and other cities in Europe to observe and learn from their processes and policies. An iCity should be seen as a city that punches above its weight in terms of innovation and can successfully use the resources available to it to develop effective innovation ecosystems. An iCity should also act as a platform of educational opportunity inspiring creativity and innovation at all levels. Cities are in the position to improve the content and the context of education locally directly in schools, science centres and through project-based and problem solving learning and exploiting both formal and informal learning.
- D. *Interactive*. An iCity will be continually promoting interaction and interconnectedness between the four P's: People, Public, Private, Place and specifically the key actors in the innovation process. History shows is that building a strong innovation community is key to the success of a city. In the future 'knowledge flows are becoming more important and that knowledge use will be more coupled with finding talent and be part of knowledge creation than with knowledge transfer and finally that an urge to become more innovative will make tacit knowledge more important than today. This is one aspect of why economic behaviour will more be based on relationships and trust than on contracts and transactions'. Interaction also means a willingness to engage with other cities, to teach other cities but also to continue learning from them to encourage a widespread European innovation culture.
- E. Integrated. The iCity award will also reward cities that link their own innovation policies to a wider European agenda. Since 2000, overarching EU strategies have concentrated on raising the research and innovation profile of Europe with corresponding increases in the EU budget to match these ambitions. Therefore, an iCity will illustrate that their innovation policies support the Europe 2020 Strategy and its Innovation Union flagship initiative as well as other European initiatives such as Joint Technology Initiatives, Joint Programming Initiatives, Public-Private Partnerships, European Innovation Partnerships and future Knowledge and Innovation Communities established under the European Institute of Innovation and Technology.

³⁸ As in the case of the famous Lunar Society that met (and continues to meet) in Birmingham at the beginning of the 18th century. The original 'Lunarmen' gathered together for lively dinner conversations, the journey back from their Birmingham meeting place lit by the full moon. They were led by the larger-than-life physician Erasmus Darwin, grandfather to Charles Darwin. Others included the entrepreneur Matthew Boulton, the brilliantly perceptive engineer James Watt whose inventions harnessed the power of steam, the radical polymath Joseph Priestley who, among his wideranging achievements discovered oxygen, and the innovative potter and social reformer Josiah Wedgwood. Their debates brought together philosophy, arts, science and commerce, and as well as debating and discovering, the 'Lunarticks' also built canals and factories, managed world-class businesses — and changed the face of Birmingham. http://www.lunarsociety.org.uk/3

Regional Innovation Policy in Transition, VINNOVA Report on the Skåne Region (2010) http://www.vinnova.se/upload/EPiStorePDF/vr-10-17.pdf

An iCity should also be prepared to contribute to building a sustainable network of iCities that can be thought leaders in European innovation policies and practices. The iCity network acts as a game-changer in the pan-European innovation ecosystem creating new competence for the future challenges. When systems are fully transformed we usually find at least some of the following elements in play:

- New ideas, concepts, paradigms
- New laws and regulations
- Coalitions for change
- Changed metrics and measurement tools
- Changed power relationships
- Diffusion of technology and tech development
- New skills and new professions
- Agencies playing role in development of the new.⁴⁰

CASE Study 2: Lyon – Towards Responsible Economic Growth

Greater Lyon is reaching out to combine economic dynamism with sustainable development and wants to become a test bed area for the design and development of innovative services and usages. The new developmental models for the Greater Lyon area are:

- at an economic level: encourage business creation and support the emergence of the jobs of the future in the digital economy and in the green economy...
- at the sustainability level: promote changes in energy use (production / distribution / consumption), offer new transport solutions ...
- at the urban development level: finding new ways of thinking about the way the area is managed.

The Greater Lyon strategy is designed to promote the creation and development of new businesses and start-ups around the themes introduced above and in the Greater Lyon area based on an innovation network and the provision of complete services for innovation.

Three main directions for Greater Lyon are:

- to put in place new generation networks to re-invigorate innovation over the Greater Lyon area;
- to develop new services and usages for businesses and citizens;
- to promote transition to the economy of tomorrow by relying, in particular, on the dynamism of digital industries and eco-technology (clean techs).

Towards responsible economic growth:

Innovation should also be the motor of responsible economic development, which is a new approach to the city using testing and collaborative projects. Collaborative projects promote risk sharing, the sharing of competences, and the sharing of financial resources.

Lyon's competitiveness clusters:

The Systems Innovator, in Systems Innovation, A Discussion Paper by Nesta, Jan 2013 http://www.nesta.org.uk/library/documents/Systemsinnovationv8.pdf

In a highly competitive global economy, the ability to innovate is a key factor in competitiveness. Greater Lyon provides funding towards research carried out by companies and laboratories as part of its 'competitiveness clusters' programme. Greater Lyon has supported competitiveness clusters since their creation in 2004 as they bring together businesses, training centres and research units engaged in a partnership to develop joint projects and innovative with a sufficient critical mass to acquire and develop international visibility.

http://www.business.greaterlyon.com/lyon-smart-city-strategy-policy-france-europe.347.0.html?&L=1

4.3.2 The characteristics of an iCity: future activities

Linked to the future dimension and forward looking criteria, a key difference of the iCity award is that a winning city must identify a specific future oriented challenge that it wishes to take on and put in place mechanisms to solve the challenge in the year of the award. The future challenge is called iCity Award Project.

The challenges may be linked to improving the overall governance of the innovation ecosystem. For example, are all the key actors engaged in the innovation strategy? Is the strategy clearly communicated to all citizens in the city and how are the citizens in the position to influence the strategy? What is the role of DIY innovators and the bottom-up activities in the innovation ecosystem on the side of the top-down approach? How can the city engage the participation of citizens and illustrate the importance of innovation to the economy and well-being? How can the city bring together the four Ps of place, people, public and private?

Image 8 iCity Award: identifying future activities



City Assessed Books as

The iCity might also take up challenges of how to more successfully engage in Horizon 2020 and aspects of the policies that might also relate to the smart specialisation strategy of its Member State or region. Which of the challenges are of most importance to the city? What competitive advantages and capacities does the city already have? How can these be enhanced? What capacities does the city need and how can these be funded in the future?

How can innovation be translated into the reality of life of the citizens and change their behaviour?

The main idea of the *iCity Award Project* is to support the vision-lead approach of the further development of the innovation ecosystem of city through a future oriented project which will be accomplished during the year of the award with the support of the cash prize.

This use of the cash prize to fund the future experimental innovation project is what differentiates the prize. The successful outcomes of iCity Award projects can be used as a crucible of ideas that can be shared and developed further by other cities in Europe. iCities will be encouraged to think 'outside and within the box' and share ideas with other cities across Europe thereby adding in a European added-value. iCities will act as 'living labs' at a city scale for the systems innovation throughout Europe.

Case 3: Espoo – innovation through science, business and culture

The City of Espoo has identified three pillars for its own strategy: being a caring city, actively promoting environmentally friendly solutions, and positioning itself globally as a leading city for innovation. Subsequently the 2020 vision sees Espoo as a frontrunner, a place where it is good to live, learn, work, and be an entrepreneur. Espoo as a part of the capital region of Finland is globally networked as a competence hub for technology, education, culture, sports, research and innovation. In line with its strategy and vision Espoo city management has been actively networking with key stakeholders in the city to establish new initiatives that will support the objectives that are stated in the 2020 vision. One of these activities is related to the development of the Otaniemi - Keilaniemi - Tapiola - Suurpelto area as an area that will integrate science, culture, and business to provide an attractive innovation environment for creative individuals and leading companies. The formation of Aalto University in 2010 was a merger of three universities: Helsinki University of Technology, the Helsinki School of Economics, and the University of Art and Design. These universities represent three separate competence areas: technology (tekniikka in Finnish), business (talous), and art (taide). This gave birth to the notion of T3, embodying the three disciplines forming the new innovation university, Aalto. City planners in Espoo realized during spring 2009 that the same three subjects could also be identified as characterizing features in the vicinity of Aalto University.

The city as a living lab test-bed for mobile applications

The future 'dream to come true' of Tuula Antola, the Innovation Director of the City of Espoo, is to create 'Espoo as a mobile city' through developing the agile and flexible mobile services for the everyday life of its citizens. Due to the current lay-offs by Nokia, there are a great number of skilled and experienced software developers running number of start-ups in the field of mobile applications. Most of the start-ups in the newly developed hub, many also recognized by Wired magazine, are creating applications for fun, meaning gaming and entertaining. But what is truly needed, as Antola says, are mobile services for improving the quality of everyday life in different common areas like, for example, parking, electric car charging, and services for elderly citizens etc. The 'mobile city' aspect should also be

included into the pre-commercial smart public procurements in order to emphasize the importance of it. In order to leverage the start-ups and micro-enterprises in the field, it is important that the city is supporting the growth of them as an ecosystem through collaboration and networking with SME's and corporations. What Antola would like to see in the future is the city as a living lab test-bed for developing mobile services for solving grand challenges and the welfare of its citizens.⁴¹

http://www.otaniemi.fi/portal/otaniemi_technology_hub/

http://platform.synocus.com/synocuschina/Portals/0/Document/EUL_english[1]%20FINAL.pdf

4.4 Use of cash prize

For the pilot, the expert group recommends a cash prize of €500,000.

The application will be based on a template that will include sections outlining how the city is developing smart, sustainable, inclusive and responsible innovation based on the broad-based criteria as defined earlier in the report. It would be worthwhile considering whether other European policies (notably Structural Funds) eventually contributed to the creation of the local innovation eco-system.

Applicant cities will have to indicate how they would spend the prize money. Two key areas of expenditure should be foreseen:

- Future innovation activities that would contribute to the city's innovation ecosystem, European policy implementation or innovation capacity building. These activities should emphasise synergies between the City's activities and other EU policies e.g. Cohesion Policy. Where possible, innovation activities should build on recent previous projects that may have been carried out with the support of Structural Funds or possible future project opportunities such as Integrated Sustainable Urban Development within Cohesion Policy 2014-2020 which has an innovation component. 42 43 Activities should also bear in mind regional Innovation or Smart Specialisation Strategies and provide added value by increasing the scope of an already planned activity or starting a project more rapidly. Cities may include a SWOT analysis of the city's innovation potential, a broad political description of what it wants to achieve within the next one to two years, and a presentation of the resources at its disposal to achieve this vision. The vision plan should focus on areas where the city expects political measures to produce tangible results in the coming years.
- **Support activities** that would include planned events (including either a major handover event for the next prize winner or an innovation-related conference) and

⁴² For example, Article 9 ERDF regulation: Fostering new and innovative solutions in the field of sustainable urban development will support urban pilot projects, demonstration projects and studies of European interest.

⁴¹ An interview with Ms. Tula Antola, Innovation Director, City of Espoo, 20 February, 2013.

⁴³ http://ec.europa.eu/regional_policy/sources/docgener/informat/themes2012/urban_en.pdf

the setting up of a dedicated Coordination Unit to coordinate and communicate innovation activities e.g. website which would continue for at least one year after the prize. Budget could be also foreseen to invite runner-up cities and key speakers to events in the city and for staff of the iCity to attend relevant events and meetings (where the city takes on an ambassadorial function for the EU).

The winning city will be expected to organise showcase events in the city including a possible handover award for the next iCity and to establish an innovation unit which might take the form of an 'innovation catalyst' to coordinate the activities and networking that will take place in their winning year. Networks help foster the conditions for the development of new strategic partnership and improve the chances of spreading innovative activity. A strong embedded network of 'innovation intermediaries' or 'innovation catalysts' can support innovation by providing the bridging, brokering and knowledge exchange role necessary to bring together the range of different organisations. This innovation unit would coordinate activities, connect up with institutions within the city and retain a strong dialogue with EU representatives, communicate the activities via a website, collaborate with other cities and commit resources to continue future networking after the end of the award period. Applicant cities should also be prepared to invite leading innovation players to their city and also to travel to relevant events in Europe and globally to disseminate their activities.

Case Study 4: Amsterdam – the importance of connectivity and culture for innovation

As the world moves into an accelerated phase of mass urbanization and mega cities are developing across the globe, the governments of many smaller cities are looking for ways to differentiate themselves and to attract talent from around the world. Two cities stand out in their drive to be different: San Francisco and Amsterdam. Even though both are relatively small in comparison with the mega cities popularized by international media, one could say these "boutique cities" think differently and act more nimbly than their mega counterparts. According to some commentators Amsterdam has the right infrastructure to become a hyper-connected city.

- **1. High-speed broadband and mobile infrastructure.** A hyper-connected city needs to have the most advanced digital infrastructure to support a wide range of new companies, services, and products.
- **2. Seamless logistic and trade infrastructure.** Amsterdam has a world-class logistics infrastructure, with the Port of Amsterdam, the nearby Port of Rotterdam, and Schiphol Airport.
- **3. Event infrastructure**. The many conferences, tradeshows, and events hosted in Amsterdam are often an important first introduction to the city. These occasions can facilitate serendipitous encounters.

⁴⁴ http://www.theworkfoundation.com/DownloadPublication/Report/306_Streets%20Ahead%20FINAL.pdf

- **4. Cultural infrastructure.** In attracting the right people to a city, museums and cultural events play an important and sometimes underestimated role. Conference and tradeshow organizers base location strategy in part on a city's cultural offerings, since culture functions as a magnet for global citizens, leaders, and the creative class.
- **5. Liveability infrastructure**. Amsterdam scores very highly as a liveable city both in terms of social cohesion as well as green space. The liveability of a city is a key factor in helping a company CEO determine where to live and an entrepreneur where to establish a base.⁴⁵
- **6. Open innovation infrastructure**. Amsterdam's strong network of knowledge institutes, combined with a thriving creative industries sector, a vibrant start-up community, and a high density of European and global headquarters, present the opportunity to bring people together in a cross-disciplinary, cross-ideology, and cross-cultural setting. This works almost the same as the 'Coffee House effect'. Amsterdam, with its open-mindedness and tolerance, has the potential to become the European place for 'engineering diversity' a necessary ingredient for breakthrough innovation.

http://cityminded.org/cities-of-innovation-amsterdam-as-a-hyper-connected-city-5362

4.5 Proposed jury

A panel of expert members designated by the European Commission will select three cities as candidates for the pilot award in 2014. The jury will then decide on the winning city. The winning city will be notified and awarded the prize at the prize giving ceremony.

4.6 Benefits

iCity award winners will gain visibility in Europe and globally as a hub for innovation and a role model for sustainable innovation culture. This visibility will help cities attract investment, talent and start-ups and also stimulate new partnerships and collaborations. iCity prize winners will be able to use part of the prize money to strengthen their knowledge-base, improve the quality of everyday life in the city. The prize will also foster citizen involvement and pride in the city's innovation ecosystem and illustrate more effectively the positive benefits of a broad-based, effective innovation eco-system.

4.7 Impact

The award should have an impact at many levels.

At the European level, the award will illustrate the commitment to innovation at the
city level and to establishing a network of iCities that can inspire and share best
practice with other cities in Europe and act as innovation ambassadors further afield.
However, in order to raise the prestige of the award, there needs to be clear

⁴⁵ See Richard Florida (2008) 'Who's your city?' Basic Books

ownership and support at a strategic European level and also support from academia and industry.

- At the city level, the first impact will be the recognition of successful innovation policies within a city which raises the profile of the team and the political leaders that have developed and implemented these policies. Secondly, the award will help the city open up connections with other cities that would wish to learn from the city and analyse which policies and activities could be transferable. This means that the city has a calling card and will attract international interest in its activities. Thirdly, the prize should encourage and contribute to enabling the city to develop new innovation activities made possible only by the access of funding from the prize and by attracting investors, industry, top class researchers as well as talented and entrepreneurial individuals and so strengthening the innovative potential of the city in general.
- At the citizen level, the ambition is that the iCity award will become highly prestigious and well recognised as a brand - or a 'game-changer'. Cities that win the award will be part of an elite club which should bring political (and possible financial) support in the cities.

Case Study 5: Manchester – joined up governance and innovation

Never waste a crisis! The devastating IRA bombing of Manchester city centre in 1996 provoked an extensive programme of urban redevelopment and rallied a powerful and committed civic community. In the sixteen years since then, Manchester has transformed its growth prospects, and has become one of the few UK cities outside London with the potential to increase its long-term growth rate. What started as a story of physical regeneration is becoming one of learning how to recognise and exploit sources of creativity and growth in new ways.

Scaling up for economic impact

Greater Manchester is commonly regarded as a pioneer in cross-boundary working. More than most other UK cities, it has developed governance structures that allow it to exploit the economic benefits of policymaking across its 'natural economy.' Since 2009, authorities have been collaborating through seven strategic commissions (New Economy, Health, Planning and Housing, Transport, Environment, Improvement and Efficiency, and Public Protection). Elected members are distributed across the commission boards, which include civic representatives and business leaders.

Since 2008, there has also been a dedicated Business Leadership Council. Not only are local authorities committed to delegating power upwards for some strategic decisions, but they are prepared to engage the private sector intensively, and early. In April 2009, the government recognised the successes to date, with the announcement that Greater Manchester would be one of two statutory city region pilots. This status provided Greater Manchester with new powers over employment, housing, transport and planning, as well as a greater degree of economic autonomy

A campaign for innovation

Alongside such cross-boundary institutions, Manchester's leaders recognised the need to build strategic innovation links throughout the region. Manchester: Knowledge Capital (M:KC) sometimes referred to as the city's 'innovation agency', has been a driving force. Described as a 'strategy' more than an 'organisation' M:KC pushed forward Manchester's Science City programme and encouraged awareness of the potential gains from innovation and the nature of the challenges that must be overcome to achieve them.

Recently, in recognition of the need to strengthen and consolidate governance, the Innovation sub-group of the Commission for the New Economy and the Board of M:KC have combined into a new Manchester Innovation Group. This is designed to oversee innovation strategy and its implementation across Greater Manchester. See NESTA Report, June 2010, 'Driving innovation in cities: Learning from Greater Manchester'

http://www.nesta.org.uk/library/documents/DrivingInnovation220710.pdf

5 Timeline

In the first year, the European Commission should organise a call backed up by an informative kick-off seminar in Brussels involving relevant networks and organisations.

5.1 When?

It is recommended that the award starts as a pilot scheme in 2013 with the prize awarded at the Innovation Convention in early 2014. An early pilot scheme will allow the European to judge the interest in the award for cities and to adjust future eligibility and judging criteria. Given that this first pilot project is judged a success, the award should be continued and funded under the Horizon 2020 budget from 2014-2020.

5.1.1 Duration of individual award

Each winner will retain the award for one year. Unless a ceremony is organised by the European Commission at a high-level innovation conference e.g. Innovation Convention, the winning city will organise the event for the selection of the next winning city in their city. This will enable networking and face-to-face contacts of innovation stakeholders from different cities. It is expected that the winning city commits itself to networking activities with other iCity winners and runners-up in future years.

5.1.2 Sustainability of the award scheme

Following the pilot award for 2014, the iCity awards should initially last for six years between 2015-2020. It will require European Union funding under the Horizon 2020 programme.

The sustainability of the award depends on the interest engendered by the award and a strong competition between cities. It is also expected that the award will encourage networking between the iCity winners.

In the first year of the scheme, the pilot phase, three cities will be chosen as finalists and one winning city declared. This means that already the three cities should be networked together so that the winning city can invite the runners-up to specific events and encourage networking and knowledge transformation between the cities.

The winning cities should also be used by the European Commission as best practice examples that can be used in a variety of conferences both in Europe and globally. It should be expected that political and research and innovation experts from the winning city should be expected to participate in high-level panels and think tanks and also encouraged to present their policies in relevant conferences and seminars.

Table 1 below outlines a possible timeline for the pilot call.

Table 1 Possible timeline of the iCity award 2014

Date	Actions	Actors
March 2013	Decision on possible pilot iCity award	DG Research and Innovation
April 2013	Development of award information and application pack based on the recommendations of the Expert Group report	DG Research and Innovation
June 2013	Publication of CDRP WP2013 revision including the award	Relevant networks informed and encouraged to communicate the call to their members
June 2013	Launch of the award competition	Commissioner at the Committee of the Regions or press conference linked to relevant research and innovation event.
June 2013	Webpage created to deal with FAQ's	DG Research and Innovation
July 2013	Call opens 1 st July	DG Research and Innovation
October 2013	Call deadline	DG Research and Innovation
November 2013	Selection of 3 finalist cities	Jury decides on the winning city and two runner-up cities
January 2014	Finalist cities prepare short video for award ceremony at the Innovation Convention 2014	DG Research and Innovation
Early 2014	Presentations from 3 cities (including video) at the Innovation Convention 2014	iCity prize awarded by the Commissioner for Research and Innovation and/or special high-level speaker
Early 2014	The iCity 2014 sets up a coordination unit to prepare and implement an innovation work plan	DG Research and Innovation approves and monitors work plan

6 Communication and Networking

In order to publicise the award, it is recommended that there is a kick-off meeting in Brussels when the award is published where various European networks that would be relevant for the award such as the Committee of the Regions, Eurocities, AER, ERRIN, CPMR, METREX, Smart Cities Platform, Urbact, etc. could be invited. It would be expected that the Commissioner for Research and Innovation or a high-level Commission official would introduce the award and the eligibility conditions and selection procedure. This meeting would be able to gauge interest in the award and respond quickly to key questions asked by potential candidates for the award.

6.1 Prize ceremony

The actual announcement of the prize along with the award ceremony should be part of a high-level European event such as the Innovation Convention 2014. 46 This would help the award stimulate press coverage both in the general and more 'innovation' focused press.

It is recommended that a website (part of DG Research and Innovation) be set up which could advertise the call, deal with FAQs and also publicise the selected cities and their bids. The finalist cities could then use the website to exchange best practices, presentations, etc. during the year of the award and future awards could be publicised on the website. A link to this site could be installed on the InfoRegio site of DG Regional and Urban Policy.

In view of the financial constraints facing cities and regions in the present financial climate, it is recommended that funding for travel and subsistence is made available for small teams from the finalist cities, including a local news or TV journalist, to participate in the final award ceremony.

6.2 Networking opportunities

In order to expand the networking opportunities of the award, it is recommended that the final selection procedure establishes a winning city and then two runner-up cities. Although the winning city receives the prize, the second and third cities should be invited to activities organised by the winning city in the year of the award. These three cities start to develop a network of 'iCities'. The winning city (or cities after 2014) can serve as mentoring cities sharing their best practices and experiences. Each year the network should grow by two or three cities and if the prize is continued until 2020 the there should be a network of around 20 cities or metropolitan areas active in the domain of research and innovation. These cities can then act as a 'think-tank' or forum for new ideas and will be cities of choice for innovation test-bed activities.

⁴⁶ According to the Innovation Union Communication, the European Commission will convene an annual Innovation Convention to discuss the state of the Innovation Union, in conjunction with the proposed European Parliament debate. This should involve Ministers, Members of the European Parliament, business leaders, deans of universities and research centres, bankers and venture capitalists, top researchers, innovators and, last but not least, citizens of Europe. http://ec.europa.eu/research/innovation-union/pdf/innovation-union-communication en.pdf#view=fit&pagemode=none

7 Conclusions

'Horizon 2020 takes a broad approach to innovation that is not limited to bringing new products to the market, but also covers processes, systems or other approaches, including by recognising European strengths in design, creativity, services and the importance of social innovation. Funding for these activities will be meshed with the support for research and technological development.

Stronger support will be given to the market take-up of innovation, including by the public sector. This will include more proof-of-concept, piloting and demonstration. It will involve a better use of the potential of research infrastructures, as well as setting technical standards, pre-commercial procurement and strengthened loan and equity financing. New approaches such as inducement prizes, that reward the achievement of specific goals, will encourage the involvement of a wider range of innovators'. ⁴⁷

The above quote from the Horizon 2020 Communication notes the need for new approaches to involve a wider range of innovators. The Expert Group considers that the 'iCity – European Capital of Innovation' award will support a more broad-based vision of innovation and encourage cities to develop innovation ecosystems where the four P's - People, Place, Public, and Private join together as an interconnected systemic whole where each player is interdependent on each other.

By using criteria that focus on the past, present and future research and innovation activities of the city, the award will also combine traditional indicators with a new narrative assessment model. This storytelling model will be better communicated across Europe compared to a traditional list of tick-box criteria and will also place more focus on the role of design and social innovation placing more focus on the built environment and citizen as innovation actors in the 21st century.

iCity award winners will gain visibility in Europe and globally as a hub for innovation and a role model for sustainable innovation culture. This visibility will help cities attract investment, talent and start-ups and also stimulate new partnerships and collaborations. iCity prize winners will be able to use part of the prize money to strengthen their knowledge-base and thereby improve the innovation potential of the city. The prize will also foster citizen involvement and pride in the city's innovation ecosystem and illustrate more effectively the positive benefits of a broad-based, effective innovation eco-system.

horizon 2020 - the framework programme for research and innovation.pdf#view=fit&pagemode=none

⁴⁷ Horizon 2012 COM(2011) 808 final http://ec.europa.eu/research/horizon2020/pdf/proposals/communication from the commission -

The iCity award is an illustration of the stronger support for innovation at the European level and the commitment to drive forward innovation at the city level. The award will support the development of a network of iCities that can inspire and share best practice with other cities in Europe and act as innovation ambassadors further afield. The network will serve as a set of mentoring cities sharing their best practices and experiences and act as a 'think-tank' or forum for new ideas which will stimulate all cities in Europe to aspire to iCity status.

Annex: Overview of Award Schemes

Following the Commission Terms of Reference, the Experts looked at a non-exhaustive overview of awards schemes that are relevant to the proposed iCity award:

- The European Capital of Culture Award;
- The European Green Capital Award;
- Cultural Heritage / Europa Nostra Awards;
- RegioStars AWARDS;
- The Spanish Cities of Science and Innovation Distinction;
- European Green Cities Network (EGCN);
- Europe's highest award for clean urban transport: the CIVITAS Award;
- Access City Award;
- European Capitals of Biodiversity;
- EUROCITIES awards;
- Network Stars Awards;
- The Researchers' Night;
- European Prize for Innovation in Public Administrations;
- World Design Capital.

Some of them were particularly analysed as an attempt to benchmark relevant perspectives of these awards in order to identify possible overlaps and to high-light added value of a new Award scheme:

THE EUROPEAN CAPITAL OF CULTURE AWARD

Benchmarking parameters	Key characteristics
Initiator/responsible stakeholder	The Council of the European Union
Target group	European cities. Two cities per year are awarded since 2011.
Frequency	Established 1985, awarded each year. Procedure starts 6 years in advance.
Main purpose and objectives	The Cultural programme presented by the cities must meet these objectives/criteria:
	 The European Dimension Foster cooperation between cultural operators High-light the richness of cultural diversity Bring the common aspects of European Culture to the fore City and Citizens Foster the participations of the citizens living in the city Be sustainable and an integral part of the long term cultural and social development of the city.
Assessment	A panel of independent expert in the cultural field. The order of cities entitled to host the event is fixed before.
Criteria	Assessment of Cultural programme, see above. Furthermore, assessment of governance, finances and communication strategy.
Award/Prize	€1.5 million to help organise the event. Conditional. (Melina Mercouri prize). Label European Capital of Culture.
More information	http://ec.europa.eu/culture/our-programmes-and-actions/capitals/european-capitals-of-culture_en.htm

THE EUROPEAN GREEN CAPITAL AWARD

Benchmarking parameters	Key characteristics
Initiator/responsible stakeholder	Initiative from the European Commission. The application process, the work of the evaluation panel and the jury are facilitated by the Green Capital Secretariat, run by the Irish company RPS. The secretariat also assists with PR activities related to the award scheme through the Green Capital website and through various communication channels such as
Target group	European Cities. One city is awarded. Focus on broad spectra of

	green initiatives.
Frequency	Established in 2010. One European city is selected each year as the
	European Green Capital of the year. The process starts 3 years in
	advance.
Main purpose and objectives	The purpose of the award is to recognise and reward local efforts to
	improve the environment, the economy and the quality of life in cities.
Assessment	A panel of independent experts. Qualitative evaluations and peer
	review. 3-4 cities are shortlisted and invited to present action plans and communication strategy for a jury of European and regional
	institutions. Based on this hearing, the jury selects a winning city.
Criteria	12 environmental indicators. PDCA on every indicator must be
	presented. Jury evaluates commitment, vision, enthusiasm,
	communication, capacity to act as role model.
Award/Prize	Label, communication toolbox, protected trade mark. No cash prize.
More information	http://ec.europa.eu/environment/europeangreencapital/index
	<u>en.html</u>

REGIOSTARS AWARD

Initiator/responsible	European Commission. The award is a part of the Regions for
stakeholder	Economic Change Initiative.
Target group	Regions. Focuses on funded European projects. Five award categories, i.e. 5 winners.
Frequency	Every year
Main purpose and objectives	High light good practices in urban and regional development with at particular focus on innovation in order to enhance the quality and impact of EU's regional development programmes and their implementation.
Award/Prize	No cash prize but small statuettes offered to winners. Costs for jury and communication and award ceremony in Brussels
Assessment	Independent jury decides

Criteria	For each category the following criteria are assessed: - Innovative character of the project Impact of the project - Expected sustainability - Results For the category in Communication, different criteria are used.
More information	http://ec.europa.eu/regional policy/cooperate/regions for econo mic change/regiostars en.cfm

THE EUROPEAN PRIZE FOR INNOVATION IN PUBLIC ADMINISTRATION

Benchmarking parameters	Key characteristics
Initiator/responsible stakeholder	European Commission DG Research and Innovation
Target group	Public sector/administration
Frequency	Launched in 2012. First awards presented in 2013.
Main purpose and objectives	Awarding and leveraging innovation in public administration that provide added value to citizens, firms and the research and education sector.
Assessment	Two-stage process: first assessment executed by DG RTD, MARKT, EAC and SANCO experts, the second by an independent high-level jury
Criteria	In line with EU 2020 goals. Focus on capacity and potential to address societal challenges, impact for citizens, competitiveness and attractiveness, etc. Focus on possibility to replicate initiative in other European contexts.
Award/Prize	Nine cash prizes of €100,000 each rewarding three categories with three prizes. The three categories are:
	- Initiatives for citizens
	- Initiatives for firms
	- Initiatives for research and education.
	The award will be used to scale up and expand the initiative.
More information	http://ec.europa.eu/research/innovation-

union/index en.cfm?section=admin-innovators

SMART CITIES AND COMMUNITIES - EUROPEAN INNOVATION PARTNERSHIP

Benchmarking parameters	Key characteristics
Initiator/responsible	A new initiative related to the implementation of the EIP Smart
stakeholder	Cities and Communities (SCC). The award scheme is not yet
	finalised.
Target group	A SCC project partnership in a city/urban context.
Frequency	The prize will be biennial and the ambition is to present the first
	award in 2014.
Main purpose and objectives	To showcase good practice and stimulate cities to promote their
	success when it comes to innovation and smart solutions in the
	areas of energy, transport and ICT in an urban context.
Assessment	Independent expert committee.
Criteria	The prize will reward a project partnership that has achieved high
	impact in the designated focus areas.
Award/Prize	Not applicable – work in progress
More information	http://ec.europa.eu/energy/technology/initiatives/doc/2012_4701_
	smart_cities_en.pdf