Cities as

Innovation Platforms

Smart-up BSR

Interreg
Baltic Sea Region

EUROPEAN UNION

EUROPEAN REGIONAL DEVELOPMENT FUND

Smart-up BSR

Indhold

Introduction

As demographics change and urbanization continues to increase for the cities, the ability to experiment and come up with new and better solutions for our cities and way of living becomes increasingly important. Besides the societal challenges that comes from these dynamics, then cities also represents a strong force in finding the solutions not just on a local level, but their role as an innovation platform to find solutions for grand societal challenges on a global scale is also increasingly recognized. In this leaflet a collection of guiding concepts and frameworks will be presented to help cities reflect about how cities can act as an enabler for innovation. This is not a cook book, but frameworks and concepts that can get a city started about reflecting about possible pathways to take to build up innovative skillsets, attitudes, strategies, policies, and initiatives.

To begin with the European Commission's European Capital of Innovation Awards (iCapital) and its criterias will be used to guide the initial concept for what qualities an innotaive city should have, then the Nesta's Competency Framework for Experimenting and Public Problem Solving will be introduced to give a more in-depth view of the skills required within a city, and finally we will move on to the presenting two frameworks that can unite cities in their innovative approaches and provide a share language; the United Nation Development Goals and EU's mission-oriented approach.

Finally examples will be given from cities connected to the Smart-Up BSR regions that demonstrates some of these skills and practices described in the frameworks.

What qualities and practices is the European Commission looking for in innovative cities?

The European Capital of Innovation Awards (iCapital) is an annual award given by the European Commission (EC) to cities, which can demonstrate their capabilities as an innovative city. The cities who apply for the contest is assessed based on the following four criteria, which also gives a view of what qualities the EC is looking for in a city:

- **Experimenting** by testing and promoting innovative solutions to their societal challenges;
- **Engaging citizens** to participate to innovation, including designing policy and participate to its day-to-day implementation and use;
- **Expanding** its innovation capacity by becoming a desired destination for prospective entrepreneurs and a role model for other cities;
- **Empowering** citizens with tangible and measurable results of innovation.

What can be extracted from these criteria is that in order for cities to operate as platforms for innovation, they need to have a **core skill set** for experimentation, which also requires a quadruple helix collaboration. This experimental approach should be supported by **policies and strategies**. Making cities **attractive** to work, study and live is what fuels the innovation engine. And then hat innovative cities act as a **role model** for others, and that citizens are given a role and not least responsibility to take part in the development of our cities. From the BSR region several cities have taken part in this competition and has been part of the finalist

field: Espoo, Helsinki, Tampere, Copenhagen, Aarhus, Tallinn, Berlin, and Hamburg.[1] Below are the highlights that the EC has chosen to present from Espoo, Aarhus, and Tallinn, which are the cities closest affiliated to the Smart-Up BSR project from these previously mentioned cities.

Espoo:

"The second-largest and fastest-growing city in Finland is using innovation to stay on an already remarkably sustainable path. Strongly committed to reaching the United Nations' Sustainable Development Goals by 2025, Espoo cherishes its strong education system and sense of community. In robust health despite the crisis of its most famous resident a few years back – Nokia Corporation – the city continues to be a world-class startup and digital hub. The Espoo Innovation Garden is the largest innovation hub in the Nordic countries."

Aarhus:

"Aarhus is determined to remain an inclusive city for everyone. The Municipality is in touch with its citizens with Open Office Hours - bi-annual surveys measuring citizens' overall satisfaction. It also actively encourages and support local voluntarism. Almost 1 out of 2 residents participates in 1 or more volunteering activities every year. The Danish city continues to nurture its thriving innovation ecosystem. A range of testbeds connect citizens playing basketball and children splashing through fountains to researchers and businesses researching or applying latest smart technologies. In Aarhus City Lab, Living Lab Aarhus, and the South Harbour area, the city is planning the future of mobility. The city committed to become carbon neutral by 2030."

Tallinn:

"In Tallinn, you can find robots delivering parcels and self-driving cars. Residents already perform most transactions online, and the city's focus on digital technologies has extended to offering e-residency of Tallinn. This means people from all over the world can register in Estonia to start and run a global business in the EU. The city is also working on plans to enable people to travel to Helsinki, Finland in under 10 minutes thanks to an underwater tube equipped with pods on electromagnets that can travel up to 1,100 kilometres per hour."

It is clear from the examples from Espoo, Aarhus and Tallinn that quadruple helix ecosystems, bottom-up approaches & citizen empowerment, technology literacy & experimentation, sustainability, thriving startup scenes, and spaces for innovation are areas in which the Baltic Sea Regions are strong within. In order to present cities with a framework that can help them go even more into the details of what skills the staff in an innovative city should have, then we will now introduce NESTA's "Competency Framework for Experimenting and Public Problem Solving".[2]

---

[1] https://ec.europa.eu/info/research-and-innovation/funding/funding-opportunities/prizes/icapital_en#previous

[2] https://media.nesta.org.uk/documents/Nesta_CompetencyFramework_Guide_July2019.pdf

Competency Framework for Experimenting and Public Problem Solving

Both NESTA[3] and OECD[4] have both done extensive research on identifying what skills are required to support cities' abilities to experiment and have created two frameworks, which are very similar in their selection of skills. However, NESTA's framework is more comprehensive, so therefore it has been selected in this leaflet as a tool to help city stakeholders to reflect about the skills to do public innovation:

COMPETENCY FRAMEWORK FOR EXPERIMENTAL PROBLEM SOLVING

The inner white circle in Nesta's framework contains the key attitudes needed for experimenting and public problem solving. Attitudes is something that takes a longer time to build than skills and are therefore important when recruiting new staff in the cities. For this introduction to the framework, however, we will focus on the three colored circles that contain the categories for the core skills needed for experimenting and public problem solving; Working Together, Acceleration Learning, and Leading Change.

Working Together:
This category represents the skills that are needed to work across the quadruple helix to create shared ownership of new solutions. The skills that are included in this category is Citizen & Stakeholder Engagement, Creative Facilitation, Building Bridges, and Brokering. All these skills are incorporated into the Smart-Up BSR projects DNA and activities. It is by now obvious to most cities that top-down approaches do not lend themselves to innovation or finding solutions to grand societal challenges because of their complexity that involves multiple

---

[3] https://www.nesta.org.uk/government-innovation/
[4] https://oecd-opsi.org/projects/innovation-skills/

stakeholders. In a way the the Smart-Up BSR Innovation Camps can be said to represent a microcosm, where the skills required for public innovation can be experienced in action. E.g. Creative facilitation is one of the key skills required for running an Innovation Camp, where the insights and needs of different stakeholders involved in the challenges are brought together. If we try to relate this category to the iCapital criteria, then this is mainly targeting the engaging citizens criteria, but also touches upon the empowering criteria.

Accelerating Learning:
This category contains the skills that are need for exploring, testing, and developing new ideas in an iterative way. The skills that are part of this category are Future Acumen, Prototyping & Iteration, Data Literacy & Evidence, Systems Thinking, and Tech Literacy. Again, this is a component that exist within the innovation camp method applied in the Smart-up BSR project, but in a short-term and focused setting. This fail-fast mentality has traditionally not been part of public institutions, which have been known for their bureaucracy rather than their agile ways of working. However this has changed and many cities have internal innovation departments that is able to work in this way and have the necessary skills to real technology innovation in collaborations with relevant stakeholders. This category is closely related to the experimenting criteria from iCapital.

Leading Change:
The ability to cut through the bureaucracy and get the mandate to establish funding and getting commitment for innovation projects is an important skill to have in a public innovation setting. It is about mobilizing the resources you have available and inspire action to ensure strategic outcomes. The skills that are part of this category in Nesta's framework are Political & Bureaucratic Awareness, Financing Change, Intrapreneurship, Demonstrating Value, and Storytelling & Advocacy. Especially the political & bureaucratic awareness skill can be said to have been introduced to the cities that have hosted the innovation camps of the project through the presence of Markku Markkula, First Vice-President of the Committee of Regions, who have connected the activities of the camp challenges to the political movements of the European Union, but also across the countries of Baltic Sea Region. Cities need to have this ability to demonstrate the value and create a storytelling around the innovative initiatives and practices of the cities in order to build momentum and commitment from stakeholders. The City of Espoo is a good example of how they have utilized their political awareness and created a good storytelling around their innovation ecosystem and sustainability practices, which has gained international awareness for instance by the European Commission's Joint Research Center[5]. This international aspects of leading change, acting as a role model and sharing innovative solutions across borders, is not directly emphasized in this skill category from Nesta, however it is clearly visible in the iCapital criteria "Expanding".

Connecting cities – Sustainability Goals and Missions-oriented approaches

After having looked into what skills are required internally in the cities, then we will in this chapter focus more on frameworks that can bring cities together as innovation platforms. For

---

[5]
https://s3platform.jrc.ec.europa.eu/documents/20182/198909/aalto_innovation_ecosystem_case_study_formatted_online_version.pdf/5a6a8441-cfc4-47ae-afd7-9506de540073

this leaflet we have chosen two frameworks, which is already helping cities connect on a strategic level, which are the United Nations (UN) Sustainability Development Goals (SDGs) and the Mission-Oriented Approach that EU has incorporated from Professor Mariana Mazzucato's "The entrepreneurial state", where the public institutions are recognized for their vital part in fostering radical and long-run innovation.

The Sustainable Development Goals – a shared language for innovation in the Baltic Sea

Since the UN SDGs was introduced in 2015 they have now been implemented in many private and public strategies and policies across countries. This has meant that cities now have a shared language and framework to contribute to, share and understand each other's goals. This means that solutions and best practices are more easily shared amongst the cities. For instance, in the City of Aarhus the SDG's have been incorporated into city's policies and strategies i.e. the city's Smart City strategy, Libraries and Citizen Services Policy, and upcoming Climate strategy. Concerning the SDGs, then the Baltic Sea Region has a special chance to drive the innovation agenda to create global solutions. In the SDG Development Report 2019[6] and the top 10 countries in the SDG Index, which rates the implementation of the SDGs we find many BSR countries here:

1. Denmark
2. Sweden
3. Finland
4. France
5. Austria
6. Germany

---

[6] https://sdsna.github.io/2019GlobalIndex/2019GlobalIndexRankings.pdf

7. Czech Repulic
8. Norway
9. Netherlands
10. Estonia

So it makes sense that cities in the Baltic Sea Region include the SDGs into their strategies and policies to allow for cross border innovation. An inspiring example of how to include the SDGs into city strategies can be found in Helsinki's strategy, where they state that "*Helsinki wants to be the most functional city in the world and stand out as a pioneer in implementing global responsibility locally. Our strategy features several goals through which the City takes part in promoting the UN's Sustainable Development Goals.*"[7]

Mission-driven innovation

Professor Mariana Mazzucato presented the mission-oriented approach in her book "The Entrepreneurial State", which offered a more nuanced perspective on the public sector's role in fostering innovation and making new markets – often through a mission-oriented approach. One of the best examples of this is the NASA moon mission to put a man on the moon, which was used to inspire action and bring in broad range of different stakeholders to succeed with. She also illustrates the for instance most of the technologies that made the iPhone "Smart" came from public funded research. Mazzucato was in 2017-2019 also a special advisor to Carlos Moedas, the commissioner for Research, Science and Innovation in the European Commission and helped direct the upcoming Horizon programme from 2021-2027 towards a mission-oriented approach. This mission-oriented framework can work as a tool to make these grand challenges – such as the SDGs – achievable by turning them into missions, where the right answer is not known in advance, but rather guide innovation and reward those who take

---

[7] https://www.hel.fi/static/helsinki/julkaisut/SDG-VLR-Helsinki-2019-en.pdf

risks and experiment.
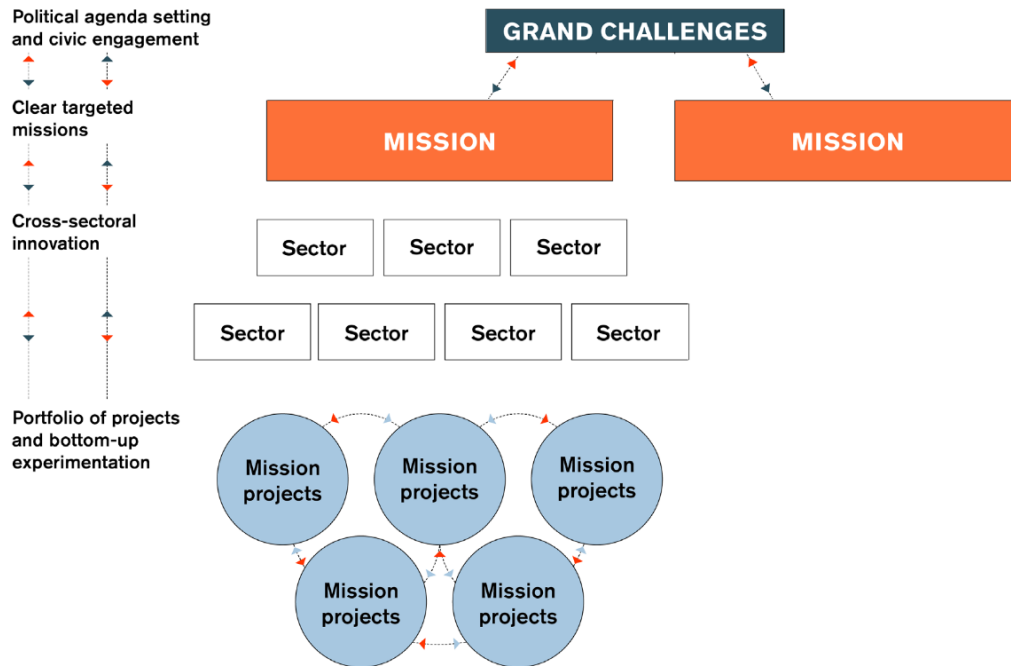
If you have not yet familiarized yourself with this mission-oriented innovation approach, then Mariana Mazzucato published "Missions: A beginners guide"[8] in December 2019, where the basic concept of a mission-oriented approach to innovation policy making is presented. In this guide five criteria are presented for developing missions:

- Be bold, inspirational with wide societal relevance
- Set a clear direction — targeted, measurable, and time-bound
- Be ambitious but realistic
- Encourage cross-disciplinary, cross-sectoral, and cross-actor innovation
- Involve multiple, bottom-up solution

Many cities in the Baltic Sea Region has a goal of becoming CO2 neutral within the next 10-20 years i.e. Aarhus and Espoo has a goal of becoming CO2 neutral by 2030, which also connects to the EU's ambitions, which can be seen displayed in this mission-oriented innovation framework in this example from Mazzucato's "Mission-Oriented Research & Innovation in the European Union" from 2018:

---

[8] https://www.ucl.ac.uk/bartlett/public-purpose/sites/public-purpose/files/iipp_policy_brief_09_missions_a_beginners_guide.pdf
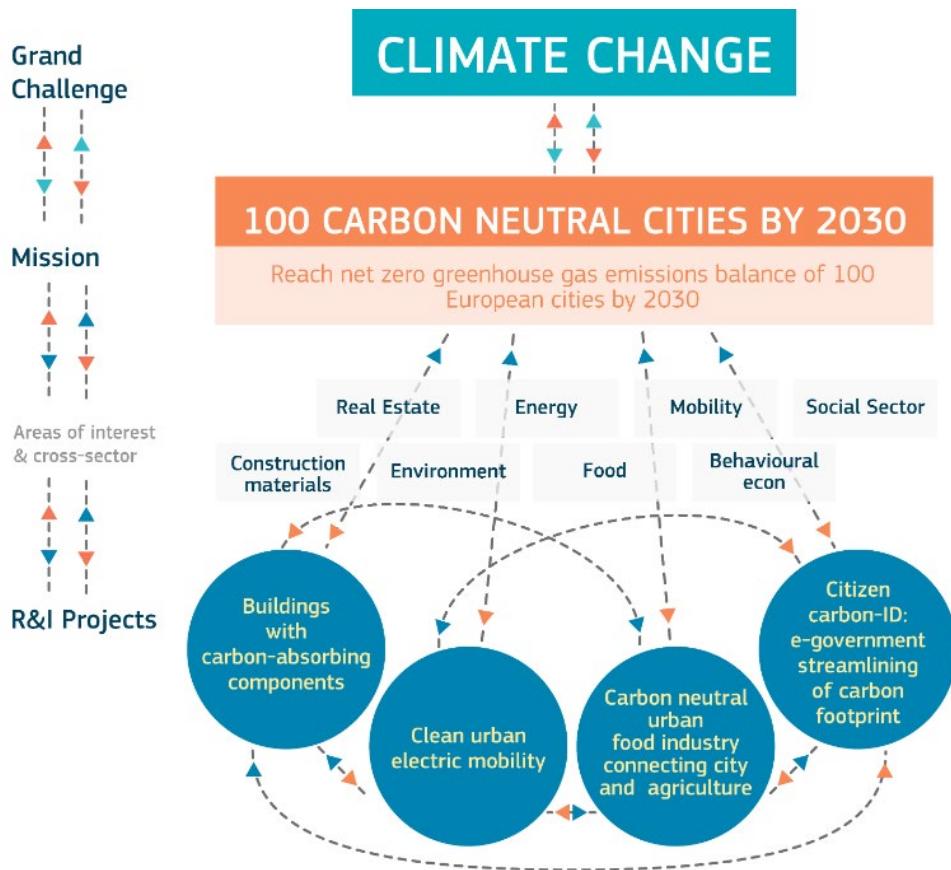
So along the same lines as with the UN SDGs then the mission-oriented innovation policy framework will if adopted into the cities strategies and policies work a tool to connect the innovation efforts of the cities and create a shared language e.g. the cities that have a mission to become CO2 neutral within the same timeframe can easier explore the supporting projects that is being worked on in different cities in other countries and learn from each other.

Best practices in the Smart-Up BSR connected cities

As we conclude this suggested concept for helping cities to work more innovative and together we have summarized some of the main take aways from the frameworks into the themes below. For each theme examples from cities related to the Smart-Up BSR partners has been provided:

- Engaging with quadruple helix stakeholders to create new innovative solutions
- Prototyping and exploring the potentials of new technologies.
- Creating "space" for innovation and inspiring action
- Making the city attractive for talents and businesses to stay, work and live in.
- Sharing solutions and experiences with other cities
- Co-created, Mission-oriented, and/or SDG related innovation strategies or policies

Engaging with quadruple helix stakeholders to create new innovative solutions

Aarhus, Denmark:
The Aarhus' Smart City (SC) initiative is known as 'Smart Aarhus'. It was co-created in 2012 with 35 broad stakeholder groups and build on a non-bureaucratic coalition of the willing (an agreement without formal contracts).

Cities from the Helsinki-Uusimaa region, Finland:
The cities of Helsinki, Espoo and Vantaa are partners in the ERDF 6Aika project The ecosystems of growth. One tool that has been used is hackathons. In the project City of Espoo developed a tool that any city can use while planning to either host or participate in a hackathon. The tool includes a process description and a checklist of what the city should consider before and during a hackathon. https://6aika.fi/en/what-happens-beyond-hackathons/

Kotka, Finland:
A hackathon called "Hack the Port" was arranged in the city of Kotka in April 2019. The idea was to create new solutions based on open data for the Port of HaminaKotka and the Port of Turku. Another hackathon called "Hamina AR Hackathon" was arranged in the city of Hamina in October 2017. The idea was to develop virtual content and digital solutions for tourism business and cultural attraction.

Gdansk, Poland:
Gdansk Enterpreneurship Foundation (Starter Incubator) conducts the role of a Leader (Coordinator) of 1 Pomeranian Smart Specialization – Maritime/Transport/Logistics/Offshore. Their role is to effectively link traditional maritime companies with innovative startups, scaleups and SME's to build up cluster solutions and involve academic institution to simplify business – academia cooperation. The Metropolitan Area office is often a platform for creating new policies (common for all municipalities, or all cities - also smaller ones). They work in a multi-sectoral environment. In their work they use a lot of different methodologies like design thinking, they have also used the dragon dreaming method during the Gdansk-Gdynia-Sopot InnoCamp organizes within the Smart-up BSR project.

Sct. Petersburg, Russia:
One of the brightest examples of collaborating stakeholders based on the quadruple helix concept for the innovations to be brought into real life and to meet the society needs is called Foresight Fleet. "Foresight Camp 2019" was a large-scale urban project for a systematic launch of startups in St. Petersburg for boosting economic growth of the region, improving the level and quality of life of citizens, and uniting urban and professional communities. More than 300 entrepreneurs, investors, representatives of state corporations and large businesses, federal and regional authorities, development institutions, leading technology companies and startups were involved within the framework of the event. http://spbff.ru/about/

Vilnius, Lithuania:
The Vilnius city is a partner of Hack4Vilnius hackathon, which is organised by two largest city universities, Vilnius University and Vilnius Gediminas Technical University, Sunrise Valley Science and Technology Park, and the international company Congizant, with several other private and public partners. The main aim of the hackathon is to propose innovative solutions for real life problems proposed by the municipality and its residents.

Klaipeda, Lithuania:

Last year three hackathons were organized with themes relevant to the city:

1. "Portathon Baltic 2019" in 20-22 of September 2019. Main focus was to generate solutions and prototypes in 4 themes: 1) digitalization in logistics; 2) automated port equipment; 3) digital port terminals; 4) smart transport ecosystems.
2. "Delta Navy Hackathon" in 25-27 of October 2019. There were invited scientists from different fields, technical and software specialists and asked to find new ideas for three major issues raised by the Naval Force.
1. "Hacker games. Open data" Hackathon in 15-17 of November 2019. This hackathon brought together about 40 professionals and enthusiasts from various fields who were interested in innovations, data analytics, technology development and digital marketing.

Liepaja, Latvia:

The Liepaja Business Incubator hosted a Hackathon sprint to develop the idea of an e-tool with the aim of creating an ICT solution or e-tool for the prevention of various diseases for young people. Within the framework of the Hackathon sprint, pilot projects were presented in 6 countries (Latvia, Lithuania, Estonia, Finland, Poland, Germany) to reduce lifestyle-related health problems among young people, as well as planned actions to reduce this problem. Based on national examples, teams of participants will need to develop an idea for an ICT solution or e-tool (such as an application) within 24 hours that could be used to intervene in any of the problems presented.The Hackathon Sprint is organized within the framework of the Interreg project "BaltCityPrevention".The event was organized by Liepaja City Municipality, SIA Telemedica, LIAA Liepaja Business Incubator and Riga Stradins University.

Prototyping and exploring the potentials of new technologies.

Aarhus, Denmark:

In a recent project, the Aarhus Municipality has together with Aarhus Harbour, a dutch company, and other stakeholders created a prototype for a water drone that will in combination with an aerial drone remove waste and identify and clean oil spills in the harbor.

Cities from the Helsinki-Uusimaa region, Finland:

Kalasatama is a smart city district in Helsinki. The district has been a practical test and development lab for innovative services. Eg. the Agile piloting programme has procured agile pilots to test solutions to real city challenges. https://fiksukalasatama.fi/en/agile-piloting/

The ERDF projecs "Jätkäsaari smart mobility" created an urban test area fot smart mobility in the Jätkäsaari area. Jätkäsaari is a new district near the citycenter of Helsinki. In is a residential district but has also one of the busienget port in the world. https://forumvirium.fi/en/jatkasaari-smart-mobility-a-test-area-for-smart-mobility-and-accelerator-for-commercialisation/

Tallinn, Estonia:

Tallinn City is financially supporting Prototron which is a competition for prototype funding. The city has also been a partner in numerous EU-funded innovation projects that have helped to develop new solutions such as Tallinn ticketing system, sensor technology that can monitor

urban air quality and measure traffic flows, Tallinn geoportal etc.
More information: https://www.tallinn.ee/eng/tallinnovations/

Creating "space" for innovation and inspiring action

Aarhus, Denmark:
As part of the SmartAarhus strategy and business plan the city opens itself up as a testbed for innovative solutions. In relation to this ambition the municipality has established an urban smart city lab at the harbor front, where the whole quadruple helix ecosystem can test and co-develop smart city solutions. Currently the city is also a national Testbed for Precision Positioning and Autonomous Systems (TAPAS). With TAPAS, the user can achieve a real-time accuracy of few centimetres, even for moving objects (read more here: https://www.tapasweb.dk/english). The city has also established a city wide LoRaWAN network as one of the first municipality owned networks in EU. This network will allow for a faster uptake of Internet of Things solutions and experiments into the city. Aarhus was also the first municipality in Denmark to have an open data platform.

Cities from the Helsinki-Uusimaa region, Finland:
Aalto university in Espoo has set up a space for start-up community in the campus. "A Grid" is a startup community and one of Europe's largest centers for growth companies. As part of the Aalto University campus we work as a gateway to the university's international network of resources, talented students and cutting-edge research and resources. We also serve as a vibrant space for entrepreneurial expertise, services and events. A Grid houses all kinds of startups, accelerators, such as the European Space Agency and Aalto Startup Center, as well as partners and established companies, like Fortum. https://agrid.fi/

Kotka, Finland:

During a project called "Xlab" a multifunctional co-work, innovation and living lab type of space was created in the Kotka city center where you can work as well as organize events and participate in different events. Xlab Kotka is for Xamk students, staff and Research, Development and Innovation -projects of Kymenlaakso area.

Gdansk, Poland:
Creation of Starter Incubator constitutes the example of pro-innovative space funded by the City of Gdansk with an offer of incubation space (below market prices) and coworking area. Modern conference space and facilities are also available in Starter. City of Gdansk has also a special fund dedicated to a social innovations.

Sct. Peterburg, Russia:
"Boiling point" St. Petersburg - the first regional co-working space – has been operating at the territory of the LENPOLIGRAFMASH Technology park since November 7, 2016. Boiling point - St. Petersburg is the place where project leaders in the field of innovation, business, industry and social entrepreneurship meet, develop and communicate. The initiator of the creation of this place was the Committee on Industrial Policy and Innovation of St. Petersburg with the support of the Young Professionals department of the Agency for Strategic Initiatives (ASI) and the ASI public representative in St. Petersburg, Kirill Soloveitchik. https://tboil.spb.ru/

Tallinn, Estonia:
The city is very open to provide opportunities for testing new solutions, e.g allowing self-driving buses on its streets and providing other necessary support (changes in traffic etc). For informative purposes Tallinn City has gathered much of its information related to innovation activities on a single page: www.tallinnovation.ee

Vilnius, Lithuania:
PropTech sandbox „RealBox" - private companies and the City of Vilnius are offering property for prop-tech digital service startups to sandbox their solutions. So far, over two million square meters have been allocated to this playground of urban innovation, with the city providing a significant part of that space.

Making the city attractive for talents and businesses to stay, work and live in

Cities from the Helsinki-Uusimaa region, Finland:
The cities of Helsinki and Espoo have a pilot project of Talent Attraction. Representing the capital region, Helsinki Business Hub hired two Talent Managers. Their task is to acquire better knowledge of the needs of international talent and local companies. They also carry out regional economic development work by designing a functioning cooperation model with the private sector to sustainably attract international talent. The projects pilots ways to raise interest among both local companies and international talents in selected target markets and already match together recruiting companies and job seekers. The talent managers work in collaboration with International House Helsinki. International House Helsinki provides a wide range of information and public authority services to meet the needs of international newcomers in the Helsinki metropolitan area. They also offer free advisory and counselling services to employers on issues related to international workforce. www.ihhelsinki.fi

Kotka, Finland:
Ongoing Kotka Old Port area regeneration project is an example of a huge effort to make the city of Kotka attractive. The overarching vision is to transform a brownfield area on the seaside to a mixed-use area for residents, students and tourists in a sustainable manner. In mid-October 2018 the city of Kotka, Cursor Oy and South-Eastern Finland University of Applied Sciences signed a letter of intent to implement the construction of a new campus, event center and as a part of the event center Kotka-Hamina regional business center's premises. Things have progressed according to plans. The construction of the event center and new campus will begin around 2020-2021. It will be operational by 2023. The Kotka Old Port area will be built and regenerated into a platform for co-creation and collaboration between the city, university, entrepreneurs, businesses, business development and incubation services and residents, which in turn strengthens Kotka's profile and attractiveness as a highly regarded university city.

Gdansk, Poland:
Gdansk (and Pomerania Region) received the European Entrepreneurial Region Award for 2020 which makes the City better recognized in Europe. Portal LiveMore Pomerania attracts young talents to work and live in Gdansk. In Financial Times ranking Gdansk and TriCity area took one of the highest positions regarding most attractive places for work in entire Central and Eastern

Europe. Gdansk andi its metropolitan area is also on the highest positions in Poland regarding pro-ecological attitude, clean air etc. which also helps to attact tech talents.

Sct. Peterburg, Russia:
Conducting in 2020 the semi-finals of the "Leaders of Russia 2020" contest in the NWFD - the regional semi-finals of the "Leaders of Russia" contest, the flagship project of the presidential platform "Russia is a country of opportunities", for participants from the North-West Federal District (NWFD).

Vilnius, Lithuania:
Workation Vilnius. Every year, Go Vilnius awards week-long paid workations to 3 different foreign companies. The programme pays for the flights and accommodation of 10 team members, and organises a state-of-the-art workplace, exclusive networking and knowledge-sharing opportunities, plus many options for exploring the city after working hours. In the two years the programme has been active, more than 150 applications were received and 6 winners were selected: British Telecom, Expedia, Order YOYO (2018), British Airways, Monese and Siemens (2019).

Klaipeda, Lithuania:
Klaipėda was the first city in Lithuania that offers a financial incentive to set up and expand service centres by compensating a share of the rent in exchange for the vow to keep the jobs that are being created. This year, Klaipėda aspire to offer more tools to integrate returning Klaipeda citizens, keep the foreign students working here after graduation, and create an attractive space for specialists from abroad.

Sharing solutions and experiences with other cities

Aarhus, Denmark:

In early 2018, Aarhus was appointed knowledge partner in the Global Platform for Sustainable Cities, building strong international ties and sharing knowledge. Aarhus also shares its innovative environmental solutions with the world, like in Udaipur, India, where Aarhus' expertise on clean drinking water has helped strengthen business alliances with India. Aarhus is also a founding member of the Open And Agile Smart Cities network, which supports the cities in defining smart city standards and market, and currently has 140 member cities across the globe.

Cities from the Helsinki-Uusimaa region, Finland:
The City of Espoo is an active participant in international networks. These organisations offer platforms for sharing knowledge and exchanging ideas in order to improve the city's services and the competence of its staff. Furthermore these networks make important policy work on specific issues and reinforce the important role that local government plays.

- EUROCITIES
- Union of Baltic Cities (UBC)
- ICLEI – Local Governments for Sustainability

- Global Network of Learning Cities (GNLC)
- International Association of Educating Cities (IAEC)
- Regional Centres of Expertise on Education for Sustainable Development

Kotka, Finland:

"Hack the Port" hackathon arranged in the city of Kotka in April 2019 shared new solutions between the Port of HaminaKotka and the Port of Turku.

Sct. Petersburg, Russia:

Cooperation between St. Petersburg and the Republic of Korea within the framework of the roadmap 2017-2021, approved as a result of negotiations between the heads of the executive bodies of St. Petersburg and representatives of the authorities of the Republic of Korea, in particular, the cities of Seoul and Busan, including the development of trade, economic, scientific, technical and cultural ties.

Tallinn, Estonia:

Tallinn City is a member of various international organisations such as Eurocities, International Network for Urban Development, Baltmet, POLIS, Union of Baltic Cities, the Union of the Capitals of the European Union, IMPACTS and several other organisations. In Eurocities' Knowledge Society Forum, Tallinn City has introduced its e-services to other cities. Different competitions such as European Innovation Capital, European Capital of Smart Tourism and Intelligent Community Forum (ICF) Award program have also enabled Tallinn City to introduce its solutions.

Vilnius, Lithuania:

Vilnius is a participant in the Bloomberg Philanthropies program, where 21 EU capital cities share their know-how and experience on digital innovation and delivering digital services to their citizens. https://www.bloomberg.org/press/releases/bloomberg-philanthropies-selects-twenty-one-european-cities-to-join-new-digital-innovation-program/

Klaipeda, Lithuania:

In 2021 Klaipėda will be a European Youth City for one year. During this period Klaipėda will have an opportunity to implement innovative ideas, projects and planned activities that will empower young people and promote their involvement and European identity. Klaipėda is the 13th European city that received this title. European Youth Cities Initiative came up from European Youth Forum – this organization brings together the biggest national youth councils and other organizations. The Council of Lithuania Youth Organizations is a full member of the European Youth Forum.

Liepaja, Latvia:

Liepaja has shared its experience with other Latvian cities regarding different infrastructure solutions and also appartment builings renovation because Liepaja in the past two years have renovated more than 225 appartment buildings through projects. The competition "The most energy efficient building in Latvia" is organized by the Ministry of Economics, the Ministry of Environmental Protection and Regional Development and the magazine "Civil Engineer". The aim of the competition is to promote good practice in the field of energy performance and sustainability of buildings through the construction, renovation and conversion of energy

efficient buildings, thereby reducing greenhouse gas emissions into the atmosphere and raising public awareness of the create a quality, architecturally expressive living space. For example in Liepaja Olympic Center Manege has received award for 1st place in nomination "Most energy efficient public building 2019". Also in 2018 Liepaja received award 1st place in the nomination "The most energy efficient renovated apartment building 2018'' for house in Klaipeda Street 70.

Co-created, Mission-oriented, and/or SDG related innovation strategies or policies

Aarhus, Denmark:
Aarhus has a strong focus on co-creation and a long tradition of involving citizens, companies, and relevant stakeholders when developing the city. The City even has a policy on active citizenship – a policy that was co-created together with 700 citizens and stakeholders. The active citizenship policy is a recognition of the active citizenship already being exercised and a recipe for how everyone living and working in the city can work together for Aarhus. Read the policy here. Another example of co-created policies in Aarhus is the policy for Libraries and Citizen Services, which was co-created with citizens and relevant stakeholders. Concerning the SDGs, then these are incorporated into the recent policies and strategies of the city i.e. the aforementioned strategy, the upcoming climate strategy, and the smart city strategy. The last one is also build up around the mission-oriented framework.

Cities from the Helsinki-Uusimaa region, Finland:
The Helsinki-Uusimaa Region has set the goal to be CO2 neutral by 2035. Together with the regions municipalities the Regional Council is preparing a roadmap with concrete steps to reach this goal. In the draft version we have five priorities that are the most important and most urgent

- smart land use and construction
- fast and sustainable energy transition
- smart and sustainable consumption and production
- smart, safe and sustainable mobility
- carbon neutral circular economy

Kotka, Finland:
Kotka has together with many other finish municipalities pledged to reduce carbon dioxide emissions by 80% by 2030.

Gdansk, Poland:
At the end of 2020, the current Development Strategy of the Pomeranian Voivodeship expires. In April 2019, works on a new one was officially started - with a horizon of 2030. In order to conduct discussions among Pomeranian local governments, the Marshal of the Voivodship created four Subregional Working Teams, including the Metropolitan (Gdansk-Gdynia-Sopot) team. The process of work on the Metropolitan contribution to the Strategy took place in a workshop cycle and was the most important and valuable moment of work on report. It was the moment of verification of the point of view of local governments by social, economic and

science partners, on the other hand it was an invaluable forum for exchanging ideas and experiences. A wide range of both local government, partners from the world of economy, science and social organizations were invited to participate in the workshops. 50 to 70 people took part in each of the workshops, gathering together almost 350 participants. The result of the work are reports characterizing the Metropolitan Subregion in terms of diagnosis of development potentials and barriers, Subregion's vision in 2030, upcoming trends as well as development priorities and key challenges.

Tallinn, Estonia:
As part of Smart-up BSR, Tallinn City has prepared its smart city action plan in cooperation with the Baltic Innovation Agency. In the near future the City Council will adopt SECAP and currently a short action plan is prepared which will address the circular economy.

Vilnius, Lithuania:
Vilnius has an open data policy ensuring that it shares municipal data pertaining to finances, public procurement, real estate, transport and much more. All the data is readily available to the public, and authorities actively engage local tech talent to help create even more smart solutions for the city. Municipality has an API open data portal with real-time data, historic details, program codes etc. It also maps data in a user-friendly format enabling city residents to find out about planning and building, investment projects, educational institutions, leisure areas, the transportation system, and much more.