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SUSTAINABILITY bulletin 2015

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The Moment of Cities and Sustainability

This autumn is a special time for sustainable development and for cities: in September, the United Nations adopted the global Sustainable Development Goals (SDGs). Building on the rather good success of the preceding Millennium Development Goals, these new goals bring together the economic, social and environmental development agendas and set concrete targets for the next 15 years, up to 2030. For the first time in history, these 17 goals include a specific one for cities (goal number 11).

In December, the Conference of Parties (COP) 21 will most likely agree on the new climate protection measures in order to save the planet from fatal over-heating. As of today (9 October), the world's countries have already committed to mitigation actions that would limit the likely raise of global temperatures below three degrees centigrade. This is promising, although still by far not enough to keep the world safe and liveable for future generations.

Cities and towns are crucial for the implementation of both the SDGs and a successful climate policy. At the same time they have much to gain from both. According to a recent estimation by the Climate Economy Group, the investments to clean urban solutions have an economic potential of 17.000 billion US dollars. Such solutions are usually also best developed in cities.

However, getting the benefits from this urban market is not a matter of reaping bounty. There is a number of cities in the world that can be called "green economy leaders". Such cities have top climate policies and boost innovation and business development for new clean solutions. Luckily for us, the top cities include also several UBC members. In the recent global listing of leading climate commitments by the Climate Group and Carbon Disclosure Project, among the top nine cities six were from the Baltic Sea region.

What does it then require for a city to become a green economy leader and how can UBC support its members in this? The success factors of leading cities have been analyzed among others by the London School of Economics and Political Science (LSE). Case study examples have included for instance Stockholm and Copenhagen. According to LSE's findings, the leading cities have both top environmental policies and excellent circumstances for business development. This is not a piece of cake to achieve, but it certainly is worthwhile and these goals are actually better reached in combination.

Our region and the UBC have all the potential to be world leaders in the development of climate smart cities and green urban economies. This is also an explicit aim of the new UBC Sustainable Development program, to be adopted at the General Conference in Gdynia in the end of October. There could not be a better moment for this!

Risto Veivo

Co-chair UBC Sustainable Cities Commission
Development Manager Climate, Environment Policy and Sustainable Development
City of Turku

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Baltic Cities Sustainability Bulletin 2015 is published by the Union of the Baltic Cities Sustainable Cities Commission Secretariat.
Chief-Editor: Esther Kreutz (firstname.surname@ubc.net) **Address**: Union of the Baltic Cities Sustainable Cities Commission Secretariat, Baltic Sea House, Vanha Suurtori 7, FIN-20500 Turku, FINLAND, Tel: +358 2 262 3171, Fax: +358 2 262 3425
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What does it mean for a city to be smart?

Interview with Andres Jaadla

Interview: **Elisa Bertieri** Photos: **Andres Jaadla**

Andres Jaadla

Andres Jaadla (*1965) is a member of Rakvere City Council and Member of the EU Committee of the Regions (CoR).

At the CoR he coordinates the ENVE (Environment, Climate Change and Energy) Commission. He was the Head of Development and Education in Rakvere Smart House Competence Centre until 2015 and has been involved in UBC work for many years.

What is the outline of a smart city in the Baltic Sea Regio context?

Their outline is mostly that of capitals and big to middle-sized cities which in general have more money and possibilities than small towns to implement smart solutions and services for their inhabitants and they can count on bigger infrastructures. Non theless, many smaller cities are also very active and forward thinking.

How does a city plan for smart cross-sectoral development that takes different kinds of citizens' and business' needs into consideration?

Most cities nowadays really understand that smart cross-sectoral development is the way forward. The Baltic Sea Region is the home of 234 cities and 77 of them have a smart attitude and have developed their own master plan to become more sustainable in the future. Cities such as Malmö, Copenhagen, Växjö, Helsinki (to be mentioned in this context the Forum Virium initiative), Turku and Lappeenranta as well as Riga are just some of the most innovative cities in the region.

Do you see e.g. benchmarking or inter-city cooperation as a good answer for saving time and money for a city wishing to start implementing smart solutions?

I see this as the key question in smart city development: yes, every city has its own project/master plan, but my hope for the future is that cities would put their resources together and learn from each other; build up platforms and invite private companies to participate and big universities who make research in this field and involve them all in the process.

What are your recommendations on how to engage a city in becoming more smart?

Every city has nowadays its own master plan: new generations with new solutions such as led lighting, automatisation and up-to-date regulation. The master plan is in general based on how to become carbon neutral or on how to save more energy in the future. Cities like Kaliningrad with its low energy consumption kindergarten and Rakvere with its Smart House Competence Centre believe in new technologies. The challenge is tough to find sufficient funding for such endeavors.

The EU 2020 strategy puts a focus on competitiveness, new business development, industry and society. Where do you think these European policy goals will lead to?

EU policies for smarter and innovative urban solutions have already prepared the frameworks for cities to plan their smart development: for example the Covenant of Mayors has already produced 2 calls for projects. I have very high hopes on European policy goals in this field: the new EU strategy Horizon 2020 considers smart cities as the key opportunity for the future of urban development and there is even more to come in the future: strong and user-friendly energy saving goals and new solutions on how to regulate energy in private households. The EU believes that now is the time to invest in cities, but a considerable amount of funding is required to achieve results. The UN is also investing in smart solutions: in ex-soviet cities they are implemented through the United Smart City multi-stakeholder project.

E-bikes in front of a recently renovated kindergarte in Rakvere

Why did Rakvere decide to implement smart city solution? What were the development steps to achieve results?

Rakvere has its own Sustainable Development Commission within the municipality: the city was one of the first signatories of the Covenant of Mayors and this is what motivates it to invest in energy saving strategies that would allow the city to achieve carbon neutrality. In 2013 the city had already reached its energy saving goal (+42% in energy savings) and after this result the Sustainable Development Commission has focused on building a Smart Competence Centre (the city hall) and on improving buildings insulations, install led lightening in streets and on planning and implementing other energy saving strategies. Moreover the energy policies throughout Estonia are changing at moment: a lot of emphasis is put on green energy. New heating systems allow the country to relinquish natural gas purchase from abroad.

If you make a wish: what would be an interesting development step to take on within smart city development?

Cities must loose their fear of using and trying new solutions and become forerunners in the implementation of smart and innovative strategies, make plans to implement smart solutions in their cities and remember to put their inhabitants at the center of the process. My wish is to have in the future developed and implemented smart solution for citizens with citizens (involved in the decision making process) and more technological and IT solutions in cities.

Further reading:

More information on the European Innovation Partnership on Smart Cities and Communities (EIP) on the European Smart Cties and Communities platform: **https://eu-smartcities.eu**. EIP is an initiative supported by the European Commission bringing together cities, industry, SMEs, banks, research and other smart city actors.

The Covenant of Mayors is an initiative launched, after the adoption of the EU Climate and Energy Package, in 2008. The aim is to support the efforts of local authorities in the implementation of sustainable energy policies targeted at climate change mitigation and energy saving strategies: **http://www.covenantofmayors.eu/about/covenant-of-mayors_en.html**.

Forum Virium is an internationally competitive digital services platform established for consumers and clients in the Helsinki Metropolitan area. The initiative brings together private and public institutions as well as citizens: **https://www.forumvirium.fi/en/the-six-cities-strategy**

"United Smart Cities" is a multi-stakeholder project launched by The United Nations Economic Com-mission for Europe (UNECE) in May 2014. The initiative targets major urban issues in medium-sized cities located in UNECE countries' with economies in transition: **http://www.unece.org/housing/smartcities.html**

Welcome to the UBC Sustainable Cities Commission!

In the course of UBC´s re-organisation, the former Commissions on Environment, Energy and Transport are now forming the UBC Sustainable Cities Commission. The commission and its Secretariat are hosted by the City of Turku, Finland and are responsible for UBC's work on sustainability issues, for coordinating the UBC Sustainability Action Programme and for managing projects in the fields of urban sustainability.

The new UBC Sustainability Action Programme 2016 – 2021, which will form the basis of the commission's work in the years to come, will be adopted by the UBC General Conference in Gdynia on Oct 29th 2015.

In June 2015 around 30 participants gathered in Turku, Finland for the official launch of the SCC and discuss further steps of cooperation and the development of the common work. At the meeting also the new structure of the commission was decided: besides having three co-chair persons as before, the member cities expressed the wish of forming an Advisory Board, consisting of representatives of active member cities.

The work of the UBC Sustainable Cities Commission is coordinated by the Head of the UBC Secretariat of the Sustainable Cities Commission, Björn Grönholm and three co-chairpersons: Dace Liepnice from Liepaja, Per-Arne Nilsson from Malmö and Risto Veivo from Turku have been re-elected as co-chairs for the two year period 2015 – 2017. Their responsibilities include planning the activities for the following years, planning the meetings of the UBC SCC and being involved in deciding themes and timetables for the SCC publications.

To support its activities, strengthen cooperation with UBC member cities and better support them in their sustainable development, the UBC SCC has established an **Advisory Board** consisting of the three co-chairpersons, the Head of the Secretariat as well as currently 9 experts from our member cities (Smart City, Climate Change, Biodiversity/Environmental Protection, Mobility (SUMP), Water management, Circular economy). The role of the Advisory Board members is to support the UBC Sustainable Cities Commission and the secretariat in its actions by bringing national and theme related expertise and recommendations in to project related activities. This will be achieved, e.g., through support in finding important themes and topics for the Sustainable Cities e-bulletin and Bulletin and UBC Sustainable Cities Commission meetings, by proposing project themes and comment on urgent and policy related issues.

The three co-chair persons as well as the Advisory Board members are elected for a period lasting until the UBC General Conference 2017.

Get to know the UBC Sustainable Cities Commission

The Advisory Board

Andres Jaadla
City of Rakvere
Smart City

Saara Vauramo
City of Lahti
Climate Change

Olli-Pekka Mäki
City of Turku
Biodiversity / Env. Protection

Andreas Hedrén
City of Växjö
Water Management

Annika Kruuse
City of Malmö
Circular economy

Also:

Rieke Müncheberg
City of Rostock
Mobility (SUMP)

Gunita Osite
City of Jelgava

Dagmara Nagorka-Kmiecik
City of Gdansk

Indre Buteniene
City of Klaipeda

The Co-chairs

Dace Liepnice
City of Liepaja

Per-Arne Nilsson
City of Malmö

Risto Veivo
City of Turku

The Secretariat

Björn Grönholm
Head of the secretariat

Jussi Välimäki
Financial manager

Kaj-Michael Lang
IT

Laura Sarlin
Publications officer

Agnieszka Ilola
Project coordinator

Ralph de Jong
Project coordinator

Esther Kreutz
Project coordinator

Olena Zinchuk
Project coordinator

Janne Rinne
Project coordinator

Stella Aaltonen
Project coordinator

Maiju Kähärä
Project officer

The new UBC Sustainability Action Programme 2016 – 2021

– Stairways towards Sustainable Baltic Cities

Text: **Björn Grönholm** Photo: **Maija Rusanen**

The UBC Sustainable Cities Commission (and previously the Commission on Environment) has been responsible for the implementation of the UBC Sustainability Action Programme 2010 – 2015 approved at the General Conference in Kristiansand in September 2009. The programme was a successful one and lead to many concrete results: UBC is an active and respected partner in the EUSBSR implementation, we received numerous externally funded projects and a high number of UBC member cities have been involved in our work. Furthermore we continued good cooperation with other UBC Commissions and built on our good reputation as a knowledgeable partner. In our secretariat we work in an international and skilful team and we have successfully tested new technologies for efficient meeting management in the past years.

UBC cities in pole position in sustainable development – the new programme 2016 – 2021

The preparations of the UBC Sustainability Action Programme 2016 – 2021 together with the UBC Executive Board and other UBC Commissions started in spring 2014. An important factor for us in the strategical UBC work has been to have an open and interactive discussion with our member cities and other key organizations.

The UBC Sustainability Action Programme 2016 – 2021 is an ambitious programme – with the focus on UBC cities being climate-smart, providing a good ground for green growth economy, being resource-efficient and sustainable in all their activities as well as protecting the environment and waterbodies in the Baltic Sea Region. In more concrete terms the programme will work in the field of regional development, sustainable urban mobility, energy efficiency, green smart growth and reduction of nutrients from rivers and water bodies. The planning and implementation has already started via several project proposals. Until September 2015 more than 15 project proposals covering the above mentioned fields and including more than 25 UBC cities have been developed and submitted. Some proposals have already been accepted and we expect results still in 2015 for most of the other project applications.

Building strategic partnerships and aspiration of global recognition

In line with the working principles of the UBC, the Action Programme shall also contribute strongly to Baltic Sea Regional and European policy co-operation processes on cities' environmental governance and sustainable urban development.

The new UBC Sustainability Action Programme 2016 – 2021 also has a clear intention to strengthen the activity on the global arena. This can be done in close cooperation with the UBC member cities and their ongoing global work. The World Business Council on Sustainable Cities, the UN Climate policy process or the UN Smart City process are examples of global processes with potential interest of the excellence of UBC cities. An especially important global process to follow will be the UN Sustainable Development Goals that were accepted in September 2015.

The UBC Sustainability Action Programme 2016 – 2021 wants to encourage you to become more active, to be leaders in sustainability and take the chance to make a change. For your inhabitants. For your city. For the region. For the world.

And we are here to support you, join us in our common effort!

More information:
Björn Grönholm,
Head of Secretariat, UBC Sustainable Cities Commission
bjorn.gronholm@ubc.net

Riga acting smart!

Text: **Mara Zira** Photo: **Riga City Council City Development Department**

Many cities are striving for the title SMART CITY. Some are building new cities (a zero carbon smart city Masdaar city), but most cities, as well as Riga are trying to adapt new diverse approaches to become smarter.

In 2014 Riga received the title of "Smart City" in the contest organized by the magazine "The New Economy", proving that Riga is a city of the future – where people think and act on a long term basis. Besides, in 2014 Riga was announced the European capital of free WiFi. In the FDI Magazine annual study "European Cities and Regions of the Future 2014/2015", Riga is ranked in the first place as "the best European city based on cost effectiveness".

Sustainable planning, integrated solutions and a smart approach are the main principles that are used to elaborate the new Sustainable Development Strategy of Riga until 2030 and the Development Programme of Riga for 2014-2020 (2014). To become a compact, resource-saving and smart city is one of the goals to be achieved by 2030. In the Smart City Sustainable Energy Action Plan for 2014–2020 (2014) the goal of Riga is to bring the city closer to achieving the status of a smart city by integrating innovative information and communication technologies into energy and transportation. The plan was elaborated by considering the signed Covenant of Mayors and the initiative of the European Commission - European Innovation Partnership on Smart Cities and Communities.

To ensure convenient communication between inhabitants and the local authority, the municipality of Riga is using ICT tools more frequently, at the same time reducing their expenses and administrative burden. In 2014, 30 of 230 services offered by the municipality were e-services. On a daily basis people are using electronic travel cards in the public transport, (municipality provides free of charge public transport for supported target groups (children, pupils, retired not employed, large families), a mobile application of public transport is developed for travel planning, payment for public car parking can be done via SMS, 23 electric cars are being used for municipal technical service needs, as well as bicycle roads are being developed.

Riga has become a member of HyER to work on the introduction of hydrogen buses into the public transport network. Riga museum exhibitions can be explored on mobile applications, electric "trains" carry the guests of the city, segway, bicycle and bicycle rickshaw rent is available. In the education sector the e-Class portal has gained popularity among educational institutions, students and parents. Riga municipality is also implementing EU projects towards smart city (SUM Project, GreenITnet, STEP Up, INFINITE Solutions etc.).

Comfortable, functional, efficient, sustainable development-oriented learning, working and living environment is created in a newly built Academic Center for Natural Sciences of the University of Latvia (2015).

Private initiatives are also striving to act smart. Entrepreneurs are using remote working advantages; companies are offering retail services on the internet (including food) to decrease needless traveling which is one of important smart city aspects. Despite many realized activities there are still a lot of things to be done in Riga to become smarter: to develop interactive platforms for public transport in stops, improve public transport arriving on time, and expand development of public e-services.

Further sources:

Development Programme of Riga for 2014–2020, 2014
Riga Municipal Agency "Riga Energy Agency", the Annual Report, 2014
Riga Smart City Sustainable Energy Action Plan for 2014–2020, 2014
Sustainable Development Strategy of Riga until 2030, 2014
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http://livingcircular.veolia.com
http://www.stepupsmartcities.eu
www.veloriga.lv

More information:

Mara Zira
Mara.Zira@riga.lv
City of Riga

Umeå – a co-creating green and smart city

Text: **Albert Edman** Photos**: Bostaden i Umeå AB and Johan Gunseus**

The fast-growing city of Umeå works on many fronts to develop the city in a smarter and greener way. As the European Capital of Culture in 2014, Umeå built its work on an "Open source" approach, inviting more than 100 different stakeholders to co-create the programme year of more than 1000 cultural activities. Does this approach translate into the development of the city as a whole?

Well, one example is a partnership between the Bostaden housing company, utilities company Umeå energi, Umeå university and the city to develop Sustainable Ålidhem, a pilot district housing about 1 % of the city's population. The project was evaluated after five years in 2015, and the net result is encouraging, a 40+ % energy efficiency in the refurbished pilot house, a 60 % energy reduction in the new construction, while rent levels only increased 10–12 %.

One main challenge for today's smart cities is sustainable transport. In Umeå, the public transport company ULTRA set up a co-operation with local bus developer Hybricon Bus Systems to test the world's first ultra-fast charged all-electric buses already in 2010. Today, the electric buses with hybrid back-up are running in the public transport system. By January 2016 there will be 9 buses in traffic and the vision is to add another 24 buses by 2020. Umeå is thereby facing up to the climate challenge by committing to investments in green innovation increasing the share of electric buses in the city transport system from 0 % to 70 % from 2010 to 2020.

The densification and expansion of central urban areas requires smart mobility solutions to manage traffic situations while creating attractive urban environments. To this end, Umeå is working with real estate owners on how they can take responsibility for commuter transport in addition to just offering car parking facilities – the so called "Green parking purchase" model. It builds on Umeå's Sustainable Urban Mobility Plan (SUMP) and allows real estate owners and developers to buy parking spaces from the municipal parking company rather than having to build them.

Ultra-fast charged electric buses with hybrid back-up

The Sustainable Ålidhem project

Currently, property developers in Umeå need to provide a certain number of parking spaces for cars in order to receive a building permit for their site. In the "Green Parking Purchase", Umeå lets developers build 40 % fewer parking spaces in exchange for a commitment to invest in changing the travel behavior of tenants and reduce their car use by 40 %. The commitment of the real estate owner is to:

- Provide extraordinary parking facilities for cyclists. For example, heated garages combined with a bike repair stations and dressing rooms;
- Provide on-site car-sharing system
- Develop a communication plan to promote new forms of sustainable urban mobility.

A new evaluation model showed that a full implementation of the 'green package' means that the target of the Green Parking Purchase - reducing car travel by 40 %, is realistic.

Umeå is constantly looking to develop as a green and smart city, and as such, have joined a new European Innovation Partnership for Smart cities in northern Norway, Finland and Sweden, coordinated by the East & North Finland EU Office.

In an effort to challenge itself further, Umeå has also applied for the European Green Capital award - a European Commission initiative aiming to promote and reward the important role that local authorities play in improving the environment. Umeå was selected as a finalist city in both 2016 and 2017, and is re-applying for a third time for the 2018 competition.

More information:

Albert Edman
Strategic development officer
City of Umeå, Sweden
E-mail: albert.edman@umea.se

Skanssi – Turku´s flagship for smart sustainability

Text: **Janne Rinne** Photo: **City of Turku**

The city of Turku in South-West Finland has set ambitious environmental targets for the near future. For example, it aims to be carbon neutral by the year 2040. In the city with about 185 000 inhabitants, Skanssi is one of the flagship areas for urban sustainability.

Skanssi is located four kilometers from the city center and is currently characterized by fields, small scale industry and abandoned greenhouses. By 2030, it will be transformed into a smart and ecological urban environment for 5000–8000 residents. The local master plan of Skanssi is under preparation, with special emphasis on environmental and social sustainability.

One important topic in the planning is the **energy** aspect: The smart energy network will allow the residents to sell and buy energy flexibly. The municipal energy company Turku Energia will introduce a modern energy network, which allows small-scale production and two-way trade of energy. This innovative solution was already recognized with the "Climate Action of the Year"- award by the Finnish Energy Association.

Another key theme is **smart mobility**. New mobility solutions will decrease the car dependency of the area. A car sharing scheme and neighborhood cargo bikes will be introduced. The concept of shared vehicles is being prepared in cooperation with the service providers. The idea is to decrease the parking lot requirement from the current practices. The money saved by building fewer parking lots can be used to cover costs of initiating the car sharing scheme.

The novel energy and mobility solutions are promoted in an integrative way already in the land use planning, not as separate initiatives later in the construction. For example, Skanssi will host multifunctional service points, which combine charging stations for electric cars and bikes, solar panels and screens that display information about the area, topical issues and events. Information about local services and companies can also be provided.

Importantly, Skanssi forms a platform to pilot innovative ideas and practices. The parks will act as learning environments and promote activeness of residents of all ages. Brooks and hollows in green areas will treat rainwaters ecologically and increase recreational values. Climate friendly asphalt, green roofs, multifunctional school buildings, and urban farming are other ideas to be piloted in Skanssi. These experiences can then be shared and used in other urban development cases, both in Turku and abroad.

More information:

Janne Rinne
Project coordinator
City of Turku, Finland
janne.rinne@turku.fi

Tampere – Sustainable and energy-efficient refurbishment

Text: **Kirsi Viertola** Photos: **City of Tampere**

In the city of Tampere a housing company saved 17 000 € through a sustainable and energy-efficient refurbishment of their premises by changing the heat recovery and ventilation. In one year the electricity consumption decreased by 47 % and the consumption of district heating by 61 %. How did this happen?

Tampere is one of the pilot cities in the EU funded project EU-GUGLE, which aims at demonstrating the feasibility of nearly-zero energy building renovation models to trigger large-scale, Europe-wide replication in smart cities and communities by 2020. In line with this objective, the pilot cities will integrate the results of the project into comprehensive 'smart renovation strategies' that will be easily transferable to other municipalities and be disseminated through an EU-wide replication campaign. The campaign wants to maximize the replication potential of the renovation models developed in EU-GUGLE, both in other districts of the same cities and in other cities facing similar issues across Europe.

In Tampere, the housing company rationalized ventilation and then installed exhaust air heat pumps and a solar thermal energy system in addition to heating energy. Several doors and windows were changed and their insulation was also improved at the same time. Careful planning and ensuring the whole operation with a remote control management was very important when there are several parallel systems in use.

Altogether these improvements costed 220 000 €. The heat recovery system cost was 120 000 € and its payback period is 7-8 years. TThis time the payback period will be 4 years since the company was awarded the project grant from the EU.

"Positive examples are very important because we are talking about big investments in limited liability housing companies. And we are talking about the residents' money, their homes and lives", says EU-GUGLE project manager Tiina Sahakari.

"Let´s make something that our neighbors can envy!" commented one resident. "We are not only benefitting from lower costs, we now also enjoy upgraded flats that are more comfortable and more valuable." And yes, this point of view has been much better than any paid advertisement! There have been more than 200 visitors, mostly from other housing companies, exploring the successful outcome of energy renovations.

EU-GUGLE stands for "European cities serving as Green Urban Gate towards Leadership in Sustainable Energy" and is funded under the 7th Framework Programme for Research and Technological Innovation. It is coordinated by CENER, Spain's National Centre for Renewable Energies. Read more from **eu-gugle.eu.**

More information:
Kirsi Viertola
ECO2 - Eco-efficient Tampere 2020 project
City of Tampere, Finland
kirsi.viertola@tampere.fi

Malmö – Shared energy doubles the force

Text: **Ellen Corke** Photo**: City of Malmö**

The Swedish innovation agency Vinnova has decided to fund a new smart project in the Northern Harbour area of Malmö. The project, named "Shared Energy doubles the force", aims at stimulating both industrial symbiosis and the use of smart energy solutions in the harbour area. With this daring plan, Malmö and the energy company E.ON build upon the knowledge and practical experiences gathered during the e-harbours program and the European project EPIC 2020. "Shared Energy doubles the force" reaches out to a new level.

The Northern Harbour is developing into the most important industrial area of Malmö. Most of the energy requirements of the city (and the surrounding region) are already met here. In the area you find conventional power plants, waste incinerators, biomass installations and wind turbines. Most of the heat for the district heating system of the town is produced in this industrial zone. The Northern Harbour is also one of the few remaining places in town where new industries can settle and grow. The city wants to foster much-needed employment and economic growth in this industrial zone.

Industrial ecology

The city of Malmö has formulated very ambitious climate goals (like being supplied by 100 % renewable energy in 2030) and to achieve these goals it wants to stimulate innovation and investment in the harbour area in a sustainable direction. Connecting local production facilities, so that they can use excess heat and energy from each other, is a main goal of the new project.

Low temperature heat

One interesting research topic in the project concerns the use of low-temperature waste heat. In many industrial areas, the supply of low-temperature waste heat is very large, but it takes a lot of effort (and energy) to work up this heat to the temperatures a district heating system needs, unless you can define other uses for the heat. Malmö now investigates the applications in farming ('a biological cooling chain') and if this turns out successfully, it will not only produce ecological advantages (locally produced vegetables) but also provide jobs that are needed in the city. This way, completely new connections can be forged between companies and economic sectors.

More information:

Ellen Corke
Project manager "Shared Energy doubles the force"
City of Malmö, Sweden
ellen.corke@malmo.se

Northern harbour in Malmö

Växjö is heading for a sustainable transport system

Text: **Pär Wallin** Photo: **City of Växjö**

The city has recently adopted a transport plan which includes most part of a SUMP (sustainable urban mobility plan) to reach the target to become a fossil free city already by 2030. The transport plan includes measures to increase the sustainable transport mode, walking, cycling and public transport by 9 % until 2020 and reach 47 % of the total use of transport. Some measures have already indicated that the target is possible to achieve.

Advantage bus

Bus travel has increased by 15 % since a major improvement of the bus fleet from old fossil diesel fueled buses 2013 to new buses fueled by biogas from the city's own biogas plant. The biogas is produced from organic waste collected from households and material from the sewage plant. The bus services frequency has increased from 15 minutes to 7,5 minutes on the most used bus routes. In 2014, the city introduced a bus priority system on the main roads between one of the large residential areas and the city center with a change from two lanes in one direction to one bus lane and one lane for other traffic. At the crossings and the roundabouts there are traffic lights to prioritise buses. When a bus passes a sensor, the traffic signal turns red for the other lane and gives priority to the buses in the roundabout. The bus priority lane is 2,5 km long and during rush hour it saves 1-2 minutes for the bus compared to before the bus priority. The measure has also a traffic calming effect. There is no possibility to overtake the car in front of you.

Try it, like it and buy it.

Through the project ELMOS, financed by the EU within the South Baltic Programme, the city has introduced electric bikes (pedelcs) as another measure to reduce the car travels in the city. In the project, 28 electric bikes have been lend out to employees at 25 different working places during one and half year. The persons have borrowed the electric bikes for three weeks to try if this could be a good way of transport for them. During this period they also let other persons, like colleagues, neighbors, relatives and others try out the bikes. In total, 450 persons have tried the electric bikes for three weeks and 4 500 persons have tested it. 10 % of the 450 persons have bought an electric bike. Through the surveys we could see that the e-bike replaces car trips. By having locale retailers of the e-bikes in the city, and marketing brands on the bikes, the sale of e-bikes in Växjö has increased significantly from 30 sold e-bikes in 2012 to 275 sold e-bikes 2014! Now we have smiling people riding e-bikes all over town! Try it, like it and buy it works…

More information:
Pär Wallin
Project planner Sustainable Mobility, Transport department
City of Växjö, Sweden
par.wallin@vaxjo.se

Development of smarter public transport in Gdynia

– fruitful execution of local policy

Text: **Dorota Gajda-Kutowińska** Photo: **Tomek Kaminski**

On 20th September 2015 the City of Gdynia organized the 6th European Trolleybus Day. It was a great chance to see the results of the public transport development in Gdynia as a part of long-term transport policy.

One of the many attractions during the event was the opportunity to visit a historical trolley of Gdynia's fleet - Skoda 9Tr20 and an up-to-date model - Solaris Trollino 12, which was bought as one of the two trolleys within CIVITAS DYN@MO in April 2015.

The new vehicles are capable to drive about 15 km without power from wires. They use energy cumulated in Lithium-Ion batteries which are placed inside the trolleybus. Due to this new technology, trolleybus line no. 21 has now an extended offline loop to the popular Gdynia Aquarium and well-known tourist area (Kosciuszko Square and John Paul II Avenue), which weren't connected to the public transport network yet. The extended line started to operate in the beginning of May in all weekdays exclude Sunday. It should operate until the end of October, but the local experts in public transport, based on research, are considering to set this line's extension as a regular, not only seasonal. Moreover, Gdynia's Trolleybus Transport Company with Public Transport Authority are planning to extend Li-Ion trolleybus transport to other living districts of Gdynia which are located on hills terrain and to Sopot and Gdansk. The test period should be started soon.

Trolleybus transport is not the only kind of transport which is developed in Gdynia now. The city is also investing in buses: beside to new CNG vehicles in the local fleet and rebuilding bus stops to be more friendly for elderly and disabled people, Gdynia has created a next bus lane. On 5th of October, on the one of the main streets in city center – Wladyslawa IV Street, within CIVITAS DYN@MO project, a new lane for buses was opened. By this investment, the time of journey on this street will be shorten by half and have a great influence for quality of public transport in the city. What is worth to mention, all vehicles of public transport managed by Public Transport Authority are connected to the Traffic Management System TRISTAR which allows to show the real-time schedule on each bus stop on the main roads of Gdynia.

More information:
Dorota Gajda-Kutowińska
Roads and Green Areas Management, Traffic Engineering Department
European Projects and Mobility Management Unit
City of Gdynia, Poland
d.gajda@zdiz.gdynia.pl

Developing integrated planning approaches and partnership models for brownfield regeneration with the Baltic Urban Lab project

Text: **Olena Zinchuk** Photo: **Jaak-Adam Looveer**

Due to migration, cities are becoming denser and green space is scarce. Instead of using unspoiled habitats, brownfields can satisfy the need for land and intensify the land use in urban areas. Redevelopment of brownfields into city districts where modern, sustainable solutions are combined with history and cultural heritage has the potential to make cities more attractive to invest in and create conditions necessary for sustainable development.

Baltic Urban Lab project promotes urban planning that is seen more as a co-creation of concepts and solutions on urban challenges in co-operation with different societal actors than an activity performed solely by the local authorities and that goes beyond the land-use planning. Brownfields are seen as Urban Labs – collaborations of Public-Private-People (PPP) partnerships, in which stakeholders innovate, co-create and test new designs, solutions and services in real-life environments e.g. on mobility, services, housing and energy. Cross-border cooperation brings a strong comparative perspective to the process, and the multilevel contexts and actors enable the examination of urban issues from different perspective and enhance mutual learning among the cities.

The project will develop new ways for the reuse of brownfields through piloting integrated planning and PPP- partnership models on local level in the partner cities of Riga, Tallinn, Turku and Norrköping. To facilitate mutual learning, a series of topic-specific training workshops and webinars for experts in the Baltic Sea region will be held, and the Joint Pilot Reviews including site visits will be carried out. These activities aim at increasing the participants' understanding of local remediation processes, improving their skills and capacities to apply integrated and co-creative planning approach and participatory tools. Eventually, the city pilots will result into the Integrated Plan and Development Strategies for the selected brownfield sites which will exceed the scope of statutory land-use plans and will define a vision and steps for the future development of the area.

Furthermore, the desk research analysis on the potentials and challenges of applying co-creation and PPP- partnership approach will be performed along with the collection of good practices and documenting lessons learned from testing of integrated planning and establishing local PPP-partnership in the partner cities. The outcomes will be fed into the development of the project's main output that can be transferred and adopted in any of the Central Baltic Cities - Integrated Planning and Partnership Model for Brownfield regeneration.

The project Baltic Urban Lab received a total funding of 2 200 177,75 € from the the Central Baltic Programme 2014-2020 and will be implemented 01.10.2015 – 30.9.2018. Project is led by the UBC Sustainable Cities Commission. Nordregio – Nordic Centre for Spatial Research is coordinating WP3 City Pilots on integrated planning and partnership models, and University of Turku – WP4 Mutual learning, transfer of good practice and recommendations. Project partners developing plans for their pilot brownfield sites are: Riga (Latvia), Norrköping (Sweden), Tallinn (Estonia) and Turku (Finland).

Interreg Central Baltic

More information:
Olena Zinchuk
Project Coordinator
UBC Sustainable Cities Commission
olena.zinchuk@ubc.net

Testing smart solutions for storm water management in the newly launched iWATER project –

"Integrated Storm Water management"

Text: **Agnieszka Ilola** Photo: **Andris Locmanis and Pekka Salminen**

Climate change has led to more frequent and intense storm and rainfall events along with increased flooding, storm water runoff and soil erosion. The increased runoff and flooding will force planners and storm water specialists to develop strategies dealing with greater volume and velocity of storm water. At the same time, urban areas are densifying and the ground is increasingly sealed. These trends pose new and serious challenges to storm water management in urban areas.

Green area in Riga, where storm water handling is considered

Cities all over the Baltic Sea Region (BSR) face more and more often storm water floods which cause solemn damages and flushes hazardous substances and nutrients to water bodies. Increased volume and velocity of uncontrolled storm water can transport pollutants, such as sediment, fertilizers, pesticides, hydrocarbons and other organic compounds and metals into water bodies or streams. Those augmented sediment and pollutant loads can adversely affect fish habitat and other aquatic life.

In a natural environment, when storm water is absorbed into the ground, it is filtered and ultimately replenishes aquifers or flows into streams and rivers. In developed areas, however, impervious surfaces such as pavement and roofs prevent precipitation from naturally soaking into the ground. Instead, the water runs rapidly into storm drains, sewer systems, and drainage ditches. Intensive precipitation and insufficient storm water capacity can cause flooding also in sewages and bypasses of untreated sewage water into the watercourses. In many places storm waters are still led partly to sewers and so causing dilution of waste water which decreases the efficiency of nitrogen removal at waste water treatment plants.

iWater project search for innovations in smart storm water management.

iWater aims to improve urban planning by developing integrated and multifunctional storm water management in Central Baltic cities and thus create higher quality, a cleaner and safer urban

environment which increase urban sustainability. The project provides a platform for science-practice collaboration aimed to find and develop common management methods and solutions for Integrated Storm Water Management (ISWM). Seven iWater partner cities from Estonia, Finland, Latvia and Sweden will adopt new ISWM programmes and more than 30 other cities from Baltic Sea Region will be trained to use developed methods.

The project partners will develop, pilot and disseminate innovations in urban storm water management that improve urban environment and decrease adverse environmental and climate impacts in BSR cities. A student competition will be organised to find and develop new, innovative storm water management solutions that are applicable to BSR conditions, for the seven partner cities. These will function as basis for investment plans which will be realized after the project lifetime. These ideas, plans and investments will function as best practice models for other BSR cities.

One of very important aspects investigated during the project will be the decrease of future costs of urban flooding. Through the multifunctional Green Infrastructure (GI) solutions, generated by integrated urban planning, the project will decrease storm water runoff and support prevention of hazardous leakage from the sewage systems into water bodies. As cities are the first to deal with immediate consequences, they should play a crucial role in implementing prevention and adaptation measures. Through experiments and learning from previous studies and from each other, iWater aims at providing guidance for authorities and decision-makers representing both public and private sectors on ISWM that promote the adaptive capacity of cities and sustainable use of natural resources.

iWater will employ a participative urban planning approach.

Local support groups will be established in all partner cities aiming at enabling municipalities to develop their ISWM solutions in close collaboration with local stakeholders and various community interest groups. Educational and local community involvement workshops will be organized with the aim to raise awareness of local residents on the role of ISWM within improvement of overall quality of urban environment.

The project activities include international and national training workshops where interested organisations outside the current partnership are very welcome. All the results and outputs will be broadly disseminated to other municipalities and organizations that are tackling similar challenges.

Augustenborg in Malmö, Sweden

The project iWater received a total funding of 2 352 149,93 € from the The Central Baltic Programme 2014–2020 and will be implemented 01.12.2015–31.5.2018. Project is led by the City of Riga, Latvia. UBC Sustainable Cities Commission is leading WP 4 Capacity Building & Piloting Multifunctional Storm Water Solutions and WP 6 Communication. Project partners are: Jelgava (Latvia), Söderhamn, Gävle (Sweden), Tartu (Estonia), Helsinki, Turku and Aalto University (Finland).

Interreg
Central Baltic

More information:
Agnieszka Ilola, project coordinator
UBC Sustainable Cities Commission
agnieszka.ilola@ubc.net

UBC led project Interactive Water Management (IWAMA) among 7 PA Nutri Flagships for the EUSBSR!

On 23.9.2015 IWAMA was approved as a flagship to the European Union Strategy for the Baltic Sea Region (EUSBSR)and included as an Annex to the Action Plan of the Strategy.

The project aims to improve the resource efficiency in wastewater management in the Baltic Sea Region by capacity development of wastewater treatment (WWT) operators and implementation of pilot investments which will result in reduced nutrient inflows to the Baltic Sea. The actions will focus on three main areas in the municipal WWT sector: capacity development, sludge management and energy management.

The project consortium consists of 17 partners from Estonia, Finland, Germany, Sweden, Latvia, Lithuania and Poland. The UBC Sustainable Cities Commission acts as a Lead Partner. The project applied for the funding from the Interreg Baltic Sea Region Programme 2014-2020 and the implementation is planned for 2016-2018.

The Policy Area Nutri (PA Nutri) of the European Union Strategy for the Baltic Sea Region (EUSBSR) works on Saving the Sea, which is one of the three main objectives of the Strategy. The aim of the Policy Area is to reduce nutrient inputs to the Baltic Sea to acceptable levels. The actions of the EUSBSR are implemented by means of Flagships, projects with high macro-regional impact.

More information:

http://groupspaces.com/eusbsr-nutrient-inputs/pages/ongoing-flagships

http://iwama.ubc-environment.net

Interreg Baltic Sea Region

EUROPEAN UNION
EUROPEAN REGIONAL DEVELOPMENT FUND

Overcome your SUMP CH4LLENGEs – learn online!

Is your city facing challenges in the process of developing a sustainable urban mobility plan? How to start the process at all and how should different stakeholders be involved? How to choose measure packages to implement the plan?

The CH4LLENGE project (2013-2016) is slowly approaching its end and we are currently producing the final outcome: comprehensive kits for each of the CH4LLENGEs that cities have worked with during the project: participation, cooperation, measure selection and monitoring & evaluation.

Each kit will include a comprehensive manual, a quick fact brochure and a corresponding online learning course.

Online learning is a very important part to enhance cities´ to access materials and knowledge independent from time and place and not needing to travel.

If you need inspiration and new ideas for designing a comprehensive SUMP process, the CH4LLENGE online learning courses are just for you!

Find all courses here:

http://www.sump-challenges.eu/content/online-learning

Online learning

Co-funded by the Intelligent Energy Europe Programme of the European Union

Can you beat MOBI?

Enter this autumn's "From 5 to 4" competition with your colleagues and show how much CO2 your team is able to reduce by commuting!

MOBI (www.mobi-project.eu) is looking for teams and companies willing to play the award winning game "From-5-to-4". This autumn we are offering the opportunity for 20 teams to enter the MOBI autumn competition and try out the F5T4 game for free for one month.

The MOBI project, funded by the Intelligent Energy Europe programme, aims at encouraging organisations and their employees to travel to work more smartly (e.g. walking, cycling, public transport and car sharing) as well as having fun competing against their friends and colleagues at the same time.

First good results:

The MOBI project is still ongoing, but we can already share good results of the hundreds of employees who have played the F5T4 game so far (percentages are all compared to the baseline).

- During the game period, there was an average decrease in car use of 17%, whereas carpooling in-creased by 10%.
- Sustainable modes like walking and cycling saw a combined increase of 6%.
- On average 28% less CO2 was emitted by participants of the game.
- Participants developed significantly better opinions on sustainable modes of transport.
- On average the weekly additional calorie consumption per game was 3577 calories, comparable to 3 bags of potato chips or 7 bars of chocolate.

More information:

http://www.mobi-project.eu

Co-funded by the Intelligent Energy Europe Programme of the European Union

MOBI PROMOTING SMART MOBILITY TO EMPLOYEES

Upcoming events

23 November 2015	**17th Baltic Development Forum Summit "Europe-wide challenges, regional solutions"** Copenhagen, Denmark http://www.bdforum.org/17th-bdf-summit-held-copenhagen-23-november-2015
3 December 2015	**COOPENERGY Final conference Multi-Level Governance in Sustainable Energy Planning** Paris, France http://www.fedarene.org/featured/coopenergy-finalconf-11030
30 November – 11 December 2015	**UN Climate Change Conference COP 21** Paris, France http://www.cop21.gouv.fr/en
27–29 April 2016	**8th European Conference on Sustainable Cities and Towns** http://conferences.sustainablecities.eu/basquecountry2016
20 May 2016	**EU Maritime Days** Turku, Finland http://ec.europa.eu/maritimeaffairs/maritimeday
16–17 June 2016	**5th Informed Cities Forum** **PEOPLE, PARTNERSHIPS AND POWER** **Building alliances for urban sustainability transitions** Dresden (Germany) http://informed-cities.iclei-europe.org

UBC Sustainable Cities Commission events

10–12 June 2016	**UBC Sustainable Cities + Joint Commission meeting** Slupsk &Ustka, Poland Focus: Sustainable Safe Cultural Events (Festivals, Conferences)
October 2016	**UBC Sustainable Cities meeting** Jelgava, Latvia Focus still open
May 2017	**UBC Sustainable Cities Commission** Jyväskylä, Finland Focus: Resource efficiency
October 2017	**UBC General conference**

If you have any ideas and wishes for topics for our commission meetings or if you want to host a commission meeting, please contact Björn Grönholm bjorn.gronholm@ubc.net!

UBC SUSTAINABLE CITIES COMMISSION SECRETARIAT

Union of the Baltic Cities (UBC) is a network of 90 cities from all ten Baltic Sea countries, with an overriding goal of contributing to the democratic, social, cultural and environmentally sustainable development in the Baltic Sea Region. UBC Sustainable Cities Commission (UBC SCC) is one of the 7 commissions of the UBC.

Practical work of the Commission is carried out by UBC Sustainable Cities Commission Secretariat. Its services for the cities include for example organising meetings and policy work, preparing documents and publications, initiating and running projects, and consulting and training. The Secretariat carries out Baltic Cities Sustainable Development Surveys biannually, publishes the Baltic Cities Sustainability bulletin, and offers a Good Practice Database for local authorities at www.ubcwheel.eu.

The current staff of the Sustainable Cities Commission Secretariat consists of 11 professionals working fulltime for the UBC.

SCC, Turku

Our aims

UBCWheel

UBC Good Practice Database (UBC Wheel) is a database full of practices that cover sustainable development in Baltic Sea cities including all topics from transport to health and from social aspects to economic instruments; all dimensions of the Aalborg Commitments. At the moment, there are 500 cases inserted in the database.

www.ubcwheel.eu

Projects

PRESTO - PURE - CHALLENGE- CIVITAS DYNAMO - iWater - Baltic Urban Lab - NETCOM - SMARTCOMP ...just to mention a few.

Contact us

Our address is:
UBC Sustainable Cities Commission Secretariat
Baltic Sea House
Vanha Suurtori 7
FIN -20500 Turku, Finland

Tel: +358 2 262 3172
Fax: +358 2 262 3425

www.ubc-sustainable.net

European Maritime Day Conference

May 2016 Turku, Finland

Launched in 2008, the European Maritime Day (EMD) is celebrated every year around 20 May across EU, bringing the European maritime community together.

In 2016, the European Maritime Day Conference will be hosted by the City of Turku in Finland. The EMD Conference is Europe's largest maritime event.

http://ec.europa.eu/maritimeaffairs/maritimeday

Welcome to Turku!
www.turku.fi

European Commission

CITY OF TURKU