



Baltic Cities

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bulletin No 2, 2009

IMPROVING THE STATE OF THE BALTIC SEA



**FOR UMEÅ
ENVIRONMENTAL AWARD 2009**

NEW UBC STRATEGY AND ACTION PLAN 2010-2015

United efforts guarantee the future of the Baltic Sea

The Baltic Sea Region connects the states having different historical backgrounds, distinct economic development and political experience. They have divergent past, but what unites them all is the future of the Baltic Sea. The prosperity of each state surrounding the Sea directly depends on the ecological state of the Baltic Sea. The importance of the Baltic Sea and the influence of its region especially increased after the great EU enlargement in 2004, when the Baltic Sea became the inland EU sea. Its development strategy has already been elaborated being the first EU macroregional strategy and it manifests the importance of this region to the Community.

In the EU Strategy for the Baltic Sea Region, a lot of attention is especially devoted to the most significant problems of the Baltic Sea all the countries around the Sea face - ecology and environmental sustainability. The shallow and almost closed Baltic Sea has been characterised as a polluted one already for a long time. The situation is being aggravated by frequent oil spills, the chemical weapon buried in the Sea, the factors of climate change. Problems may arise because of *Nord Stream*, the gas pipeline planned to lay in the Sea, as well as due to other kinds of economic activity. In order to improve the state of the Baltic Sea, there are priority areas singled out in the Strategy. One of them is combating eutrophication, which is now the most relevant. In order to solve it, it is necessary to minimize point-source and nonpoint-source pollution, to renovate and develop municipal wastewater treatment systems, as well as to implement other measures envisaged in the HELCOM Baltic Sea Action Plan.

Lithuania approves other priorities foreseen in the Strategy and related to environmental activities to improve the state of the Baltic Sea. Lithuania follows them taking specific actions, such as conserving biodiversity in the sea, preserving ecosystems, reducing threats posed by noxious and hazardous substances, adapting to the impact of climate change and mitigating it. The ecology and environment of the Baltic Sea rise concerns not only to one or several EU states, but all the countries of the region jointly care about it. We hope that this Strategy and the Action Plan envisaging

specific measures to implement it, will help to overcome the fragmentation of EU states in the Baltic Sea Region and to join their efforts for the common purpose. This document foreseeing versatile increase in the competitiveness and quality of the region, emphasising the promotion of ecological sustainability, economic prosperity, availability, accessibility and security, should become the basis of the national and municipal action plans.

It is very important not only for the states of the region to cooperate and work as a mechanism precisely tuned, but every country should coordinate their plans and actions with state and municipal institutions, science research establishments, and private sector. The EU states in the region differ in their level of economic development and financial capabilities. However the Strategy does not offer quick and simple decisions. The measures envisaged in it are long-term and can and have to present new opportunities, form prerequisites for restructuring of economy branches, as well as assuring greater social and economic needs of the public. The Strategy for the Baltic Sea Region is like a pilot project to promote cooperation in the first EU macroregion. The initiation of other similar projects at EU level may depend, to a greater extent, on its success and outcomes.



Gediminas Kazlauskas

Minister for Environment of Lithuania

UBC member cities (as of September 2009)

Aalborg • Aarhus • Baltijsk • Bergen • Botkyrka • Cēsis • Chojnice • Copenhagen • Elblag • Elva • Espoo • Fredericia • Gargzdai • Guldborgsund • Gävle • Gdańsk • Gdynia • Göteborg • Greifswald • Haapsalu • Halmstad • Helsinki • Jēkabpils • Jelgava • Jõgeva • Jõhvi • Jurmala • Jyväskylä • Järvenpää • Kaliningrad • Kalmar • Karlskrona • Karlstad • Kaunas • Keila • Kemi • Kiel • Klaipeda • Køge • Kolding • Koszalin • Kotka • Kristiansand • Kristianstad • Kronstadt • Kuressaare • KrynicaMorska • Kärdla • Lahti • Liepaja • Linköping • Lomonosov • Luleå • Lübeck • Łeba • Maardu • Malbork • Malmö • Mariehamn • Marjampolė • Miedzydroje • Nacka • Narva • Næstved • Norrtälje • Nyköping • Oskarshamn • Palanga • Paldiski • Panevėžys • Pärnu • Peterhof • Pori • Porvoo • PruszczGdanski • Reda • Rēzekne • Riga • Rostock • Robertsfors • Sestroretsk • Siauliai • Sillamäe • Słupsk • Sopot • St.Petersburg • Sundsvall • Szczecin • Tallinn • Tampere • Tartu • Trelleborg • Tukums • Turku • Umeå • Ustka • Vaasa • Viljandi • Vilnius • Visby • Vordingborg • Võru • Västervik • Växjö • Wismar • Örebro



Photo: Violeta Valanciene

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Solutions2011 Conference

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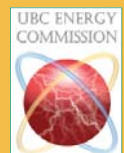
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Photo: city of Örebro

UBC Energy Commission

20-21 In the driver's seat and in charge of our own future!



State of the Baltic Sea

Editorial information



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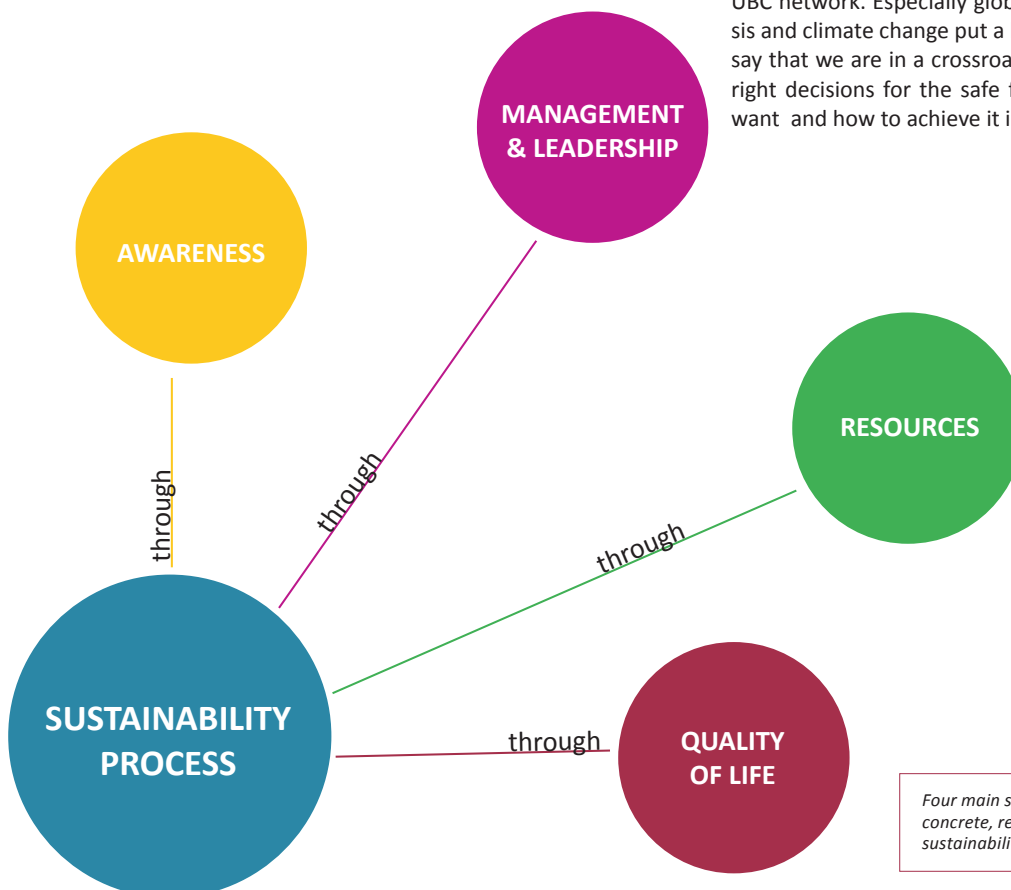
Next sustainable steps for the Baltic Sea Region cities

Text **Björn Grönholm** Photo: **Maria Bres**

The Union of the Baltic Cities approved in the X General Conference in Kristiansand September 23 – 25, 2009 two important guiding documents: a new Strategy and a new Sustainability Action Programme 2010 – 2015. Both of these documents are trying to guide our organisation in a new way and give answers to the needs and demands of cities on how to further strengthen their integration and development. The Sustainability Action Programme 2010 – 2015 is the third action programme of UBC focusing on sustainable development.

Nearly two decade's experience of the UBC network of cities confirms that cooperation and bottom-up approach are relevant ingredients for successful integration and building of regional development. Our Baltic Sea region has developed fast during a relatively short time. During this period environmental and sustainability issues have had a strong focus in the development of the region and the cities. Today all actors in our societies are working in similar processes with same goals as local authorities have been doing for many years. In this respect, cities are important forerunners for integration and development of the Baltic Sea Region. UBC has been one of the promoters of this development and we should be proud of these achievements.

Many challenges, old and new, are still ahead of us. UBC as many other organizations and stakeholders need to think how to solve our common challenges in the most effective way. In concrete terms this means that we need to develop our cooperation routines and possibilities to find new ways of working together with the clear focus to improve our own practices even more. This is very important to push forward the positive development of the Baltic Sea Region as well as our member cities and also the whole UBC network. Especially global challenges like the economic crisis and climate change put a lot of pressure on our cities. We can say that we are in a crossroad where we now need to make the right decisions for the safe future. We need to know what we want and how to achieve it in this fast changing world!



Four main sustainability processes will guide UBC into a more concrete, result oriented development with higher degree of sustainability and quality of life as the overall goal.

Over 40 cities contributed to the success of previous action programme

The previous *UBC Agenda 21 Action Programme 2004 – 2009 – Roadmap for Sustainable Baltic Cities* was a success in stimulating cooperation between cities and other regional actors. More than 25 projects were implemented (NewHansa, BUSTRIP, MUE-25, SUSTAINMENT, MATRUSCHKA etc.) with more than 40 UBC cities and several UBC Commissions participating. UBC was also involved in many other activities including policy related processes. Two sustainability surveys were carried out to analyze situation and progress in cities, and UBC Good Practice Database was launched (www.ubcwheel.eu). Many of the UBC member cities are well recognized forerunners in Europe and several cities have won recognition for their good practice in different fields.

The first regional strategy of the EU, Strategy for the Baltic Sea region, is an important step towards future. Sustainability of the Baltic Sea Region is a central cornerstone in the Strategy for the regional development. Local sustainable development is a crucial element for the well being of the whole Region and our cities. The EU Strategy for the BSR and our UBC strategy and Sustainability Action Programme have much in common on the paper and we in UBC want to see that there will be much in common also in the implementation of these strategies and programmes.

The third UBC Sustainability Action Programme has been built up in this spirit. The process started in 2008 and has engaged more than 200 persons from more than 50 UBC cities. The new action programme focuses on further strengthening our organisation. UBC wants to be actively involved in building even more sustainable cities in the entire Baltic Sea Region. The new UBC Sustainability Action programme consists of 36 goals that we aim to achieve during the coming five years. These measurable goals are ambitious and force us to strengthen our activities and improve our cooperation in order to show that Baltic Sea cities can

become more sustainable and attractive! To reach our goals we also have to increase our cooperation with all other UBC Commissions as the Sustainability Action Programme is a guiding document for the whole UBC, not only for the environmental work. Several commissions have already been active and even more cooperation is to be foreseen during the next years while we are solving our common challenges. We are sure that we will find good solutions supporting all our UBC Commissions as well as our member cities!

Thorsten Geißler starts as new co-chairman

One new step in our organisation is the appointment of Thorsten Geißler, Deputy Mayor in city of Lübeck as a new co-chairman for both the UBC Energy Commission and the UBC Commission on Environment. Both our Commissions have cooperated successfully for several years and by appointing Geißler as our co-chairman we increase furthermore the cooperation. Thorsten Geißler is continuing the work of Guldbrand Skjönberg from the city of Nacka, who was successfully co-chairing the UBC Commission on Environment for 10 years until he retired at the UBC X General Conference in Kristiansand.

We have both challenging and interesting times in front of us with demanding large scale problems to solve in our cities. Acting together we will definitely improve our possibilities to reach our goals and get good results. The UBC cities have already during previous years been able to solve many problems and overcome challenge, so we are looking forward with confidence on the upcoming tasks and actions in our UBC network.



EnvCom Co-chair 2000-2009, Guldbrand Skjönberg:

Sustainable development should be as important as economical matters



Text: **Sakari Saarinen**

*- During the last 10 years when I have been the co-chairman of EnvCom, there has been a remarkable change in the UBC cities and in the Baltic Sea Region. The Commission on Environment itself has developed into a permanent and well-known secretariat and UBC's work has become more and more serious and appreciated over the region, analyses **Guldbrand Skjönberg** his co-chairmanship time. He sees the UBC as a real pioneer in city networking and in practical city co-operation in the BSR.*

Guldbrand Skjönberg's involvement in the development of the UBC Commission on Environment has been remarkable. Additionally, he has had a big role in the lengthy collaboration between UBC and the Lake Victoria region cities in Africa.

- Despite the UBC's good progress so far, critical times are ahead. The big global questions on sustainable development, climate change and economics require also cities to take their responsibilities. There is a lot to do for the cities. On sustainable development a city administration itself must be a good example for its inhabitants and also educate them. The co-operation with all different stakeholders is extremely important as well as intensive cross-sectoral work and good governance, Skjönberg states.

Guldbrand concludes that the work for sustainable development has to be important for all departments in the city administration and sustainable development should be followed-up in a same way as all economical matters are. For the Commission on Environment this means that the promotion of sustainable development and working on tools for good and integrated city governance shall continue also in the future.

The UBC Commission on Environment Secretariat and colleagues warmly thank Guldbrand Skjönberg for his great work for the UBC and our Baltic Sea Region cities. We all wish him all the best for the years to come!

Awarded forecasting tool

Halmstad improves new technologies in water treatment

Text: **Text-Media i Halland AB** Photo: **city of Halmstad**

City of Halmstad has come a long way in the process of creating storm water ponds and wetlands, which started back in the 80s. **Lars Ohlsson**, who is currently project manager and responsible for studying the existence and source of bacteria in our watercourses and how this affects the quality of the bathing water, received the 2009 water award from the DHI (Danish Hydrological Institute). The award was for, amongst other things, designing a forecasting tool that creates quality models for the bathing water. The demand for good water quality will increase in conjunction with the introduction of a new water quality directive.

- Today it's rather, 'wetlands for the sake of the sea and people', Ohlsson says, referring to old concept.

As mentioned, Halmstad was the forerunner in terms of creating wetlands and storm water ponds in the 80s and 90s. The term *Wetlands – for the sake of Laholm Bay* was launched as a concept. There is still a vast commitment to water issues, that is now expressed both locally and internationally. *Think global – act local* is a phrase that never wears out.

Lars Ohlsson, former operating manager at the waste water treatment plants in Halmstad and now environmental manager at the technical office in Halmstad, has been involved since the beginning.

- The interest in and the significance of cutting emissions of nitrogen and phosphorus increased dramatically towards the end of the 70s when the first alarming reports of eutrophication in Laholm Bay were released. The mass development of green algae and the death of deeper soft bottoms had catastrophic results on marine life. Halmstad as a tourist destination was also badly affected when our beaches became covered with vast quantities of algae, says Ohlsson.

Need for international cooperation

The biggest wastewater treatment plant in Halmstad was rebuilt in the 1990s to implement advanced nitrogen removal. A number of storm water basins were also built in urban areas, mainly to reduce discharges into the wastewater treatment plant.

In the early 1990s, storm water ponds were built near a recently constructed area for commerce and industrial buildings. The impervious surface, together with polluted water from Halmstad City Airport has had a major negative environmental impact on a stream, which flows through the area. But only a few years after the ponds were built the trout and salmon can, once again, survive and reproduce.

The emission of pollutants is an international problem and there is a greater significance for cross-border collaboration. Lars Ohlsson became committed to international collaboration early on in a number of projects concerning water and water quality issues. He took part in the Technical Validation Projects and two separate Bernet projects (Baltic Eutrophication Regional Network).

- When evaluating international projects it's made clear that there are many problems, both environmental and financial. There is also a clear lack of know-how in certain areas and a major need for international collaboration. We can no longer just talk about our own municipalities. To get mass participation in the process requires good communication. Language barriers can be a problem that needs bridging, especially for know-how to filter down through the organisation. Halmstad has worked strategically with these issues for a long time and therefore has a solid base on which to stand, stresses Lars Ohlsson.

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Lars Ohlsson, Environmental manager at the technical office of Halmstad.



Work to recreate wetlands has taken off in Halmstad in the past decade. About 100 hectares of wetland and a number of storm water ponds in urban areas have been recreated around the municipality thanks to support from the National Environmental Protection Board.

Kaunas no longer among “hot” pollutants of the Baltic Sea

Text: **Marija Stanikuniene** Photo: **Joint-Stock Kaunas Water Company**

Until the year 1999, the most painful ecological problem of Kaunas was the waste water treatment. Untreated waste water was discharged straight into the two biggest rivers of Lithuania – the Nemunas and the Neris. The polluted water flew to the Curonian Lagoon and then to the Baltic Sea.

Prioritized financial investments with the help of international funds were granted for Kaunas Water and Environment Project aiming to improve water and waste-water services. As part of the project, the Kaunas waste water treatment plant was constructed and mechanical waste treatment facilities started to operate in 1999. It was a large investment into the nature. The plant prevented from 16 tons pollutants discharged into the water every day. Since then the situation considerably improved and the primary aim, to remarkably reduce the pollution of open water pools by city sewage, was achieved.

Biological treatment

The most important event in 2008 was the finish of construction of biological treatment equipment of the Kaunas waste water treatment facilities and the start of its exploitation. The amount of investment made is 74,9 million litas; 71% of them came from the European Union Cohesion Fund and 29% from the budget of the Republic of Lithuania.

SYMBIO technology applied for waste biological treatment has a great effect on the Nemunas water quality, as well as on the Baltic Sea. Before the implementation of the biological treatment equipment, the waste was cleaned approximately in 75%. After the implementation of it, waste is cleaned up to 90%, which meets the established standards of the EU. Loads of pollutants

(tones per year) into the Nemunas after the biological treatment have significantly decreased. For example, suspended solids decreased by 2, BDS7 – by 4,5, total nitrogen – by 3, and total phosphorus – by 2,3 times the previous levels.

Shifting energy

This facility is important and in another environmental dimension – the generation of shifting energy. There are two cogeneration powerhouse’s generators, 300 kW each, in the waste water treatment facility. They use bio-gas that come from the technological processes and make electric energy and thermal energy.

From now on Kaunas can be proud of the new technologies, which were implemented and helped to solve the water pollution problem of Nemunas. Kaunas will no longer be listed among the “hot” pollutants of the Baltic Sea. Reduced pollution load from Kaunas will improve water quality and ecological well-being of the river eco-system all the way down to the Baltic Sea.

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The city of Kaunas is one of the biggest cities situated by the river Nemunas. Having the population of nearly 400 000 inhabitants, the city definitely has a notable effect on the river and Curonian Lagoon leading to the Baltic Sea. Thanks to the investments made, Kaunas is no longer a hot pollutant of the Baltic Sea.



PURE

Project on Urban Reduction of Eutrophication invests in waste water treatment in the BSR

Text: **Eija Eloranta** Photo: **John Nurminen Foundation**



PURE project - recently approved by the BSR Programme 2007-2013 - supports selected waste water treatment plants (WWTPs) to reach the phosphorous (P) content of 0, 5 mg/l in outgoing municipal wastewaters in a cost efficient way, with the means of chemical phosphorous removal. This level is recommended by the HELCOM Baltic Sea Action Plan.

As the first measure of the project, quick and concise technical audits (feasibility study) are carried out in the partner waste water treatment plants. The aim of the audits is to suggest the most cost-effective measure for phosphorus removal. The study will analyse the current technical processes, needed technology to decrease the concentration of phosphorus to 0, 5 mg/l, needed equipment and chemicals; and the consequent investment and operation costs for each of the treatment plants.

Concrete actions, measurable outcome

After joint analyses of the results of the feasibility studies, the project partners plan and implement concrete investment in the selected waste water treatment plants. The investment for chemical phosphorus removal will be piloted in the city of Riga at the beginning of the project, followed by a similar investment in Jurmala and Brest later during the project.

The investment carried out during the project will reduce the annual phosphorus load to the Baltic Sea by 300-500 tons. The method can be adapted for existing wastewater treatment plants without any significant additional construction, allowing the partners not only to plan and prepare the investment, but actually to implement it already during the project lifetime. Thus, by the end of 2012 the project results in a concrete, measurable reduction regarding the phosphorus loads to the Baltic Sea.

Further, as the chemical phosphorus removal increases slightly the amount of sludge, the project will also map existing good practices and develop solutions for sustainable sludge handling and phosphorus recycling.

Boosting BSR wide implementation

The eleven PURE –partners, UBC EnvCom (Lead partner), John Nurminen Foundation, HELCOM, Riga water, Jurmala water, Brest Vodokanal, Szczecin Water company, Järve Biopuhastus in Kohtla-Järve, Luebeck Sewage Management facilities, city of Gdansk and Mariehamn want to encourage other municipalities in the BSR to follow our example and to take action for the sake of the Baltic Sea. For this reason project compiles the examples and technical solutions from the project into a book of good practices in phosphorus removal and sustainable sludge handling. Project also collects the current waste water treatment data from the BSR municipalities into an online database, providing a monitoring and benchmarking tool for the municipalities. With these tools the eleven PURE partners want to support other municipalities to find concrete examples that help them to achieve the HELCOM level in their waste water treatment.

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The project is part financed by the European Union (European Regional Development Fund and European Neighbourhood and Partnership Instrument).

PURE builds on the successful work of the John Nurminen Foundation's Clean Baltic Sea –project in St. Petersburg.

One green step at a time

in Turku Energia

Text: **Mikko Merisaari** Photo: **Esko Keski-Oja**

Our goal is to exceed the targets for increasing the use of renewable energy sources that have been set for Finland. We have decided that by 2020 more than half of Turku's district heating will be produced in a renewable manner, by means of either wood or field-based fuels, heat pumps that utilise waste heat from communities and companies, or biogas, says **Rauli Saarela**, Director of District Heating at Turku Energia.

This year, Turku Energia will set a new company record in the production of district heating produced from renewable sources of energy. The Kakola heat pump that began operating in the spring raised the share of renewable energy sources to more than 30% of total heat production. The Oriketo bioheating plant, which uses renewable wood chips as fuel, produces approximately 20% of the district heating for the Turku region.

Heat from waste water

The Kakola heat pump plant introduced in spring 2009 operates on the cradle-to-cradle principle, which means that heat energy from household water is efficiently exploited to heat buildings and service water and to cool business premises by means of district cooling. This plant, which has generated plenty of interest, utilises treated wastewater from Turku and the surrounding communities.

The wastewater contains a lot of heat energy. Heat recovery takes place after the treatment process and before the water is discharged back into the sea. However, prior to discharging the cooled water into the sea, it is used a second time to cool the water for Turku's district cooling network. In a way, this means that the waste heat in the water is recovered twice.

- The heat pump plant replaces district heat energy produced with fossil fuels, which subsequently reduces the amount of coal burned in Turku by up to 21,000 tons per year. This means a reduction of up to 50,000 tons in the amount of carbon dioxide produced each year. The plant produces district heat for about 12,000 Turku residents – without emissions and energy-efficiently. Plant operations do not produce any local emissions to the air and the electricity required to run it is mainly produced without carbon dioxide, explains Saarela.

Focusing on the state of our sea

The aim of Turku Energia's environmental programme is to minimise the direct and indirect environmental load resulting from its own operations. During the past year, we turned our attention to the state of the water system, and especially to that of the Archipelago Sea, where eutrophication has been developing at an alarming rate. Turku Energia donated EUR 11,200 to the Protection Fund for the Archipelago Sea to reduce the nutrient load

Preventing climate change has become the most important global phenomenon affecting mankind and, in particular, the energy industry. Two factors that will play a key role in this area are reducing the burden on the climate resulting from the use and production of energy and more efficient exploitation of renewable sources of energy. Turku Energia has set clear checkpoints for itself on the road towards the production of environmentally friendly electricity and heat. Protecting the water system is also very important to Turku Energia.



in the sea. The Baltic Sea was selected as the target for this donation because energy-related climate change indirectly weakens the state of the sea as increased rain and winters with little snow increase the runoff of nutrients from fields into the large rivers of Southwest Finland.

The future will bring more renewables

The goal of Turku Energia is to sell its customers electricity and heat that are as ecological and emission-free as possible. Checkpoints already exist with regard to the selected energy production methods, but Turku Energia is constantly looking for the most climate-friendly energy production alternatives that combine competitive energy prices with low emissions. Preparations to double the capacity for carbon dioxide-free heat production were made at the Oriketo bioheating plant and the Kakola heat pump plant by reserving space for new production equipment already in the construction phase. With regard to electricity generation, Turku Energia's target is to significantly increase its use of wind and hydropower.

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WAB – Wetlands, Algae, Biogas

An eutrophication counteract project from Trelleborg

Text: **Mattias Müller** Photo: **Annika Hansson**

Everyone can sign such a statement. Also everyone can sign agreements that we jointly have to do some counteractions. We could even agree to what levels every actor should reduce the nutrient flow. But, when it comes to putting the money on the table, the ambitions always tend to decrease.

The problem is that no one could actually visualize continuously spending the humungous sums of money needed to make a difference on a problem that is owned by everyone and none, and to spend such sums on a problem, when the good effects will show first some 30 years from the beginning of the counteractions.

As is well known since long time, the Baltic Sea is a highly stressed ecosystem moving towards a major shift. Also known is the causes for one of the most, if not the most, important symptoms of a sea in ecological imbalance – the eutrophication. The reason for the status of the sea is due to outlets of nutrients (phosphorous and nitrogen) from different human activities, i.e. farming, untreated sewage, etc.

Local level actions

I am aware that stating we have found a possible solution on such a problem is big words coming from a small municipality. But, the Baltic Sea contains many small communities, municipalities and cities, all of whom are affected by the problems on a very concrete way. There is a direct link on a local level between the ecological and economical losses due to the eutrophication.

The local authorities are affected by the problems in a direct way, are responsible on an operational level locally, have deep local knowledge, and maybe are easier to determ to start a change. The distance from decision to action is shorter. Together we can make an effort, as this is the ideas of the UBC. Someone always have to be the forerunner. Trelleborg municipality recognizes its capability and responsibility to be one of the forerunners.

Reducing nutrients in the ecosystem

The Trelleborg solution is about converting the problems of yesterday to become resources of tomorrow, by using the methods of ICZM to create multiple solutions. Trelleborg is implementing the core of ICZM, developed in the Trelleborg Model previously reported (Env bulletin 2/08 and 1/09). We can now show that our concept can make it more economically effective with measures counteracting the eutrophication. The system even seems to be feasibly profitable. Not only on the longer perspective for the good of society, but direct, on the free monetary market.

Measures to reduce more nutrients to reach the sea by cleaning sewage and catching nutrients from the farmlands, is combined with the first measures actually starting to reduce the nutrients already incorporated in the ecosystem of the sea, annually recycled trough the system. The latter is a new approach developed in Trelleborg and is done by gathering the excess algae at the shores and in the sea and making biogas from these, together with limnic algae that will be farmed in special facilities taking care of the nutrients from the farmland water outlets and sewage water. The profit from the biogas plant then acts as the economic motor driving the measures and making them possible to realize – today, not in a vast future, in a for these actions acceptable financial state, that just might never come.

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Climate Change Adaptation in the Baltic Sea Region

- integrated stakeholder cooperation

Text: **Johannes Klein and Stella Aaltonen** Photos: **Maris Klavins**

An information cocktail on BaltCICA project was organized in Kristiansand, Norway in connection to the X General Conference of the UBC in September 2009. During the workshop and in the BaltCICA stand, several representatives of the UBC member cities expressed their interest to learn more about the project process and get insight for their own plans. Especially there is a need to get more facts about the costs of the adaptation measures in the Baltic Sea Region.

Case study areas in focus

The project consortium partners met in Riga in September 2009 to mainstream the approaches of the different case study areas. The project case study areas include ten areas: Tampere, Hanko and Helsinki and Helsinki Metropolitan Area in Finland; West Estonian coast in Estonia; North Vidzeme Biosphere Reserve in Latvia; Klaipeda & Klaipeda District in Lithuania; Mecklenburg - Western Pomerania and Hamburg Metropolitan Region in Germany; Kalundborg and Island of Falster in Denmark; and Bergen in Norway.

So far almost all case study areas have had several local and regional stakeholder meetings during which climate change scenarios and adaptation questions have been discussed. Currently most partners are involved in data collection and assessment studies. The development of custom oriented stakeholder workshops, that address not only local interests, but also strongly focus on transnational cooperation is developing well.

The methodology of the project is shaped around the Foresight methodology that focuses on transnational applicability. Climate change scenarios are used to discuss and develop adaptation measures with relevant planning authorities and stakeholders. Several partners are using *Stakeholder Involvement Toolkit*, developed by UBC Commission on Environment in developing the stakeholder involvement process. Climate change cost-benefit approaches on adaptation measures are currently being developed. In the beginning, the potentiality and restrictions of analyses are exemplarily assessed focusing on extreme events.



On excursion at the Salaca river.

Adaptation to climate change cannot be solved solely locally and in isolated attempts, but calls for cooperation and integrated approaches in the Baltic Sea Region. The BaltCICA project with local and regional partners prepares regions and municipalities to cope with a changing climate. Changes in precipitation and flood patterns as well as rising sea level can affect not only the built environment but also water availability and quality.



The BaltCICA project meets in the visitor centre of the North Vidzeme Biosphere reserve.

Climate changes – from recognition to adaptation

The Municipality of Kalundborg in Denmark hosts the 1st International BaltCICA Conference on the 26th and 27th January 2010. Under the title *Climate changes – from recognition to adaptation* the conference presents approaches to local and regional climate change adaptation. A special focus is going to be on the municipality of Kalundborg and its participatory process for the development of development visions under the influence of climate change.

The agenda is completed by other examples of the BaltCICA project and an outlook beyond the borders of the Baltic Sea Region. The conference offers the opportunity to get in contact with representatives of cities and regions, practitioners and scientists and exchange experiences on climate change adaptation. UBC member cities are welcomed to participate in the Conference.




More information:

www.baltcica.org

On Kalunborg conference:

http://www.baltcica.org/meetings/January2010_0602009.html

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Karlstad is well familiar with waterway related problems, but is finding ways both to revitalize the waterway ecology and realizing business opportunities.

Inland waterways – a key to a healthy sea

Text: Peter Falk Photo: city of Karlstad

The Baltic Sea region is one of the key issues during the Swedish EU-presidency and for the EU in general, with a regional focus on promoting innovation and accessibility, but far most perhaps, environmental sustainability. The state of the Baltic Sea has deteriorated rapidly the past decades as a result to several sources of pollution, one being polluted inland waterways. Many of the waterways with outflows in the Baltic sea travel hundreds of miles, passing intensive, large scale agriculture, heavy industries and numerous big cities, before it reaching the sea.

Situated over 300 kilometres from the Baltic Sea, but still belonging to the Baltic Sea Region Programme, the city of Karlstad is well familiar with waterway related problems. The river Klarälven passes the city just before ending its long journey in the lake Vänern, the third biggest lake in Europe. In the past there have been several environmental issues regarding the river and the lake, not unlike the challenges concerning the waterways of the Baltic Sea.

Inland water way

Now most of the industries around Klarälven river are marginalized and the river logging transportation stopped in 1991. Today both the river and the lake is experiencing a revitalization of its ecology, much thanks to the interests of different stakeholders, such as Karlstad and its neighbouring municipalities, Karlstad University and the tourist industry. Karlstad has for a number of years expanded its environmental policies, and now holds the idiom *The Good Green City* as one of its primary guidelines. The cities environmental work is ranked by The Swedish Society for Nature Conservation as the 4th best in Sweden.

The river is still being used in for commercialized revenues, but with a wider environmental approach. One example is Karlstads

participation in Waterways for growth, an Interreg project for sustainable development of inland waterways. The aim of the project is to identify and develop opportunities afforded by recreation inland water ways, such as the Klarälven river. The main idea is to realise business opportunities and accordingly provide attractive environments, both for living and working, linked together with the inland waterway.

Boat bus

Past decades, the tourism around Klarälven has seen a major increase. Rafting and fishing are main attractions, but also some more innovative and environmental projects related to the inland waterways, like the Klarälvbanan track – a 90 km car free cycle path following the course of Klarälven. In 2008, the city of Karlstad also launched a brand new waterway concept; boat bus. The boat bus is basically a boat carrying out standard routes like any other public transportation. The fee is the same as a regular bus ride and both tourist and commuters take advantage of this service. The routes stretch all the way from central Karlstad, to the riverdelta where Klarälven meets the lake Vänern.

Inland waterways is a vital part of a healthy sea. Perhaps, by sharing best practice, both within the Waterways for Growth project and the Baltic Cities, the efforts and innovation of Karlstad in revitalizing it's surrounding waters, can apply to the Baltic Sea and its related inland waterways.

More information:
www.karlstad.se

6th European Sustainable Cities & Towns Conference

Delivering Sustainable Cities: The Local Leadership Challenge

19-21 May 2010, Dunkerque, France

Welcome to join the largest European event dedicated to local sustainable development!

The Dunkerque 2010 conference will explore how local sustainability can represent an answer to the current economic, social and climate challenges. Participants will consider how local sustainable development can be further implemented at the European level in the light of the outcomes of the climate negotiations taking place in December 2009 in Copenhagen (COP-15). The conference offers a unique opportunity to assess and push forward the progress and achievements of European local governments in the field of sustainable development. Places are limited! Please, visit the website for programme and further information: www.dunkerque2010.org.



German and Danish experts exchanged experiences on soil protection

Text: **Andreas Neupert** Photo: **city of Rostock**

In September 2009, 18 Danish and German soil specialists, urban and environmental planners met in Rostock to exchange practical experiences.

The workshop focussed on different soil related issues towards a sustainable development in the region Zealand and the Hanseatic City of Rostock. After the insight presentations of the Rostock and Region Zealand, the authorities decided to focus on following goals:

- Pure drinking water
- Clean ground in residential areas and kindergardens
- Clear principles for priorities
- Reduction of costs by innovative methods and technologies

The discussion showed differences in the supply of drinking-water directly from the river Warnow in Rostock and from groundwater in the region Zealand. In both cases there is a strong need for cleaning up contaminated sites in the neighbourhood. The legal background, limit values for investigation, remediation and monitoring of contaminated soils, make a distinction as well as the competence of the regional and local authorities. Nevertheless there are similarities like innovative remediation methods and technologies, implementation of tools in environmental planning protecting valuable soils efficiently, use of geothermal energy and the mapping of soils which are mutually interesting questions.



Brownfield regeneration

After the discussion the cleaned up site Silo-Peninsula was visited

as a best practice for successful brownfield regeneration in Rostock. Here some old silos have already been rebuilt to construct the Maritime-Tourism Centre of the Land Mecklenburg-Westpomerania. The project has generated positive financial results in terms of increased income from leasing as well as the creation of ca. 300 jobs. The elimination of polluted filling-up materials and the creation of a promenade along the quay-side protecting the area against flooding were positive environmental aspects.

Finally it was decided to continue the exchange of experiences in soil and water protection. Some ideas on further cooperation projects comprise:

- Soil remediation methods and brownfield regeneration
- Examples for precautionary soil protection
- Monitoring of land use by innovative measures for example aerial survey
- Specific indicators for environmental target concept and for environmental evaluation monitoring
- Pilotprojects for the implementation of the European Water Framework Directive

Interested colleagues of other municipalities in the UBC will be invited to participate.

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Cormorants

Text: **Kadri Randmaa**

Cormorants are eating only fish, fishermen say that these birds eat 4000 tons fish in one year and that is why they are competitors for humans. Every year ca three new colonies of cormorants accrue in Väinameri. In one colony there can be 100 to 1000 pairs of cormorants. Assessments of environmental specialists tell that in Estonia there are about 60000 specimens.

Due to so big cormorants abundance some people have illegally destroyed their nests. Reason for that might be fishermen hostility and their stories about how bad cormorants are. One of the reasons for such a big cormorant abundance is that they have been under wildlife protection for many years.

In 2008, Estonian Environmental Office composed cormorants' protection and abundance limitation action plan. The aim of that action plan is to repress the gains of those birds and reduce the impact to fisheries. On Danish model, specialists started, this spring, oiling cormorants' eggs. It prevents the fetus to breathe through the eggshells and fetus can not develop.

Compared with ten years ago and nowadays then we can see that fish abundance is depleted. There are many reasons for that, but lately a new problem has appeared - increased abundance of cormorants.

The first place in Estonia, where the eggs were oiled, was a little island near Hiiumaa (Dagö) called Männiklaid. Specialists counted that there are ca 900 nests on the trees and ca 200 nests on the earth. In 2009, 70 eggs were oiled. Specialists say that such a quantity of eggs means destruction of the root, however it didn't happen. Specialists believe that cormorant abundance can be reduced if ¾ of eggs will be discarded.

In Estonia, we do not have State funds for such operations. But on the other hand, the start to limit cormorants has been made and results can not be seen immediately.

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Umeå wins the Best Environmental Practice in Baltic Cities Award 2009

Improved air quality through no idling taxicabs

Text and photo: **Stella Aaltonen**

The city of Umeå, Sweden, is the winner of the Best Environmental Practice in Baltic Cities Award 2009. The winner was announced at the Union of the Baltic Cities (UBC) tenth General Conference in Kristiansand, Norway, on 25th September. The value of the award is 5000 EUR.

The competition between the candidates was hard, as there was only one point of difference between the candidates. The Umeå nomination fulfils the award criteria – innovativeness, relevancy and quality – with high scores.” says co-chairman of the Commission on Environment **Mikko Jokinen**.

As many other cities in Europe, Umeå has problems with air pollution. In fact, Umeå exceeds the limits, and that makes it one of the biggest challenges for the town. The winning practice, *No idling taxicabs in Umeå*, has contributed a lot to the environmental goal for improving the air in Umeå. In Umeå, there are 200 taxicabs that run an average of 300 days/year. The goal was to make visible that idling taxicabs was a problem, to stop unnecessarily idling, and to reduce the discharge of carbon dioxide. This was done through education of all taxi drivers. The drivers were also challenged to a competition. The driver that could reduce their fuel consumption of their car the most in relation to the quantity of kilometres driven would win a very special price! Also the media was made aware of the project so that passengers would remind the drivers when they forgot to turn off their engine.

The Best Environmental Practice in Baltic Cities award committee, deciding on the awards, consisted of the co-chairman of UBC Commission on Environment, Mikko Jokinen, Head of Environmental Department **Øystein Holvik** from the city of Kristiansand and Environmental coordinator **So Hie Kim-Hellström** from the previous award winner (2007), Växjö.

More information about the winner from www.ubcwheel.eu.

Marie-Louise Rönmark and Jan Björinge were happy to receive the Award 2009 diploma on behalf of the city of Umeå.

Small steps can lead to big results

*An interview with **Marie-Louise Rönmark**, Mayor of Umeå showcases the determination of the municipality to work with climate change issues.*

What has been the driving force behind the practice?

- We have been struggling with the climate change questions for a long time. Especially we have been looking into how to change the behaviours, mindset of the inhabitants. Small steps to implement the climate change plan were needed and this winning practice was one of them, states Marie-Louise Rönmark.

What kinds of results were gained from the activities?

- Small steps can lead to big results. The action resulted in CO2 reduction, healthier people, reduced time and money. All different measures were combined, for example you can hire bicycles with children wagons, you can see how many bicycles are used per day from the statutes, you can use interactive map showing the best routes, calories and CO2 reductions.

How it will continue?

- The next step is to understand that this is the way of living. The municipality has a big influence on this. It was fantastic to start with all these projects that resulted in a big change!



Don't invent the wheel again - visit UBC Good Practice Database

Since the launch of the UBC Good Practice Database in the Baltic Sea Region, March 2009, the database has raised in the number of cases. Currently the database includes over 370 good practices from over hundred cities. This gives a very good impression of how active and engaged cities are in the Baltic Sea region!

The database was developed to answer to the need of local authorities to find practical examples complemented with suitable tools. The practices cover sustainable development in cities including all topics from transport to health and from social aspects

to economic instruments, all dimensions of the Aalborg Commitments. For example, the database has at the moment 85 cases related to water. More are being inserted all the time and the visitors are ranking the cases as they use them.

The Database is an excellent way to market your good practices and also get inspiration and ideas for your own work. We warmly invite you to register and insert your own cases to the database at: www.ubcwheel.eu - LOGIN.

More information: Stella Aaltonen, stella.aaltonen@ubc.net

Major investment in biogas and public transport in Örebro

Text: **Tomas Bergkvist**

The Municipality of Örebro has been delivering biogas to local food companies for many years. This biogas came from the anaerobic digestion of slurry at the sewage treatment plant and from collecting gas that would otherwise have leaked out of waste depots. Since 2007 there has also been a plant that upgrades the biogas to vehicle fuel.

Starting in October 2009, local biogas production was quadrupled. A private company started up a new production plant which is the biggest in Sweden. This plant chiefly uses energy crops from agriculture, but manure, substandard crops, bi-products from the food manufacturing industry and wetland grass are also used. The farming industry has shown great interest in cultivating biogas crops as a part of crop rotation planning.

Around half of the volume produced is delivered to a newly-built bus depot, where the municipality's new biogas buses are refuelled. The rest is delivered to the two biogas filling stations in Örebro and to Stockholm, to support the growing biogas market there.

The total production capability of vehicle gas is 60 GWh from the new biogas production plant and 20 GWh from the sewage treatment plant when both are operating at full capacity. This is the equivalent of over 8 million cubic metres of vehicle gas, which is being used instead of around 8 million litres of fossil fuel.

Emissions of carbon dioxide are thereby being reduced by approximately 20,000 tons per year. Just changing from diesel to biogas in the city's bus traffic will reduce emissions by 3,000 tons per year. The residue from the anaerobic digestion process is returned to the farmers to be used as fertiliser.

On 1 October 2009, the Municipality of Örebro put into action, in conjunction with other public sector organisations, local trade and industry, and local farmers, several parts of a widespread scheme to increase the production and use of biogas (methane). On the same day, new buses using biogas began to appear on the streets of the town. A new and expanded bus route network will be introduced in April next year.

New biogas buses in city traffic

The diesel-powered city buses in Örebro were replaced with 61 new biogas-driven buses on 1 October. In addition to the overall climate benefits, the air quality in the city has improved since biogas replaced diesel. Within the next few years regional buses will also be powered by biogas.

In April 2010, a new bus route network will come into force for the city buses, which will dramatically improve the level of service and increase the possibility for people to leave the car behind and travel on public transport instead.

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City of Kaliningrad focuses on water objects

Text: **Nina Vyshnyakova and Boris Komovnikov** Photo: **Administration of Kaliningrad**

The Administration of Kaliningrad gives priority to purification of city water objects that directly influence the state of the Baltic Sea. With the purpose of optimization and systematization of these works the city administration elaborated the target-oriented *Program of nature protecting actions for improvement of the ecological state on the urban district territory*.

By now the plan of actions on purification of rivers, lakes and springs of the city has been elaborated, the inventory of household and rain water discharges into water objects was realized and the electronic map on discharges into water subjects is under the construction. More than 46 500 euros was directed to the purification and improvement of the river Lesnaya. The working groups of the administration of the Leningrad and Central city districts investigated the water discharges of the basin of the lake Verkhnee.

For purification of rain and drainage water it is planned to build five water treatment plants, cost 75 million rubles (1 745 000 eu-

ros), on 22 city discharges of drainage and rain water sewerage. According to the words of the Head of the administration Felix Lapin, working on the improvement of the ecological state of the basin: "Verkhnee is not a temporal/short-term action, but systematic work." The main target is to prevent the secondary pollution of Verkhnee Lake after realized work and turn its shores into an ecologically clean and comfortable recreation zone.

The final aim of the started far-reaching work is the reconstruction of the united hydrotechnic system of the city of Kaliningrad, and technically correct water discharge and improvement of the hydrological situation on the territory of the whole city, that in its turn will lead to improvement of the ecological state of the basin of the Baltic Sea.

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Environmental passport of St Petersburg wins an award

Text and photo: **Mikko Jokinen**

Environmental information system *Environmental passport of St.Petersburg area* won the *Best environmental project of the year 2008*. The award ceremony took place in Moscow on 11 of December 2008. The award was instituted by the Russian Ministry of Nature Resources and Environment. More than 700 projects applied for this award in 2008.

The award was presented by the Minister Jurij Trutnev. In his speech he emphasized importance of application of the best available technologies for environmental protection.

The Environmental information system of the St Petersburg has been developed by the Committee for Nature use, Environmental Protection and Ecological Safety of St.Petersburg since 2003. The system was completed in December 2007 and put in operation in the beginning of 2008. Environmental information system provides all kind of environmental information and information related to nature use for the area of St Petersburg.

More information:

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Dmitry Frank-Kamenetsky, Head of Division for State Regulation in the Field of Environmental protection and Nikolay Sorokin, Deputy Chairman of the Committee for Nature use, Environmental Protection and Ecological Safety of St Petersburg.

A green transport axis along a renewable energy belt



Text: **Marie-Louise Henriksson**

The Green Highway - from coast to coast connecting the Atlantic with the Baltic coast. Three cities, Sundsvall, Östersund and Trondheim (SÖT), in collaboration with Jämtkraft, Sundsvall Energi and other energy companies, work to create a green highway along this route. Climate and environmental affairs are a top priority in the Mid Sweden region, as well as receiving high priority at an EU level.

The aim of Green Highway is to survey the need of establishing filling stations for environmentally friendly fuels and establishing charging poles for electric vehicles along the SÖT axis. The result shall be concrete results in the form of web-based map solutions and other information material; marketing of the solutions and the supply is central. Also included is the possibility for development and establishment of rapid charging stations for electric vehicles. An exchange of competence Norway - Sweden will be central: Norway can through the project greatly improve

its green vehicle fuel-infrastructure and learn from Sweden; Sweden can gain competence in electric vehicle / charging station possibilities from Norway.

Environmentally sustainable fuel will be available along the highway and drivers of electric vehicles will be able to charge their car batteries. Some of these services are already available.

Two places, Sundsvall and Östersund, have biogas pumps. Along the highway there are around 20 filling stations that sell ethanol fuel. Biodiesel RME is available in several pumps. This year a string of charging stations along the Green Highway will be established, allowing electric vehicles to recharge their batteries along the entire highway. This will make it possible to charge electric cars at least every 120 kilometres along the route Trondheim, Sjørdal, Meråker, Åre, Krokmo, Östersund, Bräcke, Fränsta and Sundsvall. The Green Highway Project also includes plans to create an urban winter testing centre for electric and other environmental vehicles in Östersund.

More information:

www.greenhighway.nu

How can better management of urban-rural interactions improve people's quality of life?



Strengthening of **Quality of Life** through Improved Management of **Urban Rural** Interaction

Text: **Eija Eloranta** Photo: **Anna Koreneva**

During the first half year of the project, the partners have defined their starting point for the project, both in terms of the geographic and thematic scope of the activities. Urban rural interactions rarely limit to the municipal borders, but go beyond them. For this reason the geographic scope of the project is in city-regions with emphasis on municipal cooperation. The thematic starting point of the project is the assumption that there are three key elements that are especially important for the quality of life: residential preferences, mobility & accessibility and provision of services. These key elements link urban-rural interactions and quality of life.



At the project workshop in Stockholm in September, partners learned also about financial and reporting issues.

..and how are these two concepts –urban rural interactions and quality of life- interlinked? This question has been raised many times since the beginning of the NEW BRIDGES project.

Quality of life in focus

Behind both of the concepts – quality of life and urban-rural interactions – we find people and individuals living their lives and making their every day decisions on commuting to work, taking kids to school or planning their free time activities. These choices, lifestyles and preferences of different people are at the core of creating the urban rural interactions. At the same time questions like how residential preferences of different people are met by the urban and regional planners, how mobility, accessibility and services are sustainably and sufficiently ensured in the city-regions are crucial for the sustainable development and attractiveness of the city-regions.

But as quality of life is an individual concept, the criteria for it vary between people. In other words, different people prefer different kind of living environment, have different kind of requirements and needs for the services and have different mobility patterns and possibilities. But these preferences do not always find their counterparts in the current, existing environment, causing thus unsustainable development in terms of land use, transport and migration for example. By developing and integrating urban-rural planning the project partners aim towards planning, that takes into account better the varying quality of life related expectations of people.

New urban-rural cooperation

Partner city-regions started this process by analysing the key challenges that their city-region faces at the moment. In other words, what are the current weaknesses, but also strengths affecting the quality of life? According to the partners these strengths and

weaknesses vary a lot between urban and rural areas. Interesting finding from the partners was that in some cases a feature, like “local identity”, was identified as strength in urban area, and at the same time identified as a weakness in the rural side of some of the city-regions, or vice versa. More planned urban rural exchange and cooperation is evidently needed.

Based on this analysis the partners will now focus on a few priority challenges. These include the decreasing availability of services (due to the demographic change and migration), transport system connecting urban, suburban and rural areas, insufficient stakeholder cooperation and integrated planning to name a few. In order to improve the situation in their own city-region, the partners will develop new cooperation between the urban and rural areas, between the neighbouring municipalities and between the stakeholders and residents addressed by these challenges.

Currently the partner city-regions are carrying out several activities that aim to analyse both the people's preferences and understanding about quality of life and the policy environment in more detailed. Methods used include questionnaires, discussions and interviews as well as public meetings.

If you got interested on the topic, more information and the results so far are available on the NEW BRIDGES website: www.urbanrural.net.



Part-financed by the European Union (European Regional Development Fund)



Public Campaign Freedom for Bicycles in Šiauliai

Text: **Audrone Jangelaviciene** Photo: **Violeta Valanciene**

The public campaign *Freedom for Bicycle* was organized in the city of Šiauliai in September to join the European Mobility Week events held in the city.

The Šiauliai citizens enthusiastically have been participating in this international event since 2002. The objective of the event aimed to pay the community attention on the negative impact of transport on environment and health, to improve the environmental education and to promote tolerance to cyclist, environmental friendly life style and friendly transport means, as well to identify the key problems regarding issues of safe cycling and infrastructure of cycling paths.

Over 300 participants/cyclists occupied the city streets during the campaign day. The huge team of cyclists moved on the main city streets according to the designed route. The oldest cyclist

was 70 years of age. In two hours, the cycling campaign finished in the square at the City Municipality. The participants were welcomed by the concert and prizes. The campaign resulted in the most exciting moment – lottery of the elegant bicycle of 2010. This price was established by the key sponsor - the company Baltic Vairas, producing different kind of bicycles.

The public campaign Freedom for Bicycle in the city was of a great success. Engagement of young citizens in such a campaign, once more proved, how it is important to educate the public spirit and encourage the responsibility of citizens using means of transport as well to demonstrate alternatives and their continuity that changes attitude and thinking.

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Water and sewage system programme in Słupsk re Together we can do more

Text: **Przemysław Lipski** Photo: **Wodociągi Słupsk' Ltd**

On the assumption that joint actions are more effective, and due to the fact that among the priorities it is to protect the Słupia river and the Baltic Sea, three neighboring municipalities: City of Słupsk, Słupsk municipality and Kobylnica municipality have decided to jointly implement *Water and sewage programme in Słupsk region*. This task is getting closer to completion.

In 2004, the European Commission approved a grant to 'Wodociągi Słupsk' Ltd. (water supply system company) from the Cohesion Fund for the implementation of the project Wa-

ter and sewage programme in Słupsk region. As a result of the project, in September 2009, a new wastewater treatment plant was formally opened in the city of Słupsk. The existing wastewater treatment plant can have more sewage from neighbouring municipalities in Słupsk and Kobylnica. Thus, the existing sewage load increased from 180 000 to 230 000 ENI (equivalent number of inhabitants). The new wastewater treatment plant meets sewage treatment standards set by the European Union and reaches the following effluent parameters: Total Kjeldahl Nitrogen < 10 mg/dm³, P < 1 mg/dm³.

This year's sewage pipeline in Kruszyna village in the municipality of Kobylnica.



Integrated Management System (IMS) – Get your plans implemented!



Answers provided by **Pekka Salminen**, project manager for CHAMP project / UBC EnvCom.

Text: Esther Kreutz Photo: Pekka Salminen

In the CHAMP project cities from four countries are trained to better manage mitigation and adaptation to climate change through IMS, but what is an integrated management system?

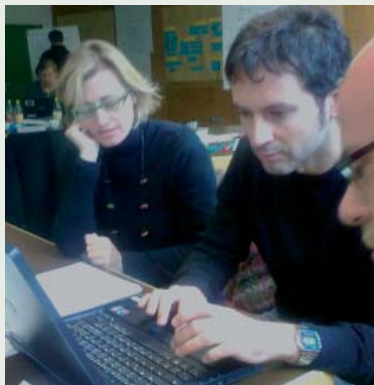
It is a cyclic management process which consists of five major steps. The system follows an annual cycle, but full revision will be required only every 3-5 years. The five major steps are Baseline review, Target Setting, Political commitment, Implementation & Monitoring and Evaluation & Reporting. Also the two crosscutting elements, organisational set-up and involvement & communication, need to be kept in mind throughout every step of the cycle.

Why would you recommend IMS for cities?

Well, the implementation of strategies and plans poses various challenges for local policy makers and civil servants. It has been recognised that local level administrations are good at preparing plans and strategies but not quite as good in implementation of the plans. That is where IMS can be helpful as it is trying to answer the question HOW to translate visions into actions and results on the local level in a systematic way.

In the CHAMP project you are using the IMS for responding to climate change, how does that work?

Yes, the IMS is a generic management model developed for local sustainability management but it can be tuned for what ever more specific management purposes, like climate



change or water management to improve the state of Baltic Sea. So, in CHAMP we are applying the IMS to climate change mitigation & adaptation and training the pilot cities on how to use the IMS. The project will create also an online capacity development package and four national training hubs which will be open for everyone. More information can be found from www.localmanagement.eu.

IMS seems like a useful tool for cities but it sounds like a huge task to start building an IMS into one's own city, is it so?

Yes and no. It is important to notice that it may not be possible to achieve everything in the beginning. But the IMS model can be described as a journey with one step following the other, where cities and regions have different starting points. So, it can be built step by step and widened year by year to cover all the necessary structures and processes in the city administration and even in the city region.

In this Questions & Answers' Corner we bring interesting issues into discussion.

gion

Healthier Baltic Sea

Conducted investment will allow greater reduction in sludge both through reduction in organic sediment in the process of stabilization and ultrasonic disintegration, as well as greater reduction of water found in the sediments in the dehydration processes. Along with the sediment in the process of cofermentation, high energy waste (fat), which is a serious problem in the region (there are no plants to utilise such sediment, which causes illegal discharge of waste into the environment or drains) is being neutralized. Biogas from the fermentation process is used in the cogeneration processes and it fully satisfies the energy needs of the wastewater treatment plant. Fermented sludge together with green waste from the areas of Słupsk are subject to controlled composting process. Produced compost has the status of organic fertilizer.

Currently underway is further work on the construction of pipelines in the municipalities of Słupsk and Kobylnica, through which will flow sewage to the wastewater treatment plan. It will be possible to eliminate small wastewater treatment plants in municipalities if their condition differs from the required standards. As a result, sewage from the three neighboring municipalities will be cleaned up according to EU standards > 100 000 ENI in environ-

mentally sensitive area. About 10 000 tonnes of COD (Chemical oxygen demand), 600 tonnes of Nitrogen and over 100 tonnes of phosphorus will be reduced. The investment is of great importance to environmental protection, especially of the Słupia river and the Baltic Sea.

During the implementation of the project, also a new water treatment plant has been built (put into service in early July 2009), which removes the surplus of iron and manganese compound. A new main transport system for sewage treatment plant has been built, which will significantly reduce the risk of sewage seepage into the Słupia river in case of failure. There are two separate sewer systems in country boroughs of Słupsk and Kobylnica, one for carrying domestic and industrial wastewater and the second one for rain water. The project will finish in 2010 with tot. costs over 20 million Euro. European Union provides not more than 13.7 million euro.

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Photo on cover page: the newly built water treatment plant in Słupsk, which was put into service in early July this year.

In the driver's seat and in charge of our own future

Text: **Stefan Windh**

Climate change and energy consumption are challenges that influence almost all aspects of our daily life. Global challenges regarding reduction of green house gasses, increase of renewable energies and energy efficiency need to be tackled on all levels – private households, national, European and global levels. The local level plays an important part in this puzzle in securing the climate and meeting climate changes for generations to come.

Energy will be one of the defining issues of this century. A new global revolution is needed in ways of how energy is used and supplied. We need this energy revolution not only for stopping the green house gas emissions that cause climate change, but also for generating jobs and new economic growth. Energy demand is soaring like never before as populations grow and economies start to take off again. Millions of citizens in the new democracies around the Baltic Sea Region (BSR) are expecting to enjoy a lifestyle that definitely requires more energy. Municipalities and cities can take concrete action to meet this challenge. The technology and science is there – what is missing is a strategy and decisive measures on a local political level. The policies in the BSR related to energy and associated big tech infrastructure will increasingly be of a national and regional concern.

When it comes to different energy scenarios, Big-tech and Small-tech is discussed. The Small-tech scenario focuses on distributed energy generation, energy savings and efficient utilisation of energy through combined heat and power generation. The Big-tech scenario explores the opportunities of more centralised solutions.

Small-Tech

Our focus in the UBC lies on Small-tech. We represent the voice from the local government level where all energy is both produced and consumed in one way or the other. The local level is a key player in the new energy economy, since the Cleantech sector can represent the single most significant impact on both climate change and the emerging new green energy economy.

Municipalities and cities own street lamps, houses or public buildings and other infrastructure. We are a major energy consumer and we deliver and plan for our public utilities heat and power. The importance of Small-tech initiatives on the local level is therefore an utmost important factor in order to achieve our common climate goals. The municipality is an

important operator, which can achieve a sustainable energy use within an energy system that is safe, cost-effective and has a low negative impact on health, the environment and climate. When the municipality is thinking of building a new part of town, renovating properties etc, a long-term and systematic handling of energy issues is an important element for sustainable development. The municipality can invest in long-term solutions, which save both money and the environment, factors which make the municipality more attractive to live in. The municipality can also help its inhabitants and companies to save money and the environment by rendering more effective use of energy. The municipality's efforts to develop a more energy and environmentally-aware business and industry, can create work and economic growth, when the market continues to demand sustainable products and services.

Education and information

We have to involve ourselves in large scale educational projects to train the operating staff in charge of the energy systems in cities, municipalities, SME/industries and in large public buildings in methods of energy efficiency. Main objective of the initiatives must be to strengthen the local level to lower cost and directly reinforce the economical development and growth in this new sector. In order to achieve this we need systems for efficient transfer of Technology. It is the major driving force for progress, in particular to help regional administrations and municipalities in the procurement process. In order to speed up the process of decreasing greenhouse gases and improve energy efficiency in the Baltic Sea Region, structured and validated information about different technologies available has to be well known throughout the region. This fulfils a Pan-Baltic need to get a system for exchange and transfer of technology and knowledge across regions, countries and municipalities. In addition to that there is a strong market listening on the data that has a growing economy and interest to source new and relevant technologies for their rapid development.

In an energy perspective there are two areas that will play a major role in the future. The first one is the abundance of waste energy in form of heat that is not used today. Legislation must stop this madness, where a paper mill or a nuclear



plant can dump billions of Euros worth of energy into the Baltic Sea at no cost or repercussions. The second sector is the agricultural sector. From an energy perspective, we need to promote low energy intensity methods of production in the agricultural sector from environmental reasons and from an energy perspective. Today we, in average, input 10 kJ of industrial energy in order to get 1 kJ of food energy. The agricultural sector must be one of the next sectors for energy savings in the Baltic Sea Region.

Green energy

A new global revolution is needed in ways that energy is supplied and used. Energy demand is soaring like never before, as populations grow and economies take off. Millions of citizens in the new democracies around the Baltic Sea Region are expecting to enjoy a lifestyle that requires more energy at the same time the world's oil and gas fields are maturing. Energy policies, and associated infrastructure, are also a national and regional security issue that concerns us all. A green New Deal is necessary for job creation in the aftermaths of the recent financial crisis and the global decline in economic activity.

We need to invest in Green Energy. EU and the Baltic Sea Region need real economy investments as a new economic driver. Substantial research demonstrates that we can save and reduce energy consumption without slowing economic growth. What we need to invest in is a green energy infrastructure that can meet the climate challenge, the future energy demands and a responsible security policy in the region. The future and presumed integrated Baltic power grid makes it possible for energy saved kWh to push back the market for high CO2 emission plants. Hydro and Nuclear power production from some parts of the Baltic region can then interact and balance the production of solar, wind, biomass and other forms of sustainable production.

About 60-70 percent of the agendas for representative assemblies are directly or indirectly affected by EU. Whether decisions are made at COP15, at EU-level, at national level

etc the decisions need to be implemented. Most of the implementations are made on a local level therefore the local perspective on energy efficiency needs to be emphasized. The cooperation between the different levels must be increased to create watertight bulkheads. The UBC cooperates with the BDF, with Nordic Council of Ministers and with other organizations around the Baltic Sea Region in the Joint Energy and Climate Platform of BSR Organizations. This is one way to cooperate, to work side by side and complement each other instead of competing.

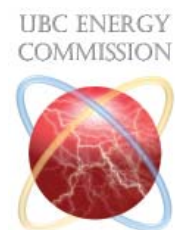
Sustainable Energy Scenarios

EA Energy Analyses has written a report about Sustainable Energy Scenarios – Energy Perspectives for the Baltic Sea Region, presented at the UBC General Conference in Kristiansand. This report is visionary in its BSR integrated market approach. But its greatest value is that it defines the importance of the Small Tech measures that can be taken on a local municipal level in order to implement a better energy system and the thereby meet global and regional environmental targets. This report definitely puts us citizens back in the driver's seat and in charge of our own future.

You can find the report on the website www.ubcenergy.org or contact the secretariat, info@ubcenergy.org.

More information:

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The UBC Energy Commission is part of the Union of Baltic Cities, for more information please visit www.ubc.net.

Renewable and highly efficient CHP and District heating in Kristianstad, Sweden

Text: **Göran Thessén**

The Kristianstad municipal company C4 Energy Group has during the last 30 year built up a substantial district energy operation. High efficient CHP solution, close to 100 %, and the overall system design give an outstanding positive environmental impact. The fuel mix in the system as per today is more than 99 % based on renewable fuels. Through competitive pricing and environmental profile the market demand for district heat supply is continuously high.

The main production units are located at the Allöverket plant. Two CHP boilers 75 MWth is operated mainly on wood chips from forest felling and residues from different wood manufacturing industries. Yearly some 350 GWh of district heat and 75 GWh of electricity is produced.

In the year 2008, about 85 % of all apartments and about 8 % of the single-family houses in Kristianstad were connected to the district heating system. Many houses were heated by oil before the conversion to district heating. Kristianstad municipality has a government grant for connecting small houses to the grid (100 €) until 2012. As an alternative there is a tax reduction.

More information:

www.kristianstad.se/sv/Kristianstads-kommun/Sprak/English/Environment/District-heating/
henrik.mattson@kristianstad.se
lennart.erfors@kristianstad.se



Short News

CHAMP trainers equipped for the upcoming workshops

Fifteen trainers from Germany, Italy, Hungary and Finland took part in the CHAMP *Train the trainers -workshop* in Freiburg 20.-23.10.2009, organised by our project partner ICLEI.

This training workshop gave the future trainers ideas and methods on how they can train the cities in the respective countries to use an integrated management approach to respond to climate change.

Within the CHAMP project four national training hubs will be established in Finland, Germany, Hungary and Italy which will support cities to implement and integrated management system and to turn climate change challenges into action. This trainings will be accompanied by an online *Capacity Development Package* that will be available from the beginning of next year.

The concept of the national training hub will be disseminated by UBC and the Association of Finnish Local and Regional Authorities in the Baltic Sea Region.

You can find more information on our websites at: www.localmanagement.eu and you are welcome to contact us with any question!

A Managing Urban Europe Initiative

CHAMP

Local Response to Climate Change



Media and Youth Involvement in focus on We Choose a Life – Youth against HIV/AIDS project



The gaps and opportunities in current HIV/AIDS communication, media advocacy and social marketing were identified in the third training module of “We Choose a Life – Youth against HIV/AIDS” project that was held on 2-4 September in Izhevsk (Russia). Stakeholder teams from four cities Cherepovets, Dimitrovgrad, Izhevsk and Stavropol developed further their youth focused campaign plans against HIV/AIDS.

The workshop revealed that understanding how the young people in each partner city perceive HIV/AIDS problem is crucial to the success of campaigns. Knowing dominant “frames” allows campaigners to create appropriate messages and better target it to the groups most at risk.

- We are giving the emphasis to communication because we know in today’s world communication is very important determinant of health. The information that you have gives you power and shapes your choices, behaviors and perceptions. People who can communicate well can influence behaviors. Our objective in this workshop is to enhance skills and capacities to influence behaviors that help people get and stay healthy, said **Dr. Franklin Apfel**, expert and trainer from World Health Communication Associates, UK, during the meeting with the youth in Izhevsk.

By the end of the year 2009, each city will organize HIV/AIDS communication campaign with strong media involvement. The campaign will be based on the results of the youth monitoring finalized at the beginning of the project and on voluntary work in each city. It will be realized in accordance to the needs expressed by the young people themselves.

For more information on project activities go to project website: www.marebalticum.org/sexualhealthrussia.

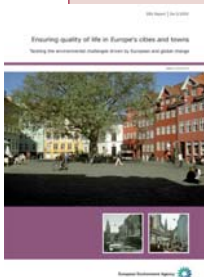
Ensuring quality of life in Europe’s cities and towns – report is now available

Ensuring quality of life in Europe’s cities and towns – report developed jointly by several organizations is now available. Get to know more about the various perspectives on, and perceptions of, quality of life with a specific focus on cities and towns. The report stresses the challenges ahead to ensure quality of life in the long run for all social groups, and the crucial importance of sustainability and the environment as our life supporting system.

The quality of life report sheds light on certain aspects of the current quality of life discussions in order to illustrate how different conceptions of quality of life influence the quality of life of others, and provides ideas for ways to meet the challenges that lie ahead. It aims to support individuals and politicians to discover a balanced concept for quality of life compatible with sustainable development.

EEA Report No 5/2009

In order to receive your own copy please, contact the UBC EnvCom Secretariat at: environment@ubc.net



Nordic Conference on Sustainable Development in the Baltic Sea Region, 31 Jan - 2 Feb, Turku 2011

Solutions local, together

Solutions local, together – Nordic Conference on Sustainable Development in the Baltic Sea Region takes place in January 2011 in Turku, Finland. UBC Commission on Environment Secretariat is responsible for

organizing the conference on behalf of several Finnish ministries. Further information www.solutions2011.fi

A planning workshop for the conference content takes place on 20-21.1 2010 in Turku, Finland. If you would like to take part in it, please, contact stella.aaltonen@ubc.net

UBC Sustainability 2009 Survey

The UBC Sustainability 2009 Survey has been ongoing all summer and early autumn. Close to 60 cities have submitted their answers to the EnvCom so far. The results will be analysed and used in future evaluation regarding the needs in UBC cities and how to develop the Baltic Sea Region. The report of the survey results will be made still this autumn and once ready, is placed on our website at: www.ubc-environment.net. We would like to thank all the cities that have submitted their answers.

UBC Environment and Sustainable Development Secretariat

Union of the Baltic Cities (UBC) is a network of 108 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 Commission on Environment (UBC EnvCom) is one of the 13 commissions of the UBC.

Practical work of the Commission is carried out by UBC Environment and Sustainable Development 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 Baltic Cities Environmental bulletin, and offers Good Practice Database for local authorities at www.ubcwheel.eu.

The current staff of Environment and Sustainable Development Secretariat consists of 11 professionals working fulltime for the UBC.



EnvCom,
Turku

Our
aims

Baltic
Sea



Projects



PURE - CHAMP - NEW BRIDGES - MATRUSCHKA -
SUSTAINMENT - BUSTRIP - Managing Urban Europe-25 -
NewHansa ... just to mention a few.

Contact
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NORDIC CONFERENCE ON SUSTAINABLE DEVELOPMENT IN THE BALTIC SEA REGION

RATKAISUJA

lähellä, yhdessä

LÖSNINGAR

nära, tillsammans

SOLUTIONS

local, together

Mark these dates to your calendar!

31 Jan - 2 Feb 2011 in Turku, Finland

www.solutions2011.fi
solutions2011@turku.fi