

## MUSIC

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MUSIC: an ambitious partnership that takes the lead in innovative solutions for the reduction of  $CO_2$  emissions!







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ABERDEEN CITY COUNCIL





ghent:











Mitigation in Urban areas: Solutions for Innovative Cities (MUSIC)

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# Mitigation in Urban areas: Solutions for Innovative Cities

A twenty percent reduction of greenhouse gas emissions, a twenty percent increase in the share of renewable energy and a twenty percent improvement in energy efficiency: these are the ambitious EU energy and climate change objectives for 2020.

These targets can only be met if *cities* in Europe contribute: more than seventy percent of the European population live in metropolitan areas and over half of all CO<sub>2</sub> emissions takes place in urban zones.

Cities play a key role in reducing CO<sub>2</sub> emissions and mitigating climate change. City governments, being the government level closest to the citizens, are ideally positioned to understand local concerns. Cities are well positioned to address the

challenges in a comprehensive way by facilitating cooperation between public and private interests at the local level. Furthermore, cities can integrate sustainable energy policies into their overall local development goals; be it the development of alternative energy, more efficient energy use or changes in behaviour.

#### Five cities...

Within the project "Mitigation in Urban areas: Solutions for Innovative Cities" (MUSIC), five cities in North West Europe cooperate and exchange knowledge on how to implement an energy transition in their own city. The cities Aberdeen, Ghent, Ludwigsburg, Montreuil and Rotterdam are convinced that for this transition to take place, first and foremost institutional and social innovations are required.



Sustainable energy solutions call for a new way of thinking about energy saving and for new ways of cooperation between the various stakeholders in the city. Active contributions from the public and private sector, industry, research and knowledge institutes and citizens are needed to truly achieve this energy transition. Two research institutes will assist the cities in achieving their ambitions of reducing CO<sub>2</sub> emissions: the Dutch Research Institute For Transitions DRIFT (Rotterdam) and the Public Research Centre Henri Tudor (Luxembourg). The project will run from October 2010 to June 2014 and is co-financed by the Interreg IVB NWE programme.

#### ...assisted by two research institutes...

MUSIC focuses on three types of innovations: (1) innovations in the way local stakeholders cooperate in the reduction of CO<sub>2</sub> emissions (transition management), (2) innovations in the use of GIS data for reduction of CO<sub>2</sub> emissions (urban energy maps) and (3) innovations in reduction measures for CO<sub>2</sub> emissions in public buildings (pilot projects). Working groups, comprising experts from each city, have been established for each set of activities. These working groups are assisted by experts from DRIFT and CRP Henri Tudor.

Illustration by KuipersArchitecten, taken from the publication Urgenda Visie Nederland 2050 (www.uraenda.nl)

### ... implementing three types of innovations.

The five cities will make use of the transition management methodology to each develop an energy transition vision and action plan for their own city. With this approach, developed by DRIFT, each city will organise a series of inspiring workshops in which the stakeholders in the city develop an urban sustainability vision, strategy and action plan. These stakeholders are frontrunners in the city and include representatives from the private sector, the public sector and citizens. They form a coalition committed to jointly implementing innovations for a more sustainable city.

#### **Development of GIS tools** for urban energy maps

Experts from CRP Henri Tudor will develop an information system to incorporate energy data in GIS maps and urban planning. These maps will provide a better insight into which CO<sub>2</sub> emission reduction measures and strategies will be most effective and where. The open source system will enable international comparison of the achievements of cities and regions in Europe.

#### **Pilot projects**

The energy transition plans and urban energy maps will be tested in practice in concrete pilot projects.

In Aberdeen, an old school building will be made more energy efficient, while at the same time energy efficiency will be

parents and pupils. climate neutral city.

process.

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In Ludwigsburg, a nearly energy neutral community centre will be built in a social and economically weak district. Here local



'Sustainable future' (detail), Jean Klare, 2011

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brought to the attention of the teachers,

The city of Ghent has started a "climate alliance", in which citizens, businesses and NGOs will be activated to commit to projects that contribute to achieving a

In <u>Montreuil</u>, a new energy generating school building will be constructed, with the focus on involving local residents, teachers and pupils in the construction

residents will for example be informed about measures for reducing energy consumption.

In Rotterdam, new models for cooperation between the public and the private sector to make public buildings more energy efficient will be tested at swimming pools and with the construction of green roofs. In these pilot projects, there is a strong focus on the involvement and consultation of a wide range of stakeholders including citizens, students, teachers and private sector organisations.