

Kick-off Event and 1st Working Group Meeting

Emscherquellhof, Holzwickede

13 – 14 November 2008

Proceedings and Results





The venue: EMSCHERQUELLHOF

The kick-off event of *Future Cities* took place in the inspiring setting of the historic site "Emscherquellhof" (which means: Farm "Emscher spring"). Here, the pathway to the new Emscher valley is demonstrated. Until 2027 the river Emscher – which with industrial development was turned into an open waste water sewer – will be restored over the length of 84 km. Rainwater, groundwater, spring water and purified water from sewage treatment plants will feed into a river stream of high ecological value.

At the source of the Emscher the historic and future dimension of the Emscher region is made visible in a typical former farm building structure called "Westhellweghof". The original buildings date from 1827 to 1870 and were restored by means of traditional craftsmanship. Today, they serve as centre for conferences, workshops and exhibition and an education source for Lippeverband and Emschergenossenschaft. The buildings dispose of many features which are topics of *Future Cities*: the use of geothermal energy for heating or an intelligent concept for waste water which allows for separated collecting and treatment.





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Annex

List of participants

Presentations and abstracts (on CD ROM)

aday 12 Nava **--**1

| Prog | ramme - Thursday, 13 November 2008 |
|-------|--|
| 9.30 | Welcome and opening of the Interreg IVB-project Future Cities Raimund Echterhoff, managing board of Lippeverband, DE |
| | Strategic aspects: Adaptation to climate change – the German strategy and fields for European cooperation |
| | Almut Nagel, Federal Ministry of Environment in Germany |
| | Scientific aspects: Climate change and relevance for urban water management Prof. DrIng. Johannes Pinnekamp, University of Aachen, DE |
| 10.20 | Introduction to the Future Cities – Strategy |
| | (Anke Althoff, Lippeverband) |
| 10.30 | Presentation of the <i>Future Cities</i> activities: "Modelling the heat island effect" |
| | Hans van Ammers, Arnhem, NL |
| | "Enviro21 – innovation exchange building" |
| | John Williams, Sea Space, Jörn Peters, SEERA, UK |
| 11.00 | Coffee break |
| 11.20 | "Green transformation of a city" Ton Verhoeven, Nijmegen, NL |
| | "Luciline – a climate-proof development next to the river Seine" Thierry Verrier, Rouen Seine Aménagement, F |
| | "Sustainable renewal of the Eastern part of Tiel" Annemieke de Kort, Tiel, NL |
| | "Climate-proof city of leper" Trui Naeyaert, West Vlaamse Intercommunale, BE |
| | "Effects of water management in urban areas – cooperation projects in the Emscher and Lippe catchments" |
| | Dr. Torsten Frehmann, Emschergenossenschaft and Lippeverband, DE |
| 13:00 | Lunch break |
| 14.00 | Site visit: No-regret measures in the Seseke catchment (till 16.00) |
| 16.00 | Only for project partners: Project Steering Group Meeting (till 18:00) |
| Prog | ramme - Friday, 14 November 2008 |
| 9.30 | Welcome and introduction to 2 nd day (Anke Althoff, Lippeverband) |
| | Adaptation of regional planning processes to the effects of climate change – research approach at the example of the Emscher-Lippe region Jens Hasse, Research institute of the University of Aachen FiW, DE |
| 10.30 | Presentation & discussion of working programme of WG 1 "climate assessment" and WG 2 "action plans" |
| | Two parallel groups: chair WG 1 Nijmegen, chair WG 2 Arnhem |
| 12.00 | Lunch break |

11.20 Presentation & discussion of working programme of WG 3 "implementatiion" and WG 4 "awareness raising"

Two parallel groups: chair WG 3 Emschergenossenschaft, chair WG 2 West Vlaamse Intercommunale

- 14:30 Plenary discussion and wrap-up
- 15.00 End of Kick-off event





The kick-off event of Future Cities

Over 75 participants attended to the kick-off event of the INTERREG IVB-project *Future Cities* which was hosted by the Lead Partner Lippeverband. The location of the historic site "Emscherquellhof" provided a perfect framework for the presentations and lively discussion of the working groups.

The first day was dedicated to the presentation of *Future Cities* activities. On the second day within the working groups the working programme for the next four years was developed and agreed on.

Anke Althoff, the project manager of *Future Cities* led through the programme which was performed by the project partners and external experts.









Thursday, 13 November 2008 – About Future Cities

Strategic and scientific background

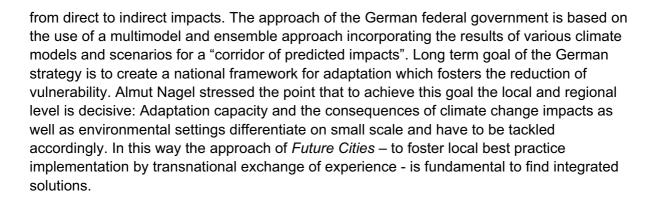
Raimund Echterhoff, member of the managing board of Lippeverband, welcomed the participants on behalf of the Lead Partner to the official start of the Future Cities project. For the Lippeverband the topic of climate change is an important issue: Almost 11 million euro will be invested to tackle the challenge of climate change. More extreme events that will not spare the Lippe and Emscher catchment – as the extreme rainfall in Dortmund in summer 2008 showed - call for better prediction and better preparedness. The Lippeverband being responsible for water and urban infrastructure in the whole Lippe catchment with 2.53 million inhabitants has to deal actively with the topic of climate change. Here, exchange of experience and the spreading of innovative solutions are indispensable and will be a great opportunity of Future Cities. For profound exchange good



cooperation within the partnership is very important but this has to be given time to grow. First results of a grown cooperation will be at hand when the sister water board Emschergenossenschaft will organise the midterm conference of *Future Cities* in 2010 – at the same time when Essen will be the European capital of culture.

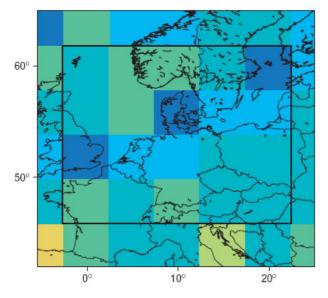


Strategic aspects on the national level were introduced by Almut Nagel from the German Federal Ministry of Environment. The German adaptation strategy is based on the knowledge that for precautionary reasons adaptation is needed. The German strategy is currently agreed among all federal ministries containing options and proposals for 15 fields of action - e.g. health, water management or agriculture - and an outline of the future strategic process. One important topic is how to deal with uncertainties in prediction which grow from global to regional/local scale, from now to future centennials,



Scientific aspects of climate change and the impacts on the water system were highlighted by Professor Johannes Pinnekamp from the University of Aachen. The predicted impacts of climate change will influence all parts of integrated water management: Drinking water supply, drainage system, wastewater treatment, the natural hydrological cycle. The drinking water supply might be endangered in quantity and quality although concrete impacts of climate change on the drinking water are not clear yet. The wastewater system has to be adjusted to regional very variable events which calls for a stronger involvement of urban planning. The existing prediction models are not yet detailed enough for adequate dimensioning of the water system. However, it is possible and sensible to start with "no-regret" measures such as





source control and decentralised systems. Dry periods call for adjusting the sewer system. In addition the mitigation of greenhouse gas emissions is highly recommended at waste water treatment plants, which not only emit carbon dioxide but methane and nitrous oxide.





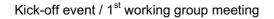
The Future Cities Strategy

Aims and strategy of the Future Cities project were presented by Anke Althoff, the project manager of Future Cities for the Lead Partner Lippeverband. The project's aim is to make city regions in Northwest Europe fit to cope with climate change impacts. The focus lies on proactive transformation of urban structures. Until end of 2012 eight project partners from Belgium, France, Germany, the Netherlands and the UK work together to develop and implement effective means for adapting the urban environment. 11 million euros will be spent whereof 5.5 million euros will be funded by the European Regional Development Fund. Key components of the urban environment - water systems, green structures and energy saving - will be addressed, combining



the key components for more economic efficiency. Actions are carried out to develop an assessment check for climate proof cities and action plans for transformation. Combined measures will be implemented in all participating countries and the long term impact will be fostered by targeted awareness raising activities. The joint working of the project partners will allow for comprehensive encouragement of best practice solutions for problems which need to be tackled soon. The transnational assessment check to assess the climate proofness of urban structures and planned measures shall allow for improved acting in an anticipatory manner.







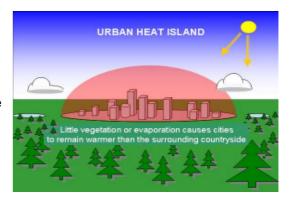
Presentation of Future Cities activities



Hans van Ammers from the municipality of Arnhem introduced the *Future Cities*-activities in the region of Arnhem which aim at *transforming the city region Arnhem-Nijmegen* with 720.000 inhabitants into a climate proof region. The focus lies on adapting the city environment to climate change in order to keep the city liveable to work, live and recreate. Especially the "warm part" of the impacts of climate change will be addressed with focus on the urban heat island. A regional climate survey shall provide a method to judge the climate proofness on the level of regions, cities and parts of the city. For active transformation a toolbox of means will

accompany the survey. The experience of all *Future Cities* partners will be used to adjust the

method to different situations. As a result there will be concrete information available for municipalities what will be the impacts and what they can do. Also, the method will be used for the Arnhem structure plan and in a reconstruction site in Arnhem.





The project partner from the UK, Hastings Borough Council, involves two regional partners – Sea Space, a public development company and the South East England Regional Assembly (SEERA). *John Williams* from Sea Space and *Jörn Peters* from SEERA gave an overview of the *activities of the Hastings* partnership. One aim is to investigate spatial vulnerability and mitigation aspects within the *Future Cities*-partnership and set out adaptation

measures to reduce vulnerability. Hastings will start an "Eco-retrofit" project to demonstrate climate friendly development in existing building sites and encourage small enterprises into this market. Based

on the experiences within *Future Cities* an adaptation plan for Hastings will be developed. A pilot showcase for ecoinnovation and adaptation will be installed with a building serving as exhibition and conference facility as well as restaurant for the local community. Awareness will be raised widely by displaying the technologies used within the building and its surroundings.





The green and water vision for a sustainable city of

Nijmegen was the topic of **Ton Verhoeven**. Possibilities of integration of green roofs, water buffering and energy will be investigated for different urban situations and concretised in feasibility plans for the Nijmegen area. Based on the results pilot projects will be implemented. In different parts of the city green structures will be build and monitored for their effects on the urban climate situation. Another important aspect is the adaptation to higher groundwater tables while at the same time use the ground water for energy measures. Therefore, a vision for the underground – a "master plan" for arranging the use of the underground – is aimed at. The problems of concurring city functions will be addressed, e.g. between hot-cold storage in



the underground and ground water protection areas. In order to turn the visions and plans into reality the municipality of Nijmegen depends on the collaboration of the owners of



buildings and estates. Therefore, the development and execution of efficient participation strategies will be an important part of the *Future Cities*-activities of Nijmegen.

Thierry Verrier, director of Rouen Seine Aménagement, explained the **Future Cities -project site "Luciline"** to the audience. The site is part of the city of Rouen located at the river Seine. Today, the Luciline area suffers from uncoordinated land use being occupied by port wasteland and various car dealerships. But it also offers excellent possibilities being close to the city centre and near the river Seine. Therefore, on an area of 140.000 square meters a compact district of mixed residential and commercial functions will be developed. High energy efficiency shall be provided by pooling of energy production and use of renewable energies. A combination of the strategic key components of *Future Cities* is demonstrated by using water transit and storage – ground water, water form the river Seine, wastewater and rainwater - as geothermic energy source and





take care of sustainable rainwater management with green public spaces.





The *Future Cities - activities of the city of Tiel* were introduced by *Annemieke de Kort*. The Eastern part of the city various water related problems such as high groundwater levels in winter and soil dehydration in summer must be dealt with.

These problems will get worse with the impacts of climate change and have to be tackled in an integrated way. All stakeholders of the area – residents, the water board, the province, housing organisations, developers – have to be involved to achieve the overall goal of sustainable, climate and water proof development. Among others a plan for green roofs in an existing industrial site "Latenstein" will be drawn up and realised.

The involvement of so many different stakeholders

will be supported by active communication means such as a game "living with water" where the players develop the water system and – in case their system cannot cope with the rainwater - are confronted with angry reactions by game-residents getting wet feet.



Trui Naeyaert introduced the development of a *sustainable quarter in the city of leper* by the intermunicipal association of West Flanders. With 35.000 inhabitants leper is the 5th biggest city in West Flanders. The public sector will make special investments in order to make the planned development sustainable in all aspects. Adapt to climate change is the key



element of the strategy together with mitigation aspects. The focus of the activities in *Future Cities* lies on the combination of water and ecology through a network of surface water infiltration buffers which will connect the different parts of the planned quarter but also connect to an existing adjacent housing quarter. Awareness raising is very important because there don't exist comparable examples in Flanders yet.

Furthermore, the Flemish attitude to build and live in one's own house makes it necessary to inform especially architects and house builders

about the possibilities and necessities and to encourage them to apply adequate techniques.





The *Future Cities-activities in the catchment of Lippe and Emscher* were presented by *Torsten Frehmann*. The water boards Lippeverband and

Emschergenossenschaft cover together over 4000 km² with 3.8 million inhabitants. As an important regional player they aim at being well prepared to cope with the impacts of climate change.

Lippeverband will develop a blue-green corridor in the city of Kamen with ecological improvement of the water body Heerener Mühlbach comprising an area of 1.5 ha. There, the special challenge is to find solutions when only little space is available.

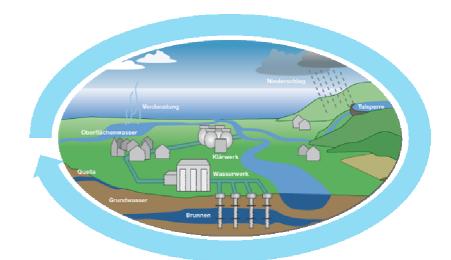
In close partnership with the municipality of Bottrop Emschergenossenschaft will demonstrate how an existing industrial site of 20 ha can be ecologically improved and anticipate climate change. A variety of measures such as green roofs and streets, solar and wind energy systems





and sustainable rainwater management will be combined for optimal effects. Since adaptation alone is not sufficient the possibilities for improved mitigation activities are also investigated. As Professor Pinnekamp stated in his presentation energy efficiency is of high importance at waste water treatment plants. For the sludge conditioning process fine black coal is used which later on is burned with the de-watered sludge. In order to save fossil energy and reduce green house gas emissions this coal will be substituted by shredder fibres from car recycling.

For an integrated approach a regional guideline will be developed. With this guideline all relevant parts of the water cycle and the existing and planned operation and management by the water board can be assessed regarding climate proofness.





In the following *discussion* it became very clear that all project partners face the similar problem that they only own small parts of the cities where they can directly implement favourable measures. The good collaboration of companies in Tiel and Bottrop is especially encouraged by the need of the companies to act because they encounter severe problems with rainwater and groundwater. In other cases the public sector strives for setting a favourable framework of sustainable infrastructure as in Rouen-Luciline or leper. Or, tries to influence by striking



showcases as in Hastings. As the Nijmegen-activities show, even for the transformation of a small public courtyard from a parking lot into a climate proof space a comprehensive participation process must be undertaken. It is very important to use tools that strikingly make clear what the concrete consequences will be – as the heat island tool of Arnhem does. Furthermore measures must be implemented within the limited space in the cities in the pilot project of Lippeverband. In all cases the project partners are in need to conduct effective participation and awareness raising campaigns with a big variety of involved



stakeholders from architects to energy companies and residents, especially in restricted spatial conditions as. This will be a great challenge for the *Future Cities*project besides the innovative combination of techniques.



Site visit

During the site visit to the river Seseke the participants of the kick-off event could take a closer look at a decentralised no-regret measure to adapt to climate change. Dirk Klingenberg, the project manager of the Seseke transformation works, explained the situation.

The river Seseke is the biggest tributary of the river Lippe. Over a length of 31 km sewage water and rain water of a catchment with 370.000 inhabitants drains into the Seseke. At the end of



the 19th and the beginning 20th century heavy industrialisation and fast growing population caused severe hygienic and flooding problems. For remediation in the following years the river course was turned into a concrete channel to secure the drainage function. For the time being this was the state of art.

For many years the "river" Seseke had the function of an open waste water sewer. The sewage water first was treated at the conjunction with the river Lippe. Since the 1980s this situation was acknowledged being unsustainable. In 1986 the programme for the transformation of the Seseke was adopted. Since then 500 million euros were invested to build waste-water treatment plants and a totally new sewer system for the whole Seseke catchment to release the Seseke from waste water. Now the last steps are being taken to restore the ecological functions of the Seseke and to turn it into a manifold natural place for fish, birds and vegetation but also for the recreation of mankind. The concrete channels are reconstructed into a river course with meanders and varied types of natural banks. Until 2010 the restoration works shall be finished. The restored river course will contribute to a better flood prevention scheme and sustained coping with the challenges of climate change.





Friday, 14 November 2008 - Working group meeting

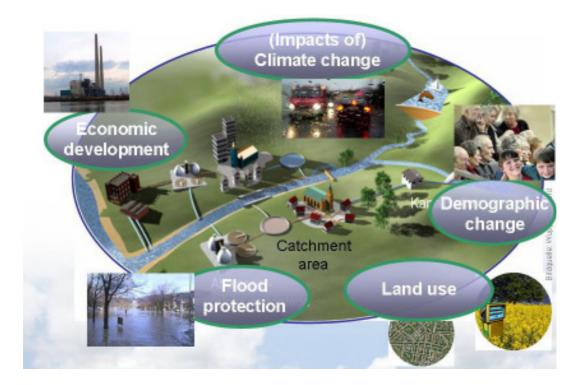
Welcome and introductory presentation on regional processes to face climate change

Anke Althoff welcomed the working group members to the first working group meeting of *Future Cities*.

To start the discussions of the day *Jens Hasse* from University of Aachen presented a



research approach on adaptation of regional processes to the effects of climate change. He stressed the problem of adaptation being based on continuous uncertainty of the impacts of climate change. In order to better handle this situation the research approach aims at dynamic adaptation and strengthening the "adaptability" of processes. Furthermore a pro-active course of action should be introduced involving all stakeholders within regional processes. For this integrated approach relevant stakeholders must be encouraged to develop an active regional network where attitudes and perceptions are subject to changes.





The working groups

Anke Althoff explained the agenda of the working group sessions. As worked out in the project development process and defined in the application 4 working groups will have the tasks to exchange the experience, to coordinate the scientific outcome and to deliver the main joint products of *Future Cities*. The working groups will be chaired alternating by all project partners.

The workings groups and their main products are:

Working Group (WG) 1:

A joint assessment check for climate proof cities Chairs: Nijmegen (Ton Verhoeven) and Lippeverband (Anke Althoff)

Working Group (WG) 2:

An evaluation report of the activities of work package 2 as feedback into the joint assessment check and 13 twinning reports

Chairs: Arnhem (Hans van Ammers) and Rouen Seine Aménagement (to be announced)

Working Group (WG) 3:

An evaluation report of the activities of work package 3 as feedback into the joint assessment check and 10 twinning reports

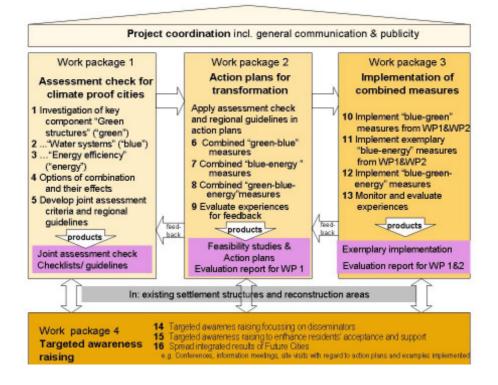
Chairs: Emschergenossenschaft (Torsten Frehmann) and Tiel (Annemieke de Kort)

Working Group (WG) 4:

No explicit joint product(s) of this working group were defined in the application. To be defined in the working group session.

Chairs: West Vlaamse Intercommunale (Eveline Huyghe) and Hastings (to be announced)

The chairs (first and second named) will change with the midterm conference in autumn 2010.





Working group 1 "Climate assessment"

Chair: Ton Verhoeven, Nijmegen

Permanent members of working group 1 are as follows:

| Anke Althoff | PP 1 LV | Jörn Peters | PP 4 subHA |
|--------------------------|--------------------|-------------------|------------|
| Kirsten Adamczak | PP 1 LV | Helene Møgelhøj | PP 4 subHA |
| Vincent Kuypers | With PP 2 AR | Ton Verhoeven | PP 5 NI |
| Peter Groenhuijzen | With PP 2 AR | Veroniek Bezemer | PP 5 NI |
| Marion Visser | PP 2 AR | To be announced | PP 6 RS |
| Matthias Weilandt | PP 3 EG | Annemieke de Kort | PP 7 TI |
| Eberhard Holtmeier | PP 3 EG | Nathalie Garré | PP 8 WV |
| llse Dries (for feedback |) Flemish Governme | ent With PP 8 WV | |
| | | | |



Full title of working group 1: Assessment check for climate proof cities

Ton Verhoeven welcomed the participants and explained the main products and their time schedule as named in the application (see figure).

| 2012 | | | | 2011 | | 2008 2009 2010 | | | | | | Year | |
|------|----------------------------------|--------------|------------|----------------|----------|----------------|---------|----------|---------|----------|---------|--------|---------------|
| Nov | June | March | Oct. | June | March | Oct. | June | March | Oct. | June | March | Nov. | Month |
| | 9 | 8 | 7 | 6bis | 6 | 5 | 4bis | 4 | 3 | 2bis | 2 | 1 | Meeting n° |
| | x | x | x | | x | x | | | x | x | x | x | WG 1 |
| | | | | | | | | | t 2009 | eck Oc | lim. ch | Pre | |
| | | | | | | t 2010 | onf. Oc | klist Co | n. chec | t prelim | Presen | | Prod. |
| | Final assessment check June 2012 | | | | | | | | | | | | |
| | | | | - | | | | | | | | | |
| 2012 | ck Nov | ent che | sessm | inal as | resent f | Pr | | | | | | 10 | |
| 2012 | ck Nov | ent che x | sessm x | inal as | x | Pr x | x | x | x | | x | x | WG 2 |
| 2012 | ck Nov | | | rinal as: x | | | x | x x | x x | | x | x x | WG 2 WG 3 |
| 2012 | | x | x | | x | x | x | | | | x x | 0.02 | |



After discussion the working group confirmed the general definitions of the application and agreed on the following:

- The aim is to develop an assessment check for climate proof cities in two steps. A preliminary checklist to be used by *Future Cities*-partners until autumn 2009 and an improved final version which can be used by similar organisations until 2012.
- The focus of the working group is on a check for adaptation measures. There already exist many checklists and guidelines for the local level how to avoid greenhouse gas emission. These could be included as information source.
- The focus lies on the 3 components of *Future Cities*: Green structures, water systems and energy. The combination could be seen as 4th component. The heat island study of Arnhem also involves as major aspect the city morphology. It has to be found out whether this will fit into the basic structure. If deemed necessary and applicable further components or aspects such as transportation can be added later in the process.
- The form will be decided on later, when the content is more clearly defined. Proposals are an interactive website or a decision support tool which guides through the process. At the moment, this seems to be too complex to be worked out by the working group.

The assessment check will be based on the input from the pilot projects of the project partners. The time schedule of the outputs of the project partners was checked against the time schedule of the joint product. It became clear that most partner outputs will be available in time to give a contribution to the development of the assessment check. The results are compiled in the working group planner below.

Agreements for the next months

The working steps until next working group meeting in Rouen, in March 2009 were agreed on:

- A list of direct and indirect impacts of climate change shall be compiled in order to provide a common basis for the working group's work (by PP2/Alterra).
- Existing information on assessment checks on project partner level and research results shall be compiled in order to give input and to avoid "reinventing the wheel" (exchange of partner's information organised by the chair, compilation of available research results by PP4/SEERA).
- A rough outline of the assessment check will be organised/prepared by the chair.

The small working group meeting in June 2009 will be in the responsibility of PP5.





Working Group Planner: WG1 – Climate Assessment

| WG - meeting n° /date | WG – topics / agenda | Preparation of PP / Input | Output / products of PP (action no. as in application) |
|------------------------------|---|--|---|
| 2 | Background: list of direct/indirect impacts (prepared by PP2/Alterra) | presentation for WG | Report cost-effective low carbon design; 3/PP4 SEERA |
| 3/2009 | Review on existing research results (prepared by PP4/SEERA) | presentation for WG | Report ground water policy plan for adaptation; 2/PP5 NI |
| | Exchange existing information of project partners, determine gaps (organised by chair) | presentation for WG | Report water adapted development; 2/PP7 TI |
| 1 | (prepared by chair) ROUGH OUTLINE OF ASSESSMENT | presentation for WG | Report on climate robust development (energy efficiency, durable energy); 3/PP7 TI |
| 2bis | further discussion of the input papers and reports | definition of criteria, presentation for WG | Energy study cold/heat storage; 3/PP2 AR |
| 6/2009 | Discussion and improvement of the outline | definition of criteria, presentation for WG | Energy map Arnhem and area with manual explanation; 3/PP2 AR |
| | | definition of criteria, presentation for WG | Regional climate change guideline; 5/PP1 LV, PP3 EG |
| | | definition of criteria, presentation for WG | Report on vulnerability/adaptation examples; 4/PP4 SEERA |
| | | definition of criteria, presentation for WG | Report combination green/water in courtyards; 1/PP5 NI |
| 3 | Discussion of inputs / criteria to the assessment check check list | Case study city of Arnhem available | Climate map of City region UHI; 4/PP2 AR |
| 10/2009 | combination of different inputs | Only draft –very rough version available | Rough Outline climate toolkit; 4/PP2 AR |
| | | Direct input for checklist | Regional sustainability guideline wvi; 5/PP8 WV |
| | PRELIMINARY ASSESSMENT CHECK (LIST) | Combined use of energy and groundwater | Masterplan underground Nijmegen; /PP5 NI (link to report ground water policy plan see above?) |
| | | Contribution to assessment check | Report /maps for energy measures in urban structures; 3/PP5 NI |
| | | Contribution to assessment check | Report on state of art green roofs/walls; 1/PP5 NI |
| 4 3/2010 | Prepare presentation of preliminary assessment check for midterm conference | List of possible measures to reduce heat island effect | Rough Outline climate toolkit; 4/PP2 AR |
| | • Meeting date not foreseen for WG 1, decide on need at 3 rd meeting | Direct input for checklist | Regional sustainability guideline wvi; 5/PP8 WV |
| | | Contribution to assessment check | Business Plan for "Retrofit Demonstration"; 3/PP4 HA |
| | | INPUT FOR WG 2 | Plan for local Green Homes Service; 3/PP4 HA |
| 5 10/2010 Conf. | Improve assessment check with input from evaluation interim results WG 2 and 3 PRESENTATION OF PRELIMINARY ASSESSMENT CHECK | Available for City region Arnhem Nijmegen | Climate map of City region UHI 4/PP2 AR |



| WG - meeting n° /date | WG – topics / agenda | | Preparation of PP / Input | | Output / products of PP (action no. as in application) |
|-----------------------------|--|---|---|---|--|
| 6 3/2011 | Improve and adjust assessment check | • | Check: Experiences for participation strategy (WG 4?) | • | Cooperation with housing companies/other parties 1/PP5 NI |
| 7 10/2011 | Improve and adjust assessment check with confirmed evaluation results from WG 2 and 3 | | | | |
| 8 3/2012 | Prepare input for final reportClimate model as one building stone of assessment check | ◄ | Including experiences of Future Cities partners | • | Climate model, adapted, tested in City Region 4/PP2 AR |
| 9 6/2012 | Final Result Input report | • | Check: Interim results earlier available? | • | Synthesis report of possible options for combined measures 4/PP6 RS |
| 11/2012 Conf. | □ FINAL ASSESSMENT CHECK/ PRESENTATION | | | | |

The Working group planner is a living document. The plan shall be further developed during the meetings always for the next (at least two) WG meetings.





Working group 2 "Action plans"

Chair: Hans van Ammers, Arnhem

Permanent members of working group 2 are as follows:

EG HA NI RS RS ΤI WV PP 8

| Guido Geretshauser | PP 1 LV |
|------------------------|-----------|
| Hans van Ammers | PP 2 AR |
| Matthias Stumpe | PP 3sub |
| | EG |
| Torsten Frehmann | PP 3 EG |
| Chantal Lass | PP 4 HA |
| Antal Zuurman | PP 5 NI |
| Charlotte Masset | PP 6 RS |
| Thierry Verrier | PP 6 RS |
| Ine van den Hurk | PP 7 TI |
| Trui Naeyert | PP 8 WV |
| Stijn Saclens (spatial | With PP 8 |
| planner) | |





Full title:

Action plans for the transformation of urban structures to make cities climate proof

Hans van Ammers introduced to the working group and summarised the tasks. The joint products are shortly discussed. Main important product of the working group will be the evaluation of the action plans to contribute to the assessment tool of WG 1 and the evaluation report.

| Year | 2008 | | | | | | | 2012 | | | | | |
|---------------|--|-------|---------|--------|---------|--------|------|-------|-------|---------|----------|-------|------|
| Month | Nov. | March | June | Oct. | March | June | Oct. | March | June | Oct. | March | June | Nov |
| Meeting n* | 1 | 2 | 2bis | 3 | 4 | 4bis | 5 | 6 | 6bis | 7 | 8 | 9 | |
| WG 1 | x | x | x | x | | | x | x | | x | x | x | |
| WG 2 | x | x | | x | x | x | x | x | | x | x | | |
| | | Pre | esent i | nterin | n resul | ts Oct | 2010 | | | | | | |
| | Evaluation input for final assessment check Oct 2011 | | | | | | | | | | | | |
| Prod | 13 twinning reports | | | | | | | | | | | | |
| | Input for final report March | | | | | | | | | | | | |
| | | | | | | | | ł | reser | nt fina | l result | s Nov | 2012 |
| WG 3 | × | | | x | x | | x | x | x | x | x | x | |
| WG 4 | x | × | | x | x | | x | x | | x | x | x | |
| | | x | | | | | x | - | | | | - | |



The methods used in this WG will be

- joint discussion of the partner inputs
- definition of criteria for the evaluation process
- twinning activities within the partnership to evaluate jointly the partner action plans. Concepts for twinning and guiding questions for the twinning reports will be developed in the working group.

Hans v. Ammers and Peter Heiland presented the summary of activities of the working group and the relevant project partners as described in the application. All partners were asked to review their actions, their outputs and interim outputs. All partners marked their inputs to the working on a flipchart related to the date of availability and to the working group meetings.

In an intensive discussion the outputs of the working group were checked. Especially for the next meetings of the working group the topics and the inputs of the partners were defined.

The following table ("working group planner" see next page) reflects the results of the discussion.

Agreements for the next months

The working steps until next working group meeting in Rouen, in March 2009 were agreed on:

<u>A) Preparation for the WG 3/09:</u> tasks will be prepared by partners as follows:

- presentation about actions on "green roofs studies"; preparation of the discussion; what are criteria for this task? (Nijm)
- definition of "Action Plan" in the Future Cities project; descriptions, alternatives, example Master Plan (VWI)
- Which information is needed in the further project by whom and when and how? (Arnh)
- Presentation of the outline of the "Head Island Study" (Arnh)
- Example for twinning actions on "green roofs" (Nijm)
- Develop twinning concept for the WG (WG chair)

 WG
 WG
 WG
 PG
 <

B) Looking for answers to open questions

- Criteria for / setup of evaluation report in relation to WG 1 assessment
- Will WG meetings be held in parallel with other WGs?



Working Group Planner: WG2 - Action Plans

| WG - meeting | WG – topics / agenda | Preparation of PP / Input | Output / products of PP |
|-------------------------|---|--|---|
| n° /date 2 3/2009 | Definition of "Action Plan" (vrs. Master Plan, other terms); (prepared by WVI) Examples for actions: (1) green roofs (prepared by NIJM) Which information is needed in which phase by whom? (prep. by ARNH) Issue For TWINNING Outline of the Head Island Study (prepared by ARNH) Twinning accessed and ashed when (MC ashein) | contribution to the definition of "action plans"; presentation of the status for WG presentation of the status for WG presentation of the status for WG | Action plan for implementation of green structures with water retention (Nijmegen); (PP5 NI) Action plan for the use of energy roofs including energy saving/production, green roofs and water retention; (PP5 NI) Feasibility study groundwater and 3 action plans on climate adapted use of groundwater for more energy efficiency; (PP5 NI) Feasibility for replacing coal with shredder fibres for sludge dewatering in |
| 3 10/2009 | Twinning concept and schedule (WG chair) Definition of criteria for the evaluation report (prepared by WG chair) Agreement on the set up of the evaluation report / outline / responsibilities (prepared by WG chair) Reflection / evaluation of the twinning actions 4 twinning reports on the improvement of the action plans | contribution to the definition of evaluation criteria; presentation of proposals presentation of the status for WG | at the waste water treatment plant; (PP3 EG) Jointly designed action plan for a climate friendly industrial zone (EG/Bottrop); (PP3 EG) Integrated plan to face climate change and for a sustainable industrial park (EG/Bottrop); (PP3 EG) Implementation programme for roofs combining green structures and water management for an industrial zone (Tiel-East); (PP7 TI) A feasibility study on wateradapted and energy efficient development in Tiel East; (PP7 TI) |
| 4 3/2010 | Criteria and concept evaluation report continued | presentation of status and progress | Integral design plans of combining green structures with water retention in public city courtyards (Nijmegen); (PP5 NI) Feasibility study/action plan for renewable energy measures in the district of Luciline; (PP6 RS) Energy strategy for Arnhem including a report with concepts/measures/ SMART targets per type of urban project; (PP2 AR) |
| 4bis 6/2010 | Test of the evaluation methods; exemplary evaluation of measures (expert hearing role play (prepared by) INTERIM EVALUATION REPORT 5 twinning reports on the improvement of the action plans | input to test evaluation; presentation of examples; exemplary rest evaluation | Energy city-map with best practices examples to disseminate results - support awareness raising; (PP5 NI) Checklists/handouts for project developers (Arnhem); (PP2 AR) Concepts for adapting water infrastructure to climate change with green spaces (feasibility studies, architectural concepts, plans ; (PP6 RS) |



| WG - meeting n° /date | WG – topics / agenda | Preparation of PP / Input | Output / products of PP |
|-----------------------------|--|--|---|
| 5 10/2010 | further development / improvement of the evaluation concept, improvement of test evaluation method | Map and Toolkit: presented to WG | Scenarios for reconstruction sites ; (PP2 AR) |
| 6 3/2011 | twnning reportspresentation and discussion of twinning results | presentation of the working plans | Detailed working plans (PP8 WV) |
| 7 10/2011 | Preparation of the evaluation report 4 twinning reports on the improvement of the action plans | presentation of the status presentation of the status presentation of the status | A climate proof master plan for leper Oostsector (WVI); (PP8 WV) Evaluated planning to see, if ecological planning complies with improving the climate proofness of cities (Kamen); (PP1 LV) 4 twinning reports on the improvement of the action plans; |
| 8 3/2012 | Evaluation report of partner experiences; to improve the preliminary check WP1; use for spreading integrated results <i>Future Cities</i> in WP4 action 16.; WG 2 EVALUATION REPORT | presentation of the status presentation of the status presentation of the status | An example climate change adaptation plan (strategy and implementation plan) for a city; (PP4 HA) Map of the City Region Arnhem Nijmegen with bottlenecks and opportunities to reach a climate proof region; (PP2 AR) Toolkit "city climate": mo¬dels, guidelines, road¬maps for municip. to estimate effects of climate change, effective measures; (PP2 AR) |

The Working group planner is a living document. The plan shall be further developed during the meetings always for the next (at least the next two) WG meetings.



Working group 3 "Implementation of pilot projects"

Chair: Torsten Frehmann, Emschergenossenschaft Permanent members of working group 3 are as follows:

| Guido Geretshauser | PP 1 LV |
|--------------------|--------------|
| Vincent Kuijpers | With PP 2 AR |
| Torsten Frehmann | PP 3 EG |
| Matthias Stumpe | PP 3sub EG |
| John Williams | PP 4sub HA |
| Helene Møgelhøj | PP 4sub HA |
| Antal Zuurmann | PP 5 NI |
| Henk-Jan Nijland | PP 5 NI |
| To be named | PP 6 RS |
| Ine van den Hurk | PP 7 TI |
| Trui Naeyaert | PP 8 WV |
| | |



Torsten Frehmann summarised the key issues of the working group from the application (see figure) and introduced to the discussion of the WG-working plan.

| Year | 2008 | | 2009 | | 2010 2011 | | | | | 2012 | | | |
|---------------|--|----------|--------|---------|-----------|---------|--------------------|----------|---------|----------|----------|----------|--------|
| Month | Nov. | March | June | Oct. | March | June | Oct. | March | June | Oct. | March | June | Nov |
| Meeting n° | 1 | 2 | 2bis | 3 | 4 | 4bis | 5 | 6 | 6bis | 7 | 8 | 9 | |
| WG 1 | x | x | x | x | | | x | x | | x | x | x | |
| WG 2 | x | x | | x | x | x | x | x | | x | x | | |
| WG 3 | x | | | x | x | | x | x | x | x | x | x | |
| | lr | nterim r | esults | (report | , prese | nt.) Oc | t 2010 | | | | | | |
| | Evaluation input for final assessment check Oct 2011 | | | | | | | | | | | | |
| Prod. | | | | | | | Input [.] | for fina | l repor | t March | า 2012 | | |
| | Final results June 2012 | | | | | | | | | | | | |
| | | | | | | | | | Pres | sent fir | nal resu | ılts Nov | / 2012 |
| WG 4 | x | x | | x | x | | x | x | | x | x | x | |
| Conf. | | x | | 3 | | | x | | | | | | x |



Beside the review of all inputs of the partners until 2012 two specific questions were in the focus of the WG discussion:

• Evaluation:

How will the evaluation take place? Which questions should be put for evaluation? Prepare conclusions for improvement of assessment check

In addition the setup of the evaluation report and interim steps of the working group were discussed. Following first collection shall be made for the criteria for the evaluation:

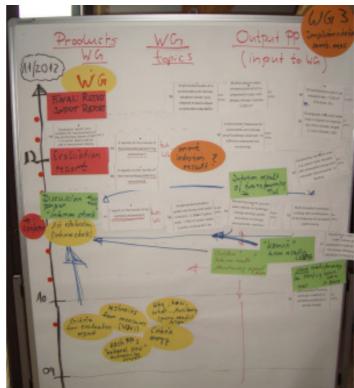
- water quality and quantity in relation to green roofs / criteria for green roof actions
- criteria could build on benchmarking goals? it is discussed weather this is the right approach for this stage of the analysis.
- criteria shall be developed from the WP-1-assessment tool (preliminary is available end of 2009).
- Develop showcases:

How to use the pilot projects as valuable showcases? Prepare reports on showcases: for final report!

Following ideas or thoughts are collected in the discussion:

- Publicity for show cases in this context face the problem, that the measures are often not very interesting / well visible for the public.
- Perhaps show cases could be taken from other, already completed projects? Measures under construction are often not so "politically effective" like completed measures.
- The relation between show cases in this WG and public awareness measures in WG 4 has to be discussed.
- Ideas might be an award and a film about all showcases. This proposal has to be checked with the project's budget and the project's framework.

In the main part of the WG all partners reviewed their actions and interim inputs to the WG. In an intensive process the joint working plan for WG 2 (WG planner, see table next page) was developed.





Working Group Planner: WG3 – Implementation of combined measures

| WG - meeting n° /date | WG – topics / agenda | | Preparation of PP / Input | | Output / products of PP |
|-----------------------------|--|-----------------------|---|---|---|
| 3 10/2009 | Concept for the evaluation: process of evaluation, criteria etc. Restrains for measures (WVI) Twinning concept (also check with twinning concept in WG 2) | • | presentation of the status of the implementation measures | | Interim results are not finished in this phase) |
| 4 3/2010 | Concept for the evaluation each PP: national view on restrains for projects on climate change Energy criteria Monitoring of green roofs: Why, how and what: (NIJM) | • • • | presentation of the evaluation criteria for the pilot actions | | Demonstration/Training exemplar installed for retrofitting buildings to climate change; (PP4 HA) Outline / concept and interim results of Monitoring report (PP5 NI) Start: transforming roofs, input WP2 / -2010 (PP7 TI) |
| 5 10/2010 | Preparation of test evaluation (interim evaluation, test evaluation) of measures selection of exemplary measures to be evaluated | ▼ | | ▼ | Transformed urban sewer water system at a wastewater treatment plant for energy efficiency by substitution of fossile energy (EG); (PP3 EG) "Kamen" Interim result (PP1 LV) |
| 6 3/2011 | 1st evaluation (interim check) Presentation of the test evaluation for the CONFERENCE | | identify test cases for the interim evaluation; contribution to the evaluation from the pilot actions | • | Implemented solutions green structures and water retention: 2.000 m ² green roofs, 1.000 m ² green walls, 2 public courtyards 2 ha (Nijmegen, NL); (PP5 NI) Built innovation exchange building with combinations of all measures for excellent performance; (PP4 HA) Monitoring reports: ground water effects on buildings/ energy savings; green structures on energy savings/water retention, heat effects; (PP5 NI) |
| 6bis 6/2011 | Discussion paper (interim check) WG 1, WG 2 1 report on the results of the twinning assessment | • | Interim result of transferring | ▼ ▼ | |
| 7 10/2011 | Review of interim evaluations 5 reports on the results of the twinning assessment | • | input the evaluation report | | Sustainable industrial area; e.g. green roofs, facades with renewable energy and rainwater disconnection in Bottrop ; (PP3 EG) |
| 8 3/2012 | INTERIM EVALUATION REPORT Preparation fo the final evaluation report: con¬clusions for improvement of the preliminary check of WP 1, of action plans and for use in awareness raising ; WG 3 5 reports on the results of the twinning assessment | • | input the evaluation report input the evaluation report | • | Implemented measures for sustainable and climate proof buildings (planned: 10 different measures incl. monitoring); (PP5 NI) Ecologically improved water body in Kamen to improve city micro climate, length 2,14 km (Kamen, DE); (PP1 LV) |



| WG - meeting n° /date | WG – topics / agenda | | Preparation of PP / Input | | Output / products of PP |
|-----------------------------|---------------------------|---|---------------------------|---|--|
| 9 6/2012 | FINAL RESULT INPUT REPORT | • | Evaluation | • | 20 transformed roofs in an industrial site, 7.500 m ² (Tiel-East, NL); (PP7 TI) |
| | | • | Evaluation | • | Implemented parts of a sustainable and climate-adapted master plan; citizens to learn about sustainable adaptation; (PP8 WV) |
| | | - | Evaluation | • | Multifunctional water infrastructure which is prepared to cope with climate change impacts, 5.000 m ² ; (PP6 RS) |

The Working group planner is a living document. The plan shall be further developed during the meetings always for the next (at least two) WG meetings.



Agreements WG 3 for the next months

A) Criteria development / selection

- green / green roofs (PP5 NI)
- energy (PP4 HA)
- restraints for measures (PP8 WV) and national views (all)
- blue / water bodies, disconnection (PP1 LV)
- collection of inputs and concept for criteria (WG-chair)

B) Show Cases

• proposal / paper by Vincent van Kuypers (ALTERRA for PP2 AR)

The WG 3 meets the next time in October 2009.

Working group 4 "Awareness raising"

Chair: Eveline Huyghe, West Vlaamse Intercommunale

The permanent members of working group 4 are:

| Anke Althoff | PP 1 LV |
|-------------------------|--------------|
| Kirsten Adamczak | PP 1 LV |
| Marion Visser | PP 2 AR |
| Hans van Ammers | PP 2 AR |
| Eberhard Holtmeier | PP 3 EG |
| (partly) | |
| Matthias Weilandt | PP 3 EG |
| (partly) | |
| Dean Morrison (now, | PP 4 HA |
| Chantal Lass as project | |
| leader later) | |
| Helene Møgelhøj | PP 4sub HA |
| Veroniek Bezemer | PP 5 NI |
| Henk-Jan Nijland | PP 5 NI |
| Thierry Verrier | PP 6 RS |
| Annemieke de Kort | PP 7 TI |
| Eveline Huyghe | PP 8 WV |
| Trui Naeyaert | PP 8 WV |
| Ilse Dries (feedback | With PP 8 WV |
| only) | |
| | |





Eveline Huyghe opened the working group session. In the application there was no explicit product of working group 4 defined. Therefore, a proposal was made by the Lead Partner (see figure) and the chair.

| Year 2008 2009 | | 2009 | | | 2010 | | 2011 | | 2012 | | | | |
|----------------|--|-------|------|------|-------|------|------|-------|------|------|-------|------|-----|
| Month | Nov. | March | June | Oct. | March | June | Oct. | March | June | Oct. | March | June | Nov |
| Meeting n* | 1 | 2 | 2bis | 3 | 4 | 4bis | 5 | 6 | 6bis | 7 | 8 | 9 | |
| WG 1 | x | x | x | x | | | x | x | | x | x | x | |
| WG 2 | x | x | | x | x | x | x | x | | x | x | | |
| WG 3 | x | | | x | x | | x | x | x | x | x | x | |
| WG 4 | x | x | | x | x | | x | x | | x | x | x | |
| | Proposal: Edit interim report for Oct 2010 | | | | | | | | | | | | |
| Prod. | Communication part for final report | | | | | | | | | | | | |
| | Proposal: Edit final report for Nov 2012 | | | | | | | | | | | | |
| Conf. | | x | | | 1 | | x | S | | | | 8 | x |

In the discussion the working group agreed on the proposals:

- 1st year: collect information on communication/participation activities of project partners including the activities known to the partners in their surrounding: strategies, instruments, target groups,
- 2nd year: Focus on exploring / monitoring the communication strategies/ activities best-practice
- 3rd year: Focus on exploring participation activities
- 4th year: Conclusions on best practice examples and give recommendations
- Furthermore the working group can function as a resource for supporting the development of *Future Cities*-communication products
- WG 4 will be responsible for the chapter about communication in the final report.

The discussion revealed that it is not possible to monitor the effectiveness of strategies or instruments – at least with the means of the partnership. A pure counting of the number of brochures distributed is not very helpful. Therefore, the monitoring will done in a qualitative way. Another problem could be how to define the line between communication and participation strategies.

Furthermore, the representatives of the Flemish government suggested to involve citizens more directly in the *Future Cities* project and it's pilot projects – in all steps: Planning, implementation, maintaining.



Working Group Planner: WG4 – Targeted Awareness Raising

| WG - meeting n° /date | WG – topics / agenda | Preparation of PP / Input | Output / products of PP and dates |
|-----------------------------|--|---|--|
| | | | "Wonen ++" / Nijm / Energy saving advice for citizens, 2008 (PP5 NI) |
| | | | Forum discussions Nijmegen, 2007 (PP5 NI) |
| | | | Nijmegen energy agreement, 2008 (PP5 NI) |
| | | | Climate campaign / Citizens of Nijmegen, 2008 (PP5 NI) |
| | | • | Brochure Tiel East, 2008, Target groups: residents, external parties (promotion) (PP7 TI) |
| 3 10/2009 | Joint list of good practices o the parterns COLLECTION OF COMMUNICATION ACTIVITIES OF PP | preparation of reports on status of the activities | Information of members of LV and EG about effects of climate change and options. Set up an action plan in regional consensus. (PP1 LV, PP3 EG) |
| | | | Website Tiel East 2008 newsletters 2009 – 2012 (PP7 TI) |
| | | prepare good practice examples | Tiel game 'living with water', 2008 / 2009; Target groups: project developers, residents, decision makers, water boards, etc. (PP7 TI) |
| 4 3/2010 | Monitor communication strategies | ▲ | Innovation exchange: project website, blog-overall project brand, complete by end 2009; sea space PP4sub HA) |
| | | preparation of reports on status of the activities | Forum / Network: Sustainable Construction + Environmental Technologies, commence> Nov. 2009 (PP4 HA) |
| | | prepare good practice examples | Sustainable Construction Conference, Oct. 2009 PP4 HA) |
| | | | Training for individuals and businesses: "Eco-retrofit" + "Training" video; Sept. 2009 (PP4 HA) |
| 5 | BEST PRACTICE COMMUNICATION STRATEGIES OF PP | | Site visits, 2010 – 2011 (PP8 WV) |
| 10/2010 Conf. | | Un (maninu) | Further complementary outputs as stated in the communication plan, 2008 – 2012 |
| | | (and the second s | The results of action plan on energy measures on buildings are communicated to the citizens, PP5 NI, June / 2011 |
| 6 3/2011 | Focus on participation strategies | Check: Experiences for participation strategy) | Cooperation with housing companies/other parties action 1/PP5 NI |
| | | | |



| WG - meeting n° /date | WG – topics / agenda | Preparation of PP / Input | Output / products of PP and dates |
|-----------------------------|---|--|---|
| 7 | Best practice participation strategies | | Disconnection at Heerener Mühlbach, 2011 |
| 10/2011 | | | Information flyer produced, article placed, (PP3 EG) |
| | | | Awareness leaflet, Hastings, 2011 (PP4 HA) |
| | | | Sustainable construction conference Oct. 2011 (PP4 HA) |
| 8 | Prepare communication input for final report | | Information sessions (2 or 3) |
| 3/2012 | Support editing of final report | | Information counter (1), 2011 – 2012 (PP8 WV) |
| | | Сон а моницини — — — — — — — — — — — — — — — — — — | Citizens, persons concerned with construction work are informed about innovative techniques (of storm water disconnection), 1 / 2012, (PP3 EG) |
| | | | Information sessions – on possibilities in the water system (with inhabitants next to Heerener Mühlbach), 2 /2012, (PP3 EG) |
| | | | Information brochure, 2012 (PP8 WV) |
| | | | Activities targeted at university students, school children Nov. 2012 PP4 HA |
| | | ······································ | Rouen: Partnership with the "Maison de l'Architecture" to elaborate exhibition materials / brochure(s) / slildes / presentations(s) on the topic of "adapting the architecture in Luciline" to climate change: 2009 – 2010 – 2011 (Note: Maison de l'Architecture: association of architects, firms and institutions interested in promoting architecture. Rouen Seine Aménagement is a member of it) |
| 11/2012 Conf. | COMMUNICATION AND PARTICIPATION STRATEGIES FOR ADAPTATION – PRESENT | | |





The working steps of WG 4 until next working group meeting in Rouen, in March 2009 were agreed on:

- A format for collecting communication activities will be prepared and sent to all partners (by the chair).
 4 topics will be addressed: strategies, instruments/tools, target groups/stakeholders,
- The partners will fill out the format and send it to Eveline Huyghe until end of January 2009.
- The results of this compilation will be discussed in the next working group meeting.

Wrap-up of 1st Working group meeting

The chairs presented the results of the working group's work (see previous pages). The activities until the next meetings for the working groups were agreed:

Based on this the working group leaders and the lead partner will further develop the working structures for optimal links between the working groups.

Anke Althoff thanked all participants and all speakers for their input and for the intensive cooperation on the workshop. She expressed her satisfaction with the results of the working group meeting and looks forward to the next meeting in 2009.

Thierry Verrier invited all working group members to the launch conference of *Future Cities* which will take place on 19 - 20 March 2009 in Rouen (France).



The 1st working group meeting of *Future Cities* was closed at 3pm.





List of participants

Name Organisation Kirsten Adamczak Emschergenossenschaft Karl-Heinz Ahlbach Stadt Bochum 66/Tiefbauamt/Entwässerung Anke Althoff Lippeverband 11-EU Albert Anijs Municipality of Arnhem Senior Planner Jochen Beier Lippeverband **Regis Berlier** EGIS Aménagement Veroniek Bezemer Municipality of Nijmegen Dr. Friedrich-Wilhelm Bolle Forschungsinstitut für Wasser- und Abfallwirtschaft an der RWTH Aachen e.V. Royal Haskoning Strategie en Proces Drs. Rob Bonte **Rüdiger Brand** Lippeverband Annemieke de Kort Municipality of Tiel Ilse Dries Flemish Government Department of Environment Nature & Energie Raimund Echterhoff Lippeverband Emschergenossenschaft 11-SF Dr. Torsten Frehmann Guido Geretshauser Lippeverband Peter Groenhuizen Larenstein University of Professional Education Forschungsinstitut für Wasser- und Abfallwirtschaft an der RWTH Aachen e.V. Jens Hasse Dr. Birgit Haupter Infrastruktur & Umwelt Prof. Böhm und Partner **Eberhard Holtmeier** Emschergenossenschaft Dr. Holger Hoppe Pecher AG West-Vlaamse Intercommunale **Eveline Huyghe** Technischer Beigeordneter Stadt Oer-Erkenschwick Bernd Immohr Vincent Kuypers Alterra, WUR **Christian Marion** Ville de Rouen Frank Mertel Lippeverband Helene Mogelhoj Sea Space **Dean Morrison** Municipality of Hastings Trui Naeyaert West-Vlaamse Intercommunale Bundesministerium für Umwelt, Naturschutz und Reaktorsicherheit Almut Nagel Abteilung WA I 1 Henk-Jan Nijland Municipiality Nijmegen Dr. Ulrich Oehmichen AGW Dr. Ioannis Papadakis dr. papadakis GmbH South East England Regional Assembly Peters **Ekkehard Pfeiffer** Lippeverband Thy Pham Royal Haskoning Strategie en Proces Prof. Dr.-Ing. Johannes Lehrstuhl und Institut für Siedlungswasserwirtschaft (ISA) der RWTH Aachen Pinnekamp Dr. Markus Quimbach dr. papadakis GmbH Cornelia Ruckdeschel Lippeverband Gerd Sanders West-Vlaamse Intercommunale Dr. Karl-Georg Schmelz Emschergenossenschaft Sebastian Schmuck Universität Duisburg Essen, FG Siedlungswasser- und Abfallwirtschaft Marko Siekmann Forschungsinstitut für Wasser- und Abfallwirtschaft an der RWTH Aachen e.V.



Michael Steinbach Matthias Stumpe Ann Tack Dr. Burkhard Teichgräber Susanne Tettinger Wim Timmermans Hans van Ammers Ine van den Hurk Ton Verhoeven Directeur Général **Thierry Verrier** Jos Verweij Marion Visser Dr. Matthias Weilandt Dr. Bernd Wiebusch John Williams Jos Wintermans Daniel Wischniewski Antal Zuurman Erik Zwers

Lippeverband Stadt Bottrop Umweltamt (68/1) West-Vlaamse Intercommunale Lippeverband Forschungsinstitut für Wasser- und Abfallwirtschaft an der RWTH Aachen e.V. Van Hall Larenstein University Municipality of Arnhem Municipality of Tiel Municipality of Nijmegen Rouen seine aménagement Municipality of Arnhem Senior Planner Municipality of Arnhem sr. Advisor of policy environment Lippeverband Wupperverband Sea Space Van Hall Larenstein University



Lippeverband 12-FI Municipality of Nijmegen

City Region Arnhem Nijmegen



Participants 1st Working Group Meeting

Name **Project Partner** Jochen Beier **PP1** Lippeverband Guido Geretshauser **PP1** Lippeverband Frank Mertel **PP1** Lippeverband Dr. Matthias Weilandt **PP1** Lippeverband Anke Althoff **PP1** Lippeverband Daniel Wischniewski **PP1** Lippeverband Hans van Ammers PP2 Municipality of Arnhem Marion Visser PP2 Municipality of Arnhem Jos Verweij PP2 Municipality of Arnhem Albert Anijs PP2 Municipaltiy of Arnhem Kirsten Adamczak PP3 Emschergenossenschaft **Eberhard Holtmeier** PP3 Emschergenossenschaft Dr. Torsten Frehmann PP3 Emschergenossenschaft Dean Morrison PP4 Municipality of Hastings Helene Mogelhoj PP4 Sub-Partner Sea Space John Williams PP4 Sub-Partner Sea Space Jörn Peters PP4 Sub-Partner South East England Regional Assembly Veroniek Bezemer PP5 Municipality of Nijmegen Ton Verhoeven PP5 Municipality of Nijmegen Antal Zuurmann PP5 Municipality of Nijmegen Henk-Jan Nijland PP5 Municipiality Nijmegen **Christian Marion** PP6 Sub-Partner Ville de Rouen Directeur Général **Thierry Verrier** PP6 Rouen Seine Aménagement Annemieke de Kort PP7 Municipality of Tiel Ine van den Hurk PP7 Municipality of Tiel **Eveline Huyghe** PP8 West-Vlaamse Intercommunale PP8 West-Vlaamse Intercommunale Trui Naeyaert Ann Tack PP8 West-Vlaamse Intercommunale Vincent Kuypers Alterra, WUR (with PP2) City Region Arnhem Nijmegen (with PP2) Erik Zweers Van Hall Larenstein University (with PP 2/PP5) Wim Timmermans Jos Wintermans Van Hall Larenstein University (with PP2/PP5) Larenstein University of Professional Education (with PP2/PP5) Peter Groenhuijzen Flemish Government Department of Environment Nature & Energie **Ilse Dries** (with PP8) Dr. Birgit Haupter Infrastruktur & Umwelt Prof. Böhm und Partner - facilitation Dr. Peter Heiland Infrastruktur & Umwelt Prof. Böhm und Partner - facilitation



Presentations and abstracts (included on CD-ROM)

Thursday, 13 November 2008

- 1_German adaptation strategy_Nagel.pdf
- 2_Climate change_Pinnekamp.pdf
- 3_Future Cities_Althoff.pdf
- 4_Arnhem_van Ammers.pdf
- 5_Hastings_Peters_Williams.pdf
- 7_RouenSA_Verrier.pdf
- 8_Tiel_de Kort-den Hurk.pdf
- 9_WVI_Naeyaert.pdf
- 10_11_LV_EG_Frehmann.pdf

Friday, 14 November 2008

- 1_Althoff Intro day2.pdf
- 2_Regional processes_Hasse.pdf
- 3_working group1.pdf
- 4_working group2.pdf
- 5_working group3.pdf
- 6_working group4.pdf



Lead Partner of the INTERREG IV B project Future Cities

Lippeverband Kronprinzenstraße 24 45128 Essen Germany

Contact:

Dipl.-Ing. Anke Althoff Project management *Future Cities*

Telephone: +49 (0)201 104 2361 Fax: +49 (0)201 104 2331

http://www.eglv.de

Reporting:

INFRASTRUKTUR & UMWELT Professor Böhm und Partner

Julius-Reiber-Str. 17 64293 Darmstadt Germany

Dr. Birgit Haupter, Dr. Peter Heiland

Telephone: +49 (0)6151 8130-0 Fax: +49 (0)6151 8130-20