



# 6<sup>th</sup> Working Group Meeting

Arnhem

6<sup>th</sup> – 7<sup>th</sup> April 2011

## Report





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### **Annex**

- List of participants
- Working group planner
- Presentations (on CD ROM)

## Programme

**Wednesday, 6<sup>th</sup> April 2011**

Test run of adaptation compass for non steering group members, *Stefanie Greis, Infrastruktur & Umwelt*

Working Group Session I, plenary discussion, *moderated by Anke Althoff, Lippeverband:*

WG 1 "Adaptation Compass"

- Status of development, *Birgit Haupter, Stefanie Greis, Infrastruktur & Umwelt*

Working Group Session II, split up in parallel groups

WG 3 "Implementation", *moderated by chair Karen van Dorenmalen, Tiel*

- Presentation Blue-green corridor Heerener Mühlbach, *Guido Geretshauser, Lippeverband*
- Review of fact sheets/ experiences in mini groups, *Stefanie Greis, Infrastruktur & Umwelt*

WG 4 "Awareness Raising", *moderated by Anke Althoff, Lippeverband*

- Presentation communication actions from *SIC-adapt! Birgit Haupter, Infrastruktur & Umwelt*
- Target group list – agree on definitions and examples
- State of communication fact sheets /review in mini-groups

Site Visit – Climate zones in the Burgers Zoo

- Introduction to site visit, *Hans van Ammers, Arnhem*

**Thursday, 7<sup>th</sup> April 2011**

Session III, Plenary

- Conclusions of day 1 / starting points for day 2, *Anke Althoff, Lippeverband*
- Presentation: Arnhem Urban Heat recommendations, *Hans van Ammers, Arnhem*

Working Group Session IV, split up in parallel groups, *moderated by chairs:*

General Topics:

- Follow-up on day 1
- Update work group planner

WG 1 "Adaptation Compass"

- Module: Determine need for action / select measures
- Localisation of measures

WG 2 "Action Plans/Twinning", *moderated by Ida Ricci, Rouen Seine Aménagement*

- Presentation on the twinning in Arnhem, *Hans van Ammers, Arnhem*
- Possible inputs for the adaptation compass
- Presentation and planning for next twinings

Working Group Session V, split up in parallel groups, *moderated by chairs:*

WG 3 "Implementations"

- Combine results of mini-groups/conclusions

WG 4 "Awareness raising"

- Combine results of mini-groups/conclusions for input in Adaptation Compass

Plenary session

- Work Group Planners WGs, *presented by chairs*
- Conclusions and Wrap-up, *Anke Althoff, Lippeverband*





## Introduction

In Arnhem, the Future Cities project partners and working group members assembled for the 6<sup>th</sup> working group meeting. The meeting focused on the concrete development of the Future Cities Adaptation Compass, especially the guidance document and the fact sheets, and the twinning events held and planned. With the site visit to the Burgers Zoo the partnership could experience different climate zones in an artificial environment. While going "backstage", the partners could get an insight view into the energy concept and water treatment of the aquaria in the zoo.

Anke Althoff, the project manager of the Lead Partner welcomed the participants to the meeting and explained the aims of the meeting:

1. Discussion and final work steps for the content-wise development of the Adaptation Compass until September meeting
2. Development of further twinning approach as transnational method to exchange know-how between the partners
3. Development and completion of factsheets (for structural and awareness raising measures, WG 3 & 4) as input to the Compass



## Working Group Sessions

### Working Group 1: Adaptation Compass

#### Agenda

1. Introduction to WG programme
2. Adaptation Compass:  
Status of development and decisions taken
3. Discuss/decisions on draft guidance and glossary
4. Work on specific issues:  
Module: Determine need for action / select measures  
Localisation of measures, etc.
5. Update of working group planner



#### 1. Introduction to WG programme

The chair of working group 1, Anke Althoff, welcomes the participants and explains the agenda and main developments since the last working group meeting. As agreed at the 5<sup>th</sup> working group meeting the work focussed on developing the content further taking into account the advice of the advisory pool members given at the 5<sup>th</sup> WG meeting. The guidance document was developed in a draft version, the terms for the glossary were defined and the fact sheets were prepared further. A meeting of the “Task force Adaptation Compass” took place in Essen in February 2011. There, working group chairs and partner representatives discussed the development of the Adaptation Compass and decided on open issues.

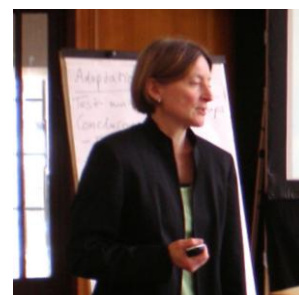
Furthermore, the concept of the Future Cities Adaptation Compass has been presented to German national authorities and compared to national adaptation tools: The “Urban Climate Pilot” developed by the Federal Ministry of Building (BBSR for BBR / BMVBS) is a decision support system with a four step-approach addressing municipalities and urban planners and providing a detailed catalogue of urban planning measures (e.g. within the German building code). The “Climate Pilot” developed by the Federal Ministry of Nature and Environment (UBA for BMU) is a computer-based tool with a five step-approach which supports municipalities, businesses, water boards and environment agencies. It is meant to guide through the process and gives only a limited catalogue of measures. It was concluded that these tools complement each other. The Future Cities Compass provides guidance through the process and a detailed catalogue of practical measures, especially the experiences and evaluation of measures from the project partners provide an important added value.

#### 2. Adaptation Compass: Status of development

Birgit Haupter and Stefanie Greis present the status of the development of the Adaptation Compass. The following issues were developed further and decided at the Task Force meeting:

##### **Scope**

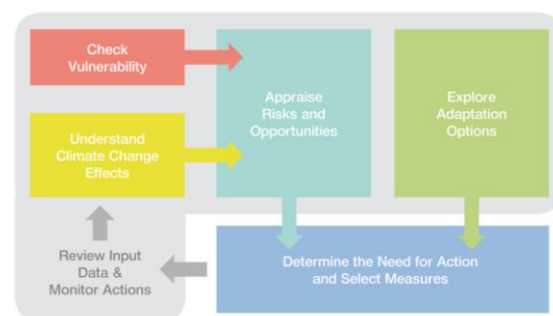
A selection of the scope at the beginning of the Compass tool was discussed earlier: Pre-selected receptors should reflect the different



fields of work and responsibilities e.g. of water boards. Since one main aim of the Compass is to broaden the mind of each user, no sector / receptor should be invisible. Therefore, a pre-selection of receptors should not be given at the start of the Compass.

### Module “Check Vulnerability”: Clarify table “Spatial relevance”

The aim of the table “Spatial relevance” was clarified: In this table the local appearance of sensitivities can be described with the help of indicators. This can help to answer the question: Where are the general sensitivities relevant?



### Module “Understand Climate Change Effects”

The guidance document provides information on climate projections for Future Cities regions. It was agreed that project partners will support INFRASTRUKTUR & UMWELT in collecting the necessary information (see also below).

### Module “Appraise Risks and Opportunities”

The evaluation matrix for the “risk” uses the climate change impact / trend and the current vulnerability category (both from the related modules). The probability of an incidence is not considered. This is sensible because the Compass aims at giving a broad general overview and a detailed analyses of probabilities would not lead to a more detailed result.

Integration of opportunities: As stated above the risks are assessed by the current vulnerabilities for receptors and the impacts of climate changes. The opportunities follow alone from the impacts of climate changes on receptors. It was clarified that the term opportunities must be distinguished from the benefits which an adaptation measure can provide for other sectors or other sustainability aims:

- For the Compass the term opportunities is used to describe the positive impacts of climatic changes, e.g. hotter summer can influence the tourism sector positively.
- An adaptation measure which addresses a specific problem arising from climate change may have additional benefits: addressing other climate change problems, fulfilling also other sustainability aims etc. Often, these additional benefits are decisive to convince decision makers.

It was agreed that the opportunities deriving from climate change should be named as additional information in the table risks and opportunities but the need for action will be based only on the risks (see also below).

### Module “Determine need for action and select suitable measures”

Select suitable measures: In the catalogue measures are generally categorised according to how effectively a problem (which is a combination of receptor and weather impact) can be addressed (++ or +), where negative effects may arise (-- or -) or whether no effect occurs. This category (“neutral”) will be added in the catalogue. Measures are then selected according to their pluses and minuses related to the risks identified. The selection of suitable measures shall be based only on the risks. The side effects of a measure (benefits) are described and can be taken into account.

Localise measures: This issue has to be worked out further, e.g. using categories from land use plans and/or connecting the results of the column “spatial relevance” as in the vulnerability check.

## Module “Explore Adaptation Options”

The possibilities to filter measures were agreed as shown below. A measure will be assigned to one main category in order to provide these filter options.

Here you can preselect measures with the following criteria:  
When you finished your selection press on the FILTER button.

Filter for structural measures:

Category of measure	Spatial scale	Addressed problem
<input type="checkbox"/> show all	<input type="checkbox"/> show all	<input type="checkbox"/> show all
<input type="checkbox"/> Green structures	<input type="checkbox"/> Region	<input type="checkbox"/> Heat / Heat wave
<input type="checkbox"/> Water systems	<input type="checkbox"/> City or town	<input type="checkbox"/> Heavy precipitation / Flooding
<input type="checkbox"/> Energy efficiency and mitigation	<input type="checkbox"/> Urban quarter or street	<input type="checkbox"/> Droughts
<input type="checkbox"/> Urban structure	<input type="checkbox"/> Building level	<input type="checkbox"/> Storms
Others		<input type="checkbox"/> Extreme cold

Awareness raising measures:

Since the Future Cities measures were explicitly chosen as “combined measures” they address more than one category. The results of the filter will also provide a clear link to the other categories concerned.

“Types” of awareness raising measures: Based on the „steps of communication“ by Municipality of Tiel the Future Cities Communication measures will be allocated to three “types”: Inform (role of target group: observer listener), Consult (role of target group: consultant / advisor), Co-produce (role of target group: co-partner).

Fact-sheets and status of evaluating measures: At the moment the fact sheets (both on structural measures and communication measures) comprise different „levels“ of information, not all sections are available yet. The fact sheets were sent to the project partners ahead of the working group meeting, the revised versions are subject for discussion in working group 3 and 4 (see report of WG 3 and WG 4 below).

## Draft guidance document

The Task Force members agreed on the aims and structure of the guidance as follows:

- Overall aim: Guide through the process of adaptation
- Guide for using the Future Cities Adaptation Compass: Technical instructions, how to fill the tables etc.
- Give complementary information to the tool: Additional explanations and references
- To be used in two ways:
  - 1 Read through Guidance document first or
  - 2 start with the Compass tool and consult the Guidance for further information.
- The use as “paper handbook” should be possible.  
A handbook could be translated into Dutch, French and German; thus, making the contents of the compass available broadly.



The structure for the guidance comprises three main parts:

- |                   |                                     |
|-------------------|-------------------------------------|
| Chapters 1 - 4:   | Introduction and framework          |
| Chapters 5 - 10:  | Explanations related to each module |
| Chapters 11 - 13: | Closing remarks and annexes         |

Each page provides a broader column for the main content and a smaller column for explaining key terms, providing links, etc.

### **Draft glossary**

The aims for the glossary were agreed:

- Define terms practically as they are used in the Compass
- Clarify terms, especially if used differently to (common) use, e.g. in certain sectors or in the scientific framework
- The glossary is not meant to be a general scientific glossary.

### **3. Discussion and decisions on draft guidance and glossary**

The Guidance document was sent to the working group members in advance. In all chapters dealing with a module of the Adaptation Compass a small chapter on experiences from Future Cities Partners is included. The working group members are asked to check these chapters carefully and add further examples from their regions.

Regarding the chapter “Understand Climate Change Effects” it is commented that for the national links and names the respective language version should be used, like e.g. for French links and institutions, French names are used; the same for the Netherlands, Belgium and Germany.



### **4. Work on specific issues of the Adaptation Compass**

Stefanie Greis, INFRASTRUKTUR & UMWELT presents the open issues regarding the Adaptation Compass. There have already been intense discussions on open issues during the Task Force meeting in February 2011. During the 6<sup>th</sup> Working Group meeting there are two major topics to be discussed: concerning the module „Determine need for action and select measures“ of the Adaptation Compass and the examples from the Future Cities partnership for the Guidance document.

#### **Module “Determine need for action and select measures”**

There will be at least four excel-sheets guiding through the selection process. At first there will be an explanation, similar to the other modules, as introduction. The second sheet summarises the outputs of previous sheets, e.g. vulnerability classes and identified risks. Then, a list of suitable measures is provided, which refers to the addressed problems of the measures (described in the Module “Explore Adaptation Options”). The addressed problems are weighed with ++, +, - or -- and "neutral" for no effect.

As a final sheet, a guide to find a suitable location for the selected measures is provided. On this sheet the user-filled spatial information (filled in the module “Check vulnerability”),

- where have former events occurred and
- where are the vulnerable receptors located,

are repeated. Furthermore, advice on how to find a location is given (as recommendation like e.g. be aware to think of, consider...). There cannot be a suggestion of a specific location, and no map tool or direct links to map tools can be given.

The discussion shows that there is approval for this structure of the module. Also the information given for finding a location is sufficient. Some recommendations are collected for localising the measures:

- Aspects of urban dynamics and development goals should be integrated in the location process (e.g. demographic change)
- Sometimes initiatives of citizens can be used
- The user has to start making maps...

In this context, the link to the information filled in the table of the vulnerability module is good, as most cities already have maps on the different receptors or weather extremes (heat maps, flood risk maps). Mapping itself is seen as a tool and therefore it is decided that there should be an additional fact sheet on mapping, e.g. with the experiences from the Urban Heat mapping of Arnhem. In the guidance possible reasons for deciding on a location for a measure will be named. These could be:

- Practical reasons, e.g. ownership by the municipality, restructuring of parts of the city
- Proposals from inhabitants / citizens.

A chapter on experiences from Future Cities partners should be included for this module.

## 5. Time schedule for finishing the Adaptation Compass/ update work group planner

The following time schedule for the further development of the Adaptation Compass is agreed:

Responsible	Theme / activity	Date
PP/WG members	Detailed feedback on 2 <sup>nd</sup> draft, WG 1 special: experiences Future Cities examples, WG 3 & 4 factsheets (see WG planner WG 3 & 4)	until 15 <sup>th</sup> May 2011
IU/LP	Send final draft guidance/glossary to PP/WG	end August 2011
PP/WG members	Feedback: written comments	12 <sup>th</sup> September
All	Discuss/decision on final draft	at 7 <sup>th</sup> WG (14 <sup>th</sup> -15 <sup>th</sup> Sept)
IU/LP	Finish technical development	between 7 <sup>th</sup> -8 <sup>th</sup> WG
IU/LP	Task force meeting	January 2012
IU/LP	Introduce PPs/WGs to the Compass	at 8 <sup>th</sup> WG (3/2012)
PP	Use/apply the Compass at PPs organisations	from 8 <sup>th</sup> WG on
PP	Experiences for final report/conference	autumn 2012

## Working Group 2: Action plans for transformation

### Agenda

1. Introduction to WG programme
2. Presentation on the twinning in Arnhem
3. Possible inputs for the adaptation compass
4. Presentation of twinning requests coming
5. Planning for next twinings / Update of working group planner
6. Update of working group planner



### 1. Introduction to WG programme

Ida Ricci, taking over the chair of working group 2 from Thierry Verrier, opens the session and presents the agenda.

### 2. Presentation on the twinning in Arnhem

Hans van Ammers explains the results of the twinning meeting that took place in Arnhem in January 2011. At this twinning representatives from six Future Cities partners were involved complemented by experts from the city of Rotterdam, the Regional Health Service Rotterdam-Rijnmond and from three universities (Professor Katzschner, Kassel, Dr. Steinrücke, Duisburg-Essen, Dr. Lenzholzer, Wageningen).

The aim of the twinning was to translate the Heat Map of Arnhem into an Urban Climate Recommendation Map (UCR-map). With this the following issues had to be addressed:

- producing a map on a strategic city level - input for the new Structure Vision of the City;
- formulating a list of measures that could possibly be taken on the level of the city (either to reduce the up heating and/or to enhance the cooling);
- a weighing of these measures in terms of effectiveness.

The programme included a presentation of the urban structure of Arnhem with a guided tour through the inner city and influencing structures in the surroundings of Arnhem (e.g. hills) and a presentation of the results of the UCA-map of Arnhem. In three parallel workshops the participants developed possible recommendations using the map table. In a plenary session the results were presented and commented on by the experts.

Hans van Ammers concludes that the twinning was successful because of the useful input given by the climate experts and the practical experiences expressed by the project partners. The workshop which brought together climate experts, health services, spatial planners allowed 'views from different angles and interests'.



The outcome will be of use for the further integration of recommendations related to the heat issue in the urban structure plan of Arnhem (see also the plenary presentation by Hans van Ammers) but more work is needed to make a true recommendation map. Furthermore, communicating about adaptation is very important in order to implement the recommendations deriving from the Heat Map.

More details can be found in the report of the twinning event which is available in the working group section of the Future Cities homepage.

Next steps taken by the municipality will be to discuss the results with the spatial planning department and to present the results to the municipal project leaders of major urban projects, e.g. the development of the city centre, to make them aware of the best options in the area concerned.



*Impressions from the twinning*

### 3. Possible inputs for the Adaptation Compass

Two possibilities are determined:

- The results of twinning meetings should be included in the fact sheets as applicable
- A fact sheet on the twinning will be added to the awareness raising fact sheets.  
INFRASTRUKTUR & UMWELT will develop a draft to be reviewed by the working group members.

### 4. Presentation of twinning requests coming

Ida Ricci presents the overview of the twinings held so far. The twinings planned until the next working group meeting are determined (see table).

<b>Twinings held</b>		
Blue-green network and participation	3 <sup>rd</sup> /4 <sup>th</sup> September 2009	PP8
Energy study for the city quarter "De Vloei" in Ieper	7 <sup>th</sup> August 2009 to 31 <sup>st</sup> January 2010	PP8
Study on how to involve the parties by the implementation of the energy strategy	2 <sup>nd</sup> June 2010	PP2
Consequences of the Urban Heat Map of Arnhem	26 <sup>th</sup> /27 <sup>th</sup> January 2011	PP2
<b>Twinings planned until 7th WG meeting</b>		
Blue-green corridor	15 <sup>th</sup> /16 <sup>th</sup> June or 31 <sup>st</sup> Aug/1 <sup>st</sup> Sept 2011	PP1
Maptable	31 <sup>st</sup> May to 1 <sup>st</sup> June 2011	PP4
Green roofs/biodiversity aspects	July 2011	PP6/PP5
<b>To be planned further</b>		
Watergame	2011	PP3
<b>Postponed for the present</b>		
Climate dike and urban design	2 <sup>nd</sup> half 2011	PP7
Cold-heat storage	Not determined yet	PP6
Energy adaptation in urban design	Not determined yet	PP6



Jane Dodson (PP4 Hastings) explains the aims and the framework of the visit of the

Torsten Frehmann presents the programme of the twinning planned by PP1 Lippeverband to visit the blue-green corridor of Heerener Mühlbach at Kamen.

The official planning approval was given and the construction planning is finished. The public investment is combined with optional activities by private people / financial incentives - the first two information evenings for local people took place. The programme will include a visit of the

construction site of Heerener Mühlbach and of the completed ecological transformation at another water body (Seseke or Körne) as well as of the art project “walk on water”

Some questions related to the twinning are:

- Disconnection of storm water: How to motivate private people to disconnect?
- Ecological enhancement: not only adaptation to climate change, but also enhancement of living quality and improvement of water cycle (service functions of ecological system)
- Flood protection: Where ends public responsibility and starts private precaution - in Germany and other countries)?

Hastings, Rouen Seine Aménagement and Tiel express their interest in taking part in this twinning. Furthermore, Arnhem and Wvi are interested if applicable. It is agreed that the twinning will take place on 15th/16th June or 31st Aug/1st Sept 2011.



*Green roof on a kindergarten (implemented at Nijmegen)*

Ida Ricci explains the interest PP6 (Rouen Seine Aménagement) in a twinning on the topic “green roofs and biodiversity”. PP2 and PP5 are interested also. PP5 offers to be the host of the twinning since implemented examples of green roofs can be shown in Nijmegen. Besides the practical facts how to build green roofs the twinning will focus especially on the process how to implement green roofs on public and private buildings.

## 5. Planning for next twinings / Update of working group planner

As a general issue the number of participants in a twinning meeting is discussed. The number should be appropriate to the programme planned. In general the twinings are meant for 2-3 representatives from 2 partners. In the case of the Arnhem Heat map twinning or the planned twinning at Lippeverband more participants were useful or can be handled. The hosts are requested to check how many participants should be invited for a useful meeting, a sensible number usually might be 8 persons.

Twinning requests on the following topics will be placed and twinning activities will take place acc. to schedule:

Request by/responsible	Theme / activity	Date of twinning
PP4	Mappable	31 <sup>st</sup> May/1 <sup>st</sup> June 2011
PP1	Blue-green corridor	15 <sup>th</sup> /16 <sup>th</sup> June or 31 <sup>st</sup> Aug/1 <sup>st</sup> Sept 2011
PP2/PP6	Green Roofs and biodiversity aspects	July 2011
PP3	Watergame	2011
PP7	Climate dike and urban design	2 <sup>nd</sup> half 2011
PP6	Cold-heat storage	Not determined yet
PP6	Energy adaptation in urban design	Not determined yet
IU	Draft fact sheet on twinning/send to WG2	End April 2011
WG members	Feedback on “twinning” fact sheet	Mid May 2011



## Working Group 3: Implementation of combined measures

### Agenda

1. Introduction
2. Presentation Blue-green corridor Heerener Mühlbach
3. Status of evaluation / fact sheets
4. Review of fact sheets / evaluation of experiences in mini groups:  
Discuss and work on fact sheets and experiences
5. Combine results of mini-groups/conclusions
6. Update of working group planner



### 1. Introduction

The new chair of Working Group 3 Karin van Dorenmalen from the municipality of Tiel introduces the members of the Working Group and explains the tasks of the 6<sup>th</sup> WG 3 meeting.

The aim of the two sessions is to discuss about and to review the fact sheets and the evaluation forms filled by the project partners. A common standard regarding language and information depth has to be found.

### 2. Presentation Blue-green corridor in Kamen – ecological transformation of a water body

Guido Geretshauser from Lippeverband presents the status of the ecological transformation of the Heerener Mühlbach in Kamen. The small water course is a tributary to the Seseke and is heavily modified: the water course has a concrete bed and was used as open combined sewer system until 2006. The project area which is transformed into a green-blue corridor is 2 km long. It lies close to a heated up area of private housing.



The aim of the transformation is to guarantee flood protection and dewatering of the area as well as to establish new functions, like the strengthening of the ecological system and the reduction of heat stress in summers. The new Heerener Mühlbach will be integrated in the urban development, e.g. recreational aspects will be improved.

To achieve these aims, two main changes will be implemented along the water course. Firstly, the river will be transformed into an ecologically passable watercourse with good water quality. The concrete bed will be replaced by appropriate bottom substrate and where possible, floodplains and changing angles of repose will be realized. Also, the water course will be curved where enough space is available. Secondly, storm water disconnection of up to one ha paved area will be realised. A subsidy of 10 € per m<sup>2</sup>

Above: Status quo

Below: Goal after transformation

disconnected from the combined sewer system will be paid to the residents willing to disconnect. In areas, where residents take part, collecting pipes will be implemented by the Lippeverband along the plot boundaries.

### 3. Status of evaluation / fact sheets

The status of the fact sheets and evaluation forms are presented by Stefanie Greis, INFRASTRUKTUR & UMWELT. The fact sheets are an important part of the Future Cities Adaptation Compass because they provide information on experiences from Future Cities and give examples for implementation; when comparing the Adaptation Compass with other adaptation tools, it becomes clear that no other tool gives such specific information.

During the Task Force meeting in February 2011 it was decided that the fact sheets and evaluations forms will be combined. WG 3 is from now on responsible for the filling of the fact sheets (with the help of the evaluation) which will be an essential part of the Adaptation Compass. The new combined fact sheets and evaluation forms were sent to the PP with a request for input in March 2011. The structure of the fact sheets was partly changed: lists are integrated to facilitate the use and create links in the Compass.

After the feedback from the project partners the following conclusions can be drawn: from the 34 structural fact sheets 16 were updated and two were added. They still have different “levels“ of information, in many cases explanations, additional information and pictures or maps are missing. Likewise for the evaluation forms, the level of information is very different related to the status of implementation. INFRASTRUKTUR & UMWELT proposes that also assessment information related to the feasibility studies of the investments, not only for implemented measures is provided.

### 4. Review of fact sheets / evaluation of experiences in mini groups

The Working Group is divided into two smaller groups which work through the Fact Sheets sorted by their category. Their tasks are to compare and check the fact sheets and evaluation forms as well as to add missing information or improve given texts.

During the first session on Wednesday the categories „Green structures“ and „Energy efficiency“ are discussed. On the second day the categories „Energy efficiency“ (follow-up of first session), „Urban structures“ and „Water systems“ are reviewed. The working group members write down their comments and additions on the handed out papers.





## 5. Combine results of mini-groups / General conclusions

The general conclusions from the reviewing of the fact sheets are the following:

- The fact sheets should not be filled with general information, but with specific experiences and information on the implemented measure or study.
- Status information and kind of measure (study, implementation,...) should be added
- Often the naming of the measure is not consistent or hard to understand (many language specific names)
- More information under description is needed
- Full and understandable sentences should be written
- All technical terms used have to be described well, as not only experts read the fact sheets
- Evaluation sheets are still mostly empty. They should be filled with results from the feasibility studies as well (see 3.)
- The line “Reduce climate impacts” should be skipped, as it is not easily understandable
- No abbreviations, acronyms should be used
- Information has to be added to clarify if the fact sheet is concerning a study or the implementation phase.
- The integration of the lists is seen very positive: they make the fact sheets comparable
- Maps and pictures are needed
- For the line “funding used”, a list should be added, giving European, National, Regional and Local
- Coordinates or a Google maps link could be integrated, if available

Specific remarks are collected on each fact sheet and the author will work in the missing information.

## 7. Update of working group planner

The following time schedule for the further development of the structural fact sheets is agreed:

Responsible	Theme / activity	Date
IU	Adapt structure of fact sheets	15 <sup>th</sup> April 2011
IU	Send fact sheets to PPs	15 <sup>th</sup> April 2011
PP	Amend, review fact sheets according to results of WG 3	13 <sup>th</sup> May 2011
IU/PP	Bilateral clarifications, if needed	15 <sup>th</sup> June 2011
IU	Draw conclusions for Adaptation Compass – types of measures/include in guidance document	End August 2011
IU	Send to PP/WG members with final draft guidance	End August 2011

## Working Group 4: Targeted awareness raising

### Agenda

1. Introduction to WG programme
2. Feedback communication actions of projects from *SIC-adapt!*
3. Follow-up from 5th WG meeting –Target groups
4. Fact sheets on awareness raising –  
Status and work on review in mini-groups
5. Combine results of mini-groups/conclusions for input in  
Adaptation Compass
6. Update of working group planner



### 1. Introduction to WG programme

Anke Althoff represents the chair of WG 4 for this WG meeting. She welcomes Anne-Marijn Tielen, the communication officer of the municipality of Arnhem to the working group who will support the working's group work at this meeting from the expert's view.

### 2. Feedback communication actions of projects from *SIC-adapt!*

Birgit Haupter presents examples of communication and awareness raising measures and



tools from other Interreg-projects from the NWE-cluster *SIC-adapt!* At the moment the cluster coordination office is collecting best-practice tools and measures from all cluster projects.

A movie was developed in the WAVE-project on floods and droughts displaying different news clips and pictures from recent flood and drought event in the Wave regions (see examples at left). The content is addressing emotions targeted at the general public.

The movie can be viewed at

[http://www.wgs.nl/ruimte\\_voor\\_water/ruimte\\_om\\_te\\_leven/emmertochtsloot/webvideo\\_droogte\\_en](http://www.wgs.nl/ruimte_voor_water/ruimte_om_te_leven/emmertochtsloot/webvideo_droogte_en)

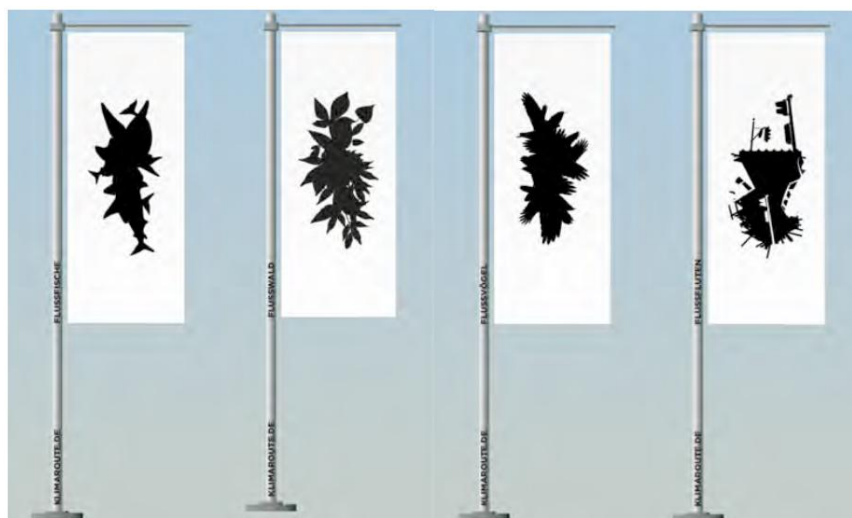
In the C-Change-project the partner Amsterdam developed a school curriculum and trained young people in a problematic neighbourhood (diverse population, low income, poor public space) to co-create climate proof spatial plans.

A so-called “dilemma game”, also developed by the WAVE-project deals with competing space demands in the Vecht delta targeted at the stakeholders in the area concerned. More space for the river has to be created but also new housing areas in the same region. It is a role play to help understand the different needs and competing claims on space in this delta

area. It is a similar approach as the water game by the municipality of Tiel uses to raise awareness for the different competing or opposed needs and interests.

With the Frankfurt Rhein-Main „climate route“ the Regionalverband Frankfurt RheinMain (C-Change-project) installs stations along the Main river bank designed by Offenbach's Academy of Arts. The objects / stations and a website are forming a unit ([www.klimaroute.de](http://www.klimaroute.de)) targeted at residents and schools as well as visitors.

One example are flags indicating the stations



Some samples of the flags which will indicate where the stations will be installed in autumn

representing different kinds of “river” issues: River fish, river forest, river birds, river floods (from left to right). Anke Althoff adds that in the Ruhr region being the cultural capital of Europe in 2010 also art works along the river were installed displaying river and climate issues.

More tools and measures – including best-practice examples from the Future Cities project are allocated in an analysis matrix being developed in *SIC adapt!* The matrix will be discussed further at the 1st Cluster Expert Board Meeting in June 2011 in Dortmund/Holzwickede.

The working group members agree that a link to the cluster projects for more information should be provided in the Adaptation Compass.

### 3. Target groups

After discussion the target group list is simplified as follows (see table).

Category	Sub-categories
Politicians	National, regional, local level
Administration staff	National, regional, local authorities/organisations
Population	<ul style="list-style-type: none"> <li>- Inhabitants, property owners housing</li> <li>- Employees, property owners businesses</li> <li>- Age groups (children, young people, incl. schools, elderly)</li> <li>- Ambassadors, networks/lobbyists</li> </ul> (in existing areas, new areas)
Professionals	<ul style="list-style-type: none"> <li>- Planners, constructors, “maintainers”</li> <li>- Housing corporations</li> <li>- Professional schools</li> <li>- Networks/lobbyists</li> </ul>
„Money sources“	Investors, funders, loan institutions
Specific sectors	Water agency, environmental agency, health/medical institutions

#### 4. Fact sheets on awareness raising: Status and work on review in mini-groups

In two groups the working group members work through the communication fact sheets: Are the descriptions understandable, is the information provided interesting, etc.. Following the discussion some fact sheets are put together and new ones will be created. With the input by the communication expert during the working group session on 6<sup>th</sup> April the fact sheets are amended by the following types (see table “standard format”):

- Types of aims: Change knowledge, change attitude, change behaviour
- Types of approaches: Use opinion, use emotion, use facts

It is discussed and decided that the focus of the factsheets shall be on the Future Cities measures. If there is further information about other partner communication measures available, partners can add a factsheet.

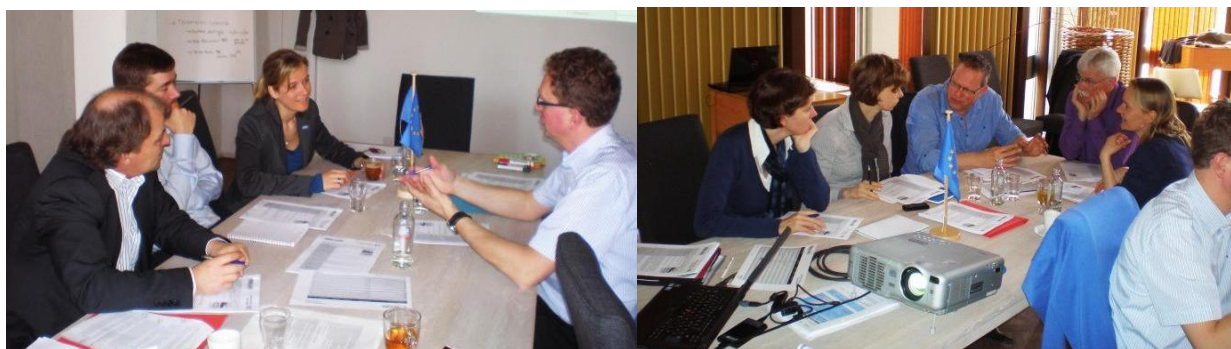
Table “Standard format”:

1	Measure name	
2	Organisation Name; <i>Choose from list: Type</i>	<i>Regional association, Local authorities, Water board</i>
3	Measure type <i>Choose from list: Type</i>	<i>Inform; Consult; Co-produce</i>
4	Location <i>Country, Region, Town, Area concerned</i>	
5	Coverage <i>Choose from list: Scale</i>	<i>Local, Regional, National, International</i>
6	Description	
7	Aim <i>Choose from list:</i>	<i>Change knowledge, Change attitude, Change behaviour</i>
	<i>Explanation</i>	
8	Target group <i>Choose from list:</i>	<i>See list</i>
	<i>Explanation</i>	
9	Message	
10	Used instruments <i>Choose from list:</i>	<i>Use facts, Use opinion, Use emotion</i>
	<i>Explanation</i>	
11	Combination with other measure	
12	Follow up	
13	Experiences: <i>Best-practice, Obstacles, Monitoring of results, Costs, Others</i>	



## 5. Combine results of mini-groups/conclusions for input in Adaptation Compass

The groups hand over the results to the project partners concerned. The word files of the fact sheets will be available in the working group area of the Future Cities homepage for download. It is agreed that the project partners will revise their fact sheets according to the remarks and conclusions made in the working group session.



## 6. Update of working group planner

The following time schedule for further development of the communication fact sheets is agreed:

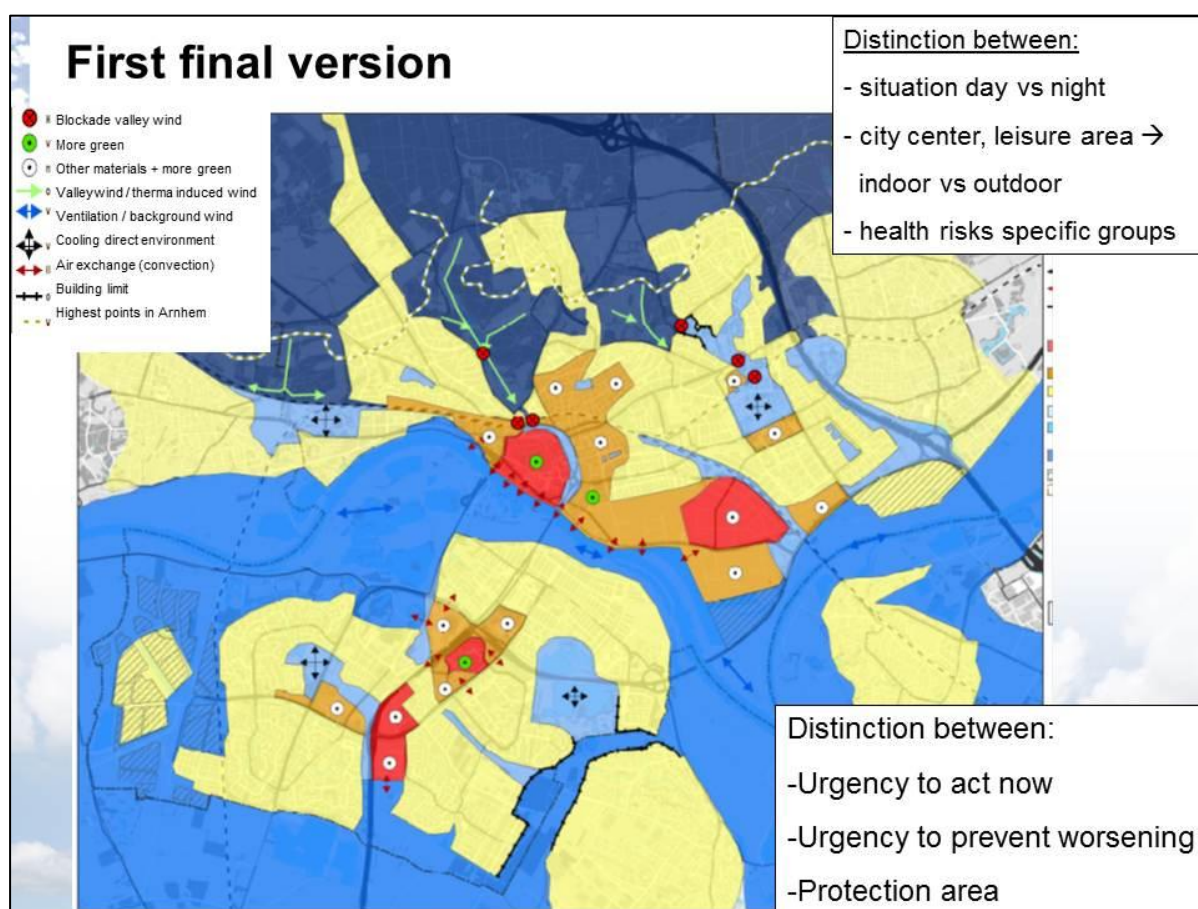
Responsible	Theme / activity	Date
IU	Send word files to PP/WG members / put word file of fact sheets on website	12 <sup>th</sup> April 2011
PP/WG members	Revise communication fact sheet	13 <sup>th</sup> May 2011
IU/PP	Bilateral clarifications, if needed	15 <sup>th</sup> June 2011
IU	Draw conclusions for Adaptation Compass – include in guidance document	End August 2011
IU	Send to PP/WG members with final draft guidance	End August 2011

### Plenary presentation:

### **From a “Heat Map” to a “Heat Attention Map” for Arnhem**

Hans van Ammers presents the process that is undertaken by the municipality of Arnhem and the City Region Arnhem Nijmegen to develop a „Heat Attention Map“ for Arnhem.

Based on a heat scan (August 2009), climate bike measurements (August 2009), the Heat Map developed with the input by the Universities of Kassel and Wageningen (May 2010) a twinning with six project partners and further experts was conducted in January 2011 in Arnhem. Aim of the twinning was to start the process to translate the heat map into an urban climate recommendation map (see also the presentation on the twinning in the chapter about WG 2). Further expert input was given by the Ruhr University Bochum February 2011. With all these inputs a first version of the ‘Heat Attention Map’ (Urban Climate Recommendation Map) has been created.



The next steps will be: the Heat Map will be checked by climate experts from Germany and the Netherlands. The input for the Structure Vision of Arnhem will be discussed within the municipality. First ideas for possible input are e.g. „Improve climate in red areas (by preventing densification of the city centre, more green, more air exchange)“ or „Prevent worsening orange areas (by preventing densification near red areas, green up, prevent blocking wind). Recommendations for all activities and projects of the municipality will be discussed.

Hans van Ammers also gives an outlook on the activities in the City Region Arnhem Nijmegen: For Nijmegen the Heat Map will be at hand until summer 2011, the Heat Attention Map will be developed until end of 2011. The situation in the smaller towns of Arnhem Nijmegen City Region will be assessed starting in autumn 2011. From a first view the issues

of the heat island will be of less importance in these smaller municipalities, the idea is to have a combined look at all vulnerabilities.

In the discussion the question is raised with whom the results are communicated within the administration. The results will be discussed and communicated first with the spatial planning department, but also ongoing are presentations within other departments of the administration. Furthermore, ongoing and new projects in the city are discussed with the responsible project leaders in the light of the results from the research.

### Test-run of Adaptation Compass

In a session parallel to the Steering Group meeting, a further test-run of the Adaptation Compass is offered to non-Steering Group members. As during the last Working Group meeting in Essen, two mini-groups formed of five persons test the demo version of the Adaptation Compass. Stefanie Greis introduces into the testing session explaining the status and next steps of the development. All remarks collected during the last test sessions in June 2010 (Task force meeting) and September 2010 (WG meeting in Essen) were collected and will be included during the technical finalisation of the Compass, which will start after the 7th Working Group meeting in Ieper. Both mini-groups collect further comments and remarks to improve the Compass.

The general conclusions of the testing is that the tool has a good chance to be really used in practise. It takes time to get familiar with the possibilities and build-up of the compass, perhaps an introduction in a group session could facilitate the start for the user. The compass is a good help in the process of thinking about adaptation, but it doesn't prevent that the users have to think for themselves.



### Reception by the city of Arnhem

The municipality of Arnhem represented by Margreet van Gastel stresses the importance of the Future Cities-project for Arnhem enabling the city to go ahead facing the challenges climate change imposes on the city's structures.



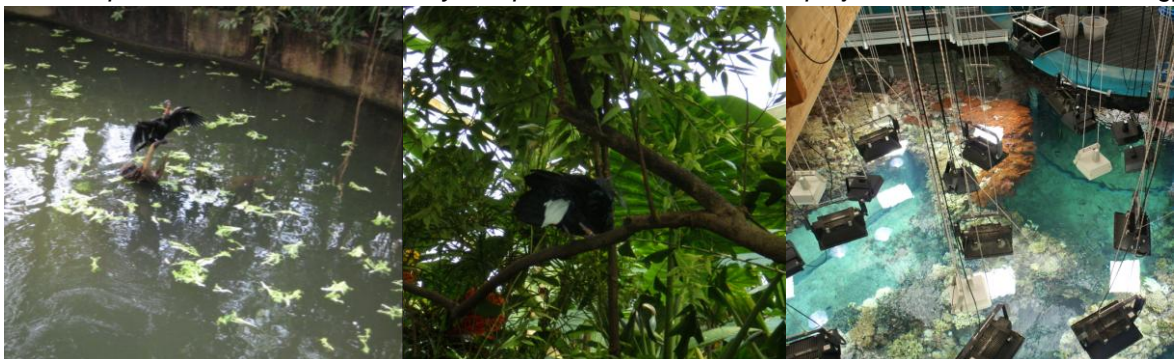


## Site Visit

During the site visit to the Burgers Zoo in Arnhem the working group participants get a deep inside into different climate zones and their ecosystems as well as the technique that is needed for up keeping the climate zones in a climate friendly way. The zoo displays climate zones in so-called “eco-displays” such as the tropical rain forest, the desert, the tropic mangroves and the ocean. Large scale living environments are created for animals and plants.



*A different point of view on the three key components of Future Cities-project: Water – Green - Energy*





## Conclusions and Wrap-up

In the final plenary session the chairs of the working groups present the results as described above. Anke Althoff announces the time schedule for the further development of the Future Cities Compass:

The dates for the next working meetings are:

- 7<sup>th</sup> WG meeting in Ieper or Brugge (PP8): 14<sup>th</sup> – 15<sup>th</sup> September 2011
- 8<sup>th</sup> WG meeting in Nijmegen (PP5): 14<sup>th</sup> – 15<sup>th</sup> March 2012

In the name of the partnership Anke Althoff thanks the municipality of Arnhem and Hans van Ammers for supplying a perfect framework for the 6<sup>th</sup> Future Cities working group meeting. All working group members agree.

The working group meeting is closed at 3 o'clock p.m.



**WG1 – “Adaptation Compass”: Working Group Planner for 2<sup>nd</sup> part of project**

Meeting n° /date	WG – topics / agenda	Preparation by PP / chair / Input	Output / products of PP (action no. as in application)
6 4/2011	<ul style="list-style-type: none"> <li>Improve and adjust assessment check</li> </ul>		◀ Cooperation with housing companies/other parties 1/PP5 NI
7 10/2011	<ul style="list-style-type: none"> <li>Discuss/decision on final draft guidance/glossary</li> </ul> <div>➡ FINAL DRAFT GUIDANCE</div> <ul style="list-style-type: none"> <li></li> </ul>	<b>Working steps until 7<sup>th</sup> WG (decided at 6<sup>th</sup> WG)</b> Detailed feedback on 2 <sup>nd</sup> draft guidance      PP/WG Input Future Cities examples                      PP Prepare final draft guidance/glossary            IU Written comments on final draft                   PP/WG	
8 3/2012	<ul style="list-style-type: none"> <li>Presentation of the Adaptation Compass</li> <li>Prepare input for final report</li> <li>Climate model as one building stone of assessment check</li> </ul>	<b>Working steps until 8<sup>th</sup> WG</b> Technical finalisation      IU Task Force Meeting          Task force members	◀ Climate model, adapted, tested in City Region 4/PP2 AR
9 6/2012	<div>➡ FINAL RESULT INPUT REPORT</div>	◀ Check: Interim results earlier available?	◀ Synthesis report of possible options for combined measures 4/PP6 RS
11/2012 Conf.	<div>➡ FINAL ASSESSMENT CHECK/ PRESENTATION</div>	Report experiences for final report / final conference PPs	

**WG2 - Action Plans: Working Group Planner for 2<sup>nd</sup> half of project**

Meeting n° /date	WG – topics / agenda	Preparation by PP / chair / Input	Output / products of PP
6 4/2011	<ul style="list-style-type: none"> <li>twinning reports</li> <li>presentation and discussion of twinning results</li> </ul>		◀ Detailed working plans (PP8 WV)
7 10/2011	<ul style="list-style-type: none"> <li>Preparation of the evaluation report</li> <li>→ 4 twinning reports on the improvement of the action plans</li> </ul>	<b>Working steps until 7<sup>th</sup> WG</b> <ul style="list-style-type: none"> <li>Twinning events (Mappable, blue-green corridor, green roofs and biodiversity)</li> </ul> Develop fact sheet on twinning: Proposal IU, feedback PP/WG	◀ A climate proof master plan for Ieper 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	<ul style="list-style-type: none"> <li>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</li> <li>→ EVALUATION REPORT</li> </ul>	◀ 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)

**WG3 – Implementation of combined measures: Working Group Planner for 2<sup>nd</sup> half of project**

WG - meeting n° /date	WG – topics / agenda	Preparation by PP / chair / Input	Output / products of PP (as application)
6 4/2011	<ul style="list-style-type: none"> <li>1<sup>st</sup> evaluation (interim check)</li> <li>Further development of criteria</li> </ul> <b>➡ Presentation of the test evaluation</b>	◀	◀ Implemented solutions green structures and water retention: 2.000 m <sup>2</sup> green roofs, 1.000 m <sup>2</sup> 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	<ul style="list-style-type: none"> <li></li> </ul> <b>➡ Meeting will be used as Task Force Meeting on Adaptation Compass January 2012</b>	◀	◀
7 10/2011	<ul style="list-style-type: none"> <li>Input for evaluation report</li> </ul> <b>➡ Final input for Adaptation Compass</b> <ul style="list-style-type: none"> <li>presentation of pilot projects / investments at partners</li> </ul>	<b>◀ Working steps until 7<sup>th</sup> WG</b> Adapt structure of fact sheets IU Amend, review fact sheets PP/WG Include in guidance IU Send to PP/WG with final draft guidance IU	Sustainable industrial area; e.g. green roofs, facades with renewable energy and rainwater disconnection in Bottrop ; (PP3 EG)
8 3/2012	<b>➡ INTERIM EVALUATION REPORT</b> <ul style="list-style-type: none"> <li>Preparation fo the final evaluation report: conclusions for improvement of the preliminary check of WP 1, of action plans and for use in awareness raising ; WG 3</li> </ul>	◀ input the evaluation report	◀ Implemented measures for sustainable and climate proof buildings (planned: 10 different measures incl. monitoring); (PP5 NI)
		◀ input the evaluation report	◀ Ecologically improved water body in Kamen to improve city micro climate, length 2,14 km (Kamen, DE); (PP1 LV)
9 6/2012	<b>➡ FINAL RESULT INPUT REPORT</b>	◀ Evaluation	◀ 20 transformed roofs in an industrial site, 7.500 m <sup>2</sup> (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 <sup>2</sup> ; (PP6 RS)



**WG4 – Targeted Awareness Raising: Working Group Planner for 2<sup>nd</sup> half of project**

WG - n° /date	WG – topics / agenda	Preparation by PP / chair / Input	Output / products of PP and dates (as application)
6 4/2011	<ul style="list-style-type: none"> <li>Focus on communication strategies (incl. participation strategies)</li> <li>Prepare input for Adaptation Compass</li> </ul>	◀	◀ Cooperation with housing companies/other parties action 1/PP5 NI
7 10/2011	<ul style="list-style-type: none"> <li>Discuss communication input for final report / final products</li> </ul>	◀ <b>Working steps until 7<sup>th</sup> WG</b> Send word files to PP/WG members IU Revise communication fact sheet PP/WG Include in guidance document IU Send to PP/WG members with final draft guidance IU	◀ Disconnection at Heerener Mühlbach, 2011 Information flyer produced, article placed, (PP3 EG) ◀ Awareness leaflet, Hastings, 2011 (PP4 HA) ◀ Sustainable construction conference Oct. 2011 (PP4 HA)
8 3/2012	<ul style="list-style-type: none"> <li>Prepare communication input for final report</li> <li>Support editing of final report</li> </ul>		◀ Information sessions (2 or 3); Information counter (1), PP8 ◀ 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) / slides / presentations(s) on the topic of “adapting the architecture in Luciline” to climate change: 2009 – 2010 –
11/2012 Conf.	<ul style="list-style-type: none"> <li>◀ <b>COMMUNICATION STRATEGIES FOR ADAPTATION – PRESENT</b></li> </ul>		

## Participants 6<sup>th</sup> Working Group Meeting

<b>Name</b>	<b>Project Partner</b>
Anke Althoff	PP1 Lippeverband
Guido Geretshauser	PP1 Lippeverband
Hans van Ammers	PP2 Municipality of Arnhem
Albert Anijs	PP2 Municipality of Arnhem
Marion Visser	PP2 Municipality of Arnhem
Jos Verweij	PP2 Municipality of Arnhem
Torsten Frehmann	PP3 Emschergerossenschaft
Matthias Stumpe	PP3 sub partner Municipality of Bottrop
Jane Dodson	PP4 Hastings
Ton Verhoeven	PP5 Municipality of Nijmegen
Veroniek Bezemer	PP5 Municipality of Nijmegen
Antal Zuurmann	PP5 Municipality of Nijmegen
Thierry Verrier	PP6 Rouen Seine Aménagement
Ida Ricci	PP6 Rouen Seine Aménagement
Annemieke de Kort	PP7 Municipality of Tiel
Karin van Dorenmalen	PP7 Municipality of Tiel
Eveline Huyghe	PP8 West-Vlaamse Intercommunale
Nathalie Garré	PP8 West-Vlaamse Intercommunale
Trui Naeyaert	PP8 West-Vlaamse Intercommunale
Stijn Saelens	PP8 West-Vlaamse Intercommunale
Ron Josten	City Region Arnhem-Nijmegen
Birgit Haupter	INFRASTRUKTUR & UMWELT - facilitation
Stefanie Greis	INFRASTRUKTUR & UMWELT - facilitation
Anne-Marijn Tielen	Communication department Arnhem
Barry de Vries	With PP2 Municipality of Arnhem
Vincent Kuypers	With PP2 Municipality of Arnhem
Margret van Gastel	Alderman, Municipality of Arnhem
Marjan van der Veen	Municipality of Arnhem
Martien Schaart	Financial Officer, Municipality of Arnhem
Gijs Frencken	Spatial planning department, Municipality of Arnhem
Thor Smith	Spatial planning department, Municipality of Arnhem

**Presentations (included on CD-ROM)**

- 01 WG1\_Intro Althoff.pdf
- 02 WG1\_Status of Compass.pdf
- 03 WG1\_Special Issues Compass.pdf
- 04 WG2\_Ricci.pdf
- 05 WG2\_Report\_twinning\_Arnhem.pdf
- 06 WG2\_Twinning Maptable Hastings.pdf
- 07 WG2\_Twinning green blue corridor.pdf
- 08 WG3\_vanDorenmalen.pdf
- 09 WG3\_HeerenerMuehlbach\_Geretschauser.pdf
- 10 WG3\_Fact Sheets\_Evaluation.pdf
- 11 WG4\_programme.pdf
- 12 WG4\_sic adapt examples.pdf
- 13 WG4\_Target groups\_fact sheets\_results.pdf
- 14 Day 2\_Wrap up\_Althoff.pdf
- 15 Heat attention map Arnhem.pdf

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