

Mid-term Conference and 5th Working Group Meeting

Essen

29th - 30th September 2010

Report











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Programme – Wednesday, 29th September 2010 – Mid-term Conference

- 9.30 Climate Change Global Challenge, European Response
 - Regional solutions to face climate change in a European network
 Dr. Jochen Stemplewski, CEO Lippeverband and Emschergenossenschaft
 - Europe visiting RUHR.2010: Change through Culture Culture through Change Prof. Oliver Scheytt, Manager of European Capital of Culture RUHR.2010 GmbH
 - Climate Change: A global challenge View beyond Europe Dr. Youba Sokona, Co-Chair of IPCC
- 10.15 Mid-term results of Future Cities
 - Future Cities From strategies to solutions facing climate change Anke Althoff, project manager Future Cities, Lippeverband
 - · Flashlights of Future Cities:
 - Masterplan leper "De Vloei" / BE
 Eveline Huyghe, West-Vlaamse Intercommunale
 - Sustainable watermanagement for Tiel-East / NL Annemieke de Kort, Tiel
 - Urban Heat Island effect / NL Hans van Ammers, Arnhem
 - Geothermal solution for business park Luciline / F
 Ida Ricci, Rouen Seine Aménagement
 - Discussion
- 14.00 How to make city regions in Europe fit to cope with the expected impacts of climate change
 - Joint tool for joint solutions: the "Future Cities Adaptation Compass"
 Dr. Birgit Haupter, INFRASTRUKTUR & UMWELT
 - Regional shares for the joint tool:
 - Vulnerability check Hastings, South East England / UK
 Chantal Lass, Hastings Borough Council
 - Adaptation options Emscher Lippe Region / D
 Dr. Torsten Frehmann, Emschergenossenschaft
 - Discussion
- 15.00 Strategic Cluster "Adaptation to the expected spatial impacts of climate change"

 Anke Möllers, Joint Technical Secratariat NWE programme, Lille
 - View beyond the Future Cities project: Start for the Strategic Cluster

Panel discussion with Cluster Leader Lippeverband, representatives from INTERREG IV B programme and involved cluster projects ALFA, AMICE, C-Change, FRC, ForeStClim, Future Cities, IMCORE and WAVE

- 17.00 Site visit for European Partnership
 - EMSCHERKUNST.2010 project of the European Capital of Culture 2010
 - Facing climate change in the city of Bottrop Bernd Tischler, Mayor City of Bottrop
 - Waste Water Treatment Plant Bernemündung: a park project for the people Sebastian Ortmann, Emschergenossenschaft
- 18.30 Evening programme: Climate change as a regional challenge: flood protection in the Emscher catchment
 - Dr. Emanuel Grün, management board Lippeverband and Emschergenossenschaft



Programme – Thursday, 30th September 2010 – Working Group Meeting

9.00 Working Group 1 Plenary

moderated by chair Anke Althoff, Lippeverband; Johan Bogaert, Flemish Ministry for Environment, BE; Almut Nagel, Federal Ministry for Environment, DE; Written input by Federal Environment Agency, DE, Prof. Andre Niemann, University of Duisburg-Essen, DE

10.30 Working Group 4 "Communication"

moderated by chair Chantal Lass

11.15 Working Group 2 "Action Plans"

moderated by chair Thierry Verrier

13.30 Working Group 3 "Implementation"

moderated by chair Ine van den Hurk

Parallel to all working groups: Take a closer look at the "Adaptation Compass"

facilitated by Stefanie Greis/Peter Heiland, INFRASTRUKTUR & UMWELT

14.15 Plenary

Anke Althoff and WG chairs

- Feedback of mini-groups on Adaptation Compass
- Working group planner for 2nd half of project
- Conclusions / wrap-up

15.00 End of working group meeting







The Mid-term Conference of Future Cities

Climate change is affecting all regions in Europe and the World. Local solutions have to be adopted, in order to adapt effectively to the changing climate. The German waterboards Emschergenossenschaft and Lippeverband brought together 120 practitioners and scientists from Europe to attend to the mid-term conference of Future Cities in Essen. The event was moderated by Dr. Peter Heiland from the scientific project assistance INFRASTRUKTUR & UMWELT. International and regional speakers outlined the connections between local solutions and a world-wide changing climate. Dr. Y. Sokona, Co-chair of the Intergovernmental Panel on Climate Change (IPCC) directed the view to a global perspective and gave an insight to the next IPCC Report in 2014. All contribution made clear that adaptation needs integrative and cross-sectoral thinking and local acting. The overall costs and efforts for preventive action are less than retroactive action.

The mid-term conference was completed by a site visit to a former waste treatment plant being transformed into a recreational park.

The conference was followed by the 5th Working group meeting of the Future Cities partnership on 30th September 2010.



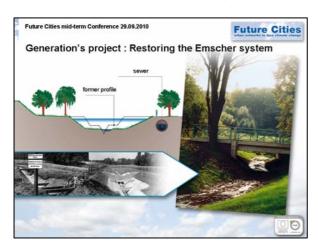


Climate Change – Global Challenge, European Response

Regional solutions to face climate change in a European network

Dr. Jochen Stemplewski, chief executive officer of the Lippeverband (LV) and Emschergenossenschaft (EG), welcomed the participants to the Future Cities mid-term conference. The motivation for the EG/LV as a water board to focus on climate change impacts is resulting from the already visible changes in the Emscher and Lippe catchment as well as from the special features of the region. In the very densely populated catchments of Emscher and Lippe, the water board provides water services integrating the operation of waste water treatment plants, the care for groundwater and flood prevention and the maintenance and restoration of surface waters, where the EG/LV works closely together with spatial and urban planning. The restoration of the Emscher system, for example, is ongoing. Major accompanying projects, like a decentralised storm water management, are undertaken.





In his speech, Dr. Stemplewski pointed out that climate change is introducing even more changes: The future rainfall pattern will be different due to rising temperatures. The water boards EG/LV have developed a multiple strategy: They implement mitigation as well as adaptation measures and pilot projects. One example for current no-regret projects is a regional commitment signed by all mayors in the Emscher region on "15 % less storm water in the sewer system within 15 years", the so called Future Convention Storm Water.

Europe visiting RUHR.2010: Change through Culture – Culture through Change



The director of the European Capital of Culture RUHR.2010 GmbH, *Prof. Oliver Scheytt*, introduced the conference attendees to the European Capital of Culture RUHR 2010. The Ruhr area is the 3rd greatest city region in Europe with 53 cities. The picture about the Ruhr area is still shaped by weapon industry and mining activities. But it is time to change the image – the region is now the European capital of culture. Already the opening ceremony created a new picture of the region and its citizens: Due to a severe snowstorm the ceremony could take place only with combined efforts. Since then several spectacular actions took place: The project Shaft Signs installed balloons everywhere in the area indicating the location of former coal mines. A huge public event was organised on the motorway A 40, which was

closed for car traffic during one day. On almost 60 km 3 million people enjoyed the meeting place for cultures, generations and nations.



Together with the EG/LV the programme Emscher Art.2010 was realised, where different art projects along the River Emscher are being established. Another example for combining water and art is the project "Walking on Water" on Seseke River in the Lippe catchment.

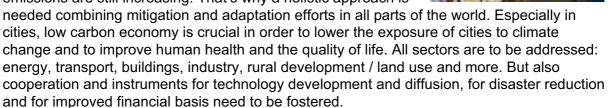


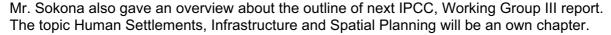
Walking on water on the Seseke River (RUHR.2010)

Climate Change: A global challenge – View beyond Europe

Dr. Youba Sokona, Co-Chair of IPCC Working Group III, directed the view beyond Europe. As former executive Secretary of the Sahara/ Sahel Observatory, Mr. Sokona presented the situation in Africa, where huge political, economical, social and natural disparities lead also to large opportunities. In African cities vulnerabilities to climate change impacts and further hazards is highest, as more than half of the urban population lives under slum conditions and most urban areas lack basic infrastructure and services.

Mitigation measures and impacts are slow and sparse, global emissions are still increasing. That's why a holistic approach is





The subsequent discussion with the participants of the conference stressed the need to act; Adaptation needs integrative and cross-sectoral thinking and local acting. A change in behaviour is needed, but it takes time and is a big challenge. Mr. Sokona stressed the point that more investment in information systems is needed. Eventually, the overall costs and efforts for preventive action are less than retroactive action.





Mid-term results of Future Cities

Future Cities - From strategies to solutions facing climate change



The project manager of the Future Cities project, *Anke Althoff* from Lippeverband presented the outline of the Future Cities - project.

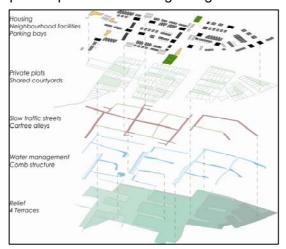
The Future Cities - project aims at making city regions in Northwest Europe fit to cope with climate change impacts. The Future Cities strategy combines selected strategic urban key components, green structures, water systems and energy efficiency for a proactive transformation of urban structures. With the "Future Cities Adaptation Compass" common evaluation methods for climate-proof city regions are being developed. Action plans for the transformation of existing structures enable the existing regions to adapt their strategies. Furthermore, combined measures are implemented in several pilot projects.

For pro-active ways of tackling adaptation, measures for raising awareness of decision makers and disseminators are also undertaken.

At midterm of the project, the partners can already present main achievements of their work. In an interview Anke Althoff asked some partners to highlight their main project achievements to date:

Eveline Huyghe from West-Vlaamse Intercommunale (wvi) in Belgium presented the integrative and sustainable Masterplan for development of the quarter "De Vloei" in leper. After working out a guideline for sustainability focussing on the quarter and the agreement of all involved owners in the project area, the Masterplan was finalised in 2009.

For the Masterplan, different layers were created, giving details about relief, water management, traffic system, private plots and housing / neighbourhood facilities. The



The different layers of the Masterplan "De Vloei" in leper (Source: wvi, BE)



main principles are surface runoff in a comb

structure, slow traffic zones and no-car streets as well as green courtyards, gardens and event spaces in four axes. The issue of communication is important in the project. Local workshops, information sessions and the cooperation with local schools are realised.

Eveline Huyghe stressed the point that the Future Cities - project helped distinctly in the development of the Masterplan, as the project gave wvi the possibility to do research on the topic of sustainable quarter development and to exchange its ideas with other cities and regions in Europe.



For the Dutch City of Tiel, *Annemieke de Kort* presented the sustainable water management for the city area Tiel-East. The main problem in Tiel-East is the low altitude of the guarter. When flooded, the whole quarter is under water. Flooding is not only caused by surface water but also by high groundwater levels. This results in a variety of impacts, e.g. problems with energy supply and water quality. An integrative view on the whole area was chosen to approach the problems: An integrative water scenario takes into account future climate



changes. In addition, a water game was developed for



Planned water square for Tiel-East (Source: Tiel, NL)

measure is a water square functioning as rainwater retention but also as public open space and playground. A further solution for Tiel-East is a "climate dike", a dike that is a

cooperation is crucial. An example for a built

broader than usual dikes. This makes it

possible to use the spaces on top as public space. Also adapted building in flood plains is foreseen.

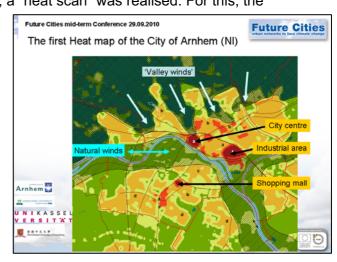


Hans van Ammers from the City of Arnhem (NL) presented the results of the research on the Urban Heat Island (UHI). UHI describes the effect that air temperature in metropolitan areas is up to 10 degrees higher than in the surrounding areas. In the Arnhem Nijmegen City Region, a so-called "heat study" was started to find out if there is a heat-island effect in the region and if so, what are the effects. In addition, the urgency to act regarding climate change was assessed. The first "Heat map" of the City of Arnhem was made in cooperation with University of Wageningen, University of Hong Kong and University of Kassel. It analyses and visualises the UHIs in the city. Furthermore, a "heat scan" was realised. For this, the

temperature was

measured by bike. Temperature differences of up to 7 degrees were found within the city depending amongst others on the building density.

As next steps, the Heat map will be translated into a "Heat attention map" with recommendations for future urban projects. The mapping will be extended to all 20 municipalities in the city region. To reduce the overheating of the city a toolbox with effective measures is compiled.





Focusing on the promotion of renewable energies, *Ida Ricci* from Rouen Seine Aménagement presented the results for the business park Luciline in Rouen, France.

The areas along the riverbanks of the Seine offer great opportunities to develop the former industrial sites into a new agglomeration centre with mixed integrated functions. The Luciline project consists of the conversion of a port wasteland



Plan of the Luciline district (Source: Rouen-Seine Aménagement, FR)

in a new mixed district including residential and leisure use. The goal is to create a sustainable



district. Water plays a central role in the project: A small river passes through the site, the Luciline. The stream today canalised and underground is brought back to the surface to balance the microclimate, to retain rainwater and to enhance biodiversity. The underground water will be used as energy source. Using geothermal resources turned out to inherit the highest potential for renewable energy solutions. Accordingly regulations for energetic standards of buildings will be defined.

Joint tool for joint solutions: the "Future Cities Adaption Compass"

Birgit Haupter from the scientific project assistance INFRASTRUKTUR & UMWELT presented the aims and the recent status of the Future Cities Adaptation Compass. With the Adaptation Compass the tasks of facing climate change are not only looked at from a sectoral perspective – as this is the way most administrations have to work – but from a cross-sector view. The compass is being developed with all the expertise of the organisations involved with the Future Cities project. The main intention is to stimulate cooperation between professions and departments, to check across sectors and to interlink the different stakes.

The Compass shall provide guidance for planners and experts at cities/ boards which are similar to the Future Cities

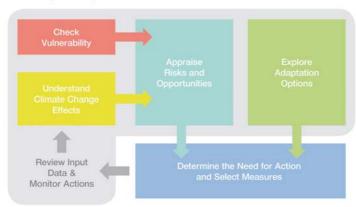


organisations. It will help to structure the working steps: To identify and evaluate the problems and the need for action to document and discuss the results with other actors, with the decision and policy makers. Suitable adaptation measures are provided in a catalogue and measures can be chosen with a view to effects on other measures and adaptation needs. The computer-aided guidance aims at facilitating the handling.

Two modules are in the special focus of the Future Cities partnership: the "Vulnerability Check" and "the Catalogue of Adaptation Options".



The Future Cities Adaptation Compass is structured in five modules:



Birgit Haupter showed a preview of the tool. With the module Explore Adaptation Options guidance is given from general information to specific examples. Search and filter functions help to find measures among others according to the spatial scale, or synergies and conflicts with other measures.

The presentation ended with the roadmap to the final version of the Adaptation Compass: The preliminary version was tested

by Future Cities partners and will be tested further in the working group meetings. The partnership will collect all the suggestions and continue working on the adaptation compass. The tool will be publicly available in 2012.

Prior to the conference the partnership sent information about the Future Cities Adaptation Compass to the members of the Future Cities Advisory Pool for feedback and advice. From Achim Daschkeit of the German Federal Environment Agency, the written feedback praised the interdisciplinary and practical approach. In the discussion, *Johan Bogaert* from the Ministry of Environment in Belgium commented the tool being useful and stated that giving too much information about climate change is not necessary, because there is already enough information available. An important feature to develop is also a ranking, so the user knows which problems should be dealt with first. In the discussion it was concluded, that the Adaptation Compass needs to be translated in order to be viable for local stakeholders.

The Future Cities partners gave examples for the two modules Check Vulnerability and Explore Adaptation Options.

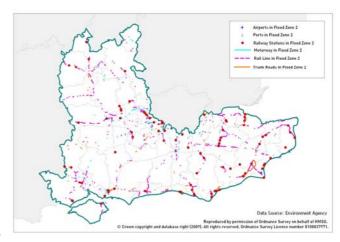


An example for "Check Vulnerability" was given by *Chantal Lass* from the Hastings Borough Council. She presented the vulnerability check undertaken for Hastings and South East England, UK.

The aim of the regional work was to identify climate change

vulnerability hotspots and to help inform the further distribution of growth and the prioritisation of adaptation measures. The assessment methodology aimed

to identify and map geographic variation in current socio-economic factors which enhance vulnerability within the region, e.g. deprivation, urban areas, emergency and health provision, flood risk at contaminated sites. The spatial distributions of the factors were overlaid and thus hotspots were identified: The results show that most vulnerabilities are caused by flooding.



Map over flood risk of transport infrastructure (Source: Hastings Borough Council, UK)



The Local Vulnerability Assessment was conducted within the framework "Local Climate Impact Profile" by UKCIP. The profile helps to raise awareness, to identify the main consequences of weather events and it helps to detect how "prepared" an organisation and partners are. Local newspapers, websites, TV were investigated on severe weather events having taken place. Information was collected on the consequences flooding events, high winds, heat waves, drought, snow and ice. In addition, a "Severe Weather Impact Questionnaire" was completed stating among others how the organisations had adapted in response to the extreme weather events.

Chantal Lass concluded that the findings of the assessments will inform the spatial policy of the region and the adaptation policy of the town. Furthermore, priority areas for action will be identified using a risk-based approach.

Dr. Torsten Frehmann from Emschergenossenschaft and Lippeverband presented examples for "Explore Adaptation Options": Adaptation measures which are implemented in the Emscher – Lippe Region. The water sector is strongly affected by climate change impacts but also provides many adaptation opportunities. These have to be implemented with an integrated approach. Measures must create a robust and flexible system serving multiple aims: strengthening of the natural water cycle, increasing the adaptive capacity of water management, combining attractive design of open space and providing time for more and better research.



One example for such a no-regret measure is the disconnection of paved areas. Until today more than 300 projects were completed, more than 500 ha of paved area was disconnected from the sewer system since the 1990s in the

Emscher catchment.



The stream Heerener Mühlbach in Kamen (Source: EG/LV, DE)

Within the Future Cities project, the stream Heerener Mühlbach in Kamen will be transformed from an open waste water sewer to a nature-like water body. Neighbouring properties are disconnected, what required intensive communication with citizens and house owners. The construction starts in early 2011. Another adaptation measure implemented within Future Cities is the sustainable improvement of the industrial park "Scharnhölzstraße" in the city of Bottrop. The business site was built in the 1970s and is occupied by six major companies. With

the aim to ecologically improve the location, feasibility studies on water management, green structures and the use of renewable energies were undertaken. Alongside with the technical implementations, a guideline for climate change was recently finished and is targeting at internal staff in order to raise their awareness for the topic climate change.



Strategic Initiative Cluster "Adaption to the expected spatial impacts of climate change"

Peter Heiland introduced the session by explaining the background of the strategic cluster on adaptation to climate change. The INTERREG Northwest Europe-programme funds the clustering of INTERREG-projects to enhance their strategic impact. The Future Cities-project together with seven NWE-projects has formed the strategic cluster "SIC-adapt!" which was approved recently. The Lead Partner of Future Cities, the Lippeverband, has taken over the function as Cluster Leader.



| | SIC-adapt!: Main focus of addressed spatial categories | | | |
|---------------|--|-----------------------------|---------------------------|--------------------|
| | Built environment | Water environment | Nature environment | Social environment |
| Future Cities | Future Cities | Future Cities | | |
| ALFA | | alfa Algebra (and on | alfa Adaptive Land and | |
| AMICE | | anice medical medical | amice many | |
| C-Change | Change | | | Change |
| FRC | FRC | FRC | | |
| ForeStClim | | | | |
| IMCORE | | IM CORE | | IM CORE |
| WAVE | | WAVE | WAVE | |

In the following presentations Anke Möllers from the Joint Technical Secretariat outlined the framework given by the NWE programme and handed over the signed subsidy contract to the cluster leader Lippeverband marking the official start of the cluster. Markus Lang, the project manager of "SIC-adapt!" from Lippeverband presented the aims and the structure of the cluster's work. The project managers of the cluster projects joined to complete the session.

Anke Möllers explained that the NWE programme funds projects in four priorities, e.g. sustainable management of natural resources and of natural and technological risks or promoting strong and prosperous communities. Besides these the NWE Operational Programme defined the concept of "Strategic Initiatives" which was further developed in workshops with external experts to refine strategic topics for NWE. As one of three themes "Adaptation to the expected spatial impacts of climate change" was identified.

After workshops with potential clusters and two cluster calls in March 2010 and September 2010 two clusters were approved so far: CALGREST and SIC-Adapt!

Anke Möllers summed up the advantages for the projects being part of a strategic cluster e.g. participation in transnational exchange networks or using knowledge from other project results. The Strategic Clusters are given high visibility within the programme.







Markus Lang explained that the cluster aims to establish and promote measures, to call for action and to share knowledge, all with a view to efficient adaptation to the expected spatial impacts of climate change in NWE. Eight projects from the INTERREG NWE-programme with 100 partner organisations – public authorities of all levels (national, regional, local), scientific institutions of all relevant sectors, non profit and private organisations - join for action.

The cluster partnership will have a strategic impact on future European activities and policies beyond the individual project work. Adaptation tools and measures from over 100 organisations in North West Europe will be available and will lead to policy recommendations. The partnership can make use of direct

exchange with other partners beyond their projects.

Peter Heiland asked the project managers of the eight cluster projects what they expected from the cluster activities and what their project could contribute to the cluster.

All project managers stressed the point that their partnerships expect to learn from each other and to gain more weight on the political agenda. They hope that the ideas of their projects are supported further after the funding ends for the projects and local messages are delivered to the upper level.

As Jean-Marie Stam, the project manager for the projects ALFA and FloodResilienCity (FRC), explained these projects will especially contribute to the adaptation aspects of water, nature and multi-landuse (ALFA) and water in urban areas (FRC). For the WAVE-project Piet van Erp pointed out that the thinking of the WAVE-project will be brought into the cluster – thinking of planning policy, spatial measures and awareness raising being different layers to be fit together for best results. Maria Falaleeva added that the adaptation tools being developed will be brought in by the IMCORE-project. The other way around IMCORE is looking forward to apply tools developed by other cluster projects. The project ForeStClim represented by Gebhard Schüler will contribute the issues of adaptation needs and measures in forests – also within urban landscapes. The Lead Partner of the C-Change project communicated his full support of the strategic cluster in written form. Due to a parallel project meeting of C-Change he could not attend to the conference. Finally, Anke Althoff expressed the observation that with the development of the cluster the exchange between the lead partners of the projects already provided synergies. She pointed out that the cluster activities will also deliver services for people and institutions beyond INTERREG with the comprehensive information basis provided by the cluster partnership.



Peter Heiland drew the conclusion that the themes represented by the projects and the expectations which were expressed seem to build a strong basis for effective and efficient cluster work and is likely to produce results with a long-lasting impact.



Climate Change as a regional challenge: flood protection in the Emscher catchment

Dr. Emanuel Grün, management board Lippeverband and Emschergenossenschaft, gave a lively presentation on the challenge of adapting to climate change in the Emscher and Lippe region. He acknowledged the holistic approach of the Future Cities-project which was demonstrated clearly in the presentations of the conference. He stressed the point that the partnership locally working "at grass roots level" is able to act although the high-level political framework conditions are still subject to discussion.

The water boards' strategy concerning flood protection can be summed up: "Always be one step ahead of the floods". Although the system is already well prepared torrential rainfall events

cause severe flooding from time to time. Here, it is necessary to act - to plan and implement rainwater retention to improve preparedness. At the moment Lake Phönix in Dortmund is being filled with water – the planning and construction having been supported by funding within the INTERREG IIIB-project Urban Water. The lake will be able to absorb up to 250,000 cubic meter of floodwater from the river Emscher.

In various aspects the contact and exchange with the European partners is helpful. An example is the problem of high ground water tables as experienced in the former mining areas of the Emscher region and at the Dutch project partner Tiel. Dr. Grün concluded that although local differences exist at project partner locations all commonly have to provide flexible measures and strategies to take into account uncertainty of climate projections as well as international and national goals and directions which might change in the future.

Site visit for European Partnership EMSCHERKUNST.2010 – project of the European Capital of Culture 2010

Facing climate change in the city of Bottrop



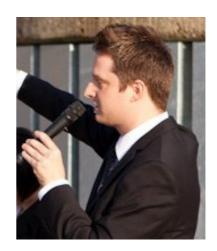
Bernd Tischler, Mayor of the city of Bottrop, welcomed the conference participants and the Future Cities partnership to the "Berne park" which was created on a former sewage treatment plant. The city of Bottrop is sub partner in the Future Cities project with developing adaptation measures for the existing industrial estate "Rheinbaben". The city of Bottrop pursues a holistic approach – adaptation measures always being considered in connection with the



requirements of clean air, reducing noise, developing more green structures, granting water supply and structural change. Adapting to a changing climate must also involve reducing greenhouse gas emissions. The city of Bottrop takes part in the competition for "Innovation City Ruhr" with the aim to become low energy consumption town of the future. Bottrop is one of five finalists in this competition which provides the strong opportunity for sustainable and climate appropriate urban development for at least the next 10 years.

Waste Water Treatment Plant Bernemünding: a park project for the people

Sebastian Ortmann, the project leader of "BernePark" from Emschergenossenschaft, presented the facts behind the new park for the people: The site was built in the 1950s as a then modern waste water treatment plant; It operated until the big waste water treatment plant Bottrop was constructed in the 1990s. In 1997 the waste water treatment plant Bernemündung was shut down. In the course of the RUHR.2010 culture capital the plant was rebuilt as park. The two waste water ponds now are the centre of the park, one was drought up and was designed according to the plans of the artist Piet Oudolf; 21.000 plants were planted in an amphitheatre like a sunken garden. The other pond is filled with fresh water and can be used, e.g. for swimming. Moreover, the so called Park hotel of artist Andreas Strauss allows to sleep in huge sewer pipes in the park.







Thursday, 30th September 2010 - Working Group Meeting Introduction

Anke Althoff welcomes the Future Cities partnership to the 5th working group meeting and presents the aims of the meeting. For working group 1 the main focus is on the interim results of the adaptation compass and drawing conclusions for the further development. The other working groups focus on selected topics according to their schedule.

Working Group Sessions

Working Group 1

Agenda

- 1. Introduction Status of activities after 4the WG meeting
- 2. Plenary: Strategic advice to the Future Cities Adaptation Compass by members of the advisory pool
- 3. Mini-Groups: Test of the Adaptation Compass by all working group member
- 4. Discussion and conclusions of the working group
- 5. Update of working group planner for the 2nd half of the project

1. Introduction - Status of activities after 4th WG meeting

Anke Althoff, taking over as chair from Ton Verhoeven, summarises the status of development of the Adaptation Compass: The members of the advisory pool were informed about the status in August 2010. The strategic feedback is given by

- · Johan Bogaert, Flemish Ministry for the Environment, BE
- Almut Nagel, Federal Ministry for the Environment, DE (including written input by Federal Environment Agency, DE)
- Prof. Andre Niemann, University of Duisburg-Essen, DE.

2. Strategic advice by members of the advisory pool

A Compass to Future Cities – Johan Bogaerts

Johan Bogaert presents seven messages to the audience.

(1) The aim of a "future city" could be: A place for a comfortable and happy way of living. Here, what can go wrong can be identified with the vulnerability check of the Compass. There exist already many possible solutions, such as reorganising the city, planting trees, covered shopping centres, storm basins, traffic free city centres. However, the implementation of measures depends among others on costs and willingness to change. Connected with this are the next two messages:



(2) (3) Can we define the path to the solutions with the Adaptation Compass and how to set priorities and priorities for what? This is one of the central questions also linked to all sectors of a city and the interrelationship with upper levels as well as with society.



- (4) How to deal with uncertainty? This was also discussed the day before at the Midterm conference. It is sensible to start with the current vulnerability built on the experiences made with extreme weather events but nevertheless the climate projections should be taken into account.
- (5) In the 5th message Johan Bogaert raises the question of how to be up to date with the information given by the Compass. The Compass will be completed by 2012 and how can it be assured that it will be updated afterwards. Anke Althoff adds that one aim of the partnership is to find ways to link the Compass to national ongoing programmes.
- (6) Furthermore, Johan Bogaert advised the partnership to be aware of the difference between weather and climate.
- (7) Johan Bogaert also advices the partnership to be aware of geographic differences and to make sure that solutions can be used locally as well as to promote and stimulate local solutions.

Feedback by Almut Nagel, German Federal Ministry for the Environment

Almut Nagel draws the attention to the target groups. The Adaptation Compass as it is structured now seems to be readable for the Future cities partnership. For users outside of the partnership more guidance is needed to be able to work with the Compass. As a checklist for an integrated cross-sector approach the Compass is well structured and organised. If it is meant to take more aspects into account, not only other sectors but also aspects like finances, political aspects, acceptance of measures etc. have to be taken into account and will lead to a much more complicated structure. Almut Nagel also presents the written feedback which was given by the German environment Agency (see box below).



She advices the Future Cities partnership to address national and EU institutions to integrate the Adaptation Compass with national and EU instruments being developed for best use of all of them. At national German level a possibility could be to "merge" (which does not mean necessarily merge the programming) Adaptation pilots being developed ("Stadtklimalotse", "Klimalotse") in one hand. Here, the Future Cities Adaptation Compass could be a valuable addition.

Written feedback by Achim Daschheit, Federal Environment Agency DE

- The draft is structured well and consistent the conceptual phase has proofen to be good. The modules are similar to other tools such as the Klimalotse UBA / KomPass, or UKCIP.
- Focus is laid on identification of cross-sectoral issues to identify early conflicts. This is important and also a unique-selling-point, as other tools have gaps here.
- The aim is to prepare decisions. What seems to be missing is the guidance of implementation and monitoring of success.
- The better the target group is defined, the better the tool gets. Here the Compass seems to be for a wide target group: regions, cities, project areas, departments...
- The technical feasibility must be clarified early! excel-tool? database? links to pictures and pdfs?
- The German "Klimalotse" ("Climate Pilot") is a rather general tool. The Future Cities
 Adaptation Compass could be an addition of value giving detailed information for risk
 assessment and selection of measures.





<u>Feedback to the Future Cities Adaptation Compass - concerns</u> <u>from a practical perspective, Prof. Dr.-Ing. André Niemann</u>

André Niemann presents three case studies from cities in Germany where conclusions for the Adaptation Compass can be drawn from. E.g. in the vulnerability check on storm water flooding undertaken in the city of Stuttgart a simple approach, was aimed at so that the process wouldn't take too long.

Based on his experiences made in various case studies as well as from other projects he concludes his feedback to the Adaptation Compass:

(1) The Future Cities Adaptation Compass seems to be a good approach for identifying suitable measures. He advices the

partnership to keep the tool as simple as possible in order to produce a viable instrument avoiding only theoretical measures.

(2) Concerning the target group he gives the advice that the Compass should be mainly designed for urban administration needs or planning processes in urban surroundings. Here, the partnership should be aware of the scale. Regional administrations often have a different focus.

2. Test of the Future Cities Adaptation Compass in Mini-groups

All working group members get the opportunity to test the preliminary version of the Future Cities Adaptation Compass in mini-groups of 4-6 persons. Stefanie Greis (IU) introduces into the testing session explaining the status and next steps of the development. She gives an overview on the existing modules and sheets. Most remarks from the first testing session in June with members of the Task Force were integrated in the tool. Technical questions are left open until the final phase of development. During most of the next year the development of the Compass will focus on the gathering of contents from the Future Cities pilot projects and from other sources. With this information the guidance document will be drafted. After the contents are put together, the technical development will be completed.

Each mini-group can go through the demo version of the tool and writes down comments and remarks. Those are collected and will be integrated or further discussed during the next working group meetings.





4. Discussion and conclusions of the working group

In the name of the working group Anke Althoff thanks the representatives of the advisory pool for their valuable feedback which will be of good use for the partnership.

In the following the topic of the target groups is discussed. The working group members agree that the target group determines what the Adaptation Compass should look like. The Adaptation Compass should be a tool for experts and planners but the outcome should also support the discussion of the planners with the decision makers.

The partnership agrees to go on with strengthening the links with the national programmes and tools – as it is already done e.g. by the Dutch, Belgium or German projects partners.

The time schedule for finishing the tool is agreed. The target is to provide the final version six months earlier than planned to allow the partners to use the final version and to present the experiences with the final version in the final report as well as the final conference.

The working group agrees that from 10/2010 until 9/2011 the focus is strictly on the content of the Compass. Remarks on the structure concerning the programming are collected but cannot be integrated in parallel while developing the content. The final programming will be done after the content of all modules is finalised.

5. Update of working group planner for the 2nd half of the project

| Responsible | Theme / activity | Date |
|----------------------|--|--------------------------|
| IU | List feedback of advisory pool and working group members – conclusions for content and programming | Until 6 th WG |
| IU/LP, Task force | Work only on contents, start with module vulnerability check | Until 6 th WG |
| IU/LP, Task force | Workshop test with task force / other persons of partner organisations as applicable | 02/2011 in Essen |
| All | Discussion of content of modules filled | 6th WG 04/2011 |
| WG/PP | Decisions on content / finalisation on contents | 7 th WG |
| IU | Technical finalisation | Until 8 th WG |
| PPs | Applying at PPs | In 2012 |
| PPs | Report experiences for final report / final conference | Until Sept 2012 |



Working Group 2

Agenda

- 1. Introduction
- 2. Results of twinning on energy
- 3. Planning of twinning events
- 4. Update of working group planner

1. Introduction

Thierry Verrier as the new chair welcomes all participants of the working group and presents the agenda. The programme focuses on the results of the twinning event which took place since the last working group meeting and on planning the twinning events for the 2nd half of the project.

2. Results of twinning on energy strategy

Albert Anijs reports about the results of the twinning on the topic "energy strategy" which took place in Arnhem on 2nd – 3rd June 2010. Participants came from Arnhem, Tiel, Nijmegen and wvi. For wvi this

twinning event was a good opportunity to include experts working for wvi in the exchange and take back home the experiences. Thus the capacity building within the organisation was strengthened.

The participants of the twinning discussed questions like "How can we come from single

projects to integrated programmes?" or "How to involve all the different stakeholders to reach the common aim?". It was commonly recognised that all partners face similar problems and many ideas were exchanged about the do's and don'ts. The twinning event also confirmed the conclusions of the Arnhem energy study that the energy transition needed

for mitigating climate change is in fact an adaptation of climate policy in the city.

3. Planned Twinnings

Based on the twinning events already agreed at the 4th working group meeting the schedule for the twinning events for the 2nd half of the project is elaborated (see table update of working group planner). It is agreed that the requests will be formulated as soon as possible. The possible dates named below have to be confirmed depending on the results in the pilot projects.

Hans van Ammers remarks that the budget available for the twinnings has to be checked. This will be done by the Lead Partner and the Project Steering Group.





4. Update of working group planner

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

| Request by | Theme / activity | Date of twinning t.b.c. |
|------------|---|---------------------------|
| PP1 | Blue-green corridor | 6/2011 |
| PP2 | Translating the heat map into recommendations | 12/2010 – 1/2011 |
| PP6 | Cold-heat storage | Begin 2011 |
| PP4 | Maptable | 1/2011 |
| PP3 | Watergame | Mid 2011 |
| PP6 | Green Roofs and biodiversity aspects | Begin 2011 |
| PP6 | Energy adaptation in urban design | Not clear yet |
| PP7 | Climate dike and urban design | 2 nd half 2011 |

Working Group 3

<u>Agenda</u>

- 1. Introduction
- 2. Steps to start the evaluation of measures
- 3. Updating of the implementation schedule
- 4. Update of working group planner

1. Introduction

The new chair Ine van den Hurk welcomes the working group members to the meeting. The main topics are the agreement how to undertake the evaluation of measures until the next working group meeting. With the preparation material for this working group meeting INFRASTRUKTUR & UMWELT supplied a concept for the evaluation.



2. Steps to start the evaluation of measures

The working group members agree on the measures and the time schedule to undertake the test evaluation (see update of working group planner). INFRASTRUKTUR & UMWELT will send the criteria catalogue to the project partners who will fill in the catalogue and report on their experiences before the next working group meeting. INFRASTRUKTUR & UMWELT will collect

the feedback and draw conclusions to be presented at the next working group meeting.

3. Updating of the implementation schedule

The implementation schedule of the pilot projects is updated especially with regard to the possible dates to evaluate the measures (see annex).





4. Update of working group planner

| Responsible | Theme / activity | Date | |
|---|---|--------------------|--|
| IU | Form for evaluation/send to PP | Begin Oct 2010 | |
| PPs | Test evaluation: cases (see datailed table) | Until end Nov 2010 | |
| | Filling of criteria catalogue and assess practicability, transferability, combination adaptation and mitigation | | |
| IU | Conclusions on assessment of practicability / usefulness of information for further development of Adaptation Compass; Send to PP | 02/2011 | |
| All | Further development of evaluation criteria after test evaluation | 6th WG 04/2011 | |
| PP8, PP7 | Test evaluation 1: Water - leper, Tiel East | | |
| PP5 Test evaluation 2: Green - Nijmegen | | | |
| PP2 | P2 Test evaluation 3: Energy / from twinning results? | | |
| PP2 | Test evaluation 4: Urban structure - Arnhem | | |

Working Group 4

Agenda

- 1. Introduction
- 2. Follow-up from 4th WG meeting Target groups
- 3. Fact sheets on awareness raising Draft version
- 4. Focus of the working group for the 2nd half of the project
- 5. Update of Working group planner

1. Introduction

The chair of WG 4, Chantal Lass, welcomes the working group members and explains the agenda.

2. Follow-up from 4th WG meeting - Target groups

The list of target groups for communication measures was amended by IU as agreed at the last working group meeting. The definition of the target group professional schools versus business schools is discussed. As result of the discussion the term business schools in the category "citizens" can be deleted, whereas professional schools are called in England "technical colleges". It is agreed that the terms are used differently in the partners' countries. For clarification and the use in the adaptation compass a short definition or examples should be given. Also, the terms should be consistent with the terms used in the fact sheets.



3. Fact sheets on awareness raising – Draft version

INFRASTRUKTUR & UMWELT developed a draft fact sheet for awareness raising measures which was disseminated with the working group preparation material. The aim is to transform the data base on communication measures prepared by Eveline Huyghe in the first half of the project. Project partners then can add additional information, if needed.

The working group agrees that the fact sheets will be amended with the category "obstacles / constraints / failures".



The categorisation concerning the type of measure (at the moment "information – communication – participation") has to be checked; It is remarked that information and participation are sub-categories of "communication". Ine van den Hurk explains that Tiel is using a definition which comprises five steps from information to participation. It is agreed that this will be send around as basis for further discussion.

Chantal Lass proposes to include communication measures and experiences from other Interreg-projects involved in the cluster *SIC-adapt!*. The working group agrees that a fact sheet format shall be send to the Cluster Leader. The cluster projects can give input if they wish to.

4. Focus of the working group for the 2nd half of the project

Chantal Lass and Eveline Huyghe explain that at the beginning of the project the 1st half was planned to be dedicated to communication measures (in the sense of information and presentation) and the 2nd half for participation measures and strategies. In the discussion it becomes clear that participation examples exist - examples are named by Ilse Dries for West-Vlanders, Ton Verhoeven for Nijmegen - but they should be integrated in a comprehensive communication strategy. Hans van Ammers proposes to invite a communication expert to the next working group meeting in Arnhem, e.g. the communication expert from the city of Arnhem. This will be decided while preparing the 6th working group meeting in detail.

5. Update of working group planner

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|---------------------------|---|--|
| Responsible | Theme / activity | Date |
| IU/feedback WG members | Target group list – definition of terms / examples for adaptation compass | ongoing |
| IU/feedback WG | Revise form fact sheet | November 2010 |
| IU | Send form to SIC adapt for dissemination | December 2010 |
| IU/feedback WG | Complete/follow up on awareness raising "fact sheets" for tool | ongoing / partly until 6 th WG meeting |
| PP7 | Send Five-step definition to IU | November 2010 |
| LP/IU/PP2/chair WG 4 | Check participation of communication expert at 6 th WG | When preparing 6 th WG |



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 dates for the next working meetings:

- 6th WG meeting in Arnhem (PP2): 6th 7th April 2011
- 7th WG meeting in leper or Brugge (PP8): 14th 15th September 2011

In the name of the partnership Eveline Huyghe thanks Emschergenossenschaft and Anke Althoff for the project organisation of the midterm conference and the 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 2nd 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 | Improve and adjust assessment check | Working steps until 6 th WG (decided at 5 th WG) A. List feedback of advisory pool and working group members – conclusions for content and programming IU | ■ Cooperation with housing companies/other parties 1/PP5 NI |
| | | B. Work only on contents, start with module vulnerability check IU/LP, Task force | |
| | | C. Workshop test with task force / other persons of partner organisations as applicable IU/LP, Task force | |
| | | D. Discussion of content of modules filled All | |
| 7 | Improve and adjust assessment check with | Working steps until 7 th WG | |
| 10/2011 | confirmed evaluation results from WG 2 and 3 | Decisions on content / finalisation on contents WG/PP | |
| 8 | Prepare input for final report | Working steps until 8 th WG | ◆ Climate model, adapted, tested in City Region |
| 3/2012 | Climate model as one building stone of | Technical finalisation IU | 4/PP2 AR |
| | assessment check | Applying at PPs PPS | |
| 9 6/2012 | FINAL RESULT INPUT REPORT | | Synthesis report of possible options for combined measures 4/PP6 RS |
| 11/2012 Conf. | FINAL ASSESSMENT CHECK/ PRESENTATION | Report experiences for final report / final conference PPs | |



WG2 - Action Plans: Working Group Planner for 2nd half of project

| Meeting n° /date | WG – topics / agenda | Preparation by PP / chair / Input | Output / products of PP |
|---------------------|--|--|---|
| 6 | twinning reports | Working steps until 6 th WG | ■ Detailed working plans (PP8 WV) |
| 4/2011 | presentation and discussion of twinning results | Requests for twinning (PP1, PP2, PP3, PP4, PP6, PP7) | |
| | | Twinning events t.b.c. (Heat recommendation map, cold-heat storage, maptable, green roofs) | |
| 7 | Preparation of the evaluation report | Working steps until 7 th WG | ■ A climate proof master plan for leper Oostsector (WVI); |
| 10/2011 | ● 4 twinning reports on the improvement of the action plans | Twinning events (blue-green corridor, watergame) | (PP8 WV) |
| | action plans | | Evaluated planning to see, if ecological planning complies with improving the climate proofness of cities (Kamen); (PP1 LV) |
| | | ■ presentation of the status | ■ 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 | ■ An example climate change adaptation plan (strategy and implementation plan) for a city; (PP4 HA) |
| | | ■ presentation of the status | Map of the City Region Arnhem Nijmegen with bottlenecks and opportunities to reach a climate proof region; (PP2 AR) |
| | | ■ presentation of the status | ■ 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 2nd half of project

| WG - meeting n° /date | WG – topics / agenda | | Preparation by PP / chair / Input | | Output / products of PP (as application) |
|-----------------------------|---|---|--|---|---|
| 6 4/2011 | 1st evaluation (interim check) Further development of criteria Presentation of the test evaluation | 1 | Working steps until 6 th WG Test evaluation | • | Implemented solutions green structures and water retention: 2.000 m² green roofs, 1.000 m² green walls, 2 public courtyards 2 ha (Nijmegen, NL); (PP5 NI) |
| | Presentation of the test evaluation | • | | • | 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 | Discussion paper (interim check) WG 1, WG 2 | ◀ | Evaluate PP measures | • | |
| 6/2011 | Input for Adaptation Compass | | | • | |
| 7 10/2011 | Review of interim evaluations Final input for Adaptation Compass | • | input for the evaluation report | | Sustainable industrial area; e.g. green roofs, facades with renewable energy and rainwater disconnection in Bottrop; (PP3 EG) |
| 8 3/2012 | Preparation fo the final evaluation report: conclusions for improvement of the preliminary check of WP 1, of action | • | input the evaluation report | • | Implemented measures for sustainable and climate proof buildings (planned: 10 different measures incl. monitoring); (PP5 NI) |
| | plans and for use in awareness raising; WG 3 | • | 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 | FINAL RESULT INPUT REPORT | • | Evaluation | • | |
| | | • | 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 m²; (PP6 RS) |



WG4 – Targeted Awareness Raising: Working Group Planner for 2nd 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 | Focus on communication strategies (incl. participation strategies) | ■ Working steps until 6 th WG A. Target group list – definition of terms / examples for adaptation compass IU/feedback WG B. Revise form fact sheet IU/feedback WG C. Send form to SIC adapt for dissemination IU D. Complete/follow up on awareness raising "fact sheets" for tool E. Send Five-step definition to IU PP7 F. Check participation of communication expert at 6 th WG LP/IU/PP2/chair WG 4 | Cooperation with housing companies/other parties action 1/PP5 NI |
| 7 | Best practice communication strategies | | ■ Disconnection at Heerener Mühlbach, 2011 |
| 10/2011 | (including participation) | | 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 | | ■ Information sessions (2 or 3); Information counter (1), PP8 |
| 3/2012 | report Support editing of final report | | 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 – |
| 11/2012 Conf. | COMMUNICATION STRATEGIES FOR ADAPTATION — PRESENT | | |



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Fotograf

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Mid-term Conference / 5th Working Group Meeting



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Mid-term Conference / 5th Working Group Meeting



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Presentations (included on CD-ROM)

Wednesday, 29th September 2010

- 1 Regional solutions_Stemplewski.pdf
- 2 Change through Culture_Scheytt.pdf
- 3 View beyond Europe_Sokona.pdf
- 4 From Strategies to Solutions_Althoff.pdf
- 5 Masterplan leper_Huyghe.pdf
- 6 Sustainable watermanagement_de Kort.pdf
- 7 Urban Heat Island_van Ammers.pdf
- 8 Geothermal solution_Ricci.pdf
- 9 Adaptation Compass_Haupter.pdf
- 10 Vulnerability check_Lass.pdf
- 11 Options for water management_Frehmann.pdf
- 12 SIC_Introduction_Heiland.pdf
- 13 Strategic Cluster_Möllers.pdf
- 14 Strategic Cluster_Lang.pdf
- 15 SIC_Discussion_Heiland.pdf
- 16 Future Cities_Gruen.pdf

Thursday, 30th September 2010

- 1 WG1_Althoff.pdf
- 2 Compas to future cities_Bogaert.pdf
- 3 Practical perspective_Niemann.pdf
- 4 WG2_Verrier.pdf
- 5 WG2_Twinning-Energy_Anijs.pdf
- 6 WG3_vandenHurk.pdf
- 7 WG4_Lass.pdf



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