

REPORT IMPLEMENTATION LAB

Kraków Channel Area

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Table of content

1	Preface	5
2	Summary of findings	7
	Introduction	7
	Characteristic of the Kraków case study area	7
	The observation of the Kraków Channel case study area.	9
	Recommendations regarding the what question	13
	Recommendations regarding the how question	19
	Closing remarks	22
3	Kraków Channel Vistula River	23
	Introduction on the City and Region	23
	Future Challenges – the special economic zone	25
	History of Kraków Channel	26
	Future Challenges	28
	Kraków channel	30
4	The Implementation Lab Programme	40
	Workshop format	40
	Workshop Programme	41
5	Assessment the problem statement	43
	Re-defining the problem statement	45
	Focus of the work in this Lab	46
Appendices		
A	List of participants	48
	Curriculum Vitae's	52
B	Introduction to the Kraków case study area	63
C	Presentations	
	Huibert A Haccoû	75
	Volkmar Pamer	79
	Monika Antoniuk	84
	Kinga Racoń	86
	Arjan Otten	89
	David van Vliet	96
	Yuriy Kyvoruchko	101
	Marek Dinka	103
	Stanislaw Denko	105
	Rainer Mueller	110
D	Photo gallery	111



1 Preface

The Implementation Lab in Kraków is the third in a series of the project called Cooperative Urban Planning Approaches (CUPA). As part of the Cooperative Urban Planning Approaches (CUPA) project, partner cities will organize a series of workshops to discuss specific urban planning problems. These workshops intend to provide participants with an opportunity to analyze these problems in a structured manner and develop appropriate solutions. The methodology and structure to be used is derived from the INTERREG IIIc project MILUnet (Multifunctional and Intensive Land Use network).

The CUPA project was initiated by the Municipal Department 21 B - District Planning and Land use and the Municipal Department 27 European Affairs of the City of Vienna. These two Municipal Departments worked closely with the TINAVIENNA Urban Technologies and Strategies GmbH and have embedded this initiative in the DonauHanse network to the aims of which it also intends to contribute. In terms of the strategy for sharing Vienna's Urban Technologies with other cities, this project covers the area of city development and planning. The project makes use of the expertise of Vienna city departments in the workshops and organization.

The project will be well publicized, thus providing wide knowledge of the project in cities and countries facing similar problems and showcasing technical expertise and know-how.

Workshop partner cities:

1. Vienna, Austria
2. Bratislava, Slovakia
3. Lviv Ukraine
4. Kraków, Poland
5. Novi Sad, Serbia
6. Lublin Poland
7. Vidin, Bulgaria
8. Odessa, Ukraine

Potential partner cities

1. Budapest Hungary
2. Belgrade Serbia

To create comparability and develop a common body of knowledge, the workshops follow a standardized structure. Each workshop lasts 3 days and has approximately 25 participants. The participants include 1-2 experts from each of the cities participating in the project and 50% local experts from the city in which the workshop is being held.

In the workshop preparation phase each city prepares an analysis of the specific problem area to be discussed in their workshop, and distributes this information (as well as additional supporting documentation) to the other participating cities in advance.

The International Intersivision Institute is invited to assist the Viennese initiating departments with the organisation, facilitation and reporting of the Implementation Lab's results, drawing on the expertise that was developed in the EU Interreg IIIc project MILUnet.



Typical Workshop Agenda

Day 1: Site visit, lecture(s) from expert(s) on topics relevant to the issue being discussed in the workshop (e.g. best practices, bad practices, basic themes, etc.).

Day 2: Implementation Labs (IL): these consist of 4 small groups with 5 - 7 persons per group. The small groups will exchange observations and suggestions in terms of: identity, connections, critical mass, marketing, human scale, promotion and marketing, process. Each group will be led by a facilitator who will be responsible for moderating the discussion and keeping it on track.

Each working group will consider the problems in terms of the workshop objectives and then will formulate suggestions for improvement. During the day these suggestions will be clustered and refined by the group and linked to suggestions developed by the other groups. This process will lead to the formation of a well focused set of tasks to work on in the last round.

Day 3: On the third day the groups will develop recommendations for local decision-makers, based on the tasks identified in Day 2 and prepare a summary presentation of these recommendations (e.g. PowerPoint presentation). The summary presentation will outline the workshop recommendations and be targeted to decision-makers. Local media (e.g. newspapers, television) will be invited to attend the summary presentation.

2 Summary of findings

Introduction

The Kraków Implementation Lab focuses on the Kraków Channel Area and came to observations and suggestions after having studied extensively the study case dossier and after having received the input of seven source persons that presented their views on the study case and after having visited the area by bus and on foot. All this enabled the participating international practitioners from six different nationalities to develop their own judgement on the problem statement as put forward by the host.

The first round of discussions about the problem statements led to a rephrasing of two questions:

- Is there, with the knowledge of today, a need for a Channel in the area tomorrow?
- What spatial development scenario for the area would add value to Kraków?

After the brainstorm phase that resulted in observations and suggestions, the participants were invited to work in separate groups on four separate tasks. These tasks were:

- Develop a **process architecture** that embraces the spatial programme for the case study area where a strategic spatial reserve will be kept for future developments regarding climate change but that will be made functional for the Kraków population in the sense that it adds value and functions to City of Kraków and present this in a power point presentation. The plan indicates principles and a step by step implementation plan.
- **Provide a detailed map** where, what type of function in what density (low middle or high) may be developed.
- **Provide ideas for interim use** of the spatial reserve for the coming fifty years.
- Develop a **spatial programme** in one worked out a plan where a strategic spatial reserve will be kept at least for another 50 years for future developments regarding climate change, but that will be made functional for the Kraków population in the sense that it adds value and functions to city of Kraków.

The resulting recommendations were delivered in a power point presentation that was presented at a public meeting on Friday 14 of October at 11.00 hours. This rounded off the implementation lab about the Kraków Channel case study area.

The following summary of findings elaborates on the power point presentation that was presented by the contributing IL participants and includes the recommendations of the international group of practitioners.

Characteristic of the Kraków case study area *)

The case study area with its landscape, despite the proximity to the city center, is characterized by a high proportion of green areas and surface waters. Marii Konopnickiej Street and Kapelanka Street are one of the most busy arteries of urban space of the analyzed part of the city. They also represent important axes of the urban traffic system around the city. The remainder of the analyzed area can be described as peaceful and free from the bustle of the city place.

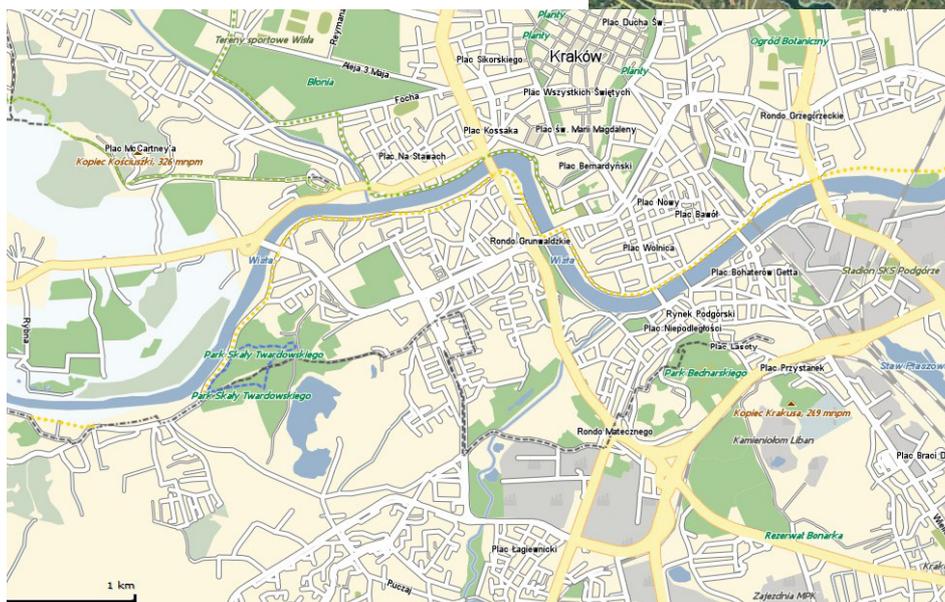
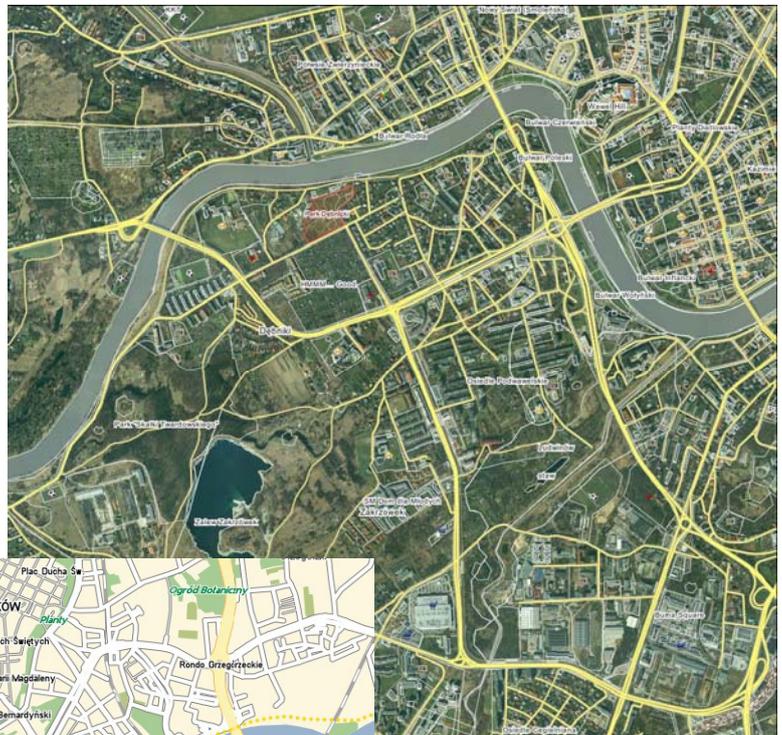
The areas of surface waters are: Vistula River - in the north, Wilga River together with the stream along the Norymberska street - in the south, and a large area of Zakrzówek Lake as well.

There are extensive natural green areas along Wilga River. Also the landscape located north of Pychowicka street and around the Zakrzówek Lake may be classified as natural green areas of the dominant shrubs and meadows (Bielarńsko-Tyniecki Landscape Park), which is a place for rest and recreation.

*) See for the detailed information about the study case area 3.

This applies mainly to the **Zakrzówek Lake**, that is characterized by steep, rocky shores. The largest area of woodland is located between the Vistula River and the Zakrzówek Lake. Housing estates and residential development are mainly concentrated in the eastern part of the analyzed area - north and south of the Wilga and along Marii Konopnickiej Street and Kapelanka Street. There is also Pychowice housing estate located to the west of the case study area. Finally, there are allotments located by Wilga River, in the area between Marii Konopnickiej Street and Kapelanka Street.

District VIII- Dębniki (see the red zone in the Google map) has a surface area of 4.216 ha and houses a Population of: 53.391 persons. The first time we heard about Debniki, previously known as a separate village, was in 1254. In the 19th century Rybaki village joined Debniki. In 1888 the bridge Kraków-Bonarka over the Vistula River was built by Austrians and rebuilt in 1910. In II World War it was blown up and rebuilt again in 1952. In the beginning of 20th century Debniki village merged with the City of Kraków. The project of Debniki as garden district unfortunately was unfulfilled. In 1990 the 8th district of Kraków was created and called Debniki. Debniki encompasses also the villages: Kostrze, Bodzow, Skotniki, Pychowice and also Zakrzówek, Ruczaj and Podwawelskie.



The observations of the Kraków Channel case study area

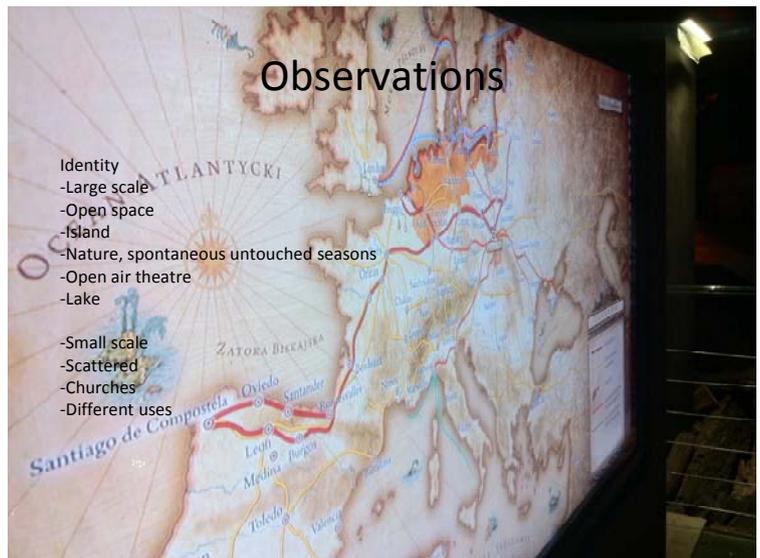
At first the observation offered the opportunity to create common ground and share impressions of the main characteristics of the case study area. The observations were made according to the considerations that give structure and offer comparison to the cases that are studied in the framework of the CUPA programme. These considerations are the following: identity, connections, critical mass, marketing, human scale, promotion and marketing, process.

Identity

What was observed that could be related to the identity of the area?

The City of Kraków

The historical center is still providing Kraków its main identity of a medieval city with religious spirituality. Wherever you are in the City of Kraków the Wawel Castle, towering over the river Vistula, is dominant in the area. This is emphasised by the statue of the dragon, reflecting an important story of the City of Kraków. Another characteristic asset is the green belt of parks around the center, situated on the site of the former city fortifications. Besides the historical center, the Jewish district of Kasimierz and the extension of Kraków under the communist regime, the Nuva Huta area, have their specific identities.



The Channel area

The channel area can be identified as a whole (on a large scale) and falls apart in different specific identities on the smaller level of scale.

Large scale

Crossing the river Vistula from the city center seems like entering a peripheral island. It is “the other side”. It has no connection in philosophy with the historical center of Kraków itself.

The area is lacking structure, it consists of several sites with uncoordinated development with large open spaces in between. It is these open spaces that give room to beautiful spontaneous nature, the almost untouched cliffs at the lake site are really special. Also the unused space along the riverbank is characteristic for the area. However, the values and potentials of these places are not respected. The lake-site and banks in the north feels abandoned and neglected. This is awkward because the distance to the living areas, the campus of the university and the city center is relatively short.

The area is for sure a mixed area. Recreation, nature, living and the university campus are present in the area, however they all function as small islands on their own and are not fused as a dynamic part of the City.

Small scale

The green area and the lake-site:

The green area in which the lake is situated has a romantic and peaceful identity, free from the bustle of the city. The area is used for recreational purposes like jogging and walking, but not in a dense way. Infrastructure like bike lanes, walking paths and recreational facilities are not present, which strengthens the feeling of being in plain nature, but also contributes to the feeling of being in an abandoned and neglected place.

The lake itself has identity, high quality of potential public space, it already is used for special public events like the open air theatre. People of Kraków know this place, love it because of its special identity. The dangerous

rocks and steep slopes are beautiful but improving their safety must be given priority when the area will be opened for public use.

The neighborhoods:

There are a lot of scattered neighborhoods. You can almost feel the different developers fighting each other. The Debnicki area is a village-like neighborhood with a mix of high quality living areas but also some slightly deteriorated parts.

Other neighborhoods seem less cohesive and the presence of gates around several properties give a feeling of lack of a social cohesion. Which might not be true, well kept allotment gardens and school gardens tell another story. Also there are a lot of churches, which point out the spiritual identity of Kraków. The modernistic cathedral built in the 80's strengthens this identity.

The river bank:

The waterfront along the Vistula River does not have an urban character, it is hardly developed at all, also the river itself is hardly used for transportation. On the east side of the area unstructured developments and the wide road Marii Konopnickiej determines the main characteristic, the built up area turns its back towards the river. Fortunately there are some facilities for walking, and an urban beach is developed, but the banks have a much larger development potential. The eye-catcher along the river is the former hotel from communist times which determines the identity of the river bank.

Critical Mass

What was observed that is related to critical mass ?

Kraków is a vivid city. You can tell right away that there are a lot of universities in Kraków. Students and young couples are dominant in the street life of Kraków. Not only in the city center where many young people come to spend their free time, but also along the riverbank opposite of the Wawel castle and in the natural areas skaters, bikers, pedestrians and joggers are present. The knowledge and creative industry is represented in the City of Kraków. This is a group of great importance for the future economical development of the of Kraków. Next to its inhabitants, Kraków is a touristic city. The castle, the historical center, Kasimierz and the history in Nuva Huta are important for the critical mass of people visiting Kraków. However the tourists stay mostly at the city side of the river Vistula and hardly cross it. The other side of the river has potential to develop, the balloon is already attracting tourist passengers.



The neighborhoods in the channel area are mainly residential areas of relative low density. Functions on central/regional level are not present. The vicinity of the university campus, the green and the city center make the area a place with high potential to develop a good part of the necessary housing, instead of developing more suburbs far from the center. To create a vibrant part of the city some central functions could be developed and densification could start at the landing of the two bridges. Secondly a lot of green is underused. There is a large potential for recreational purposes, so close to the city.

Human scale

Observations on human scale were:

The human scale of the site tells something about how it feels, about its *genus loci* and if the sizes of the site are connected to our human sense of scale.

In the different neighborhoods in the channel area the buildings have a human scale; they're not higher than the highest tree. The distance between the houses is pleasant. Especially the Debnicki area has a good human scale. However, the fences around different properties make quite some residential areas unsafe and with that not human friendly. Gated communities might provide safety inside but create an unsafe environment for visitors and other inhabitants outside of the fences. Because of the fences the public spaces are literally excluded areas, which makes them anonymous and provide an unsafe feeling.

On the other hand, there are several allotment gardens, they show us that there is a human engagement within the area. People are taking good care of their gardens. Also children play gardens or school gardens also show this kind of engagement.



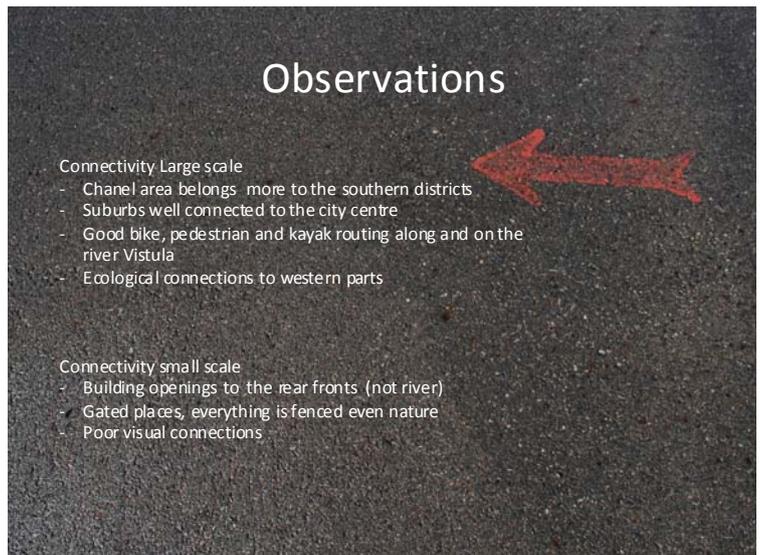
The green area is valuable and beautiful, but unsafe for pedestrians because of the lack of paved paths, also there is no lightning what so ever. The riverbank provides good walking and biking lanes for recreational use, but the wide road Marii Konopnickiej is cutting off Debnicki neighborhood from this part of the riverbank.

Connectivity, large and small scale

Observations here concern the connectivity within the study case area as well as its embedding in its context.

The area as a whole is well connected with the surrounding suburban areas in the south and west, including the campus. The channel area is in its appearance more similar to the south-western districts than to the center of Kraków. It is a residential and leisure site. The construction of a channel might endanger those connections making the area a real island.

Two bridges connect the area with the city, which is sufficient for car traffic and public transport. For slow traffic like bikes and pedestrians this connection to the center could be improved, there is a good visible connection to the Wawel castle but the river is a barrier. To cross the river towards the castle by bike or on foot, is a relatively long way via wide and busy roads.



The connection between the residential areas and the riverbank is blocked by the road Marii Konopnickiej, parallel to the river. The buildings do not open to the river, but are situated with their back towards it. Also the gated communities block connections within neighborhoods.

Within the area, the different neighborhoods are not well connected to each other. There are only a few narrow roads or unpaved paths between those areas. The lake is not at all accessible, while there are some possibilities to provide a safe access.

An ecological connection is now present between the green corridor coming in the west in which the river Vistula is situated and the green corridor to the south in which the river Wilga is situated.

Promotion and Marketing

Observations regarding promotion and marketing options:

Especially the green area is well known by the Krakówians. Its called Zakrzowe. It's green and mystic identity is its own promotion which goes from mouth to mouth in Kraków. The outdoor theatre is well respected. Developers of several sites promote the new housing projects making use of the green area as an asset. But again as the areas set up is scattered this promotion is also scattered.

The area has a great potential to promote, as a place for contemporary cultural and art area versus the old town but also for harbor and marine developments, using the river as an asset.



Process Architecture

Observations on the process architecture

The most important observation we made is the lack of a conception for the area on a higher level. No ambitions are set and no surplus value is indicated.

This lack of a plan is causing the scattered development and disables the city to address additional values which could be realised when having a holistic approach.

A strong local opposition against change is present, therefore key players should be involved in the making of a strategy and vision in which the different interests will be incorporated. Amongst others those should be the representatives from the surrounding housing estates and the university. If no such vision and strategy will be produced, the area will develop but in a scattered way, without making use of its potentials.



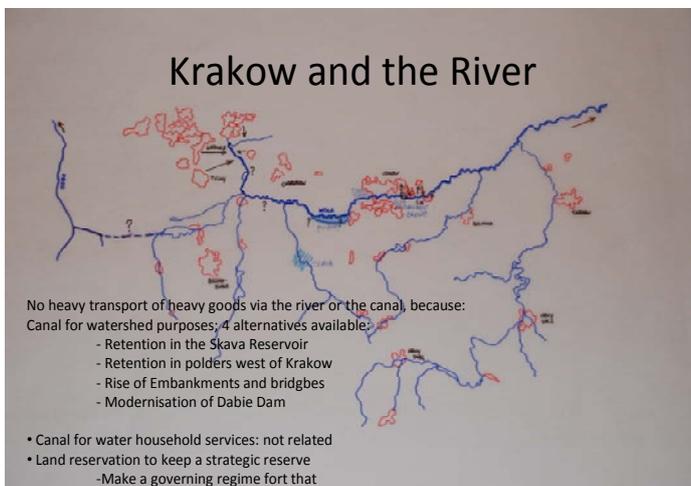
Part of this process is research on several issues like:

- possibilities for transport via the river versus other ways of transport,
- flood protection,
- demographic development and attached to that: housing needs,
- recreational possibilities for the green areas and for the river with its banks.

All these observations that every participant endorses, led to the following suggestions inspired by the same six considerations.

Recommendations regarding the what question

The need for a channel



Krakow and the River

Conclusion

Keep the Canal zone free for a long term (50-100 years):

- Make a land-use plan to accommodate this
- If needed: Make a land exchange programme (or the city should purchase the land)

The necessity of the channel should be evaluated. With the information available we tried to make a quick scan of the main reasons to build the channel.

Navigation:

The need for a channel around the City of Kraków to provide better navigation of the Vistula river should be related to the barriers preventing navigation on the Vistula river up and downstream. Potential freight might come from or go to the Katowice area. Lots of barriers in the river Vistula will most probably prevent this to happen. Secondly the river Vistula will not function as a transportation axis between Katowice and Warsaw and the East Sea. Katowice has a better access towards the North via the river Odra. For possible freight from Kraków itself towards the North the curve in Kraków will not be a barrier because it is not part of that route. For recreational navigation purposes the curve in Kraków is no barrier.

Water management:

The need for a channel around the City of Kraków to reduce the risk of flooding should be related to other options to prevent flooding. Four alternatives were indicated (see map):

- Retention in the Skava reservoir
- Retention in the polders west of Kraków
- Rise of Embankment and bridges
- Modernisation of the Dable Dam
- Removing obstacles in the riverbed

Based upon the information we received and the expertise in our group these measures are less costly and should be sufficient to solve the present problems with flooding in Kraków for the short and medium term.

We concluded that there is no direct need to consider a channel for water management purposes. However we cannot predict the effects of climate change in the longer term.

Conclusion

Make a strategic reserve of space for the channel for a period of at least 50 to 100 years.

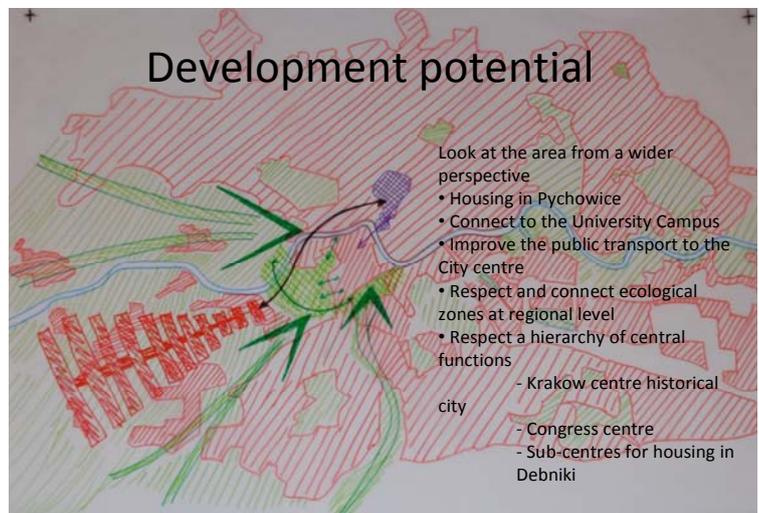
To realise this land-reservation a land use plan for the area must be produced, in which the channel zone can be used in the “interim” period for green recreational purposes. If there is a need for the channel this land-reservation can be used to construct it.

When land in the channel zone is owned by private parties at this moment, a land exchange programme must be set up, or the city should purchase the land.

Area development needs and potential

When making a plan for the development of the area, also other development needs in the Kraków region must be considered. Especially the need for 100.000 additional houses in the coming decades will have a large impact. This large amount of houses can not be realised in the channel area alone. A regional development strategy is needed.

Choices made in this plan have impact on the channel area. The area is the entrance to the city center for south-western suburbs. When extension of the city in that direction will take place, the pressure on the channel area will increase. Presently the traffic is already dense and when more south-western extensions will develop, this will definitely increase accordingly.



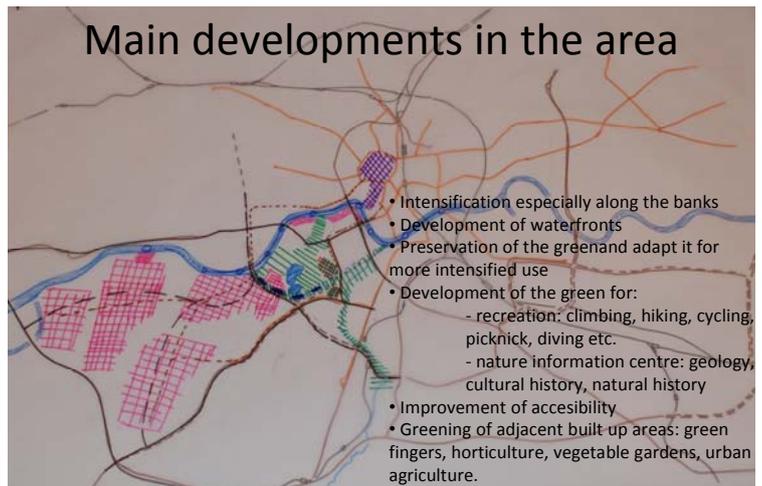
A well planned regional development strategy for the 100.000 additional houses can also be a challenge for the channel area; the area can benefit from it. There are good chances for better public transport and for the development of a dynamic urban environment. The attractive situation close to the center and university campus is already an big asset.

The potential for the channel area to develop as a large residential suburb-like area is very present and makes the area extremely vulnerable for further scattered developments. We think the channel area is situated ideally to develop into a more vibrant and dynamic part of the city, especially along the riverbanks. The channel area should not compete with the historical city center but provide added value to it. A congress facility with adjacent developments like hotels and restaurants will contribute to the dynamics of the river bank.

A regional development plan can help to strengthen this new identity for the channel area by the strategic positioning of new housing development areas, and by providing space for family house developments in relative low density. A potential area for this is Pychowice. Pychowice is situated west of the channel area and will be well connected to the 3rd ring road with its new bridge over the river Vistula. Pychowice is situated closely to the university campus which makes it an attractive place to live for students as well as for personnel of the university. Development of Pychowice will provide critical mass for a new public transport connection over this new bridge via the northern bank with branches from Pychowice, the channel area and the university campus. Also a public water transport connection via the river Vistula to Pychowice is an option with stops along the riverbanks in the channel area.

When developing Pychowice as a new housing area, the traffic pressure on the channel area will be less compared to development of more housing areas in the southwest. The 3rd ring and the bridge will be the main connection to the city center for the Pychowice area. The present public transport system will be extended and improved by the new connection with enough critical mass to exploit it.

The riverbanks are a large potential to develop. Especially, close to the city center a higher density of building is possible and expresses the central situation. Therefore intensification of the existing neighborhoods on the north side of the channel area (which means along the south bank of the river) is a logical choice. To develop a new waterfront, a vast part of the bank can be built up with new developments, but also some regeneration needs to be done in this part of Debnicki. Logical places to make high density is at the landing of the bridges. Towards the green area the density can decrease, ending in green neighborhoods with a smooth transition to the green. Further to the west along the south bank of the river Vistula we propose to develop new areas with lower density, as described before in the proposal to develop Pychowice. Developing the areas along the river create possibilities for public water transport. Such a system will improve the connections between the area and the city center but also provide new possibilities for pedestrians and bikers to cross the river. Such a river crossing should be realised at the foot of the Wawel castle.

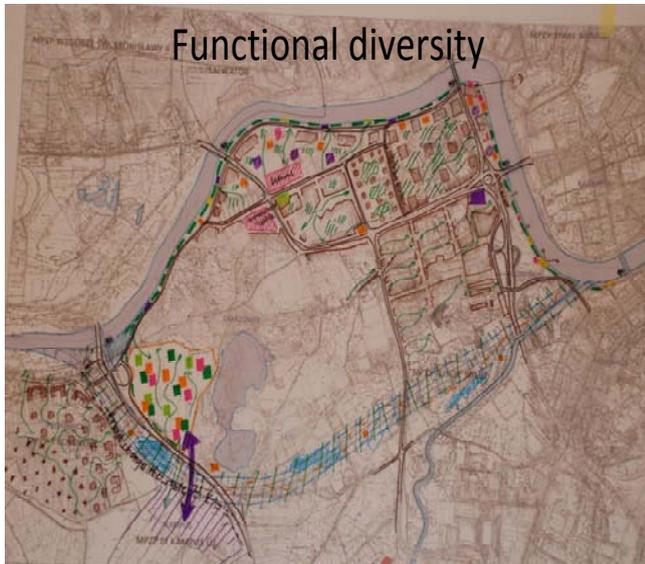


The land-reservation for the channel will contribute to safeguard green space and will connect the western (Vistula) and southern (Wilga) green regional corridors providing the channel area with an attractive green belt. Inhabitants of Pychowice and the channel area can benefit from the green in the channel area providing a larger need for the recreational development of this green area. A much better accessibility of the green area with footpaths and bike lanes should be developed. Also the existing lake must become accessible for the larger public with a safe entrance to the water. The existing residential areas bordering this green belt should be 'greened' emphasizing their situation in the ecological connection of the green regional corridors. This might be done by changing streets in green, car free lanes, functioning as green fingers in the built up area. In the green area and belt, space could be provided for implementing urban agriculture, horticulture and allotment gardens.



Special attention should be given to the proper situation of the 3rd ring road. The road might be a barrier between Pychowice and the green and must be carefully situated to avoid blocking the possible future construction of the channel.

Functional diversity without fences

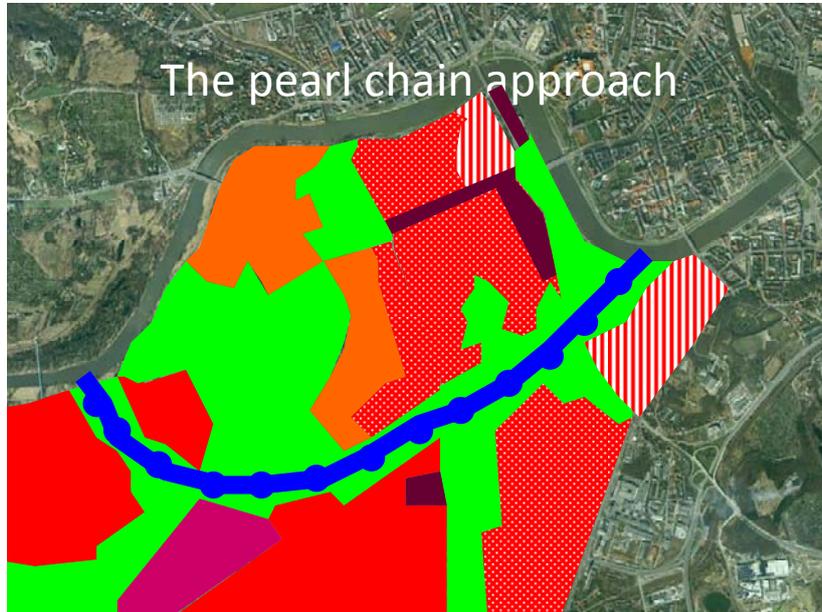


The diversity of functions is essential in the area. It has to be a full functional area, with schools, kinder gardens, shops, supermarkets, coffee bars, small and medium enterprises and street life. It has to be a full and highly connected area of Kraków. The vivid city life of Kraków center can be partly organised in a new way along the river side. The critical mass of the students, young families and the people working at the universities are the main target group of the area. It might be interesting to research the housing market potential.

A mix of commercial real estate and student houses or social housing for young families should be realised. It can be mixed with for example art ateliers. Students that can create art with the nice view on the City of Kraków and at the same time expose their art along the river bank. This can give an extra reason for more people to cross the river. Events will put the area on the mental map of the visitors and inhabitants of the city. The open air theatre is one good example that this can work. Keep on exploring other possibilities!

On the spots where the bridges land on the other side of the Vistula river a higher density is proposed. This gives a potential critical mass as well as a landmark that shows where the connections are.

The pearl chain as a development vision



-  1 Upgrading/densification of existing mixed-use areas
-  2 Upgrading of mixed use areas including clearance of fenced zones – improving connectivity issues
-  3 Upgrading and densification of commercial zones and functions of public interest (e.g. Arata Isozaki Museum and surroundings)
-  4 Residential zones with higher density (closer to centre AND main leisure/pleasure zones)
-  5 Residential zones with lesser density (not low density)
-  6 University area
-  7 Green areas

According to the fact, that there is no real shortage of apartments at the moment, the focus has to be on regenerating the existing and already developed areas close to the river (1). To raise the attractiveness of these mixed use areas it is necessary to form a beautiful Kraków also on the other side of the Vistula river. It is not only the touristic part of the city that is important. At the same time a fancy area opposite the Wawel is a germ cell for a positive further development.

The upgrading of the existing large scale mixed use areas (2) has to focus on the fact, that the amorphous and in many parts fenced area has to become more homogeneous in all. Break down the barriers, enhance the connectivity (external links and internal links) to make the areas part of the entire structure.

Accompanying the commercial areas and the areas of general public interest (3) - like the Arata Isozaki Museum - have to be improved. The main entrance area of the museum for instance is unattractive and influences the whole surrounding negatively. The whole waterfront has to have a more coherent appearance.

New residential areas with higher density should be developed closer to the city center and to the most attractive parts of the proposed 'White Cliffs Recreation Zone'. There are already fantastic plans existing which should be realised. Merely close to the lake the green corridor should be a little wider than in the proposed plans (4). Areas with lesser density (but not to less) should be provided for residential function (if there is a higher demand of apartments in the future) (5).

Riverbank as bike and pedestrian routing with.... entertainment



Vivid River activities & Vivid River bank activities



Lake as recreational area



Recommendations regarding the how question

Flow chart Process Architecture



Our suggestions concerning the development process have been put down in the scheme above, following two potential flowcharts: one chart for the steps to be taken towards a more full term development concept, and one chart for the process of decision making including the major stakeholders and a directive role for the City Government.

Steps to be taken:

In our reasoning there is a following order in 5 different phases:

1: Knowing, 2: Vision making, 3: Making operational, 4: Implementing, 5: Evaluation

1: Knowing

The first step consists of a few basic actions. The land ownership and land use in the area needs to be fully investigated and assessed. The planning process should be determined in broad lines, working from regional level down to the distinct parts of the area. This should be confronted with the general urbanisation strategy of the city as a whole and this area as intrinsic part of the whole. Furthermore a reasonably complete overview of the stakeholders in the area needs to be drawn up, including an analysis of the investment potentials and possible social support by NGO's.

This first step implies data collection and supplementary research. It will bring a general direction, in broad lines, for the area development perspective, and an inventory of both analysed risks and opportunities to be worked at later on. And it provides ideas about possible "ambassadors" or "advocates" for the development vision in the next stages of the process.

2: Vision making

All possible ideas for the area need to be brought together in a master plan, including elements that will be economically feasible, socially acceptable, and inspiring in terms of adding value to the existing living conditions,

production requirements and green values. The information sources need to be organised around this master plan process so that everyone involved can have access to the same information.

An “open” plan making process is recommended, because it will bring “out of the box thinking” and therefore new creativity to the area. It will involve many actors which is good for developing a broad mental ownership and identification. It is wise to organise this phase in such a way that co-production will be enhanced.

In any case one of the elements, the master plan will have to address is the densification of the waterfronts, especially in those places where infrastructure connects the area across the river to the historic center of Kraków. Other elements that need spatial capacity in the plan are urban green, recreational green, the university campus, and the services related to living and economy.

Based on the resulting master plan, letters of intent, signed by the developing parties could already be put in place. It is our advice to subdivide the area into several distinct development “envelopes”, for which parties can be brought together in a development contract later on.

3: Making operational

This is the phase in which the master plan is transformed into more practical operational forms of plan making, and eventually into binding land use plans.

The process has to be made synoptic, accommodated by a time schedule.

The part of public investment needs to be determined here and further specified.

4: Implementing

We advise the City Government to take the lead in a tendering process, for which it must determine a strategy. Our idea is that developers and investors are invited to present competing bid books for specifically determined parts of the area plan: the envelopes.

For this purpose the city needs to draw up a document containing the terms of reference for the development of each of the envelopes, including targets as financing, time limits, functions, (amongst others), to be distributed to the carefully selected candidates in a tendering process.

The selection of bid books and the choice of the best offer, will be followed by envelope-contracts, including performance demands concerning the whole executive phase: time, following order, spreading of cash flow, cost levels, risks of damage, etc.

5: Evaluation

During the executive phase a continuous evaluation of interim results will have to take place, possibly followed by adjustments in the plan or the budget, and accompanied by feedbacks from stakeholders.

Decision Making Process to be followed

We identify several phases in the decision making process, directly connected to the steps in plan making and execution: 1: Starting-up, 2: Collecting interest, 3: Formalisation, 4: Operational phase, 5: Evaluation.

1: Starting-up

This is the phase where the general intentions need to be verified in terms of political and social backing. Regional, district and urban governments will be asked to support the general ideas and directions for this area in broad lines, in terms of content and process.

It will be wise to establish a special committee from the City Council, in order to allow the Council to follow the developments closely, and if needed to discuss confidential matters.

2: Collecting interest

In order to verify the common interest and needs concerning new developments in the area, the city will objectively investigate the market and consult the important parties in Kraków about their ambitions and possibilities. A public hearing or an urban conference about the potencies of the area will be most advisable.

Based on the results of this round, the master plan ideas can be verified in terms of feasibility or political/social desirability.

3: Formalisation

At a certain point the discussion needs to be rounded up and the master plan made final by Council decision. Subsequently the same procedure will apply to the further elaborated land use plans, the definition of the envelopes and their terms of reference for development. The end of this phase requires a celebration; in broadcasting and newspapers. It is a marked point in the whole process and it will be important that the news is effectively spread.

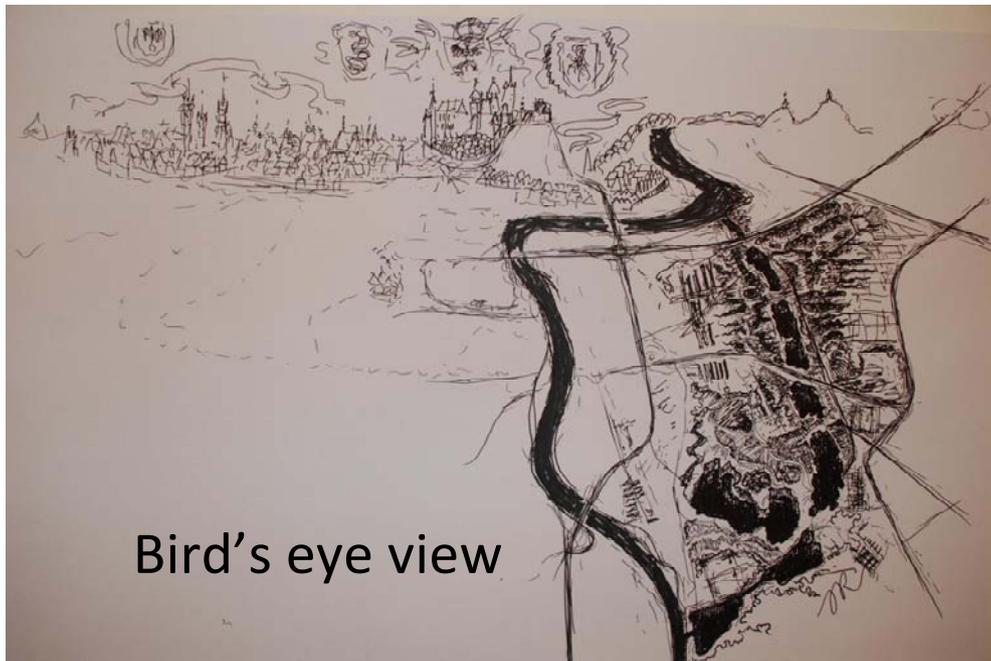
4: Operational phase

This is the phase where the tendering process will have produced results and the City Government will have to make final decisions concerning the extent of public financing or investing in public services. This too will be a moment of broadcasting and press notices. It will imply the final go-moment for the plan.

5: Evaluation

During the operational process the City Council will follow the development process and monitor its progress closely through regular feed backs and field visits. Local interest groups have a role here. Adjustments can be made during the process, according to the legal conditions laid down in the development contracts, and based on Council support.

The whole of the process will need to be much further elaborated than we can describe here, and is preferably accompanied by a comprehensive network planning scheme. During the ride the City Council and the designated alderman will be consulted regularly at indicated moments. A project leader at the City Hall and a specifically commissioned project group, directly reporting to City Government, will be conditional. The special Council committee that we recommend for this process, will be involved at least each time a Council decision needs to be prepared. We advise also to consult local interest groups and urban NGO's in all phases and allow them to have a say, either in public hearings or smaller neighborhood groups in the operational phases, and in city conferences in the more strategic phase in the beginning.



Closing remarks

Given the substantial higher economic growth rates of the mid European economies as compared to western European economies, it is good to realize that international operating development companies are more than willing to invest in development of important Polish cities like Kraków.

The ground positions that are already taken by foreign (Portuguese and Spanish) development companies could block the spatial strategy of leaving the Kraków Channels area as a strategic spatial reserve. In that case one could consider to buy them out or swap their ground positions for other positions eg in Nova Nova Huta district.

And offer them in this way development envelopes that can be expected to have a return on investment in a shorter period of time than the fifty years or more that is recommended to keep the Channel track area available for flexible spatial uses.

Although a strategic spatial reserve is considered of vital importance for the coming generations to enable them to use it for the urgencies that could stem from climate change or other developments still unforeseen, this does not necessarily mean that the strategic reserve should not be used and left as it is. On the contrary ! It should be used to add value to the city of Kraków and its citizens. The state it is in, at this moment, could greatly be improved by simple upkeep and care to make it a place where people want to be, and spent quality time there with their family. So the dangerous circumstances around the Zakrzówek lake have to be remediated urgently. In this way larger parts of the Kraków Citizenship will become attached to this strategic reserve area which facilitates the political will to keep it as such.

The leverage of the Municipality in the negotiation with developers can greatly be enhanced by creating envelopes of projects for which a tendering procedure is started. These project envelopes should contain a mixture of high yielding- and low yielding projects, public space investments and private housing developments projects etc.

A spatial reserve for the track of the Kraków Channel could be made to be part of these project envelopes and, more precisely the interim use functions that could last for 50 years or more.

3 Kraków Channel Vistula River

Andrzej Wyzykowski - Alicja Prokopowicz

Introduction on the City and Region

Main Characteristics

Krakow is the second biggest city in Poland and the capital city of the Malopolska Region. Once royal, today spiritual capital of Poland.

Krakow technical & infrastructure potential

It is situated around 300 km south of Warsaw at the intersection of important transport routes. Roads and railway routes running in the vicinity of Krakow connect the Baltic Sea with the south of Europe (the Gdansk – Budapest road) as well as the Eastern Europe with the Western Europe (the Frankfurt – Kyiv road).

The John Paul II International Airport Krakow – Balice is situated near the city. It is one of the biggest airports in Poland providing direct connections from the capital city of Małopolska to cities in Poland (Warsaw, Gdansk, Poznan), Europe (52 airports in 17 countries) and North America (Chicago, New York). In 2010 there were 16 airlines, 9 traditional and 7 low-cost, permanently operating flights from and to the Krakow Airport, the Airport's services also included charter flights.

According to Forbes (2008) Krakow has best city transportation net in Poland.

Demographic potential of the city and the region

In the mid-2010 Krakow had 755,546 inhabitants and a positive birth rate amounting to 1.3 ‰. At the same time the migration balance was also positive. Krakow is the second biggest city in Poland in terms of population and almost 60 % of its inhabitants are young people who are less than 44 years old. Not only Krakow, but the whole region is characterized by high demographic potential. The suburban area is inhabited by 1,500,000 people and around 8,000,000 people live within a hundred-kilometer radius from the city.

Facts and figures

Malopolsa Region (Voivodeship) covers an area of 15 182km² and it is one of smallest regions in Poland - 12th place out of 18. With population of 3 300 000, Krakow is the capital city of the region.

There are 12 other cities and towns in Malopolska Region having population bigger than 20 000 but second large city - Tarnow - has only about 115 000 inhabitants.

Covering an area of 327 km² the city of Krakow is divided into 18 districts.





- 756 000 inhabitants
- 500 000 persons in productive age
- 196 000 employees in enterprises sector, private - 175 000, public - 21 000
- 21% with university degree
- 5,0% unemployment rate

Scientific potential of Krakow:

Krakow is one of the most important academic centers in Poland. Over 212,000 people, i. e. 10 % of all students in Poland, study in 23 universities and colleges. 13,000 academic teachers, including 1,400 professors are responsible for their education.

Every year over 45,000 students graduate from the Krakow universities and colleges, most of them from the Jagiellonian University, the AGH University of Science and Technology, the Krakow University of Economics and the Krakow University of Technology.

Almost 13 % of the Polish academic staff are teachers of the Krakow universities and colleges.

Cooperation of universities and colleges with research and development units, as well as hi-tech companies contributes to establishment of research and development centers in Krakow (Centers for Advanced Technologies, Centers of Excellence, Technology Transfer Centers and Research and Development Centers of companies).

Another example of cooperation between science, business and self-government in our city includes clusters embracing enterprises, universities, research units which, despite the fact that they conduct separate, competing activities, cooperate in certain areas, e. g. they conduct research and development works together.

Krakow touristic attractiveness potential:

The historic center of Krakow, together with the Wieliczka Salt Mine located in its vicinity, were entered to the first UNESCO World Heritage list in 1978. Also AUSCHWITZ-BIRKENAU German Nazi Concentration and Extermination Camp that was inscribed on the World Heritage List in 1979 needs to be mentioned here as an important part of region's potential and it's located about 75 km away from Krakow.

The City's magic consists of the unique complex of architecture, art and culture (more than 25% of the resources of the Polish works of art is gathered in Kraków). The beauty of monuments, the possibility of exploring the city on foot, diversity of restaurants and pubs, artistic events and, above all – the magical atmosphere of Krakow – attract many tourists from Poland and abroad. The city belongs to one of the most often visited places in Poland and in Europe. In 2010 Krakow was visited by 8,150,000 people, including 2,100,000 foreign guests. Most of the



foreigners coming to Krakow are citizens of Great Britain, Germany, Italy, France, Spain and the USA. Krakow "after hours" offers among other attractions: 40 museums, 15 theatres and 14 cinemas. Krakow is also called the City of John Paul II, more than 2 million pilgrims visited Krakow last year.

Future Challenges – the special economic zone

Krakow business potential:

The Special Economic Zone sub-zones operating within the city altogether have around 86 ha, including 58 ha of developed land. They offer state aid of a certain range, as well as attractive green land and office space of the highest class to investors. The Special Economic Zone is available to almost all companies operating in the sector of traditional industry and some service sector enterprises, including IT, research and development, accounting and audit, bookkeeping, technical research and analyses as well as call center companies.

At the moment in Krakow the hi-tech sector as well as the sector of specialized services are developing particularly dynamically.

Currently in our city, in the area of the Special Economic Zone, there are around 50 companies of the kind, employing over 16,000 people. Among the above companies the BPO (Business Process Outsourcing) sector firms are especially important for the Krakow job market.

In the Global Services and Tholons ranking for 2010 Krakow took the first place on the list of ten emerging locations for outsourcing. No other Polish city was included in the ranking.

There are also 109 960 small and medium enterprises, 13 000 commercial companies, 2 500 foreign companies in Krakow.

Credit rating:

Since 1997 Krakow has been undergoing annual credit rating conducted by an international rating agency Standard and Poor's. In 2008, as the first city in Poland, Krakow improved its credit rating from "BBB + / Positive Outlook" to "A- / Stable Outlook". The city kept its A- credit rating in 2010.

History of Kraków Channel

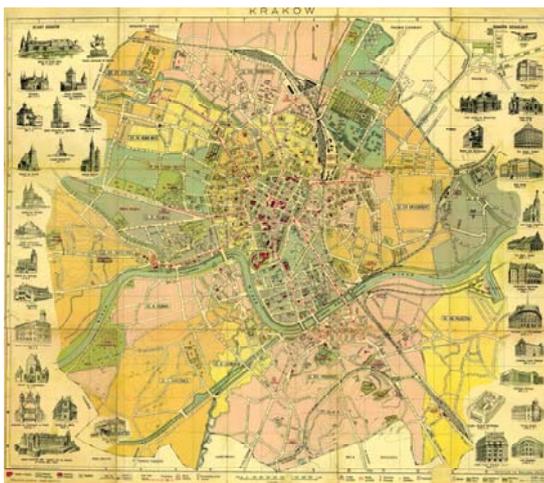
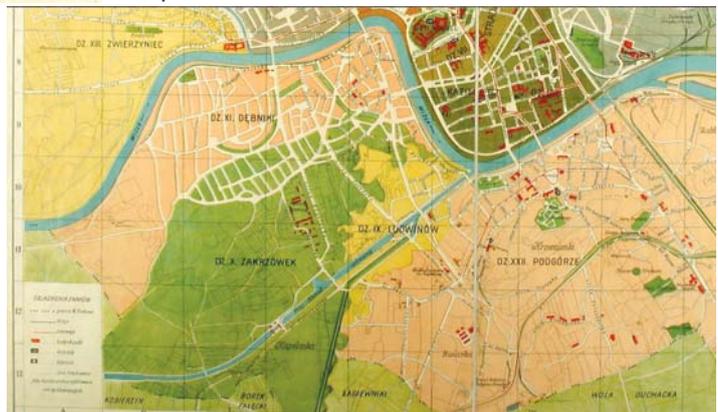
History and ideas for anti-floods systems

Boulevards in her were intended to be part of flood protection cities of Krakow and the Foothills. Designed by Roman Ingarden - creator of such complex water supply system in Bielany, and since 1905 the Head of Delegation of Water Department in Kraków. Flood control project on the development of government worked with Ingarden Eng. Adam Bielanski and Arthur Born. When the channel would have been realized the area would have been transformed totally, the authors referred to similar examples of successful transformation in Europe of those days, like the river Turia in Valencia which constitutes a new “sculpture “of the city which has become an additional tourist attraction. In the case of strict implementation of the channel passes a complete metamorphosis, but the authors assure us forecasts that in Europe you can find similar examples of successful transformation with far greater extent, eg the ratio of the river Turia in Valencia. The new sculpture of the city can become an additional tourist attraction.

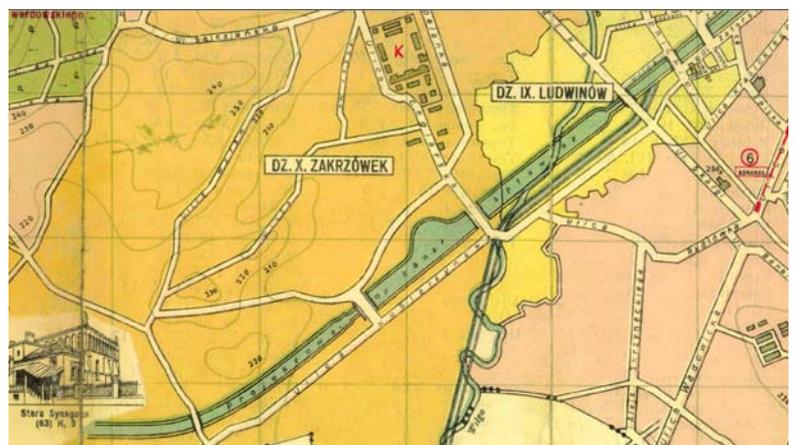


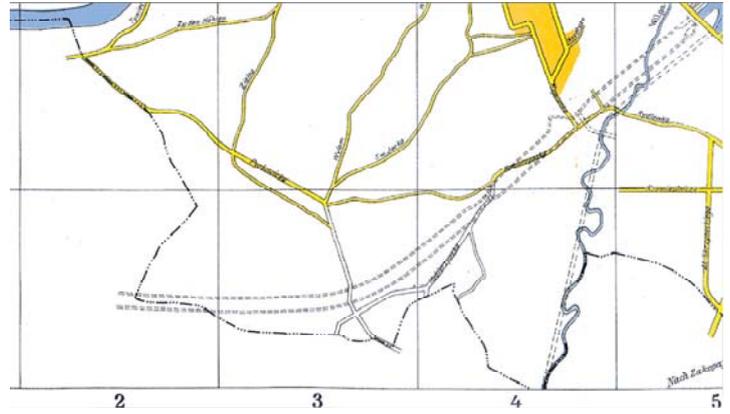
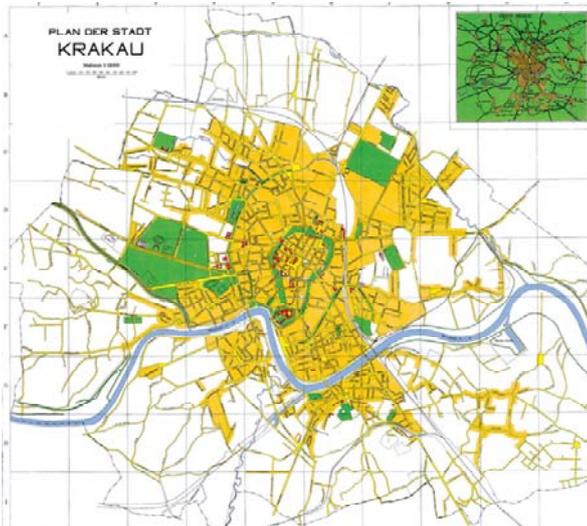
New boulevards were intended to be part of the flood protection for the City of Krakow and the Foodhills.

A Flood control project was assigned to Adam Bielanski Arthur Born and Roman Ingarden – creator of such complex water supply systems in Bielany and since 1905 Head of Delegation of Water Department in Krakow.

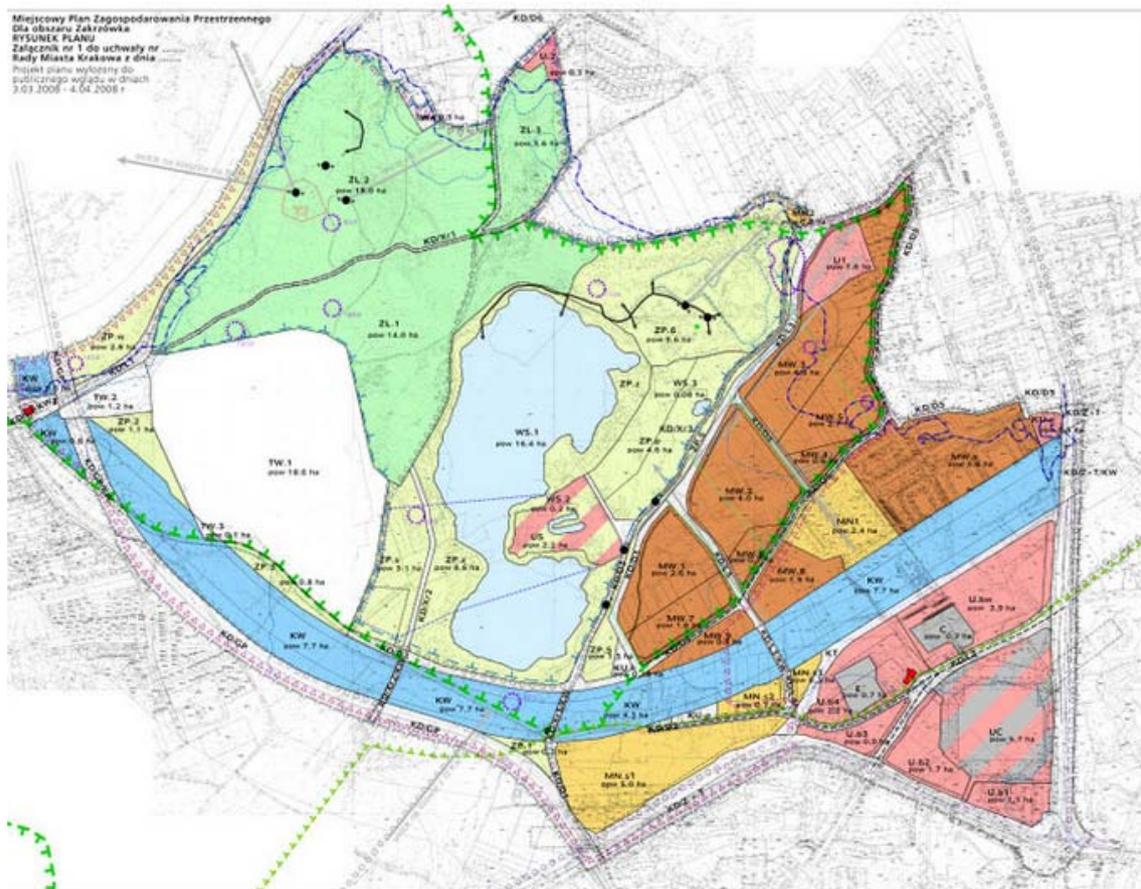


Master plan of Kraków . plan from 1934





Master plan of Kraków center. plan from 1942



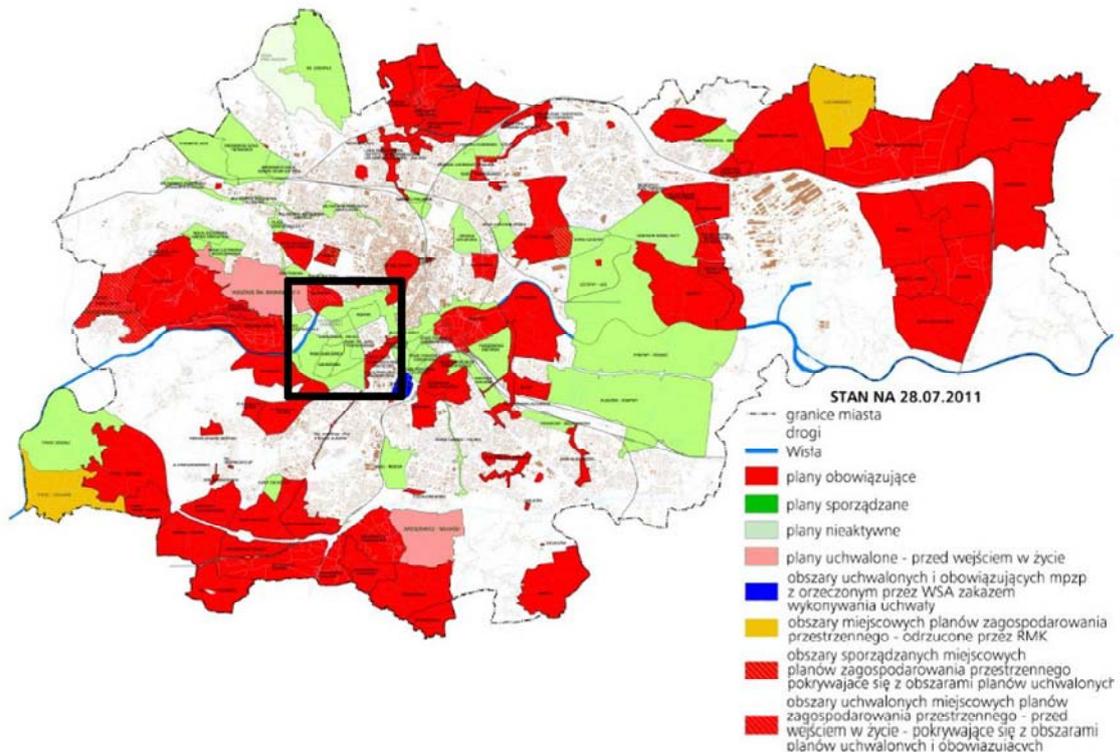
Last real plans of Kraków channel (2008-2011)

Future Challenges – master plan

Krakow Vision, as a part of city's development strategy is for Krakow to be a city encouraging civic pride, guaranteeing its inhabitants a high standard of living and demonstrating sustainable development, a European metropolis and competitive hub of a modern economy based on scientific and cultural opportunity.

The mission of the city local authorities is to integrate the work of its citizens, to turn the vision of Krakow's development into reality by adopting city management through partnership, and by making the most of the city's metropolitan potential and opportunities afforded by the process of European integration. The work of the local authorities must take into account the needs and tasks of the family as the fundamental unit of society.

Implementation of the Krakow development vision requires the following equally important strategic objectives:



Future Challenges – strategic & urban objectives

Strategic objectives I: Krakow – a city friendly towards the family, an attractive place to live in:

- Improving the natural environment
- Greater range and access to education for all age groups, higher educational standards
- Greater sense of public security
- Development of the housing industry and land reclamation
- Guaranteeing citizens the right level of health service
- Guaranteeing family status protection and welfare
- Offering appropriate social development conditions to individuals and groups under threat of exclusion
- Development of local self-administration and perfecting administration methods, enhancement of social awareness and interest in city life

Strategic objectives II: Krakow – a competitive and modern economy:

- Shaping land conditions for economic development, whilst retaining balanced
- Development and topographic order
- Improving transport
- Developing technical infrastructure
- Developing the SME sector
- Greater competitiveness of the labour market
- Making the city more attractive for tourists

Strategic objectives III: Krakow – an important European metropolis in science, culture and sport:

- Better working conditions for science institutes
- Supporting institutions responsible for co-operation between science and the economy
- Preservation of cultural heritage, including revival of complexes of historical monuments
- Creating material and institutional conditions for cultural development
- Setting up conditions for head offices and branches of national and international organizations
- Creating conditions for sport, physical education and recreation

Future Challenges – policy context

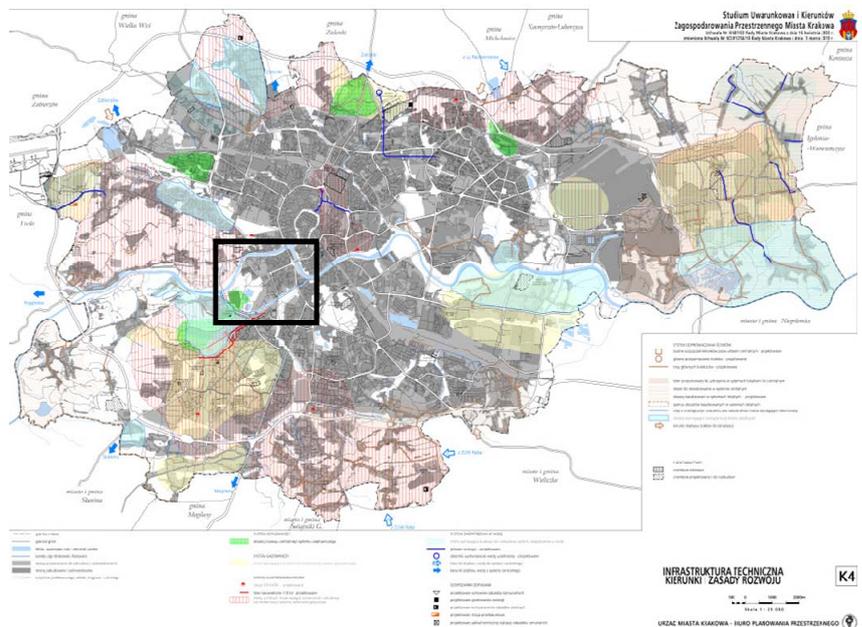
Until 2003 there was the local spatial development plan in force in Krakow (master plan covering the whole area of the city).

In 2003 previous land use regulation changed and the new Act on Spatial Planning and Development came into force. Under this law, mentioned above local spatial development plan expired and since that time Krakow faces the problem of need to draw up a new plan. According to law, every plan must be consistent with the *study of conditions and directions of development of the city*, which is valid in Kraków since 2003.

Such plans are to be drawn up by the Mayor (Land Development Office of the Municipality) and to be adopted by the City Council that constitutes them as an act of local law.

Because of the complexity of procedures and social conflicts, plans are developed for selected parts of the city. Krakow is now covered by the approved site development plans in about 32%.

In case of lack of spatial plan for the particular areas, Mayor shall issue a decision establishing the conditions for development for specific investments. The conditions are established as a continuation of the averaged parameters of the existing buildings in the vicinity of the planned investment.



The study of conditions and directions of development of the city



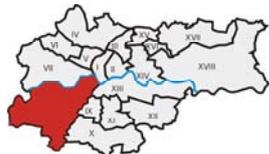
Kraków channel – planning in the project area

The case study area with its landscape, despite the proximity to the city center, is characterized by a high proportion of green areas and surface waters.

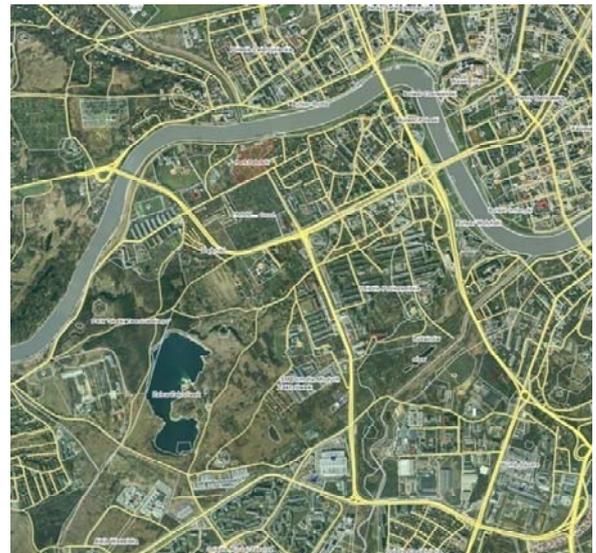
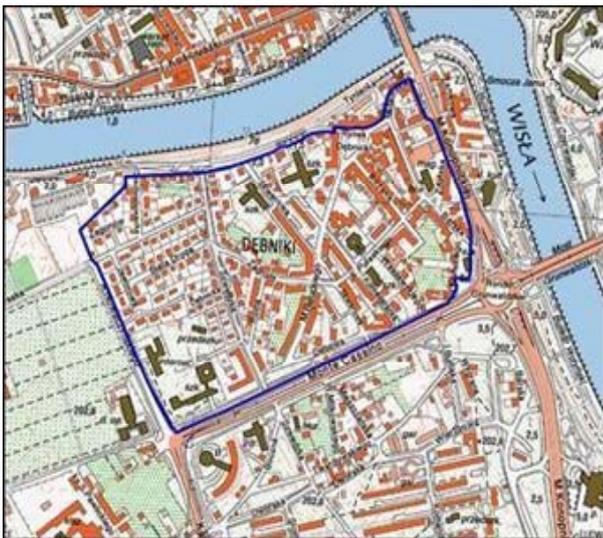
Marii Konopnickiej Street and Kapelanka Street are ones of the most busy arteries of urban space of the analyzed part of the city. They also represent important axes of urban traffic system around the city. The remainder of the analyzed area can be described as peaceful and free from the bustle of the city place.

The areas of surface waters are: Vistula river - in the north, Wilga River together with the stream along the Norymberska street - in the south, and a large area of Zakrzówek Lake as well. There are extensive natural green areas along Wilga River. Also the landscape located north of Pychowicka street and around the Zakrzówek Lake may be classified into natural green areas of the dominant shrubs and meadows (Bielańsko-Tyniecki Landscape Park), which is a place of rest and recreation. This applies mainly to the Zakrzówek Lake, that is characterized by steep, rocky shores. The largest area of woodland is located between the Wisła River and the Zakrzówek Lake. Housing estates and residential development are mainly concentrated in the eastern part of the analyzed area - north and south of the Wilga and along Marii Konopnickiej Street and Kapelanka Street. There is also Pychowice housing estate located to the west of the case study area. Finally, there are allotments located by Wilga River, in area between Marii Konopnickiej Street and Kapelanka Street.

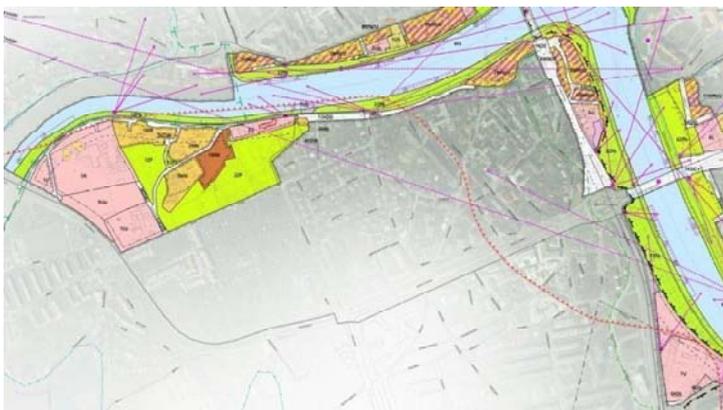
District VIII- Debniki
Area: 4216 ha
Population: 53,391



First time we heard about Debniki, previously known as a separate village, was year 1254. In 19th century Rybaki village joined Debniki. In 1888 the bridge Krakow-Bonarka over Vistula River was built by Austrian, rebuilt in 1910 (it was blown up during II World War and built again in 1952). In the beginning of 20th century Debniki village was joined to Krakow. The project of Debniki as garden district unfortunately was unfulfilled. In 1990 the 8th district of Krakow was created and called Debniki. To Debniki belong also the villages: Kostrze, Bodzow, Skotniki, Pychowice and also Zakrzówek, Ruczaj and Podwawelskie.



Kraków channel – concept maps

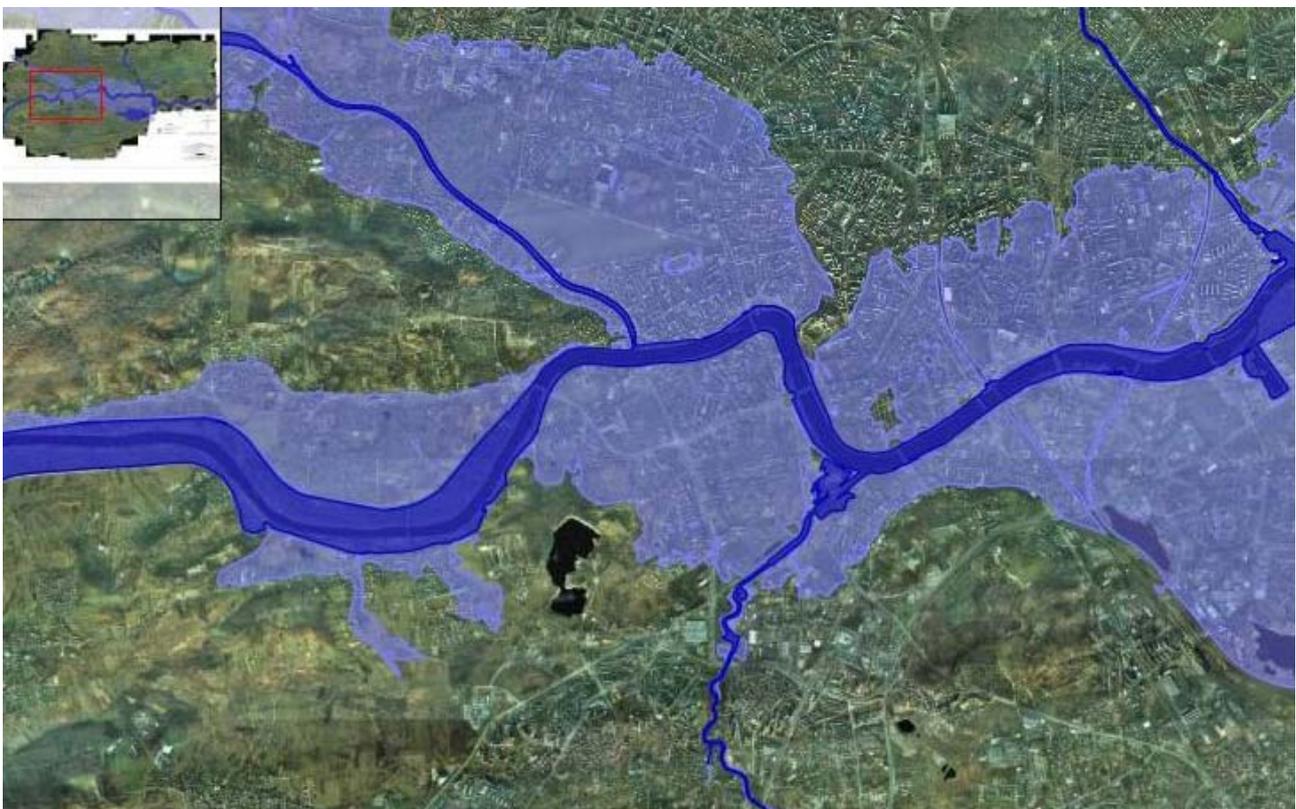


Detailed graphics with debniki area



Satellite map with visualisation of channel

Kraków channel – floods problem

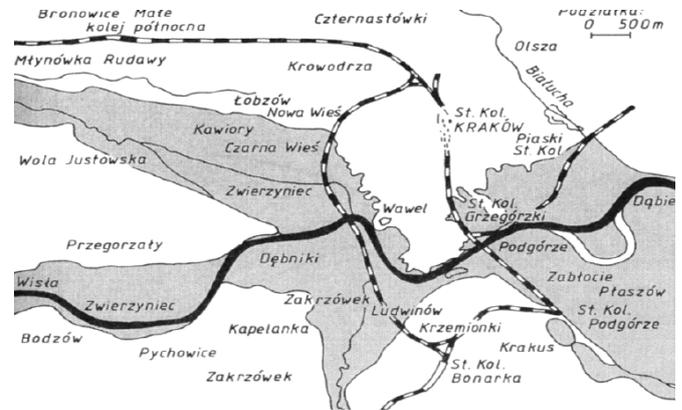


The larger part of the study area is vulnerable for inundation in case of high water levels in the Vistula and the Wilga River

Kraków channel – history of floods



range of flood. plan from 1813



range of flood. plan from 1903

Kraków channel – floods - footbridge



Footbridge connecting the Mostowa street and the Brodzinski street, combined Kazimierz and the old districts Podgórze. After a dramatic fight to save the footbridge merged two Vistula boulevards, now it's ready to use.

Kraków channel – floods – Debnicki bridge

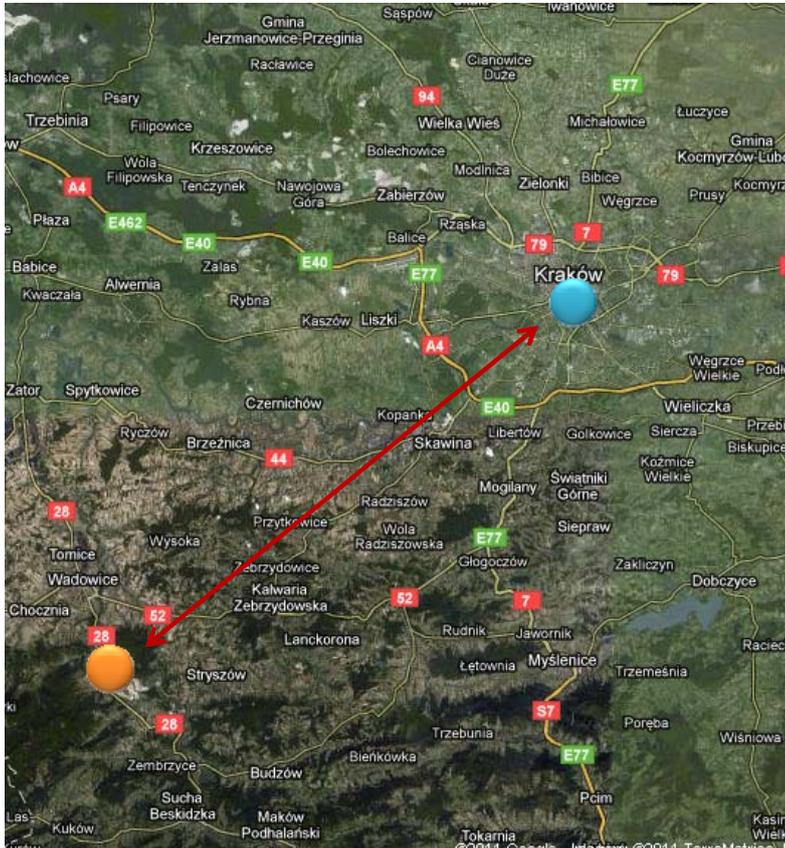


Photo: High water flood (bridge is not visible)

Lowest-suspended bridge in Kraków almost been broken, severed during the recent floods in Kraków. If not for the army and volunteers help bridge would not survive.

Debnicki is the lowest suspended bridge in Krakow. Counting from the water (in normal conditions), its span hang at a height of 4.2 meters. It's not much compared to other crossings. The second in the order in this regard is the bridge Grunwald, whose clearance is now 5.4 meters. Others have six-, and even the nearly ninemeter high store.

Kraków channel – anti-floods – Swinna Poreba



-  Center of Kraków
-  Swinna poreba dam

Distance between the center of Kraków and Świnna Poreba is about 56km

The construction of the Hydro dam in Świnna Poreba is one of the longest-generated hydro projects in Poland. Already in the fifties of last century, this was the first land development project. Its construction started in 1986, during the years 1988 to 1992. Due to financial problems associated with economic transition after 1989, the work is delayed. The work schedule approved by parliament in 2005, is also not implemented. In connection with the financial crisis, the construction of the reservoir have been suspended. In 2010 the government finally decided to finance this investment. Planned date of flooding the reservoir is 2014.

The reservoir will be built on the Municipalities of Mucharz, Stryszów and Zembrzyce. The dam is located on the shores of the Skawa River and the catchment area of the River up to the dam is 805 km².



It is not yet decided what to name the reservoir. The proposed name of Lake of Wadowice, causes protest of some of the other municipalities where the reservoir is located.

Kraków channel - Traffic infrastructure of the projected area

Traffic infrastructure of the projected area is the north-south thoroughfare over Debnicki Bridge and Grunwaldzki Roundabout- Konopnicka Street and Kapelanka Street, Monte Casino and Zielinskiego Street towards Zwierzyniecki Bridge. The rest of the communication infrastructure is a network of local and residential roads in relation to the main streets of the area.

In the northern part of the Vistula river crossing along the old buildings of Dębnicki Market there is Tyniecka Street. Grunwaldzki Roundabout is the central hub located in the north part of Debniki district in the vicinity of Vistula boulevards.



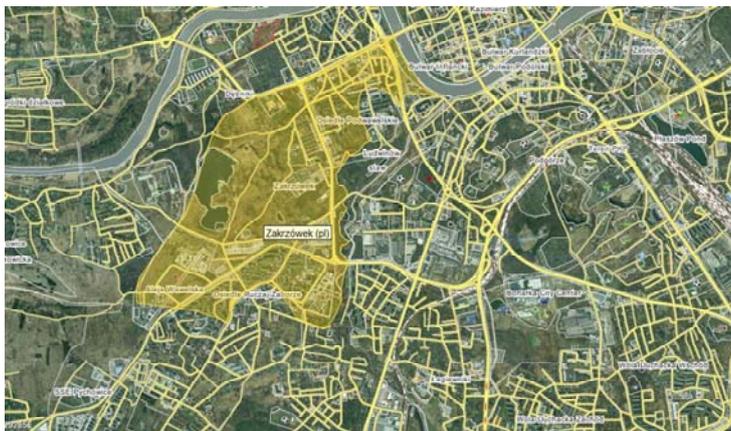
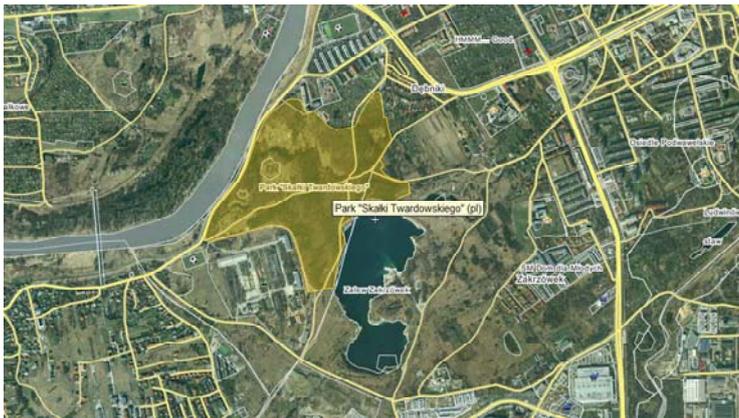
Kraków channel - buildings of the projected area



Buildings of the projected area are diverse and include in the northern part the historic layout of the old Dębniki, in the south -east, along Maria Konopnicka Street and Kapelanka, modern residential-commercial buildings and Congress Center building in the vicinity of Grunwald Roundabout.

A characteristic complex is Podwawelskie Housing with about 10 thousand. inhabitants, occupying an area of approximately 90 hectares. This is typical multifamily housing settlements. There are primarily compact building blocks and big block complexes. On the outskirts of residential housing there are lots of small houses. An example of the implementation of modern building is a modern complex of residential apartments -Ludwinow.

Kraków channel - sports & recreation area



Kraków channel - conflicts

Within the limits of the study area two sites can be identified that have caused numerous conflicts that are widely discussed in the Krakow society.

The first of them - AREA A

is located in the immediate vicinity of the lake Zakrzówek where the complex of residential buildings with the part open to the public for recreation and leisure activities is planned.

In opposition to the proposal submitted by the developer, the organization Green Zakrzówek along with other community organizations from the area of Krakow, has developed a common vision for the development of this area, called the Social Development of Zakrzówek Strategy. According to this concept Zakrzówek should become the public recreational area with no residential neighborhood.

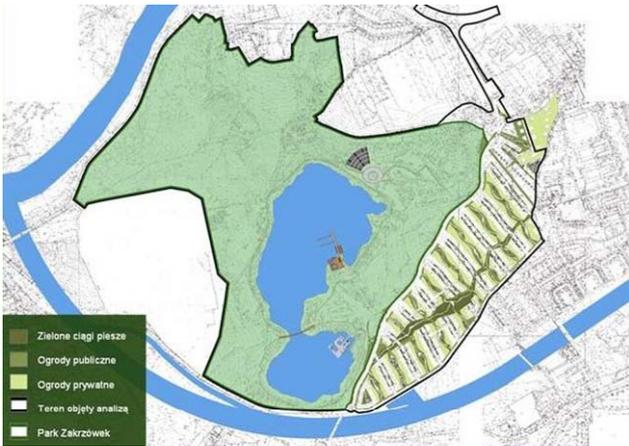
Second – AREA B

Located in the immediate vicinity of the Vistula boulevards built out of the hotel Forum. According to the plans of the current owner of this area, after the demolition of the hotel ,there will be a modern complex of residential apartments

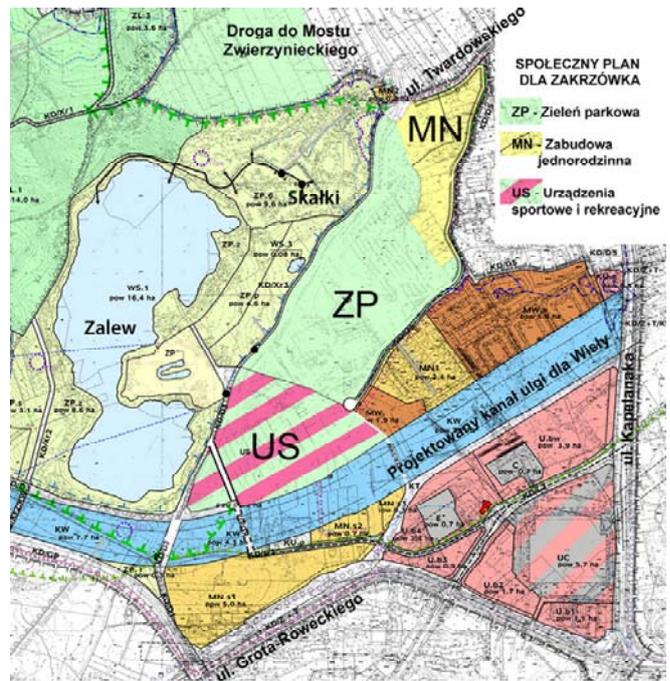


Kraków channel – conflicts - area A

Area A1



Area A2



Area B1



Area B2



4 The Implementation Lab format and programme

Workshop format

As the programme shows, an Implementation Lab consists of a reference seminar (day 1), study visit (day 1), Implementation Lab(oratory) (day 2) and policy recommendation meeting (day 2 and 3).

Each Implementation Lab workshop is the result of carefully coordinated efforts between the host organization, the management of the CUPA project (DonauHanse and the City of Vienna) and the International Institute Intervention (III).

Core of the three days workshop about the development of the study case is the Implementation Lab itself; a series of interactive sessions in which stakeholders of the host partner work together on the spot, with the partners and experts. To maximize interactivity, the IL's are typically organised as open panel discussions involving planners from the host city/region.

Main purpose of a Implementation Lab is to investigate as a group, both new and persistent urban/regional problems as they relate to - intended - land use. It is the intention that each workshop leaves both participants and hosts with new insights as well as shared learning experiences. Each workshop aims at providing the host useful and practical suggestions and recommendations on dealing with the problem case(s) discussed.

With all the inputs of the first day, participants were invited to brainstorm according to the format of the Implementation Lab, in two subgroups. One focusing on the process issues and one dealing with the concept of the spatial programme of the Area of the Kraków Channel.

First, the subgroups worked on common observations regarding the area. This created the bases for the second round of brainstorm sessions that generated suggestions for the area development. To provide the subgroups a common frame of reference, six considerations were proposed as a structure for the brainstorm session.

These six issues considered are:

- **Quality and identity:** Does the project area have its own identity, socially, functionally and visually? How can this be enhanced? How can a living-green life style be supported ? Are there local aspiration that we can built on?
- **Critical Mass:** Does the site have enough development, infrastructure and resident population to maintain a coherent community or support a desired mix of amenities with sufficient carrying capacity?
- **Connectivity:** What link does each site have with its surrounding natural and man made environment? Can these connection be enhanced?
- **Human scale:** Do the existing developments relate in scale and proportion to diverse human scale activities such as walking, biking, congregation, social interaction? Do de scale and relationships of public spaces support and attract their use?
- **Promotion and marketing:** How are existing uses promoted ? How effective are these efforts and what types of promotion would be useful, necessary of possible to improve a better sense of place?
- **Process architecture:** In developing a spatial development strategy, when should stakeholders be involved and how? What are the various interests and interdependencies between stakeholders? How do we handle opposing interests? How do we organise an effective planning and implementation process?

After these brainstorm sessions the participants were invited to focus on the development of recommendations and present these preferably in visualised form.



The format can be summarized by the following matrix



Considerations/ Areas of concern

	Identity	Critical Mass	Connections	Human scale	P&M	Process
Observations						
Suggestions						
Recommendations						

Workshop programme

Day 0 Tuesday 11th of October 2011

The day before the beginning of the workshop all international participants met for an informal gathering during a walk over the Main Market Square of Kraków to the restaurant ALTER EGO

- 18.00 Visit Museum under the Main Market Square.
- 19.30 Informal gathering at Restaurant ALTER EGO

Day 1 Wednesday 12th of October 2011

- 08.30 Registration at the Kraków Municipality Office at the Plac Wszystkich Świętych 3-4 floor, rooms: Dietla and Portretowa.
- 09.00 Official welcome by Deputy Mayor Elzbieta Koterba and Andrzej Wyżykowski Chief Architect of the City of Kraków.
- 09.30 General introduction to the programme and introduction of participants by Huibert A. Haccoû. CUPA Facilitator and chair of the Implementation Lab.
- 09.45 The study case area of the Ulga Channel by Professor Andrzej Wyżykowski, Chief Architect, assisted by Mr. Rainer Mueller, TINA VIENNA, about the feasibility study 2008 of the Kraków Channel. Mrs. Alicja Prokopowicz about the characteristic of the Kraków Channel Area, mr Jan Baranski about the formal planning status of the study area, mrs. Monica Antoniuk, about the embankments of the Vistula River and mrs. Kinga Racon-Leja about the water management and green aspects.
Mr. Krzysztof Ingarden about the waterfront developments, mr. Pjotr Gajewski with an opinion on the spatial quality of the river shores and mr. Jacek Kolibsky of the International Real Estate Institute.
Formulation of the problem statements and short discussion
- 10.30 Coffee break
- 11.15 Reference cases:

Drs. Arjan Otten, Project manager, Province of Overijssel; Climate adaptation in the IJsseldelta in the Netherlands.

Dr. David van Vliet, University of Manitoba Canada; The Red River Floodway via a skype Presentations from the in CUPA Participating Cities: Vienna, the Donau Channel by mr.Volkmar Pamer; Bratislava by Marek Dinka; and Lviv by Yuriy Kryvoruchko,

- 13.00 Lunch at the Wyspianski Information and Exhibition Pavilion the Municipality Office
- 13.30 Bus ride to the study case area.
- 17.00 Visit Museum under the Main Market Square. Return to the hotels.
- 19.00 Welcome dinner at the Restaurant MALECON in the Hotel pod Wawelem, Plac na Groblach
- 21.30 End of day 1

Day 2 Thursday 13th of October 2011

- 09.00 Introduction and Q & A;
Plenary assessment of the problem statement and re-formulation of the problem statement
- 10.30 Coffee break
- 11.00 Working session subgroups starting with Observations
- 12.00 Lunch in Kraków Municipality
- 13.30 Working sessions continued with Suggestions
Exchange of findings
- 17.30 End workshop sessions
- 17.30 – 19.00 Facilitators sit together to formulate the main messages to be presented as outcome of the Implementation Lab
- 19.30 Dinner
- 21.30 End of day 2

Day 3 Friday 14th of October 2011

- 08.30 Introduction formation and instruction of task forces.
- 09.00 – 11.00 Working groups exchange and finalize their recommendations.
- 11.00 Presentation of ppt of recommendations and discussion
- 12.00 CUPA meeting do's and don'ts and further progress
- 13.30 Leaving for lunch
- 15.00 End of program

5 Assessment of the problem statement

The channel area in Kraków – main issue

To regulate the flooding and prevent overflow of the river in valuable areas a possible solution is to dig a bypass canal. The canal can provide development chances and provide additional quality to the area involved. The main question is how to develop the Canal area:

1. When it will be realised
2. When it will not be realised

The river is navigable but in the sharp curve only for a lower class of boats. The canal is part of a series of preventive measures against flooding. However the canal is an expensive measure.

Presentations (see annexes for the full presentations)

1. David van Vliet (via Skype).

The Manitoba floodway (a canal with its adjacent banks) is constructed to mitigate the effects of flooding. Critical mass is guaranteed because the floodway protects the nearby city of Winnipeg. Maintenance costs mainly concern dredging the canal. See the presentation for details.

2. Arjan Otten – *The IJsseldelta*

Kampen is a town on the left bank of the river IJssel in the Netherlands. Kampen has a large amount of cultural heritage objects. It has momentarily a dismantlable protection system in case of floods. But water level is rising and a better solution should be found.

A combination of two major measures will be taken: dike replacement to widen the bed of the river near Zwolle (upstream) The construction of a by-pass canal just near Kampen upstream, taking ¼ of the water around the city of Kampen.

The process is combined with the construction of a new railway line and the re-construction of two main roads. An elaborate paper is provided

3. Volkmar Pamer – *Danube relief channel*

The construction of the channel had a very positive influence on Vienna. The Danube was always a large barrier between the north- and southside of the city. The mainstream of the river naturally moved away from the city. In 1972 the decision was taken to construct the channel.

The relief material was used to heighten the Danube Island. It is exactly this Island which is now of much importance for the city life in Vienna. It supplies an enormous green area in the middle of the city. Making a biotope for several birds and other species and supplying a large area for leisure and pleasure.

4. Rainer Mueller - *Concept study for the Kraków Channel*

The clear and concise presentation of Tina Vienna depict the results of a cost and benefit analysis made in 2009 for the Construction of a by pass canal, and concludes that it is not economically feasible (see annex for the full presentation).

5. Yuriy Kryvoruchko – *Water in Lviv*

Lviv doesn't have its own water source, like a river to supply the city with water. Water needs to be taken from somewhere else. However there is a small underground stream.

Lviv is situated in the west of Ukraine, but could have a more central position in Europe than being on the border of a nation. The distance to Warsaw is shorter than to the Ukrainian capital Kiev (400 to 575 km)

Facts and figures can be found in the presentation.

The city has radials but also centric connections. Lviv is situated on the border of the watershed, but most streams head towards the Black Sea.

Problems of getting water exist. The sources are 60 to 120 km away. The topographic scenery of Lviv is nice. The city is in the center of hills and from the hills small water streams come in to the city. There is now an idea to open up a hidden river. But the sewerage system is on the nomination to be a monument, which will block this idea. There is a public movement to bring the water back in the city. If this is done a new sewage system is necessary and two systems should be functioning together. However this double system will be using twice the amount of water.

Water wells are existing in Lviv. A map will be produced to attune valuable areas in sense of water suppletion with planned developments.

Although a quite different problem, this presentation was meant to underline the importance of water in cities.

6. Marek Dinka – Bratislava and its by-pass channel

In Bratislava a similar situation as in Kraków exists, ideas of a bypass channel of the Danube are being discussed. Besides problems with land use and the way to implement the bypass, cooperation problems exist. This is caused by the situation of the river Danube close to the national border.

Because of urban sprawl all branches of the Danube disappeared diminishing the capacity of the river delta. On the south (right) bank a city quarter was built in the 70's.

Since long thinking about the bypass channel to safeguard Bratislava from floods has been done. Already lots of necessary research has been carried out, however no integrated and spatial design has been agreed upon. Meanwhile a flood protection wall is build along the left riverbanks in the central city part.

Since the unifying of Europe a co-operation between Bratislava and the adjacent municipalities has been set up. There is a request to make an integrated spatial development and management plan incorporating those municipalities. This is quite a job because besides Bratislava two Austrian provinces and several municipalities are involved.

In this co-operation the CUPA plans defined in the Bratislava Implementation Lab and other ideas are subject of for a spatial and management plan. A first attempt is to make an overview of all plans. The focus will first be on the area between the Austrian border and the Danube, this exact area was the CUPA Implementation Lab case study.

In the next IL Marek will emphasize more on the question what has been done with the recommendations.

7. Andrzej Wyżykowski - Alicja Prokopowicz – Kraków channel Vistula River: Idea for the city.

Co-organizers of the CUPA implementation lab workshop in Kraków, on behalf of the Municipality of Kraków. The content of their presentation is encompassed in Chapter 3 of this report. See for the full presentation annex ...)

8. Monika Antoniuk – Local land use plan for the area of Vistula Embankments.

Office of Spatial Planning, Municipality of Kraków

At the beginning of the Works on the plan, the Spatial Planning Department of the Municipality of Krakow commissioned a social survey among tourists visiting the embankments of the Vistula river. The objective of this survey was to determine how both tourists and inhabitants of Krakow value the Embankments and how they foresee their future.

1. EXPECTATIONS – The Vistula Embankments should be a friendly green area, used for recreational purposes and not developed.

2. FUNCTION – representative, connected with culture and recreation, using the natural assets of the river area.
3. ROLE – ecological corridor – way for animal migration, aerosanitary current, relevant for city ventilation.
4. The Vistula Embankments should remain the "city's showroom", where history and contemporaneity mix with equally valuable natural environment.
5. The plan includes embankments with varied character, differing forms of development and land use. The look and character of the area of the Vistula Embankments are additionally influenced by boats moored by the river banks.
6. The area within the borders of the prepared plan as well as its vicinity, binding local plans and local plans which are being designed

The biggest asset of the Embankments is their character which is unique in Europe – open (undeveloped), generally accessible space in the centre of the city. The Vistula Embankments have exceptional landscape qualities in almost entire length of the river banks included in the plan. We can appreciate the near views (Embankment area) as well as the further view, reaching beyond the city boundaries. The width of the area of the Vistula Embankments makes it possible to see the view of the historic part of the city. Therefore the Vistula Embankments should remain the so-called "city showroom" where history and contemporaneity mix with valuable natural environment.

The basic assumption of the local plan is to give the Embankments a character of a river-side promenade, ensure a continuity for walking (rollerblading, cycling) and collision-free recreational traffic, as well as preserving the cultural and environmental assets of the Vistula valley.

Re-defining the problem statement

MAIN ISSUE

The main issue is to answer two questions:

1. How to develop the area taking into account when the channel will be built (in the future)
2. How to develop the area if the channel will not be implemented at all

CLARIFICATION

Participants to the workshop asked questions to clarify the problem statement and to know more about the development opportunities of Kraków.

Connections

On the south-west bank of the River, the buildings seem not to be an integrated part of the city. The participants should think about how to integrate that part. Additionally, in case the channel will be built, how should the new island connect the center of the city and the other parts.

Development opportunities

The main assignments for the City of Kraków, is to build 100.000 houses in the coming 10 years, especially to accommodate quality of living and a decrease of the density.

There is a tendency to go out of the city, therefore a main goal is to prevent urban sprawl and keep to the idea of a compact city. The main developments are now directed south/southwest. The channel area is a very attractive spot to develop. The channel will be part of this area.

In Kraków the unemployment rate is relatively low, about 5%. There are job opportunities, and Kraków is working on an improvement of the technical sector.

Kraków's history has to do with being a trade hub. There is a potential for coals and iron to transport. There are plans to connect the Silesia (Katowice) region by river. The problem in Kraków for that is the bend in the river and the bridge.

Ownership situation

Most land is in the hands of private parties. If you do not plan the channel and do not continue the reservation of space for it, then the land will be occupied by buildings immediately. If you plan a public space then the city needs to obtain the land for market prices. The city is not able to do so.

The making of a plan with enough flexibility is not possible without possessing the land.

Ambitions for the areas adjacent to the site

The adjacent area concerns mainly small villages which are now subject to development, mainly for housing. This is requested by the inhabitants of the areas. This is clearly an upcoming market.

Problems with flooding

TINA VIENNA has indicated that the necessity of the channel is vague. There are possibilities to store the water in retention area.

Focus of the work in this Lab

Addition to the problem statement by the participants

- There could be a third scenario: to define what should be done in the period before the building of the channel.
- The general question should be about how to programme the area to reach city dynamics.

Concluded focus points

- What does it take to make added value to the city.
- The channel can be a condition for this (what is added value)
- Is there a need for waterfront development.
- How large is the need to use the river for transportation

Suggestions for focusing

The water could be used for raising attractiveness of the area complementary to the touristic function of religion and museums. A unique attraction could be found for attracting people.

Hafen City in Hamburg is an example of how an attractive area can be realised and be promoted, the area has a promoted extra value. In the light of added value creation Kraków should be more than only a tourist destination.

In the first chapter of this report the results of the brainstorm sessions on observations and suggestions of the four subgroups are reported.

After the brainstorm phase that resulted in observations and suggestions, the participants were invited to work in separate groups on four separate tasks. These tasks are:

- Develop a **process architecture** that embraces the spatial programme for the case study area where a strategic spatial reserve will be kept for future developments regarding climate change but that will be made functional for the Kraków population in the sense that it adds value and functions to City of Kraków and present this in a PowerPoint presentation. The plan indicates principles and a step by step implementation plan.
- **Provide a detailed map** where what type of function in what density (low middle or high) may be developed.

- **Provide ideas for interim use** of the spatial reserve for the coming fifty years.
- Develop a **spatial programme** in one worked out a plan where a strategic spatial reserve will be kept at least for another 50 years for future developments regarding climate change, but that will be made functional for the Kraków population in the sense that it adds value and functions to city of Kraków.

The resulting recommendation were encompassed in a power point presentation that was presented at a public meeting on Friday 14th of October at 11.00 hours. This rounded off the implementation lab about the Kraków Channel study case area.

The summary of findings elaborates on the power point that was presented by the contributing IL participants. See Chapter 2.



A List of participants and résumé's

Participants

INTERNATIONAL PARTICIPANTS

Lastname	Name	Institute	Position	e-mail	Address
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Kramer	Martijn	The International Institute for the Urban Environment (IIUE).	Managing director of the International Institute for the Urban Environment Delft (NL)	kramer@urban.nl	Menninckstraat 256, 2583 BW Den Haag, The Netherlands
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Haccou	Femke	City of Amsterdam; Spatial Planning Department	Landscape Architect; City of Amsterdam, Department for Spatial Planning (NL)	femke@haccoudesign.nl femke.haccou@gmail.com	James Cookstraat 24/HS, 1056 SB Amsterdam, The Netherlands
Vliet, van	David	University of Manitoba Department of Architecture Winnipeg	Associate Professor	vanvliet@cc.umanitoba.ca	Canada
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From the Municipality of Kraków and international partner cities the following persons have taken part in the CUPA IL Kraków Channel area: these are urban planners, traffic expert, landscape planners, developers, architects and district representatives.

CUPA PARTICIPANTS

Lastname	Name	Institute	Position	e-mail	Address
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Dinka	Marek	Bratislava city administration	Department of territorial systems coordination	marek.dinka@bratislava.sk	Primaciálne námestie 1 (Laurinská 7 3. posch., č. dv. 313), 81499 (81101), Bratislava, Slovakia
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Bieda	Krzysztof	University of Technology, Faculty of Architecture, Institute of Urban Design		kbieda@usk.pk.edu.pl	
Racoń-Leja	Kinga	University of Technology, Faculty of Architecture, Institute of Urban Design	Ph.D. Arch., Adjunct Professor	krieja@pk.edu.pl	ul. Zelenskiego 31 (ul. Podchorążych 1), 31-353 (30—84), Kraków, Poland

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Brzeski	Władysław	International Real Estate Institute	Secretary		

GUEST

Lastname	Name	Institute	Position	e-mail	Address
Nowak	Krzysztof	COMPRESS Representative office of the City of Vienna in Kraków	Director		
Czarakczew	Borys	Kraków Architects Chamber	Chairman		

CV of Participants

CUPA Implementation Lab Workshop Kraków

Drs H.A. (Huibert) Haccoû

Born: 1950

Nationality: Dutch



Huibert Haccoû is associate professor at the Saxion University for Professional Education IJsseland in the city of Deventer in the Netherlands. He teaches Urban and Regional planning at the School for the Built Environment.

He is founder and principal consultant of Haccoû-Consultancy and Associates based in the Netherlands. He provides consulting services to private and public, local, regional and (inter) national planning agencies.

In this capacity he consults and implements the international program of the Habiforum foundation, aiming at developing an international network of expertise on multifunctional and intensive land use. He initiated and directed the Interreg IIIc Operation MILUnet; an international expert network on Multifunctional and Intensive Land use.

He is a member of the editorial board of NOVA TERRA, a quarterly magazine on innovative use of space.

Trained as a political scientist and economist his career started in the civil service. In various functions at the central-, the provincial- and city government level, he acquired a broad understanding of the larger context in which growth, and development planning occur. He changed to a private consultancy and engineering firm and was assigned to national -and international projects as a consultant for strategic public policy making and as process manager in the field of spatial planning and the environment. In his recent academic carrier he focussed on Multifunctional and Intensive Land use issues, conducted international workshops and experts meetings and edited and contributed to several publications on Multifunctional and Intensive Land use developments world wide.

Martijn Kramer

Born: 1972

Nationality: Dutch



Martijn Kramer studied architecture and construction engineering at Delft University of Technology. Before joining IIUE in 1998 he was a consultant at the National Information Agency on Schools and Teaching Accommodations.

At IIUE he has conducted several national projects on sustainable housing and urban planning. Now at IIUE, as project manager, Martijn Kramer is responsible for European projects on the built environment. He initiates and manages European (network) projects in terms of content, finances and organization. During these projects he organised and facilitated a number of seminars, courses and workshops (European Awareness Scenario Workshops, Workshops on Indicators, Implementation Lab's etc.) in the Netherlands as well as in other European cities.

Elsbeth van Hijckama Vlieg

Born: 1948

Nationality: Dutch



Elsbeth is a Social Geographer and City Planner by profession. Her career started in 1975 with projects in Amsterdam, a.o the south east suburban extension of the "Bijlmermeer", and urban renewal of the "Spaarndammerbuurt", "Sloterdijk", "Zeeheldenbuurt" and the Timber Harbours. After that she spread her wings over a bigger area: She was coordinator of research for urban renewal and public administration at the Dutch Ministry of Public Housing, Physical Planning and the Environment.

She worked as a director of the planning development and infrastructure sector at DHV Consulting Engineers, and as director of Urban Development with the City of The Hague. For more than 12 years she was secretary general and chief executive officer of IFHP, International Federation for Housing and Planning.

As from 2006 Elsbeth acts as an independent consultant for urban development, specialised in intervision, management processes and policy development. She is member of two advisory boards for spatial planning and living quality and three supervisory boards in the housing and healthcare sectors. At present she is lid of the advisory board van Megacities Foundation and director of the International Intersivision Institute III.

Volkmar Pamer

Born: 1958

Nationality: Austrian



Volkmar Pamer was educated as an architect at the Technical University of Vienna. Working for several years as a freelanced architect with the focus on residential buildings, villas, hotels, monument protection, industrial architecture and interior design. Since 1994 working for the City of Vienna as an urban planner. Zoning plans for Vienna's south, project coordination, area management of the urban renewal showcase Cable and Wire Factory, co-author of two books on that issue. Founding member of the IFHP (International Federation for Housing and Planning) working party MILU (Multifunctional and Intensive Land Use), Vienna's representative in the EU co-financed projects MILUnet and REDIS (Restructuring Districts into Science Quarters).

Participated in:

All (!) MILU and MILUnet events, Co-initiator of CUPA and participating in all activities so far; URBACT-REDIS (Restructuring Districts into Science Quarters), participated in all activities (Meetings, Implementation labs, Site visits, interim conferences etc.)

Markus Damm

Born:

Nationality: Austrian



Study of Spatial Planning at the Technical University of Vienna, which he finished 2008 with a thesis on "Development of Urban Entertainment Centres". The task of the thesis was to figure out logics and regularities of the development of urban entertainment centres. Four case studies were analysed and guidelines for local participants in the development process elaborated. During the study Markus has deepened his knowledge of environmental assessment in a project with the aim to elaborate the environmental assessment of the Vienna main train station. In addition to his studying Markus Damm has acquired knowledge of District Planning during an internship in the responsible

municipal department of the City of Vienna.

Markus Damm is employed by TINA VIENNA since April 2009. At TINA VIENNA he is responsible for the projects concerning urban development in the field of Urban Technologies and tasks related to the Danube. These include the DonauHanse the network, the working group for transport and shipping of the Working Community of the Danube Regions and the Secretariat of Corridor VII.

Femke Haccoû

Born: 1981

Nationality: Dutch



Femke Haccoû Msc.(1981) is educated as spatial planner on bachelor level at the Saxion University for Professional Education in Deventer and as Landscape Architect at Wageningen University on master level.

After her master thesis on Dynamic Water Urbanism she continued to be involved in research on this rather new form of Urbanism. She stayed connected to Alterra (research centre of Wageningen University) to explore the possibilities on water urbanism. Next to research she worked at Vondel Vastgoed (real estate) as Landscape Designer. The combination of research and practice is something Femke likes to achieve.

Next to Haccoû Consulting & Design BV Femke works at the City of Amsterdam, Department for Spatial Planning as Landscape Architect. She focuses the relatedness between levels of scales of spatial planning. Her current projects are:

- Research on Metropolitan Landscape, how does recreation work in larger landscapes around the city?
- Master plan and Quality plan of a new large recreational area Tuinen van West. This area will combine urban agriculture with ecology and recreation.
- Design of a natural playground, Jeugdland. The design of this playground is based on re-using green material from parks and stimulation of children to exercise in a natural surrounding.
- Design of floating lands along the Westside of Zeeburger island for a ecological connection between the south and north side of IJ river.

Femke participated in a internal course of the City of Amsterdam. This course deepened the Amsterdam planning methodology from European scale to street level.

Rainer Mueller

Born:

Nationality: Austrian



Rainer Mueller, M.Sc. Regional Planning, Technical University of Vienna, project manager at TINA VIENNA, graduated in November 1995 in the field of spatial and regional planning. During his study he gained experience in the preparation and elaboration of environmental impact assessments for various railway projects in Austria. One major part of his work was the evaluation of relevant data and the creation of databases using GIS-techniques. Since September 1997 he works at TINA VIENNA. His main tasks at TINA VIENNA are the project management of various EU financed projects in the transport sector, the assessment and evaluation of transport infrastructure in the New Member States, in Bulgaria, in Romania and Turkey, the monitoring of the ongoing activities along the Helsinki Corridors, the elaboration of a transport infrastructure inventory for the Western Balkan countries, the analysis and mapping of the results of the various projects and the dissemination of the projects. In 1998/99 he spent six months as an expert at the European Commission, former DG XVI.E (Cohesion Funds) in Brussels. He was engaged in the preparation of the Instrument for Structural Policies for Pre-accession (ISPA) to support the responsible unit of the DG with the

knowledge gained in the TINA process.

Selected project references of Rainer Mueller are the projects Implementation Report TEN-T Guidelines for 2002/2003 and 2004/2005; Technical Assistance to Transportation Infrastructure Needs Assessment for Turkey; CENTRAL – Central European Nodes for Transport and Logistics; Pre-Feasibility Study and Conceptual Design of the New Mechanized Cargo Port with Container Terminal in Belgrade; Kanal Krakowski - Feasibility Study for Flood Protection in the City of Kraków.

David van Vliet

Born:

Nationality: Canadian



David van Vliet, is an urban environment planning educator and practitioner. He has a Masters Degree from the Faculty of Environmental Design University of Calgary, a Doctorate from the School of Urban and Regional Planning University of British Columbia at Vancouver and is a Member of the Canadian Institute of Planners.

David is an Associate Professor in the Department of City Planning, Faculty of Architecture, University of Manitoba, teaching urbanism, urban ecology and environmental planning and design theory and practice. His research has been in documentation and evaluation of more sustainable built projects, explanatory factors of success and diffusion of innovation. He is member of the IFHP Working Group on Climate Resilient Cities. He was member of the International Innovation (Advisory) Board for the MILUnet (multi-functional intensive landuse network) in Europe, author of the RED chapter on Urban Form and Infrastructure. He is a member of the International Intersivision Institute, a platform for project vision and implementation development on spatial planning questions collaborating with local authorities primarily in Europe, and correspondent to the International Institute of the Urban Environment, Delft Netherlands.

Arjan Otten

Born:

Nationality: Dutch



Arjan was from 1995 - 2011
Freelance writer / investigative journalist
Newspapers and magazines

And from 1995 – 1999 PhD research

- research on the field of sustainable (spatial) planning at the Radboud University Nijmegen, Comeniuslaan 4, 6525 HP Nijmegen, The Netherlands.

And from 1999 – 2011 Project and policy process manager / spatial planner / policy adviser

- project manager of “space for the river project” (dike relocation Westenholte)
- process manager of an area development project (project IJsseldelta, spatial development combined with a river bypass) at the Province of Overijssel, Luttenbergstraat 2, 8012 EE, Zwolle, The Netherlands

Participants from the Municipality of Kraków:

Jacek Majchrowski

Born:
Nationality: Polish

The Mayor of the City of Kraków



Elżbieta Koterba

Born:
Nationality: Polish

Deputy Mayor of the City of Kraków



Tadeusz Trzmiel

Born:
Nationality: Polish

Deputy Mayor of the City of Kraków



Grzegorz Stawowy

Born:
Nationality: Polish

City Council, Spatial Planning & Environment Protection Commission



Paweł Węgrzyn

Born:
Nationality: Polish

City Council, Development and Innovation Commission



Sławomir Ptaszkiewicz

Born:
Nationality: Polish

City Council, Revision Commission



Kraków Municipality Consultants:

Bożena Kaczmarska Michniak

Born:
Nationality: Polish

Office of Spatial Planning



Elżbieta Szczepińska

Born:
Nationality: Polish

Office of Spatial Planning



Jan Barański

Born:
Nationality: Polish

Office of Spatial Planning



Monika Antoniuk

Born:
Nationality: Polish

Monika Antoniuk, architect
Born and raised in Kraków

1983-1989 Faculty of Architecture of Kraków University of Technology
since 1998 employed at the Laboratory of Urban in the City of Kraków, now in the position of Chief Specialist since 2005, admitted to the South Regional Chamber of Town Planners



Stanisława Górka

Born:
Nationality: Polish

Department of Architecture & Urban Design



Tomasz Pelc

Born:
Nationality: Polish

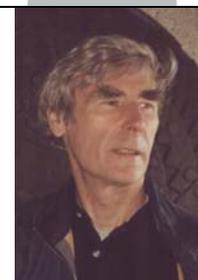
Department of Architecture & Urban Design



Andrzej Wyżykowski

Born:
Nationality: Polish

Architect, urban planner, full professor, former Head of the Chair of Urban Renewal and Development, Kraków University of Technology, Faculty of Architecture. Scholarship holder of the Greece and Norwegian Government. Participants of numerous international conferences. Visiting professor at the University of Tennessee, Kansas University and others. Author and co-author of scientific publications. Designer of over hundred urban and architectural projects, winner of 25 competitions. Significant international experience (worked over 4 years in London and Kuwait). Member of Polish Architects Association, Society of Polish Town Planners, Salzburg Congress of Urban Planning and Development. Since 2002 Chief Architect of Kraków



Alicja Prokopowicz

Born:
Nationality: Polish



Alicja Prokopowicz has studied architecture at the Faculty of Architecture, Kraków University of Technology. During the studies she worked in Student Laboratory of Contemporary Architecture led by the university teachers. Master's thesis defended at the University of Technology, Faculty of Architecture, Institute of Urban Design. After studying she started work in the author team led by Prof. Andrzej Wyżykowski and prof. Waclaw Seruga in Kraków Development Office. In the Design Co-investors and Labor Invest projekt Kraków she got the permissions. She has been working for several years as a freelanced architect with the focus on residential buildings, service buildings, and interior design. Since 2004 she has worked in Municipality of Kraków, Architecture and Urban Design Architecture, as a specialist in the field of urban studies and determining the conditions of the investment.

Co-organizer CUPA implementation lab workshop in Kraków, on behalf of the Faculty of Architecture, Municipality of Kraków.

Marta Żak

Born: 1957
Nationality: Polish



Graduate faculty on Civil Engineering at the Kraków University of Technology with a specialization in: roads, streets, airports. Completed trainings, confirmed by certificates, in the fields of: municipality spatial development, organization and management of urban roads, public consultation in the field of urban investment, marketing management and strategic process, structures and decision-making processes in the European Union, promotion models, marketing and public relations in the municipality.

Works for the Municipality of Kraków in the City Strategy and Development Department since 1996. First as inspector, then as the manager of strategic planning unit and currently as the deputy Director of City Strategy and Development Department. She deals with issues of strategic planning, revitalization, encouraging entrepreneurship, investor's service, social communication. Participated in work on the Study on Conditions and Directions of Spatial Management of Kraków, adopted by Resolution of the City of Kraków in 2003.

Gaja Stelmachowicz-Dziech

Born: 1977
Nationality: Polish



Master of science, architect. Graduated from the Faculty of Architecture of Kraków University of Technology, diploma officially recognized by The Royal Institute of British Architects. Participant of students exchange with Plymouth University of Architecture.

Completed Architectural Management course followed by the management training in UK. Granted the scholarship for architectural design practice by the Municipality of Nuremberg.

Experienced in residential architecture designing. Specializes in a field of administrative procedures in investment process.

Since 2007, works for Municipality of Kraków: first, specialist in the field of urban studies and determining the conditions of the investment, in the Department of Architecture & Urban Design; currently, since February 2011, chief specialist in Investor Support Centre in the City Strategy and Development Department.

Co-organizer of CUPA implementation lab workshop in Kraków.

Marcin Kandefer

Born:
Nationality: Polish



Department of Information, Tourism & City Promotion

Kraków External Consultants:

Sebastian Chwedeczko

Born:
Nationality: Polish



Kraków Development Office

Stanisław Deńko

Born:
Nationality: Polish



Vision Architects Office

Krzysztof Ingarden

Born: 1957
Nationality: Polish



Krzysztof Ingarden (1957, Wrocław), graduated of the Faculty of Architecture at the Kraków University of Technology (1982) where he also obtained his PhD in Architecture (1987); during his PhD programme, he was an intern at the School of Art and Design, Tsukuba University in Japan (1983-85 scholarship of Japanese Minister of Education); worked at Arata Isozaki & Associates in Tokyo (1984-85), J. Polshek & Partners, New York (1987); a Professor and Deputy Dean at the Faculty of Architecture and Fine Arts at the Kraków College (since 2003).

Curator of the exhibitions: the Japanese part of the "3-2-1 New Architecture in Japan and Poland" exhibition (Kraków, Poznań, Łódź, Wrocław, Katowice, Roma, Milan);
Arata Isozaki Sketches and drawings, Kraków; Polish Architects for Japan, Warszawa

Awarded: Honorary Award of the Polish Architects Association SARP (2009) and the title: "Kraków's Architect of The Year 2008"

Piotr Gajewski

Born:
Nationality: Polish



Architects Association SARP Kraków

Krzysztof Bieda

Born:
Nationality: Polish



Title: Prof. dr hab. inż. architect

Institute: Institute of Urban Design (A3)
Division of Public Spaces for Movement

Teaching Experience:

1967-87 teaching and research at Kraków University of Technology
 1982-97 teaching in Australia; as Senior Lecturer in School of Architecture, Tasmanian State Institute of Technology and from 1992 to 1997 as Associate Professor in Department of Architecture at University of Tasmania. Since 1997 back at Kraków University of Technology, Institute of Urban Design, as Professor PK.

Professional Experience:

First practical experience in Vienna, Austria working for two years in architectural offices.
 1974-87 architectural practice in Kraków. Some 30 design works. Also recently several architectural and urban design commissions in various stages in Poland.

Public Service:

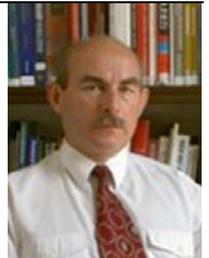
1999-2000 Chief Architect of Kraków

University Service:

1984-87 Deputy Dean, Faculty of Architecture Kraków University of Technology
 1995-97 Academic Dean Faculty of Design, University of Tasmania, Australia
 1997-99 Deans Representative for International Exchange.
 2005-08 Vice-Rector Kraków University of Technology.

Jacek Kolibski

Born:
 Nationality: Polish



Licensed real estate manager, is a lawyer specializing in brownfield redevelopment and former President of Kraków Agency for Regional Redevelopment. In this capacity he authored the successful redevelopment of the former Kraków caustic soda factory site. Working in real estate development he is currently involved in redevelopment of industrial brownfield project in Chorzow; a heavy industrial town West of Kraków.

Kinga Racoń-Leja

Born:
 Nationality: Polish



Institute of Urban Design, Faculty of Architecture, Kraków University of Technology
 Ph.D. Arch., Adjunct Professor, Kraków, Poland

Education:

- Doctoral Degree in Architecture and Urban Design [CUT] 2003; Doctoral Study [CUT] 1997-2000; Doctoral research TEMPUS Programme at IUAV University Institute of Architecture in Venice, Dipartimento di Progettazione Architettonica, 1997;
- Master of Science Architect [CUT] 1995; Exchange study program at Department of Art and Architecture of University of Tennessee in Knoxville, USA 1992-93;

Work / Research:

- Coordinator of the international program “Facing Impact of the Second World War – Urban Design in European Cities” 2009-12 – [www.urbanwarimpacts.eu], LLP Erasmus Intensive Programme for students in architecture -Oswiecim/Rotterdam/Dresden, with TU Delft, HTW Dresden, HAWK Hilsdeheim;

- Expert from the field of “Architectural and urban conditions of shaping socially safe housing estates” (as opposed to gated communities), Member of the Scientific Council for the for the Integrated Safety Politics; Involved in the Malopolska program “School promoting the safety” [2004-present];
- Grant of the Committee for Scientific Research KBN 2003-04 “The Safe Space. Urban and architectural conditions of the city space shaping for the safety of inhabitants”, co-author of the monograph, numerous publications;
- Grant of the Polish Committee for Scientific Research KBN 2000-03 “Contemporary Covered Public Spaces Shaping, their weight in the revitalization of the city space process” doctoral dissertation, numerous publications.

Władysław Brzeski

Born: 1951

Nationality: Polish

International Real Estate Institute, Kraków, Poland

Education: Royal Institute of Technology, Stockholm, Sweden (1985-1988)

Title: Tekn.Dr. (Ph.D.) in Real Estate Economics

Member of the International Property Tax Institute (www.ipti.org) and Royal Institution of Chartered Surveyors - FRICS

Present position: Partner REAS Residential Advisors (www.reas.pl), World Bank consultant

Key qualifications: property tax reform work and debate in Poland and Russia, comparative property tax systems, innovative urban finance in transition countries, local property tax administration.



Participants from International partner cities:

Marek Dinka

Born: 1982

Nationality: Slovakian

Marek Dinka was born on 15th November 1982 in Bratislava.

He studied geography, spatial planning and spatial research at the universities in Bratislava, Vienna and Münster. He finished his studies in Vienna; in his masterwork he was comparing the spatial planning systems in Slovakia and Austria. He is working for the Bratislava city administration at the department for territorial systems coordination.

Together with his colleague, Mrs. Adamcová, he is responsible for regional territorial affairs.



Yuriy Kryvoruchko

Born:

Nationality: Ukrainian

Head, Office of Architecture at City Development Lviv City Council, UKRAINE



Mirela Manasijevic Radojevic

Born:

Nationality: Serbian

JP "Urbanizam" Novi Sad, Serbia



Elżbieta Matuszak

Born:

Nationality: Polish

City Office Lublin, Planning Department Lublin, Poland



Guests:

Krzysztof Nowak

Born:

Nationality:

Compress Representative office of the City of Vienna in Kraków



Borys Czaraczew

Born:

Nationality:

Kraków Architects Chamber



B Introduction to the Kraków case study area

The preparatory visit that was made in March 2011, led to the selection of the Kraków Channel Area for the CUPA Implementation Lab.

Problems of possible flooding of Kraków by Vistula river and its branches have been well known for ages.

Over a hundred years ago, an idea to build a “Kraków Channel” on Vistula river developed.

Its aim was to mitigate the surplus of water and let flow pass by sharp bend of the riverbed at the foothill of the Royal Castle. The idea however has never been executed.

Today, the embankments of the river are reinforced, they are higher than before, and seem to suffice in protecting the city against a 100-year water flooding. Various studies and researches do not necessarily recommend building the Channel. The final decision has not yet been undertaken, however the site for the future possible Channel is still reserved in all plans. In the CUPA Implementation workshop we intend to take under consideration two different options and discuss alternative solutions. No doubt, that in both cases, we should achieve improvement of the existing space, and find a set of completely new characteristics based on existing values.

The participants of the workshop were encouraged to identify different aspects of such decisions and to suggest possible spatial proposals. **Questions**, amongst others, are:

- what would be beneficial for the city in terms of spatial development ?
- what kind of functions may become new attractions for developers and city residents ?
- what and where should new structures be build in order to provide best possible access to the site ?
- how will redevelopment of an area influence the society in terms of sociological, economic and cultural aspects ?
- how to make the most of river in terms of water sports, recreational facilities, leisure, etc.?

The case study area: the Kraków Channel area *)

Main characteristics

Kraków is the second biggest city in Poland and the capital city of the Malopolska Region. Once royal, today spiritual capital of Poland.

Kraków technical & infrastructure potential

It is situated around 300 km south of Warsaw at the intersection of important transport routes. Roads and railway routes running in the vicinity of Kraków connect the Baltic Sea with the south of Europe (the Gdansk – Budapest road) as well as the Eastern Europe with the Western Europe (the Frankfurt – Kyiv road).

The John Paul II International Airport Kraków – Balice is situated near the city. It is one of the biggest airports in Poland providing direct connections from the capital city of Malopolska to cities in Poland (Warsaw, Gdansk, Poznan), Europe (52 airports in 17 countries) and North America (Chicago, New York). In 2010 there were 16 airlines, 9 traditional and 7 low-cost, permanently operating flights from and to the Kraków Airport, the Airport's services also included charter flights. According to Forbes (2008) Kraków has best city transportation net in Poland.

Demographic potential of the city and the region:

In the mid-2010 Kraków had 755.546 inhabitants and a positive birth rate amounting to 1.3 %. At the same time the migration balance was also positive. Kraków is the second biggest city in Poland in terms of population and almost 60% of its inhabitants are young people who are less than 44 years old. Not only Kraków, but the whole region is characterized by high demographic potential. The suburban area is inhabited by 1.500.000 people and around 8.000.000 people live within a hundred-kilometer radius from the city.

Scientific potential of Kraków:

Kraków is one of the most important academic centers in Poland. Over 212.000 people, i. e. 10 % of all students in Poland, study in 23 universities and colleges. 13,000 academic teachers, including 1.400 professors are responsible for their education. Every year over 45.000 students graduate from the Kraków universities and colleges, most of them from the Jagiellonian University, the AGH University of Science and Technology, the Kraków University of Economics and the Kraków University of Technology. Almost 13 % of the Polish academic staff are teachers of the Kraków universities and colleges. Cooperation of universities and colleges with research and development units, as well as hi-tech companies contributes to establishment of research and development centers in Kraków (Centers for Advanced Technologies, Centers of Excellence, Technology Transfer Centers and Research and Development Centers of companies). Another example of cooperation between science, business and self-government in our city includes clusters embracing enterprises, universities, research units which, despite the fact that they conduct separate, competing activities, cooperate in certain areas, e. g. they conduct research and development works together.

Kraków business potential:

The Special Economic Zone sub-zones operating within the city altogether have around 86 ha, including 58 ha of developed land. They offer state aid of a certain range, as well as attractive green land and office space of the highest class to investors. The Special Economic Zone is available to almost all companies operating in the sector of traditional industry and some service sector enterprises, including IT, research and development, accounting and audit, bookkeeping, technical research and analyses as well as call center companies.

At the moment in Kraków the hi-tech sector as well as the sector of specialized services are developing particularly dynamically. Currently in the area of the Special Economic Zone, there are around 50 companies of the kind, employing over 16.000 people. Among the above companies the BPO (Business Process Outsourcing) sector firms are especially important for the Kraków job market.

In the Global Services and Tholons ranking for 2010 Kraków took the first place on the list of ten emerging locations for outsourcing. No other Polish city was included in the ranking.

*) See for the extensive presentation of the Case Study Area annex C: Presentations.

There are also 109.960 small and medium enterprises, 13.000 commercial companies, 2.500 foreign companies in Kraków.

Kraków touristic attractiveness potential:

The historic center of Kraków, together with the Wieliczka Salt Mine located in its vicinity, were entered to the first UNESCO World Heritage list in 1978. Also AUSCHWITZ-BIRKENAU German Nazi Concentration and Extermination Camp that was inscribed on the World Heritage List in 1979 needs to be mentioned here as an important part of region's potential and it's located about 75 km away from Kraków.

The City's magic consists of the unique complex of architecture, art and culture (more than 25% of the resources of the Polish works of art is gathered in Kraków). The beauty of monuments, the possibility of exploring the city on foot, diversity of restaurants and pubs, artistic events and, above all – the magical atmosphere of Kraków – attract many tourists from Poland and abroad. The city belongs to one of the most often visited places in Poland and in Europe. In 2010 Kraków was visited by 8.150.000 people, including 2.100.000 foreign guests. Most of the foreigners coming to Kraków are citizens of Great Britain, Germany, Italy, France, Spain and the USA. Kraków "after hours" offers among other attractions: 40 museums, 15 theatres and 14 cinemas. Kraków is also called the City of pope John Paul II, more than 2 million pilgrims visited Kraków last year.

Facts and figures

Malopolska Region (Voivodeship) covers an area of 15.182km² and it is one of smallest regions in Poland - 12th place out of 18. With population of 756.000, Kraków is the capital city of the region. There are 12 other cities and towns in Malopolska Region having population bigger than 20.000 but second large city - Tarnow - has only about 115.000 inhabitants.



Transportation

Infrastructure of the projected area is the north-south thoroughfare over Debnicki Bridge and Grunwaldzki Roundabout- Konopnicka Street and Kapelanka Street, Monte Casino and Zielinskiego Street towards Zwierzyńcki Bridge. The rest of the transportation infrastructure is a network of local and residential roads in relation to the main streets of the area.

In the northern part of the Vistula river crossing along the old buildings of Dębicki Market there is Tyniecka Street. Grunwaldzki Roundabout is the central hub located in the north part of Debniki district in the vicinity of Vistula boulevards.

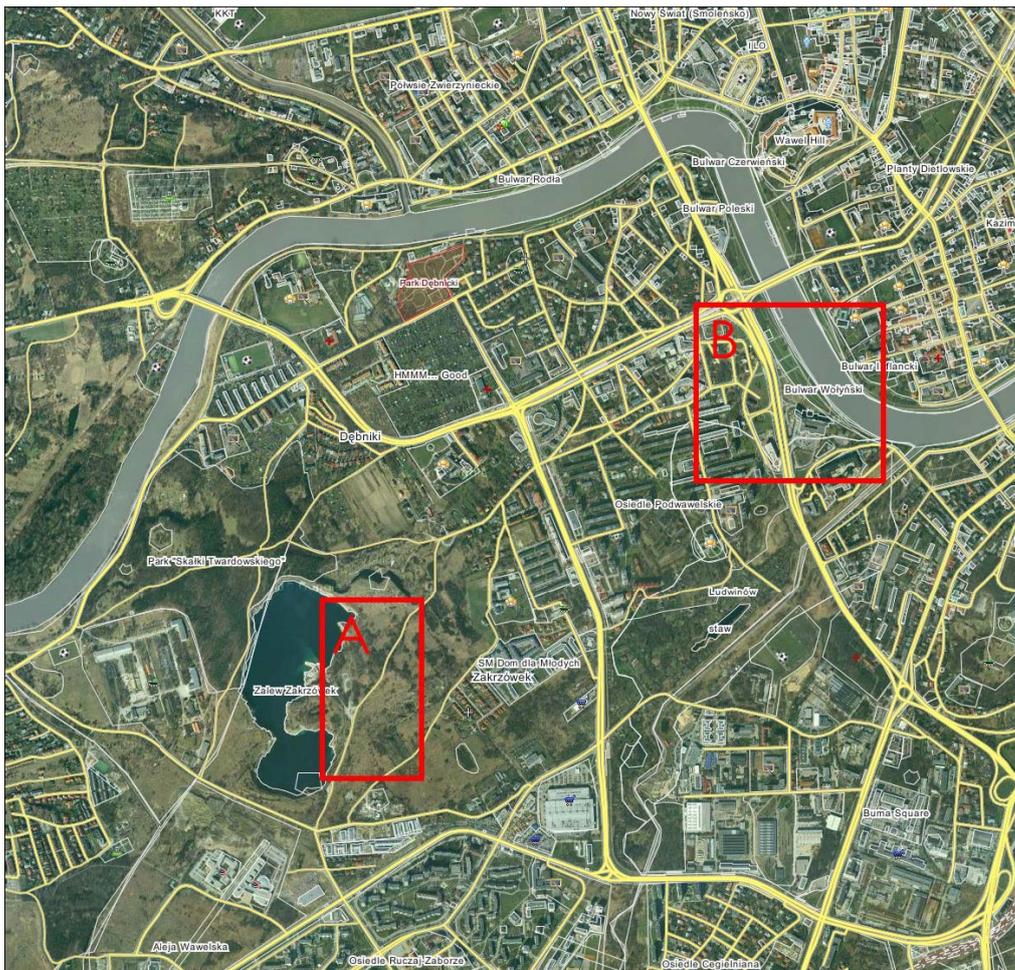
Buildings of the projected area are diverse and include in the northern part the historic layout of the old Dębinki, in the south-east, along Maria Konopnicka Street and Kapelanka, modern residential commercial buildings and Congress Center building in the vicinity of Grunwald Roundabout.

A characteristic complex is Podwawelskie Housing with about 10 thousand inhabitants, occupying an area of approximately 90 hectares. This is typical multifamily housing settlements. There are primarily compact building blocks and big block complexes. On the outskirts of residential housing there are lots of small houses. An example of the implementation of modern building is a modern complex of residential apartments -Ludwinów. Within the limits of the area two sites as a source of numerous conflicts widely discussed in society can be identified.

The first of them - AREA A - is located in the immediate vicinity of the **lake Zakrzówek** where the complex of residential buildings with the part open to the public for recreation and leisure activities is planned. In opposition to the proposal submitted by the developer, the organization Green Zakrzówek along with other community organizations from the area of Kraków, has developed a common vision for the development of this area, called the Social Development of Zakrzówek Strategy. According to this concept Zakrzówek should become the public recreational area with no residential neighborhood.

Second – AREA B –

located in the immediate vicinity of the Vistula boulevards built out of the hotel Forum. According to the plans of the current owner of this area, after the demolition of the hotel, there will be a modern complex of residential apartments.



Krakow canal - Project conditions, possibility for a vision

Kinga Racon-Leja
Faculty of Architecture of Kraków University of Technology

1. DISCUSSION AROUND THE KRAKOW CANAL ¹

Two recent floods in Krakow brought to the discussion the issue of the Krakow - Relief Canal accomplishment. Landscape attractiveness, closeness of historic city areas and prestigious investments rise questions on the estimated function of this land. Controversial opinions as well as contradictory expert research results deepen the problem. Blocked for almost 100 years area is under the pressure of the aware of its potential developers.

Unrealized so far water canal, beside its flood relief function, could offer the possibility of attractive city space – the potential which is hardly taken under considerations. Canal construction would improve the Vistula water navigation conditions as well. The lack of decisions leads towards further degradation of the area and closes the possibility of neighbourhood integration.

2. ANTI FLOOD FUNCTION

In the last years Krakow two times faced high '*millennium water*' directly threatening the historical city centre. Only few centimetres separated the city centre from the catastrophic flood. In direct impendence were the National Museum and Jagiellonian Library collections, universities and many important buildings belonging to the European heritage.

The idea of the canal erection was born in 1904-06 in the former Austrian sector, after tremendous flood in Krakow. The water-course was planned to detach from Vistula river at the height of Przegorzaly, passing at the south Zakrzowek area, and joining the river at the Wilga mouth. For the future investment the area of 100 m width and 4 km long is kept in reserve, as confirmed in the consecutive city documents as - Study of the Conditions and Directions of the Spatial City Development and local Master Plan. The channel could protect areas of monumental inner-city, Alee, Blonia and the communities of Debniki and Ludwinow settlements.

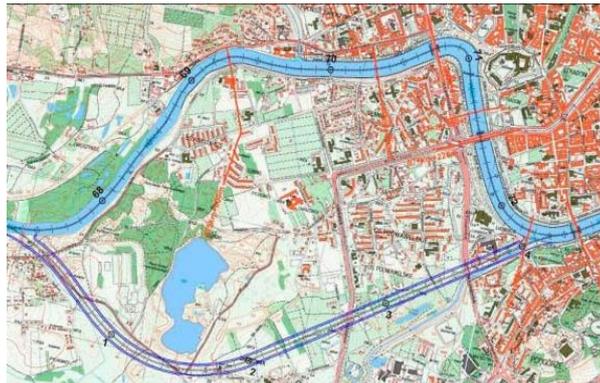
The pressure of the owners on the kept in reserve land, the interest of developers determined the City to evaluate the usability of the canal as the element of anti-flood protection. The canal became the research area for the experts from various academic centres, among which Elzbieta Nachlik from Kraków University of Technology, Warsaw University of Technology and Jozef Dziopak from Rzeszow University of Technology are to be mentioned.

The city commissioned the feasibility study to the TINA Vienna TINA Vienna Transport Strategies GmbH. Within this expertise there were two canal variants analysed [2]. According to the first one, which apart from the anti-flood function, would assume also navigation function, the water level could be lowered by 32 cm, at the cost of investment estimated on 884 mln PLN. The second variant of the recreation and anti flood function, enabling only small boats for navigation, would probably reduce the water by 28 cm, at the 629 mln PLN cost estimation. Other to TINA valuations expected much higher expenses, up to 1,2 or even 3 mld PLN depending on the source, including the ground buy costs and 4 bridges construction [3].

¹ Research works concerning the Krakow Canal with the didactic application were conducted by the Section of Public Spaces for Movement, Institute of Urban Design of Faculty of Architecture of Krakow University of Technology, e.g. Prof. Krzysztof Bieda and an author of this article.

The results were not so satisfactory as expected, saving the city on the relatively small distance between the Debnicki and Grunwaldzki bridges. On the other side this was the most prominent part of the city. The water level change in both calculated by TINA variants was considered as too small, although the last years experiences showed that even few centimetres could matter.

The expertise assumed also the necessity of improvement of the water step Dabie and retention reservoir Swinna Poreba.



Ill. 1. Planned Krakow Canal; TINA Vienna Transport Strategies GmbH.

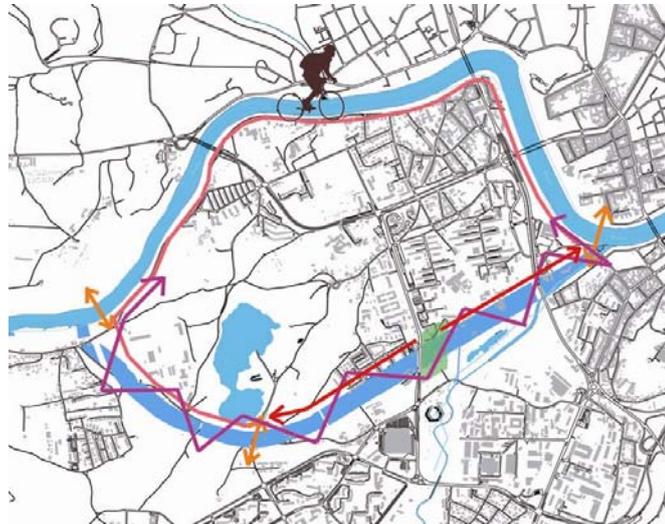
J. Dziopak, who presented recently very critical opinion, calls our attention on the issue of 'back water' occurrence in the place where a water-course joins the Vistula river. In his opinion, narrow canal mouth, could cause more small floods in the area. His concerns touched also the issue of the high cost of the future canal maintenance.

Vistula in Krakow needs to be regulated. Within the last years the water level change got up to 9 meters, including 4 meter of the flood wave. I personally join the opinion of experts, from Technical Universities in Krakow and Warsaw, who treat Krakow Canal as one of the elements of entire anti-flood protection system, still very important.

3. NAVIGATION FUNCTION

In the public discussion concerning the usefulness of the canal investment the issue rarely touched is its role in the Vistula navigation system. Waclaw Wojciechowski from the City Department of Safety and Crisis Management prepared the document regarding the 'Economic Revitalisation of the Vistula Function in Malopolska Region 2009'. He has pointed the potential which can be brought by the channel to the water transport on the regional as well as national level [4]. Present navigation function of the Vistula is significantly limited due to the low height of Debnicki bridge, as well as to sharp bend (of 200 m radius) of the river at the Wawel castle hill. In his opinion only a new canal could enable Vistula to keep the 3rd class of the inner-land water road on this distance, which it does not execute presently.

Wojciechowski refers to the former use of the river, bringing back the issue of using its potential as an ecological form of the transportation. Historically the Vistula was used for coal, wood and grain transportation. Presently it could find the new use, distributing natural resources and final products between Silesia district and industry to the east of Krakow. According to an expert the river transport could be even 30% cheaper fro the rail transport, and almost 4 times cheaper than the road transportation. The lack of the investment in the river transportation in Poland has become an effect of strong auto-mobile lobby domination, and weakness of the national strategy.



III. 2. The future island for recreation, marked by the planned canal [Students: CUT Krakow: I. Zdeb, E. Szymonik, K. Dryńska, A. Koczwański; didactic team: prof. K. Bieda, dr K. Racoń-Leja and eng. M. Smits].

Also a water tram, whose idea was last years promoted in Krakow, could become an attractive element of public transportation system. Presently it serves only as a tourist attraction. Even if we consider its speed as low, of average 12 km/hr. and maximum of 20 km/hr., it represents the car speed in the rush hour. New tram line along the channel could allow for collision-less transport from New Jagiellonian University Campus / Ruczaj housing areas to the centre, and even further to the Podgorze and Zablocie districts.



III. 3 New city space visions along planned Krakow Canal [Students CUT Krakow : A. Derlatka, W. Kawalec, Ł. Koryl, E. Piwowarczyk; didactic team: Prof. K. Bieda, K. Racoń-Leja]

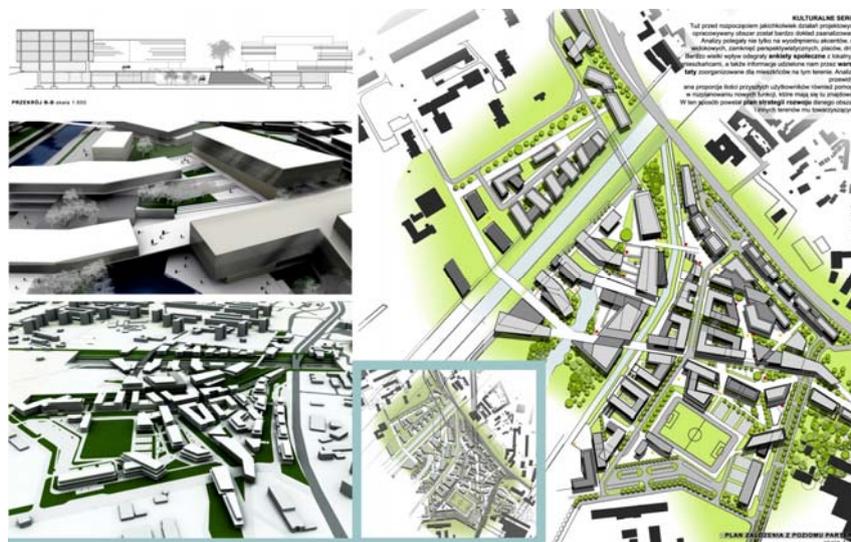
4. CANAL WITHIN THE CITY CENTER

Areas along the planned canal are very attractive, placed close to the centre, carry a potential to offer unique views to Wawel and historic city. At the same time they enable for a contact with valuable natural zone of Zakrzówek reservoir. On the south grow new housing estates, fast develops new university campus and offering new job market enterprises. We should not be surprised than, that the canal concept has become a subject of numerous discussions.

Very interesting phenomenon in this context, became the lack of interest in using a new water-course for a growth of the city potential. The spatial aspects, regarding an integration of the canal with the surrounding city almost do not enter the public debate. Future canal should become an element integrating surrounding urban structure, ordering presently neglected areas.

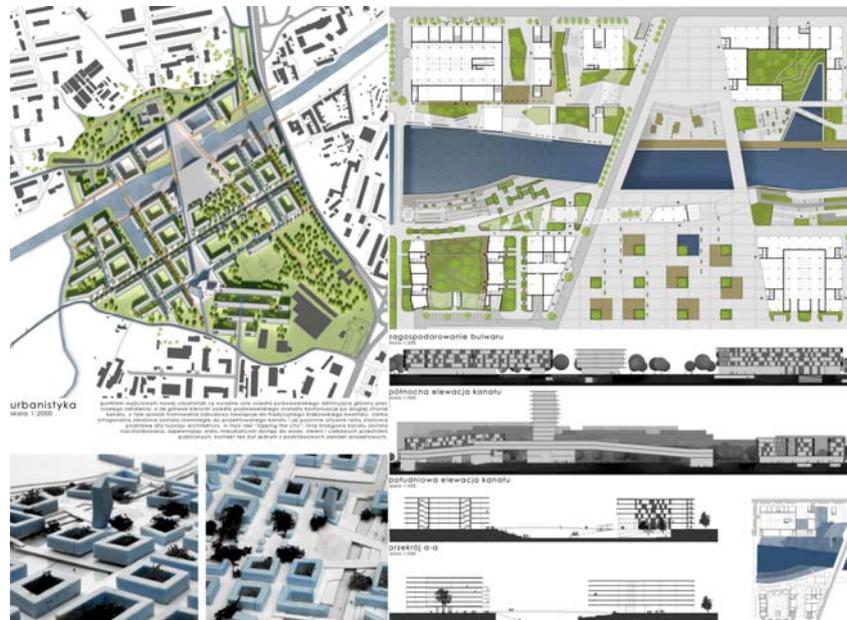
On the other hand it could offer public space on the European level. Attractive public spaces integrated with water could become a positive impulse for Krakow. In recompense for an occupied by the canal area would be the growth of the value of an adjacent land. Also the 'island concept', which Zakrzówek, Debniki and Ludwinów would after the canal construction become, is not properly promoted. Its marketing potential seems obvious for developers and for the city. New water road could enrich the recreation offer of Krakow.

There are many reasons of the non-creative approach to the channel. As presently designed, it would become purely hydro-technique structure². High, 4 km long earth embankments do not contribute to the attractive city space. Acting within the water structure requires an integration of an engineering solutions with architectural-urban visions. The questions of enriching the section of embankments, urban room of the water canal seem in this particular case quite abstract.



III. 4 New city space visions [Students CUT Krakow: M. Smits, A. Cupek; didactic team: Prof. K. Bieda, K. Racoń-Leja].

² Technical project was prepared by Hydroprojekt.



III. 5 Urban integration of the planned areas near the Krakow Canal [Students CUT Krakow: J. Duliński, B. Fiszer, K. Frańczak, W. Gosztyła; didactic team: Prof. K. Bieda, K. Racoń-Leja].

5. FUTURE

Blocked for so long area overcame many structural deformations. The canal line become an urban barrier, leading towards urban disintegration between its south and north part. The lack of relations between artificially cut built zones caused many unfavorable decisions, spatial and transportation ones. Reserved for canal piece of land is presently de-gradated, greenery stays neglected.

Facing expertises, which do not directly support the anti-flood function of the Krakow Canal, the City might free the land for developers. Krakow will lose its chance for the new public space concept. As it often happens, it will lack the vision.

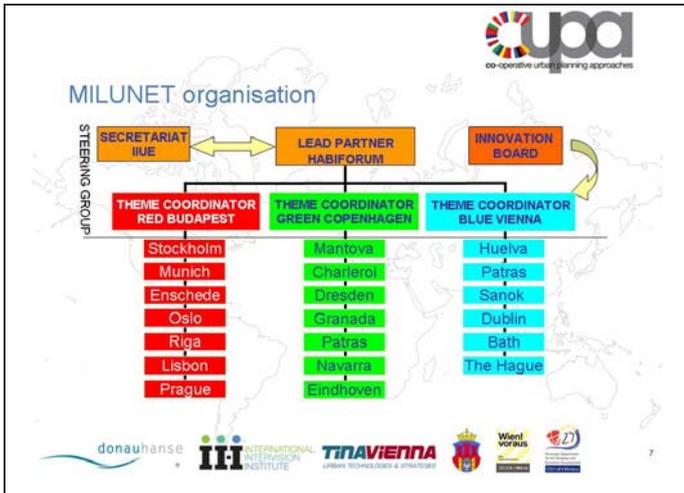
Literature

- [1] Dziopak J., Krakowski Kanał nam nie ulży, 2011. [w: <http://www.nbi.com.pl/krakowski-kanal-ulgi-nam-nie-ulzy-2/>; 03.2011].
- [2] Concept and feasibility study of the „Krakow Canal”, TINA Vienna Transport Strategies GmbH, Wiena 2009.
- [3] Tymczak P., Dziennik Polski: Ujawnijmy raport o kanale ulgi, [w: http://news.komunikacja.krakow.pl/lokalne/2636,11,artykul,ujawnijmy_raport_o_kanale_ulgi!.html]; 03.2011] i inn.
- [4] Wojciechowski W., Rewitalizacja gospodarcza funkcji Wisły w Małopolsce, Kraków 2011, Urząd Miasta Krakowa, Wydział Bezpieczeństwa i Zarządzania Kryzysowego.

C The presentations

Huibert Haccoû

 <p>International Intersivision Institute</p> <p>CUPA Implementation Lab Krakow 11-14 October 2011</p> <p>Huibert A. Haccoû</p> 	 <p>www.iinstitute.net</p> <ul style="list-style-type: none"> Successor of MILU^{net} International network of professionals working on sustainable area development Motivated to offer Implementation Labs On a non for profit basis 
 <p>Introduction</p> <ul style="list-style-type: none"> drs. H.A. (Huibert) Haccoû Professor at the School of Environmental Planning and Building, Saxion University of Applied Sciences, Deventer, The Netherlands Project director Interreg IIIc Operation MILU^{net} 2007-2010 Interreg IVb Project Livinggreen 2009-2013 Managing director International Intersivision Institute 	 <p>Aims of the International Intersivision Institute continuation of the MILU^{net} aims</p> <ul style="list-style-type: none"> Promote Multifunctional Intensive Land Use Realize more sustainable/ climate neutral (urban) development in Europe More effective policy implementation by intersivision Challenge is  <p>Turn urban growth into sustainable urban development</p> 
 <p>MILU^{net}</p>  	 <p>MILU^{net} Partners</p> <ul style="list-style-type: none"> 24 Partners National, regional & local authorities Expert centers & universities Lead Partner: Habiforum Foundation, the Netherlands  



The focus of the Implementation Lab

General aim of an Implementation Lab is to investigate as a group both new and persistent urban problems as they relate to sustainable area development

Logos: donauhanse, IHI INTERNATIONAL INTERDISCIPLINARY INSTITUTE, TINAVIENNA URBAN TECHNOLOGIES & STRATEGIES, Wien | voraus, ZD

- ### When is an Implementation useful ?
- When area development processes are blocked
 - When process acceleration is required
 - When creative impulses are needed
 - When innovative concepts have to be introduced
 - When an impartial expert (second) opinion is needed
 - When a multi disciplinary approach or enrichment from culturally different points of view could be useful
- OUT OF THE BOX THINKING**
- 
- Logos: donauhanse, IHI INTERNATIONAL INTERDISCIPLINARY INSTITUTE, TINAVIENNA URBAN TECHNOLOGIES & STRATEGIES, Wien | voraus, ZD

- ### Objectives of Implementation Lab
- identify opportunities
 - identify barriers
 - find instruments
 - find effective policies
 - build up a body of expertise
 - disseminate knowledge
- Logos: donauhanse, IHI INTERNATIONAL INTERDISCIPLINARY INSTITUTE, TINAVIENNA URBAN TECHNOLOGIES & STRATEGIES, Wien | voraus, ZD

- ### Implementation Lab's were held
- | | |
|---------------------------------|--|
| 1999 Amsterdam (NL) | 2005 Huelva, (ES) 20-22 April |
| 2000 Oslo, (N) | 2005 Budapest, (HU) 5+6 September |
| 2001 Vienna, (A) | 2005 Muenich, (DE) 26-28 October |
| 2002 Gdynia, (PL) | 2006 Charleroi, (BE) May |
| 2003 Portland Or, (USA) | 2006 Province of Zeeland, (NL) Summer |
| 2004 Den Haag, (NL) 4-7 April | 2006 Patras, (GR) November |
| 2004 Stockholm, (SE) 9-11 June | 2007 Lisbon, (PT) 11-13 May |
| 2004 Mantova, (IT) 3-5 November | 2009 Vienna, (A) 2-4 September |
| | 2010 Vienna Kagran district, (A) 19-21 May |
| | 2010 Bratislava, (SL) 20-22 September |
| | 2011 Lviv (UK) 20-22 June |
| | 2011 Krakow (PL) 11-14 October |
- Logos: donauhanse, IHI INTERNATIONAL INTERDISCIPLINARY INSTITUTE, TINAVIENNA URBAN TECHNOLOGIES & STRATEGIES, Wien | voraus, ZD

- ### Implementation Lab ingredients
- Three days workshop involving:
- External international practitioners as experts
 - Internal local experts
 - Case dossiers
 - Maps
 - Reference cases
 - Site visit of the study case
 - Focused brainstorm sessions
 - Task forces for recommendations
 - Press conference and comments of authorities
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Implementation Lab

- **Identity**
Do the project areas have their own identity?
- **Critical mass**
Does each site have enough development, infrastructure and resident population to maintain a coherent community?
- **Connections**
What links does each site have with its surrounding natural and man-made environment?
- **Better Human Scale**
Do developments relate to diverse human scale activities?
- **Promotion & Marketing**
How are existing (mixed) uses on each site promoted?
- **Process**
How to organize an effective planning and implementation process?




Proceedings

- Make an inventory of **Observations**
- Make use of the 6 considerations
- Select the common / most striking Observations
- Use these common / most striking Observations to generate **Suggestions** for interventions (large scale / small scale) in the second round
- Make use of the considerations that are most relevant




Day 1 Wednesday 12th of October 2011

08.15 Gathering in hotel lobby of your hotel. We will leave for the Krakow Municipality Office on foot

08.30 Arrival at the Krakow Municipality Office at the Plac Wszystkich Świętych 74, 2nd floor, rooms: Dietała and Portretowa and Participants registration

09.00 Official welcome by Deputy Mayor **Elzbieta Koterba** and **Andrzej Wyżykowski** Chief Architect of the City of Krakow

09.30 General introduction to the programme and introduction of participants by **Huibert A. Haccoü**, CUPA Facilitator and chair of the Implementation Lab and **Volkmar Pamer** subgroup facilitator, on the IL considerations




Day 1 Wednesday 12th of October 2011

09.45 The study case area of the Ulga Channel by Professor **Andrzej Wyżykowski**, Chief Architect of the City of Krakow and Dr. **Kinga Racon-Leja**, Researcher at the Krakow University of Technology, Institute of Urban Design
Formulation of the problem statements and short discussion.

10.30 Coffee break

11.15 Reference cases:
- Drs. **Arjan Otten**, Project manager, Province of Overijssel
Climate adaptation in the IJsseldelta in the Netherlands.
- Dr. **David van Vliet**, University of Manitoba Canada
The Red River Floodway
- Presentations from the in CUPA Participating Cities




Day 1 Wednesday 12th of October 2011

13.00 Lunch

13.30 Breaking up for a bus ride to the study case area
Participants are requested to bring digital photo equipment and take pictures!

15.00 - 17.00 Site visit of the surrounding area and city of Krakow on foot and by bus

17.00 Return to the Hotels in the Centre of Krakow

19.00 Welcome dinner in the Malecon in the Hotel pod Wawelem Plac na Groblach 22

21.30 End of day 1




Day 2 Thursday 13th October 2011

Facilitator team available for subgroup sessions are:
Martijn Kramer, Femke Haccoü, Elisabeth van Hijckama Vlieg, Volkmar Pamer

08.30 Gathering in the hotel lobby to walk to the Centre of Urban History

09.00 Introduction and Q&A;
Plenary assessment of the problem statement and if appropriate reformulation of the problem statement / key areas of concern

10.30 Coffee break

11.00 Working sessions subgroups starting with **Observations**
Exchange of findings

12.00 Lunch at Dom Polonii



Day 2 Thursday 13th of October 2011

13.30 Working sessions continued with **Suggestions**
 15.15 Exchange of findings
 15.45 Subgroup formation on central issues
 17.30 End workshop sessions.

17.30 - 19.00
 Facilitators sit together with the host to formulate the main messages to work on in the recommendations phase of the Implementation Lab

19.30 Dinner Malecon in Hotel pod Wawelem Placna Groblach 22 (to be confirmed)
 21.30 End of day 2



Subgroups

Subgroup 1 Elsbeth Hylckama-Vlieg and Martijn Kramer 
 Focusing on **process** and stakeholder collaboration and the question: how to involve the inhabitants of the region

Subgroup 2 Volkmar Pamer and Femke Haccoû 
 Focuses on the **spatial concept**
 How should the area be functionally used



GROUP 1
 Elsbeth van Hylckama-Vlieg
 Martijn Kramer
 Process Concept
 Room A and B

GROUP 2
 Volkmar Pamer
 Femke Haccoû
 Spatial Concept
 Room C and D



Implementation Lab format

Considerations / areas of concern

	Identity	Critical Mass	Connections	Human scale	P&M	Process
Observations						
Suggestions						
Recommendations						



Day 3 FRIDAY 14th of October 2011

08.10 Gathering in the hotel lobby. NB check out of the Hotel
 08.30 Introduction formation and instruction of task forces
 09.00 - 11.00 Working groups exchange and finalize their recommendations
 Coffee on side tables
 11.00 Presentation of ppt of recommendations and discussion
 12.00 CUPA meeting do's and don'ts and further progress
 13.30 Leaving for lunch (optional)
 15.00 End of program



MILUbook

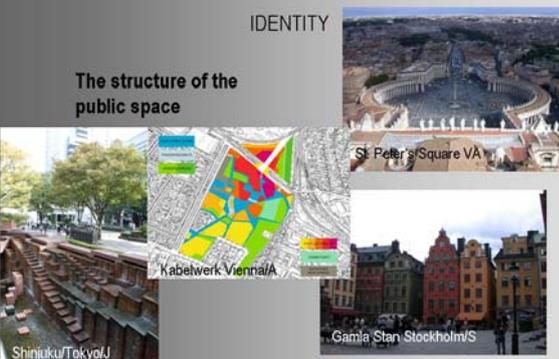


The MILUbook:
 Principles, Practices, Projects, Policies



C The presentations

Volkmar Pamer

<p style="text-align: center;">THE IMPLEMENTATION LAB</p> <p style="text-align: center;">CONSIDERATIONS</p> <p style="text-align: center;">Volkmar Pamer Vienna City Administration</p>	<p>Do the project areas have their own identity? How can this identity enhanced and improved?</p> <p style="text-align: center;">IDENTITY</p> <p style="text-align: center;">The old building stock</p>  <p style="text-align: right;">III INTERNATIONAL INTERVISION INSTITUTE Vienna ahead City of Vienna</p>
<p style="text-align: center;">IDENTITY</p> <p style="text-align: center;">The structure of the public space</p>  <p style="text-align: right;">III INTERNATIONAL INTERVISION INSTITUTE Vienna ahead City of Vienna</p>	<p style="text-align: center;">IDENTITY</p> <p style="text-align: center;">The architecture</p>  <p style="text-align: right;">III INTERNATIONAL INTERVISION INSTITUTE Vienna ahead City of Vienna</p>
<p style="text-align: center;">IDENTITY</p> <p>Water</p> <p>Others e.g.</p> <p>Property pattern</p> <p>Silhouette</p> <p>Plants, green areas etc.</p> <p>Advertisings</p>  <p style="text-align: right;">III INTERNATIONAL INTERVISION INSTITUTE Vienna ahead City of Vienna</p>	<p>What links does each site have with its surrounding natural and man-made environment?</p> <p style="text-align: center;">CONNECTIVITY</p> <p style="text-align: center;">Physical</p>  <p style="text-align: right;">III INTERNATIONAL INTERVISION INSTITUTE Vienna ahead City of Vienna</p>

CONNECTIVITY

Visual

Gdansk/PL

Rome/I

Kyoto/J

Osiek/HR

CONNECTIVITY

Social

Public space

Open to sky life

Private

Does each site have enough development, infrastructure and resident population to maintain a coherent community?

CRITICAL MASS

- Offices
- Retail areas
- Gastronomy
- Event hall
- Park
- Welfare institutions
- Hotel
- Culture events
- Medical care



HUMAN SCALE

Damascus/SYR

Sabbioneta/I

Oslo/N

Shanghai/PRC

Amsterdam/NL

Portland/OR

How can the ecological footprint be minimized by maintaining an ecological balance between urban, suburban and rural?

ECOLOGICAL FOOTPRINT

© UFAZ.de

How are existing and/or future (mixed) uses on each site promoted?

PROMOTION AND MARKETING

- A dedicated information policy
- Exhibitions at the location
- Discussions with citizens
- An elementary school awareness program
- Books and brochures
- Interviews on TV and radio
- Reports in magazines and papers
- Presentations wherever possible

III INTERNATIONAL INTERVISION INSTITUTE
Vienna! ahead
City of Vienna

How to organise an effective planning and implementation process?

PROCESS

- Political document
- Mediation
- Fund raising
- Brand name
- Competition
- Public action
- Co-ordination
- Interim use
- Citizens participation
- Round table

III INTERNATIONAL INTERVISION INSTITUTE
Vienna! ahead
City of Vienna

Confucius:
"If I tell you, you will forget,
if I show you, you will remember;
if I involve you, you will understand!"

III INTERNATIONAL INTERVISION INSTITUTE
Vienna! ahead
City of Vienna

Blank slide.

THE DANUBE RELIEF CHANNEL

Volkmar Pinner
Vienna City Administration
Krakow 12.10.2011

Vienna! ahead
City of Vienna

- Border
- Threat
- Source

Die Donau vor der Regulierung 1848

Vienna! ahead
City of Vienna



Danube moved away from the city

Vienna ahead
City of Vienna



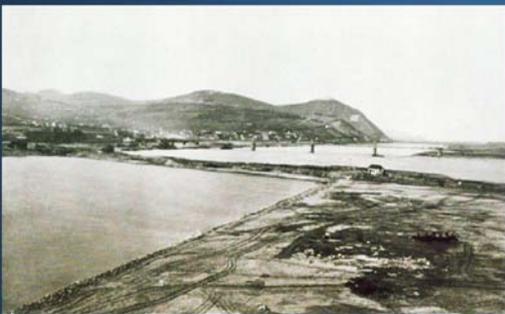
Floods 1830 and 1832 - Trigger for the founding of the "Danube Regulation Commission"

Discussion whether keeping the river in its main bed or bundle all different creeks

One bed (285 m) and a flood area (475 m)



Vienna ahead
City of Vienna



The "Durchstich" (The Cut)
1870

Vienna ahead
City of Vienna

Still Problems

Oscillating of the main bed caused shallows and sedimentations

Flooding because water could be more than 11.900 m³ (1501: 14.000 m³)

Vienna ahead
City of Vienna



Flood of 1954

Vienna ahead
City of Vienna



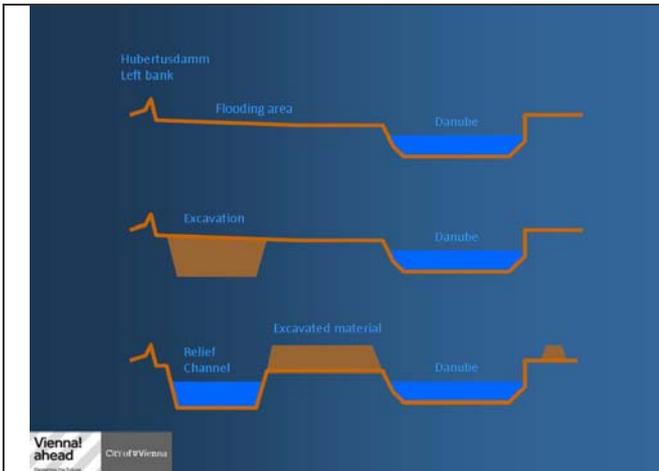
1969 Decision of the city council to improve the flood protection for the whole city

Works started 1972

Completely finished 1998 (Water power plant Freudenu)



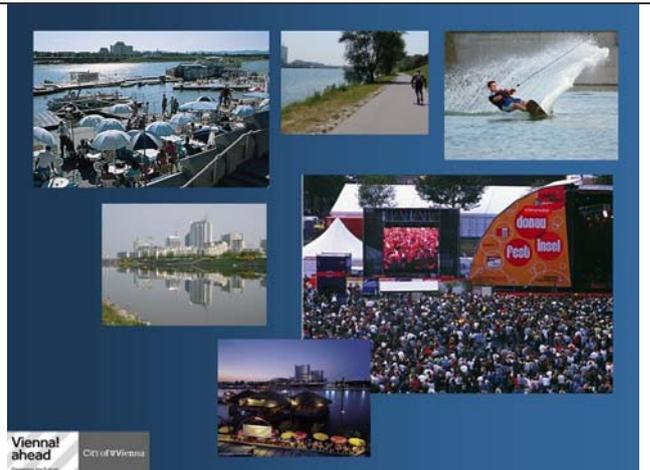

Vienna ahead
City of Vienna



DATA

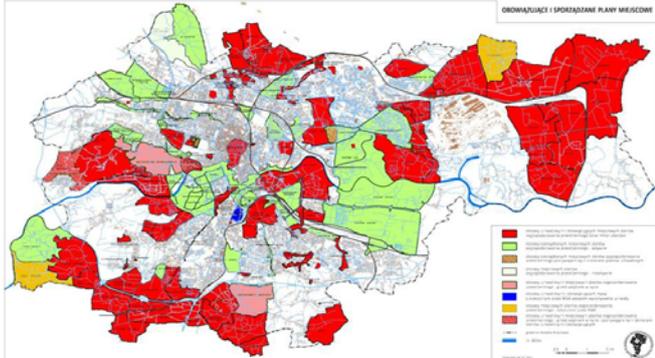
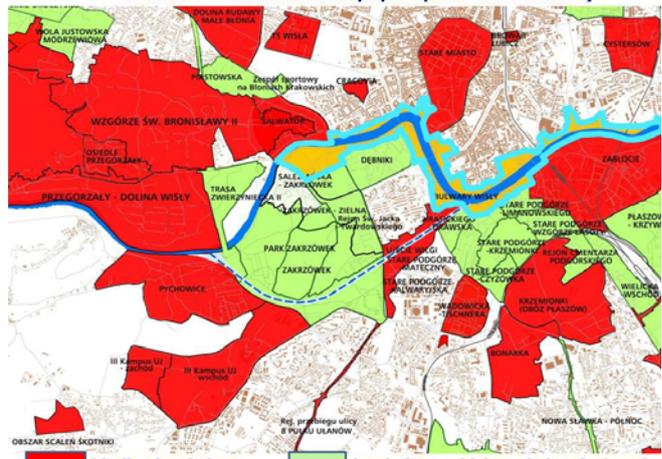
- 10.000 years protection
- 14.000 m³ flood water possible
- Danube Island: 21,1 km length, 70 –210m width
- New Danube: 200 m width to average
- Excavation material: 28,3 million m³
- Reused material: 23,8 million m³
- Humus: 1,5 million m³
- Stones for protection 1,8 million m³
- Trails: 135 km

Vienna! ahead
City of Vienna



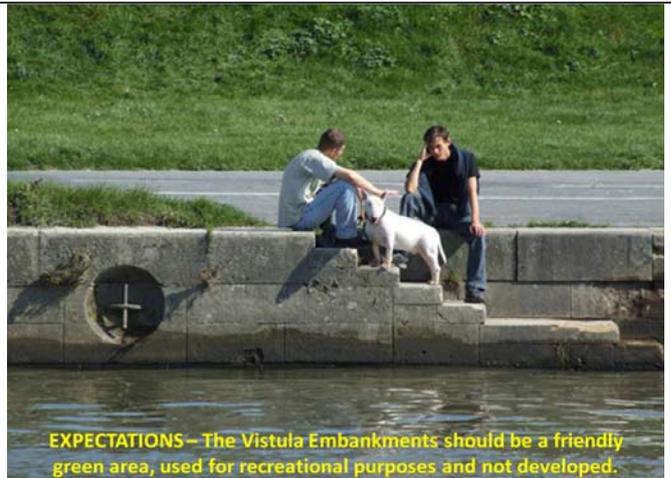
C The presentations

Monika Antoniuk

<p>SPACE PLANNING DEPARTMENT Municipality of Krakow</p> 	<p>Local land use plan for the area of VISTULA EMBANKMENTS</p>  <p>Monika Antoniuk October 2011</p> 
<p>KRAKÓW binding local plans and local plans which are being designed</p> 	<p>The area within the borders of the prepared plan as well as its vicinity</p>  <p>binding local plans local plans which are being designed</p>
 <p>unfortunately, we have many examples of wrong using the river area...</p>	 <p>The look and character of the area of the Vistula Embankments are additionally influenced by boats moored by the river banks.</p>



ROLE – ecological corridor – way for animal migration, aerosanitary current, relevant for city ventilation.



EXPECTATIONS – The Vistula Embankments should be a friendly green area, used for recreational purposes and not developed.



FUNCTION – representative, connected with culture and recreation, using the natural assets of the river area.



GOAL - preserving recreation of natural and cultural functions of the area

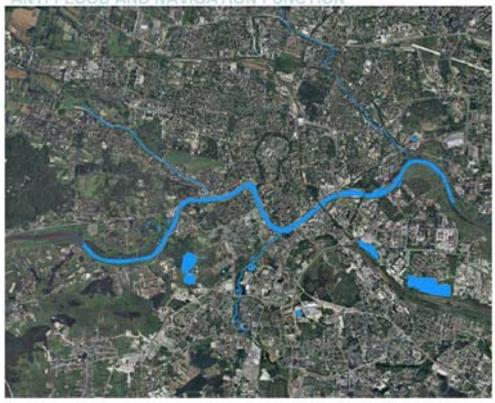
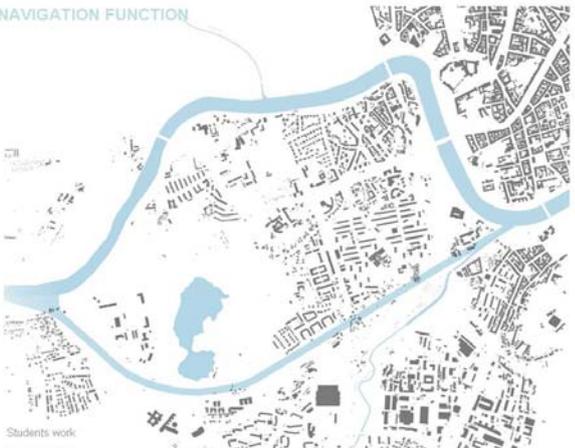
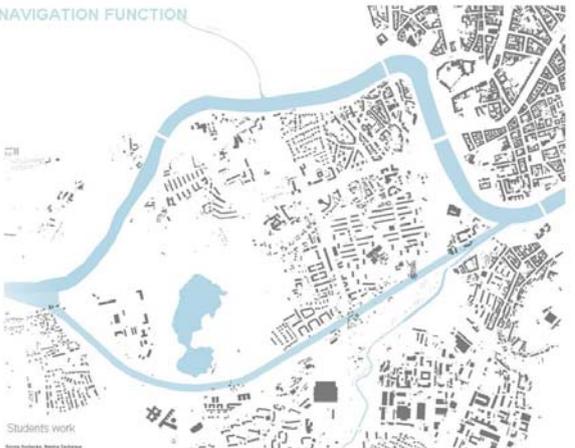
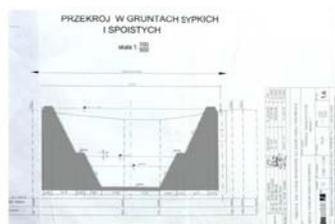
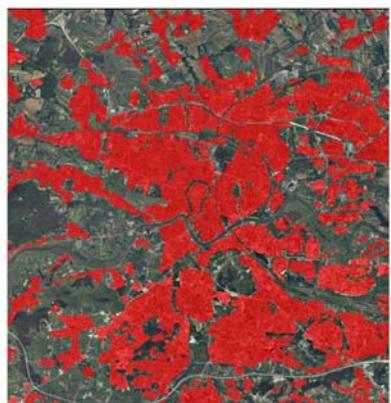
The projected
Local land use plan for the area of
VISTULA EMBANKMENTS



- So it is very important to convince the members of the municipality government to ours' ideas.

C The presentations

Kinga Racoń

<p style="text-align: center;">KRAKOW CANAL objectives and vision</p> <p style="text-align: right;">Kinga Racoń-Leja</p> <p><small>Presentation of research/didactic work results conducted in the institute of Urban Design, Faculty of Architecture of Cracow University of Technology, by Prof., D.Sc., Ph.D. Arch. Krzysztof Bieda and Ph.D. Arch. Kinga Racoń-Leja</small></p>	<p style="text-align: center;">ANTI FLOOD AND NAVIGATION FUNCTION</p>  <p style="text-align: right;"><small>Author: Student Michiel Smits</small></p>
<p style="text-align: center;">NAVIGATION FUNCTION</p>  <p><small>Students work Michiel Smits, Michiel Smits</small></p>	<p style="text-align: center;">NAVIGATION FUNCTION</p>  <p><small>Students work Michiel Smits, Michiel Smits</small></p>
<p style="text-align: center;">RIVER NAVIGATION FUNCTION TECHNICAL ASPECTS</p>   <p style="text-align: center;"><small>KRAKOW CANAL TECHNICAL CONCEPT - Hydroprojekt Authors: Eng. K. Suszycki, Eng. M. Walczyk, Techn. B. Ordon</small></p>	<p style="text-align: center;">URBAN INTEGRATION</p>  <p style="text-align: right;"><small>Krakow the Fragmented City, Student Michiel Smits</small></p>

ANTI FLOOD FUNCTION – area blocked for development

PROJECT OF THE MASTER PLAN (left side), OPERATIVE MASTER PLAN (to the right)
Source: BIP UMK

URBAN DISINTEGRATION contemporary situation

ZABUDOWA BUILT LEGENDA
 BUDYNKI BUILDINGS
 GARAZE, BUDYNKI TYMCZASOWE GARAGES, TEMPORARY BUILDINGS

OKAZY NIEZABUDOWANE BUILT LEGENDA
 zielone otwarte przestrzenie open green spaces
 tereny otwarte otwarte przestrzenie open green spaces

Students' analysis: E. Masia, R. Orszki, M. Bialko
Course: Urban Design WAPK 3rd Year

Didactic team: Prof. Krzysztof Bieda, Ph.D. Arch. Kinga Racoń-Leja and Ing. M. Świdra (TU Delft) arch. B. Hornowski, doctoral students: M. Łętocha, A. Skoczylas, W. Szykła

URBAN POTENCIAL

Students' work: J. Ziół, E. Szymoniak, K. Dyrńska, A. Kórczwałski

Course: Urban Design 3rd year WAPK
Didactic team: Prof. Krzysztof Bieda, Ph.D. Arch. Kinga Racoń-Leja and Ing. M. Świdra (TU Delft) arch. B. Hornowski, doctoral students: M. Łętocha, A. Skoczylas, W. Szykła

OPPORTUNITIES

Course: Urban Design of City Centres WAPK 4th Year
Didactic team: Prof. Krzysztof Bieda, Ph.D. Arch. Kinga Racoń-Leja, doctoral students: M. Łętocha, A. Skoczylas, W. Szykła

Students' work: B. Ficzar, J. Dulnicki, W. Gościły, K. Frączczak

OPPORTUNITIES

Students' work: P. Ciepiela, P. Drebniński, M. Lyszczyk

Course: Urban Design of City Centres WAPK 4th Year
Didactic team: Prof. Krzysztof Bieda, Ph.D. Arch. Kinga Racoń-Leja, doctoral students: M. Łętocha, A. Skoczylas, W. Szykła

OPPORTUNITIES

Students' work: A. Derlaska, W. Kawalec, Ł. Koryt, E. Pionierczyk

Course: Urban Design of City Centres WAPK 4th Year
Didactic team: Prof. Krzysztof Bieda, Ph.D. Arch. Kinga Racoń-Leja, doctoral students: M. Łętocha, A. Skoczylas, W. Szykła

<p>OPPORTUNITIES</p>  <p>Students: M. Smiż, A. Czapki Course: Urban Design of City Centres WAPK 4th Year Didactic team: Prof. Krzysztof Bieda, Ph.D. Arch. Kinga Rachoń-Laja doctoral students: M. Łętocha, A. Skoczylas, W. Szyjka</p>	<p>OPPORTUNITIES</p>  <p>Students: M. Smiż, A. Czapki Course: Urban Design of City Centres WAPK 4th Year Didactic team: Prof. Krzysztof Bieda, Ph.D. Arch. Kinga Rachoń-Laja doctoral students: M. Łętocha, A. Skoczylas, W. Szyjka</p>
 <p>and the future...?</p>	

C The presentations

Arjan Otten



Climate adaptation in the IJsseldelta
Kraków, 12th of October 2011

Arjan Otten
Province of Overijssel
The Netherlands





IJsseldelta



The Netherlands without dikes



North Sea
river IJssel
river Rhine
Germany
Belgium
Schelde
Maas

- Area without dikes or dunes by the sea flooded
- Area without dikes by flooded rivers
- Dunes

Without dikes and dunes would be nearly two-thirds of the Netherlands flooding




Climate change in the IJsseldelta



- storm, rising sea level
- increasing river discharges

★ bottlenecks in river IJssel



The vulnerability of the city of Kampen



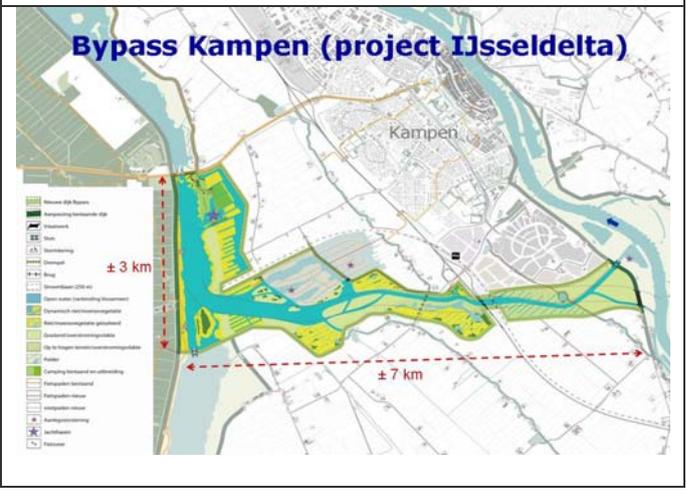
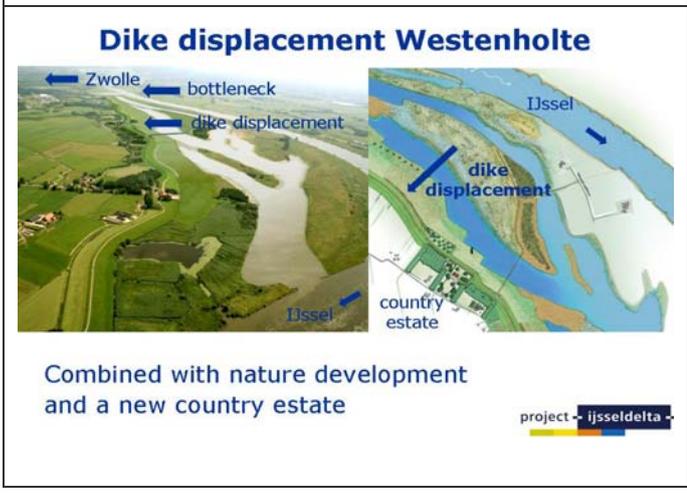
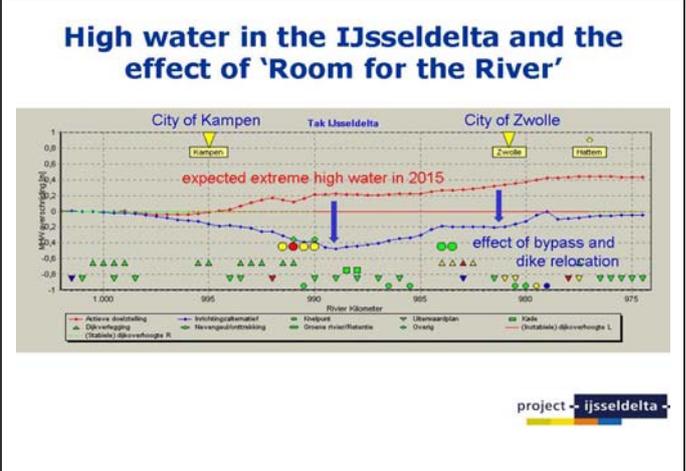
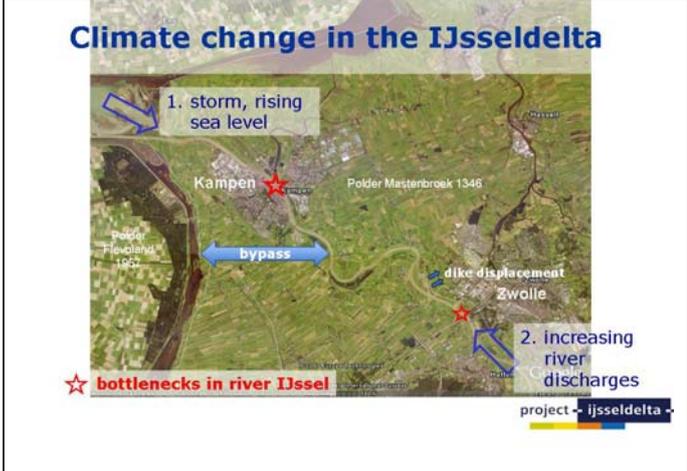
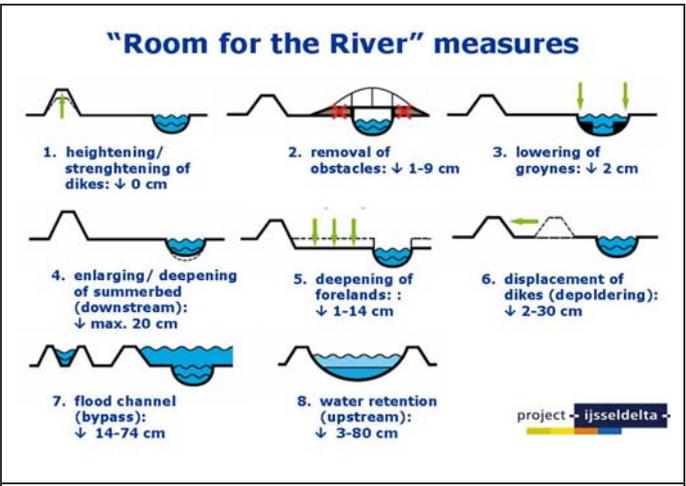
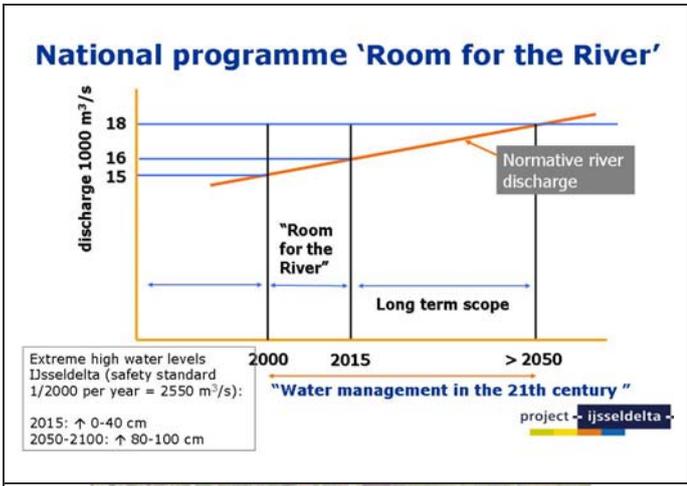
Historical city of Kampen (12th century)

Vulnerable to climate change; dismantlable flood protection



High water on the river IJssel







A closer look at Project IJsseldelta

How to get to a supported, sustainable development plan?

project - ijsseldelta

Challenge of Project IJsseldelta

- 6 spatial issues: flood protection, nature development, agriculture, housing, railway, highways
- 11 governmental organizations
- 11 non-governmental organizations
- many individual stakeholders
- very short period of time (deadline railway)
- limited budget

project - ijsseldelta

The Overijssel approach

1. combine and integrate the spatial challenges as much as possible
2. joint cooperation with the stakeholders
3. province as director of the planning process
4. intense and direct public participation (interactive, bottom-up)
5. goal: agreement (plan + implementation!)
6. based upon a view on sustainability and climate adaptability
7. adaptability to policy changes

project - ijsseldelta

Process Project IJsseldelta

- **2005-2007: interactive, informal phase**
 - Masterplan + gentlemen's agreement
- **2007-2013: formal phase**
 - review of land-use plans, SEA + EIA
 - purchase of land and real estate (voluntarily)
 - 2nd gentlemen's agreement
 - licenses, permits, blueprints
 - detailed design and tender documents
- **2013-2030: implementation**
 - phase 1: 2013-2015: dikes bypass, nature development, enlargement of summerbed
 - phase 2: after 2021: construction of 3 big sluices, dams and locks (bypass operational)
 - 2013: railway operational
 - 2018-2030: housing development

project - ijsseldelta

1. Combination and integration of the spatial challenges

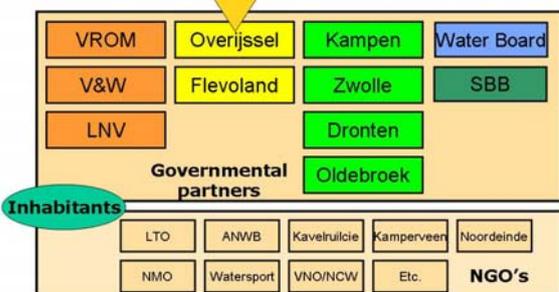


Spatial strategy:

- combine and integrate the major spatial developments (including a river bypass) in the southwest
- prevent large scale developments and preserve the resilience to adapt to climate change in the northeast of the delta (green area on the map)

project - ijsseldelta

2.+ 3. Joint cooperation with the province as a network director



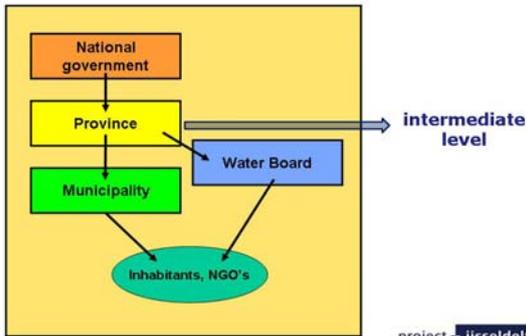
Governmental partners: VROM, Overijssel, Kampen, Water Board, V&W, Flevoland, Zwolle, SBB, LNV, Dronten, Oldebroek

Inhabitants: LTO, ANWB, Kavelruilcie, Kamperveer, Noordeinde, NMO, Watersport, VNO/NCW, Etc.

NGO's:

project - ijsseldelta

Traditional planning hierarchy



project - ijsselfdelta

4. Open, direct and intense public participation



project - ijsselfdelta

Beginning 2005: 5 initial alternatives



project - ijsselfdelta

A short but turbulent period of opposition and resistance...

Bypass IJssel bij Kampen heeft ingrijpende gevolgen voor dorp
Noordeinde overvallen door miljoenenproject

Medialeger overspoelt dorpie Noordeinde

door ROEL KLEIN OLDEBROEK

Het Veluwe dorpie Noordeinde in de gemeente Oldebroek is gisteren niet overspoeld door het rivierwater van de IJssel, maar wel overvallen door een medialeger.

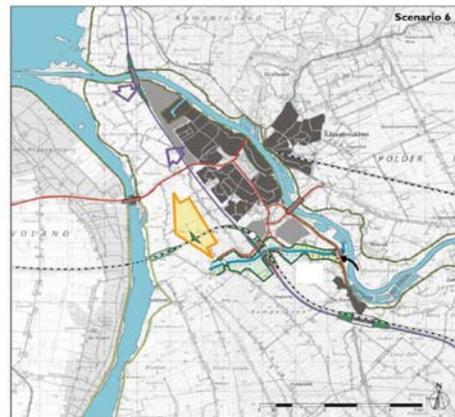
TV-ploegen van de verschillende omroepen en verslaggevers van kranten waren naar Noordeinde afgereisd om de perikelen rond de bypass-operatie te verslaan. Zoals door deze krant gemeld was de provincie Overijssel het dorpie vergeten te informeren over de voor Noordeinde desastreuze gevolgen van het IJsseldelta-project. In vrijwel alle scenario's wordt praktisch het hele dorp van de kaart gevoegd. Sjalant detail is overigens dat de Overijsselse gedeputeerde Kierkerk oud-inwoner is van de gemeente Oldebroek.

We zijn overvallen door alle publiciteit, meldt de gemeente Oldebroek. SBS 6, RTL 4, Netwerk, De Volkskrant, RTV Gelderland en RTV Oost zijn in Noordeinde geweest om er met de verontwaardigde inwoners te praten.

project - ijsselfdelta



Spring 2005: birth of the 6th scenario, developed by the public! project - ijsselfdelta



Additional 6th scenario during participation

5. End of 2005: agreement upon adaptation and financing (€ 30 million) of infrastructure



1. crossover of railway and motorway with bypass
2. adaptation of tunnel railway

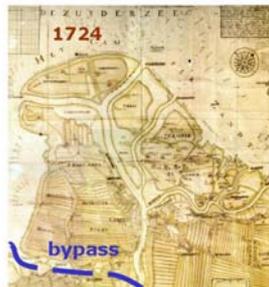


project - **ijsseldelta**

5. End of 2005: agreement upon adaptation and financing (€ 30 million) of infrastructure

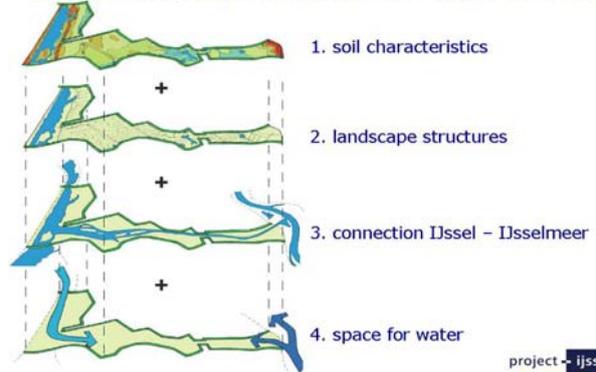


6. Based upon a view on sustainability and climate adaptability



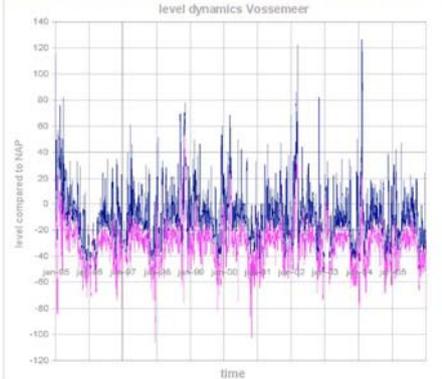
project - **ijsseldelta**

Sustainable principles for bypass design



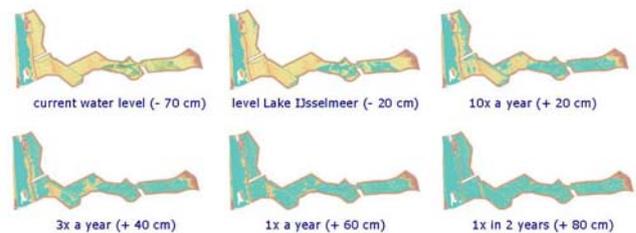
project - **ijsseldelta**

Fluctuations of water level in IJsselmeer



project - **ijsseldelta**

Water dynamics in the bypass



project - **ijsseldelta**

Water as a motor for nature development

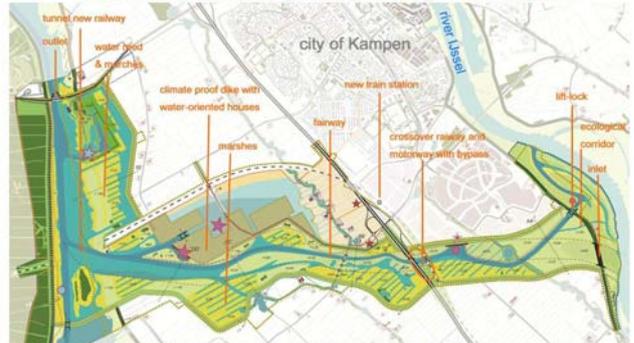


- 300 ha. nature development (partly Natura 2000)
- chances for important/rare ecosystems (water reed, marshes)



project - ijsseidelta

7. Adaptability to policy changes



- > 2008: advice Delta Committee to increase the water level of Lake IJsselmeer with 1.5 m. (maximum)
- > 2009: develop a climate proof dike along the river bypass

project - ijsseidelta

Climate proof dike



The climate proof dike along the river bypass can act as an embankment for housing development as well

project - ijsseidelta

15 February 2010: 2nd gentlemen's agreement



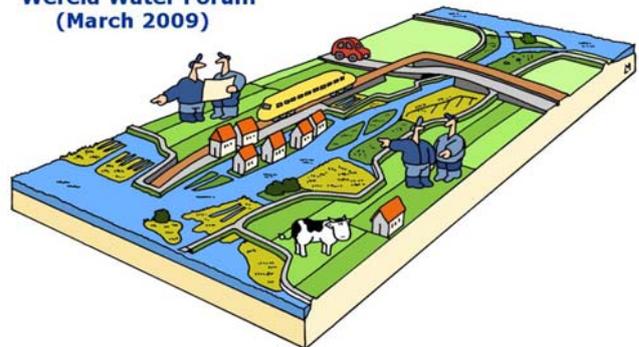
project - ijsseidelta

15 February 2010: 2nd gentlemen's agreement



project - ijsseidelta

Wereld Water Forum (March 2009)



project - ijsseidelta

Process Project IJsseldelta

- **2005-2007: interactive, informal phase**
 - Masterplan + gentlemen's agreement
- **2007-2013: formal phase**
 - review of land-use plans, SEA + EIA
 - purchase of land and real estate (voluntarily)
 - 2nd gentlemen's agreement
 - licenses, permits, blueprints
 - detailed design and tender documents
- **2013-2030: implementation**
 - phase 1: 2013-2015: dikes bypass, nature development, enlargement of summerbed
 - phase 2: after 2021: construction of 3 big sluices, dams and locks (bypass operational)
 - 2013: railway operational
 - 2018-2030: housing development

project -  - ijsseldelta

Example Curitiba, Brazil



combination of river/bypass, retention, parcs/green areas project -  - ijsseldelta



Partners

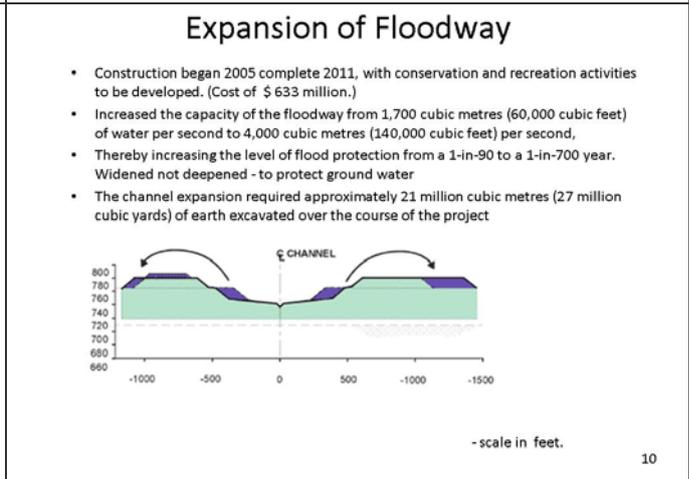
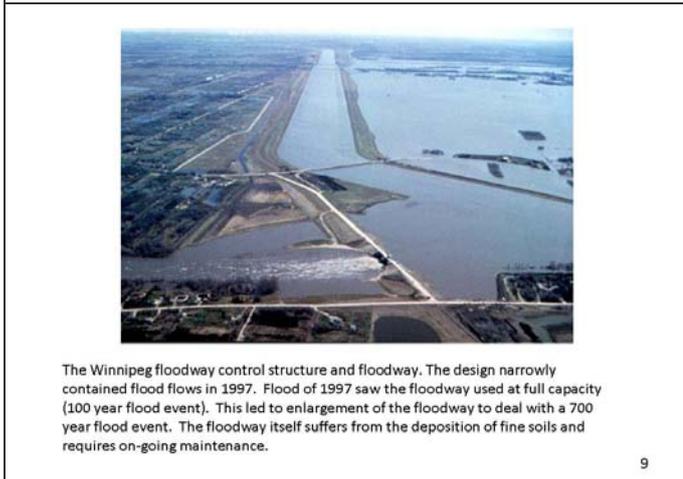
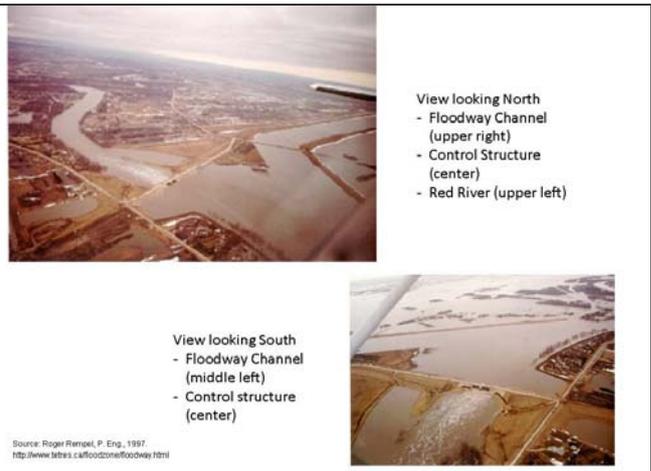
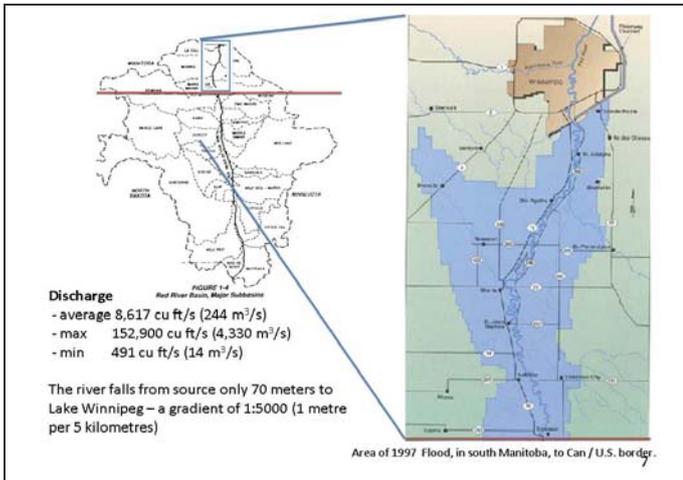
Ministerie IenM - Ministerie EL&I - Provincie Overijssel - Provincie Flevoland
 Gemeente Kampen - Gemeente Zwolle - Gemeente Dronten - Gemeente Oldebroek
 Waterschap Groot Salland - Waterschap Zuiderzeeland - Staatsbosbeheer

project -  - ijsseldelta

C The presentations

David van Vliet

	<h2 style="text-align: center;">Manitoba Floodway</h2> <p>Context Winnipeg, Mb., Canada</p> <p>Originally tall grass prairie, over glacial Lake Agassiz</p> <p>Heavy clay, with a very flat topography</p> <p>An engineering solution revisited</p> <p style="text-align: right;">2</p>
<h2 style="text-align: center;">Manitoba Floodway Winnipeg, Manitoba, Canada</h2> <p>An extreme reference case:</p> <p>History In response to devastating flood of the Red River in 1950.</p> <p>Built 1962 and finished in 1968, the original construction required excavation of 76.5 million cubic metres (2.75 billion cubic feet) of earth</p> <p style="text-align: right;">3</p>	<p>Manitoba Floodway The Manitoba (Red River) Floodway is an artificial flood control waterway in Manitoba, protecting the City of Winnipeg. It was first used in 1969.</p> <p>Length: 47 km (27 mi) Width: 700 m. Flow: 1,700 cubic metres (60,000 cubic feet) of water per second</p> <p>The Manitoba Floodway was originally constructed for the sole purpose of flood control. Since its original inception the floodway is evolving to accommodate a wide range of social and ecological functions.</p> <p style="text-align: right;">4</p>
<p>During flood periods, the floodway diverts part of the Red River's flow around the city of Winnipeg, to the east and discharges it back into the Red River below the dam at Lockport.</p> <p>Since its completion in 1968, the floodway has operated 29 of the 43 years preventing flood damages estimated at \$30 billion as well as the significant social and environmental damages that accompany major floods.</p> <p style="text-align: right;">5</p>	<p>Krakow: area of 327 km² Vistula River 1,047 km (651 miles) in length.</p> <p>Watershed area: 194,424 km² (75,067 square miles).</p> <p>Winnipeg: area of 448.92 km² (173.3 sq mi) Red River 885 km (550 miles) in length</p> <p>Watershed area: 287,499 km² (111,004 sq mi)</p> <p>Winnipeg is capital of province of Manitoba, population 630,000 (city region 760,000)</p> <p style="text-align: right;">6</p>



Rethinking the Floodway

The 33 hectares of Floodway lands offer significant potential for a wide range of land uses. Three areas of major concern are:

1. Landuse planning principles (with a focus upon a wide range of recreation activities)
2. Ecological design
3. Contextual concerns

The Manitoba Floodway Expansion Authority Wants To Hear From You.

Expressions of Interest invited on Recreation and Economic Opportunities associated with one of the Largest Infrastructure Projects in Manitoba's History.

WE WANT YOUR IDEAS!

To get a copy of a detailed information package, share your ideas or find out more about the Floodway expansion project, contact 1-888-359-6555. Expressions of interest must be submitted by April 20, 2006.

11

- ### 1. Landuse planning principles
1. Systems approach – recreational opportunities consider and add value to existing conditions, fill in gaps
 2. Use – for widest possible range of users,
 3. Access – convenient, close proximity to activity areas, with parking, consistent with urban design criteria,
 4. Environmental Protection - best practices, pollution prevention, landscape ecology principles to guide environmental design.
 5. Safety – careful design and construction, separation of incompatible activities, facilitate emergency response, offer appropriate signage
 6. Community – nodes for various activities, private-public partnerships for development and operation, strategic protect private prop
 7. Sustainability - build only what is to be used and maintained, focus upon smaller nodes, develop priorities of potential use, facilitate multi-use, establish activity anchor points and fill gaps over time
 8. Commitment – build a sense of ownership for responsible care, tree-planting, clean up etc. to build commitment
- 12

1. Landuse Planning Principles: The floodway as urban amenity

- Active recreation
 - varied and integrated
- Wildlife habitat
 - constructed ecologies
- Flood watching
 - event space
- Urban agriculture
 - on berms
- Housing
 - bordering the floodway
 - floodway as aesthetic attractor

walking / hiking
 cycling
 mountain biking
 inline skating
 equestrian
 kite boarding
 hang gliding
 cross-country skiing
 skating
 dog sledding
 tobogganing
 downhill skiing
 snowboarding
 school group walks
 community tree planting,
 clean-ups

13

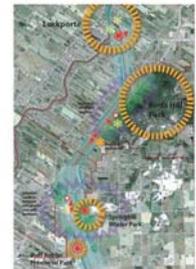
1. Landuseplanning principles: trails



Photo: Ken Gigliotti WFP

The first phase of that floodway greenway development includes construction of a \$3-million pedestrian overpass bridge connecting a 48-kilometre recreational trail for non-motorized travel being built along the west side of the floodway. The trail connects cyclists and others with Birds Hill Park (major Provincial Park), which has over 100 kilometres of additional trails.

The trail will be open for four-season use including walking, jogging, cycling, in-line skating, cross-country skiing, even dogsledding. There is a dedicated toboggan hill and up to six staging areas where people can park and load their bikes.



14

1. Landscape Planning Principles: focus

A shift in the concept planning focus from landscape in the service of recreation and economic development, toward the creation of a rich, sustainable greenway with enhanced recreational opportunities and the promise of future economic and tourism opportunities.

Recreation, as well as tourism and economic development opportunities are able to be enhanced in unpredictable ways by this living system, but the principal opportunity – and the principal story of the floodway – can be to showcase at this unprecedented scale, how natural processes can be harnessed to solve a multitude of challenges and add value over time.

There are a number of qualities imbedded into complex living systems. The proposed greenway concept mimics these qualities creating a landscape that is:

- *adaptive – resilient to shocks and stresses*
- *productive – in an economic and ecological sense*
- *successional – generally becoming more stable and complex over time*
- *accretive – growing from existing centres*
- *efficient – conservative in the use of resources*

15

1. Landscape Planning Principles

These same qualities apply to the recreation and economic development concepts, as opportunities grow from existing businesses and facilities and connect to adjacent recreation infrastructure.

This includes, an adaptive and resilient governance system capable of reaping increasingly diverse benefits as the floodway matures.

Wide consultation: Participants from all the groups recognized the potential to provide facilities to encourage year-round recreational activities that would assist in increasing the success of existing and prospective businesses. The establishment of a linear trail system, introduction of clear, informative signage, and the provision of convenient staging areas or access points with adequate parking were identified as important to encourage future investment from the private sector.



Floodway Opportunities Concept Plan. Hilderman Thomas Frank Cram 2009

16

2. Ecological Design

The original floodway was characterized by an agricultural monoculture on the berms with strict limitations on the use of the channel. With the floodway redevelopment a wide range of recreational activities take place in the channel while the berms have been designed to include an extensive green corridor with a series of strategically located vegetative patches.



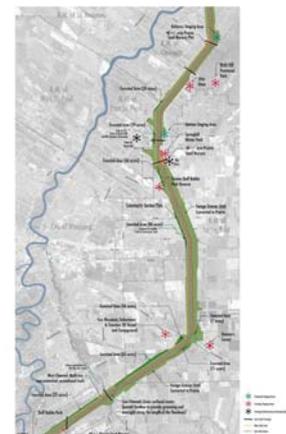
Floodway expansion prior to ecological design initiatives.

17

2. Ecological Design: Concept

The ecological plan for the expanded floodway includes the establishment of an extensive forest corridor as well as the reestablishment of the endangered tall grass prairie condition. An agricultural buffer limits encroachment of undesirable land uses. The new "natural" landscape includes community gardens, staging areas allow for access and enhanced connectivity, and different types of pathway systems.

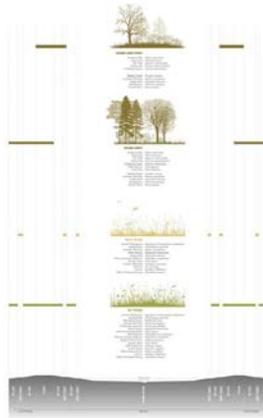
Drawings courtesy of the designers: Hilderman, Thomas, Frank, Cram Landscape Architects



18

2. Ecological Design: Plants

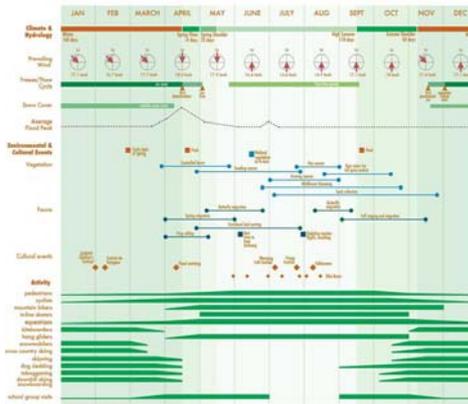
Planting along the berm is considered in terms of solar orientation, slope and exposure. Plant communities are established according to local conditions. Plants are seeded according a long term (20 year) period of emergence where plant communities are located to support the spreading of desirable species.



Drawings courtesy of the designers: Hilderman, Thomas, Frank, Cram Landscape Architects

19

2. Ecological Design: Cycles

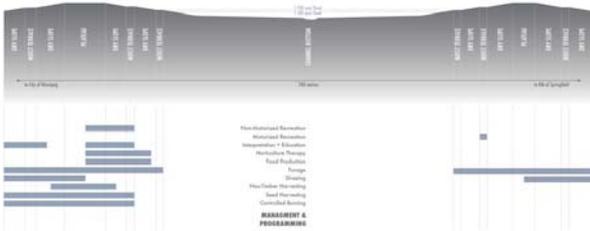


The interaction of human and non-human activities and processes are mapped over a 12 month cycle informing a long term integrated management plan.

20

2. Ecological Design: Programming and Management

The programming of activities on site as well as the long term management of the site involves spatially situating land uses according to environmental conditions. Note that the channel itself is restricted from most landuses. Ecological management practices such as controlled burns are seasonally dependent.



21

An authority to Manage: Manitoba Floodway Authority

- Ongoing vegetation implementation and succession management
- Agricultural performance criteria and leases
 - Establishing and maintaining partnerships with stewardship groups for maintenance activities and businesses for commercial activities
 - Monitoring recreation and other uses
 - Communications and interpretation
 - Promotion and programming
 - Coordinating with other government entities

Programming and promotion. As the landscape and the trail infrastructure mature, the greenway will become a more and more interesting venue for programs and events. The sheer size of this landscape, the continuity of its trails and the diversity of habitats will provide a distinctive opportunity for education, interpretation, festivals, events and general recreation. There are numerous potential partner organizations that could participate with the MFA in these activities.

The long-term stewardship of the floodway greenway, recreation and economic development proposals requires significant commitment. The MFA has been proposed, as examples from across the world have proven the efficacy of a single authority "clothed with the power of government but possessed of the flexibility and initiative of a private enterprise" to deal with resource management projects of this magnitude.

22

3. Contextual Considerations: Ice

Winnipeg has been characterized as a "winter city". Long cold winters result in heavy ice build up on the Red River. Long winters mean that there could also be heavy accumulations of snow (large flows may occur quite rapidly).

The Red River drain towards the North. This means that during the spring thaw water is starting to move in the south even though the ice has not yet melted in lake Winnipeg north of the City.

Ice flows along the river have the potential to be very destructive. Ice may also build up causing ice jams resulting in local flooding.



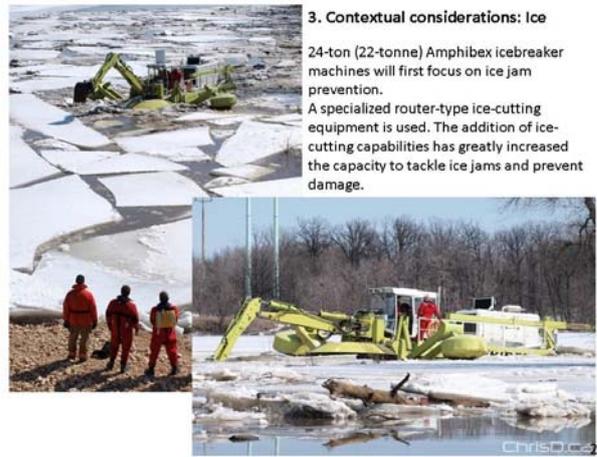
Ice build-up at the floodway control structure as well as ice accumulation within the floodway channel

23

3. Contextual considerations: Ice

24-ton (22-tonne) Amphibex icebreaker machines will first focus on ice jam prevention.

A specialized router-type ice-cutting equipment is used. The addition of ice-cutting capabilities has greatly increased the capacity to tackle ice jams and prevent damage.



Chris D. Cozart

C The presentations

Yuriy Kyvoruchko

Lviv-River?

CUPA Implementation Lab
Krakow
11-14.10.2011



Yuriy Kryvoruchko

Accessible city



TRANSPORT AND BORDER-CROSSING INFRASTRUCTURE

Border-crossing points:

- 4 existing
- 3 projected

- Poland: Przemysl/Shegyni – 73 km, Korczowa/Krakovets – 72 km, Hrebenne/Rava-Ruska – 70 km
- Hungary: Zahony/Chop – 253 km
- Romania: Forubne – 290 km
- Slovakia: Uzhgorod – 262 km
- Byelorussia: Rishi – 260 km



Pan-European Transport Corridors (PETC) III and V

FAVORABLE GEOGRAPHIC LOCATION

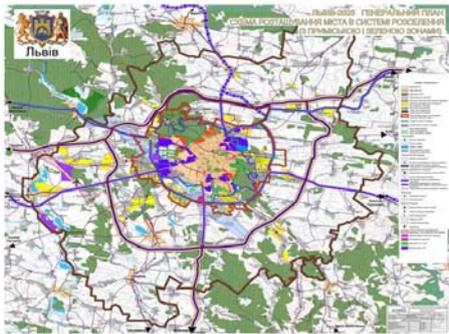


- Founded in 1256
- Population over 830 000
- Regional center of 2.5 mln region
- 7th largest city in Ukraine
- Area 155 sq.m.
- 23 academies, Universities, institutes
- 158 000 students
- Historical part of the city is part of UNESCO's World Heritage List
- 55% of all cultural monuments of Ukraine
- 1.5 mln exhibits (19% of all in Ukraine)
- 13 official and honorary consulates
- 12,5% unemployment rate

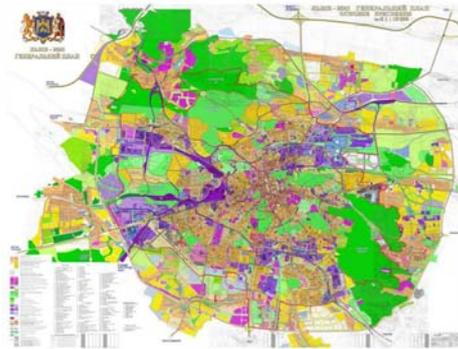
FACTS AND FIGURES



Lviv -2025 Master Plan
City's position scheme in terms of urban settlement system (including suburban and green zones)



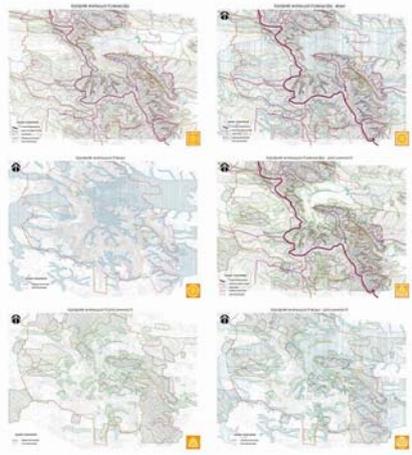
Lviv -2025 Master Plan
General drawing 1:10 000



Lviv -2025 Master Plan
Transport, Garage and Parking Network
Scale 1:20 000

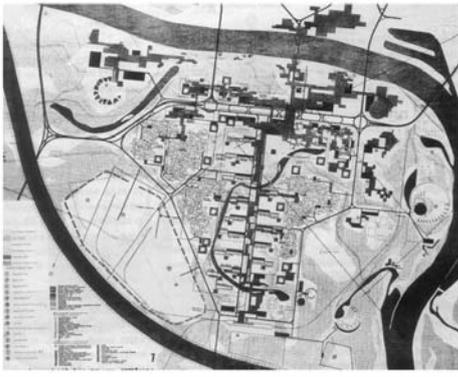


Lviv Joint Zones of Historical Environment Preservation Project
Scale 1:10 000



C The presentations

Marek Dinka

 <p>BRATISLAVA and its bypass-channel</p> <p>CUPA (Cooperative Urban Planning Approaches) IL Krakow (Implementation Lab Krakow, 12.-14.10.2011)</p> <p>www.bratislava.sk</p> 	<p>A similar situation...</p> <ul style="list-style-type: none"> ■ An idea to build a bypass channel exists since 1960's ■ But this idea never went to binding spatial planning documents ■ Before 1989, a cross-border cooperation (or cross-iron-curtain cooperation) was out of a question <p>www.bratislava.sk</p> 
 <p>Bratislava before</p> <ul style="list-style-type: none"> ■ approx. 16th-17th cent. <p>www.bratislava.sk</p> 	<p>And today</p> <ul style="list-style-type: none"> ■ today  <p>www.bratislava.sk</p> 
 <ul style="list-style-type: none"> ■ 1960-s ■ Urban competition Petrzaka <p>www.bratislava.sk</p> 	 <ul style="list-style-type: none"> ■ 1960-s ■ Urban competition Petrzaka <p>www.bratislava.sk</p> 

- The idea came back at the beginning of 21st century

www.bratislava.sk

- A lot of professional work have been done in the last decade (hydrology, geology, landscape architecture etc.)
- But the channel remains always only as an idea
- Until today there is no spatial reserve for it in the binding documents of the city or region

www.bratislava.sk

www.bratislava.sk

www.bratislava.sk

The process

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    graph TD
      A[The management of the city and its hinterland] --> BAUM[BAUM]
      B[Project KOBRA] --> BAUM
      C[CUPA IL Bratislava] --> BAUM
      D[Project CIDEP] --> BAUM
      E[The idea of bypass channel] --> BAUM
      BAUM --> F[Harmonised information basis]
      F --> G[entry]
      G --> H[Urban study]
      H --> I[Spatial plan]
  
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www.bratislava.sk

www.bratislava.sk

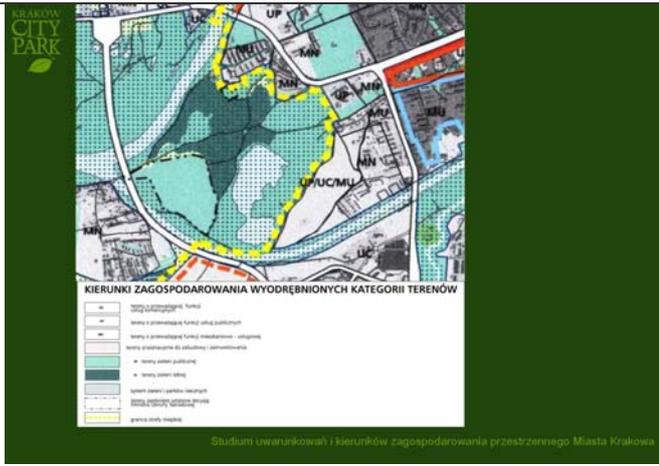
C The presentations

Stanislaw Denko

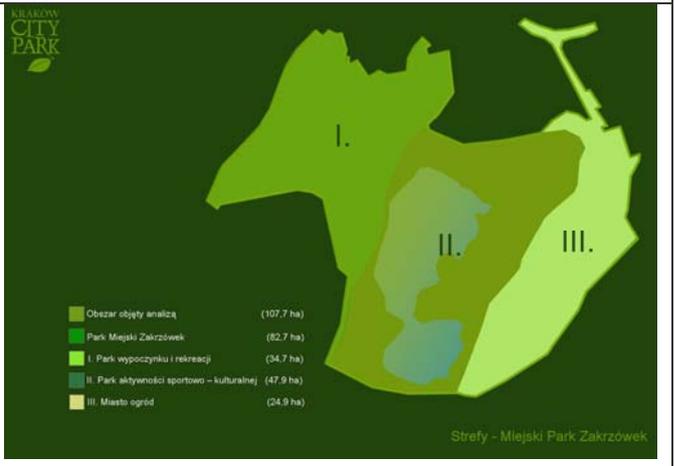




Park Miejski - Oś widokowa na Wawel



Studium uwarunkowań i kierunków zagospodarowania przestrzennego Miasta Krakowa

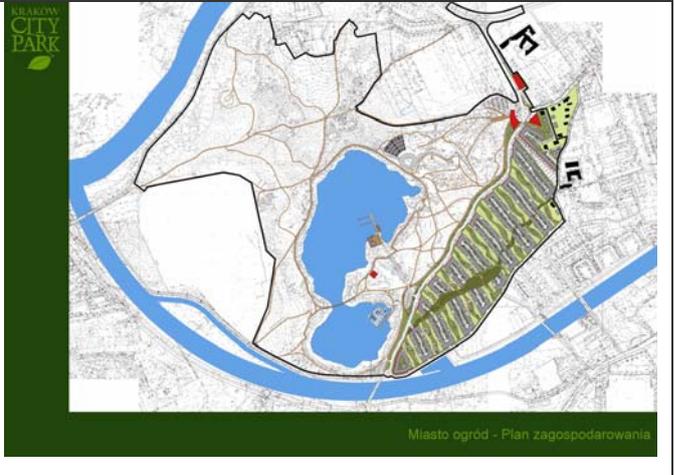


Obszar objęty analizą	(107,7 ha)
Park Miejski Zakrzówek	(82,7 ha)
I. Park wypoczynku i rekreacji	(34,7 ha)
II. Park aktywności sportowo – kulturalnej	(47,9 ha)
III. Miasto ogród	(24,9 ha)

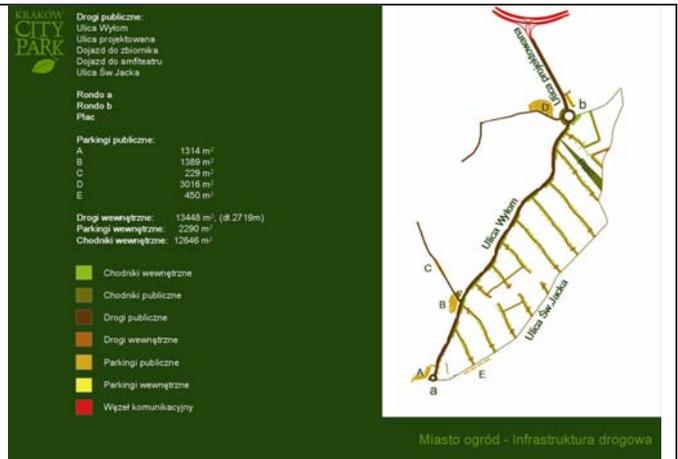
Strefy - Miejski Park Zakrzówek

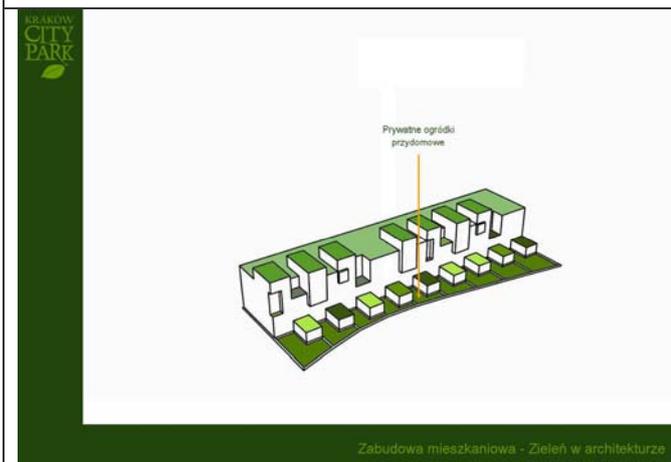
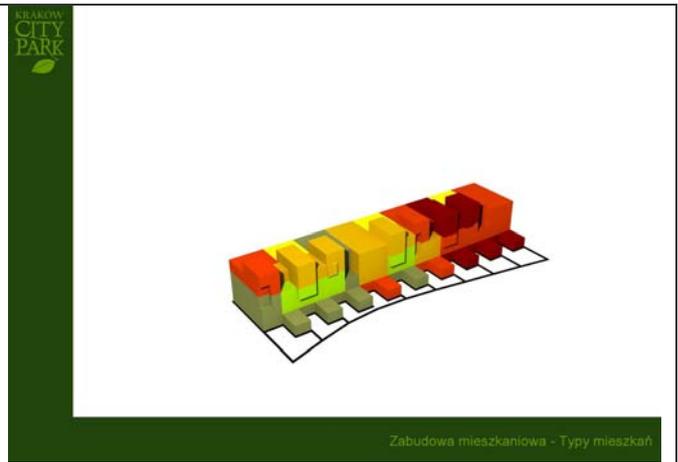


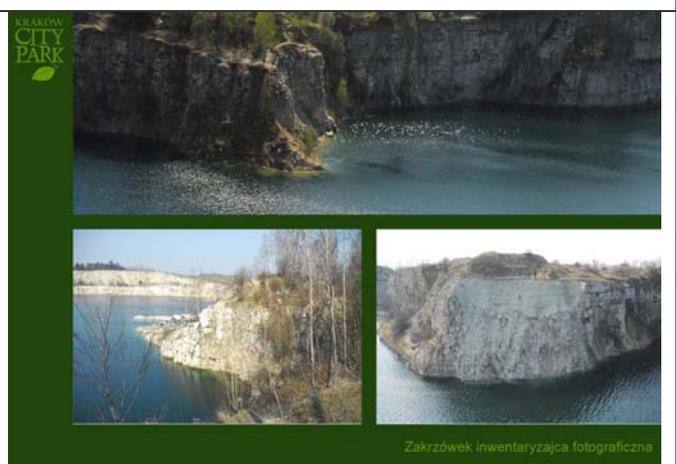
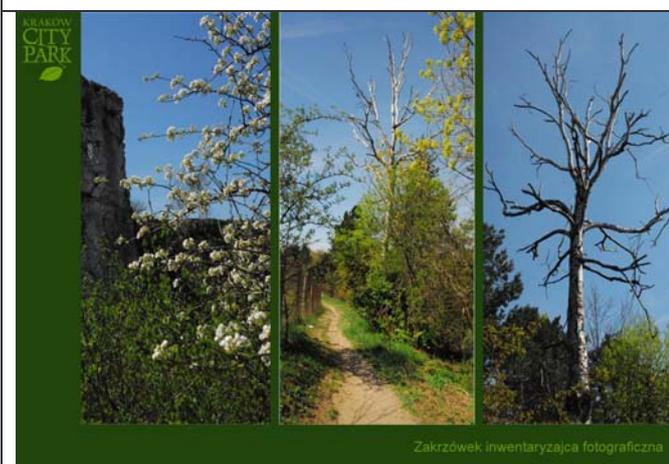
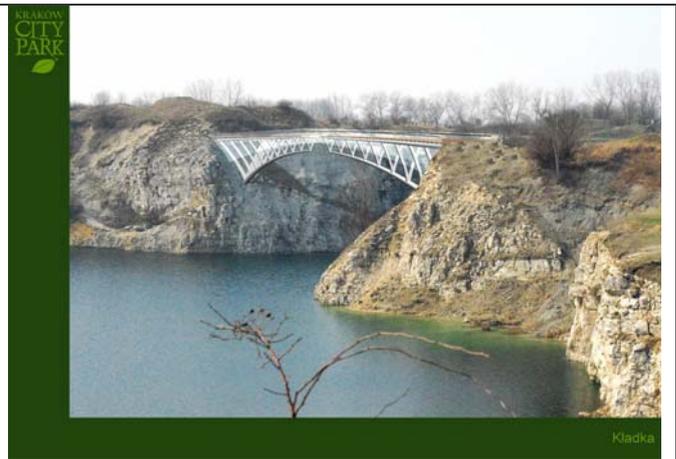
Struktura własności

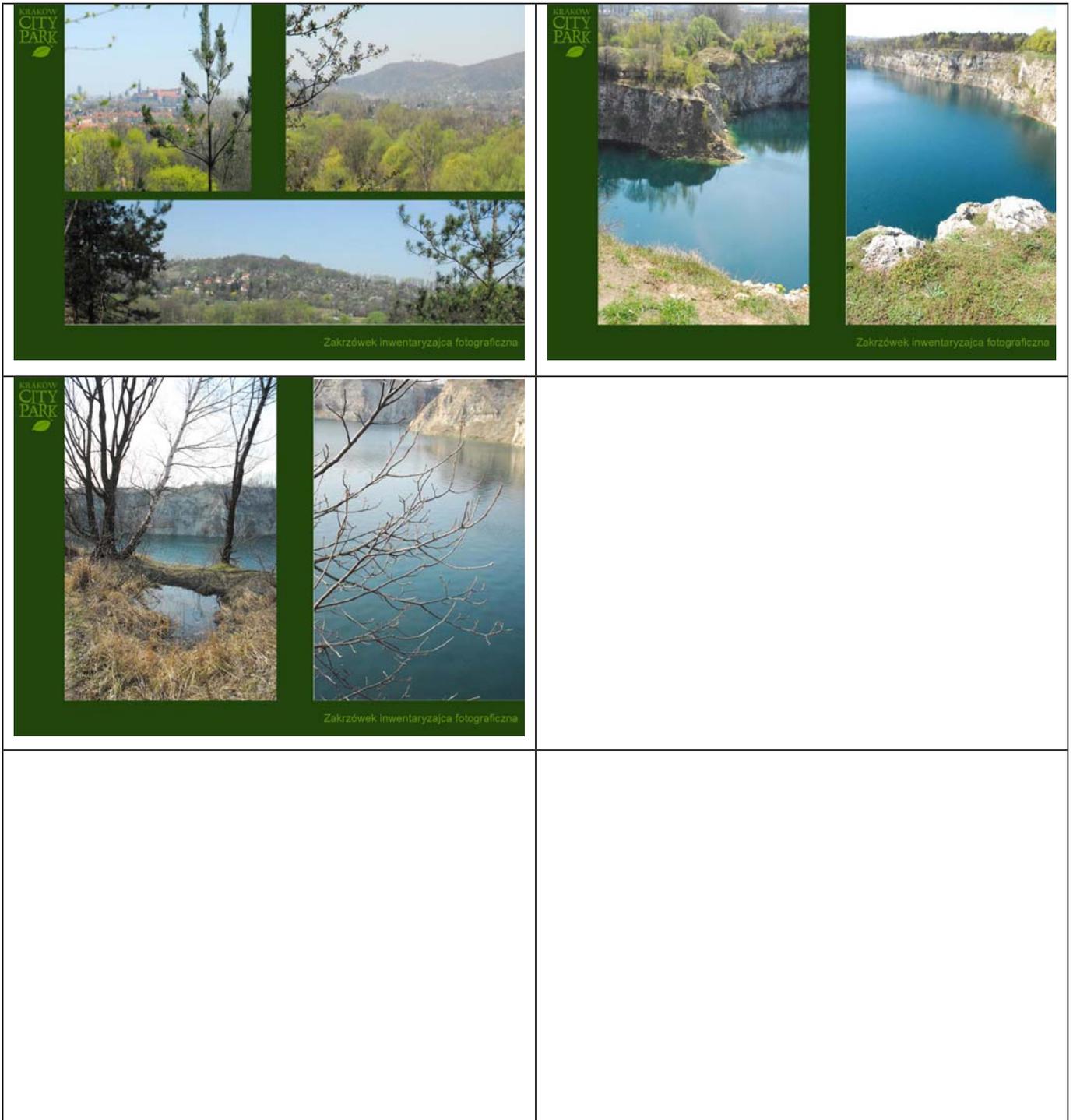


Miasto ogród - Plan zagospodarowania



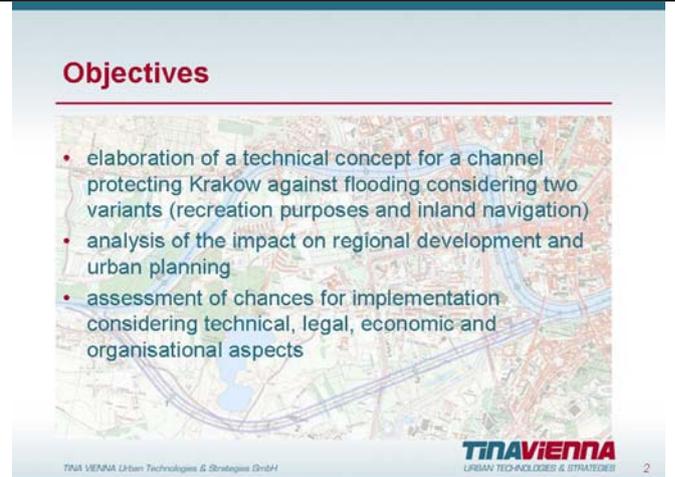
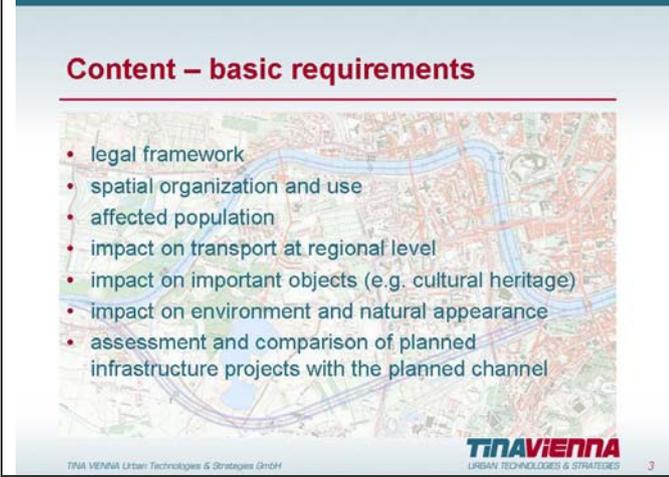
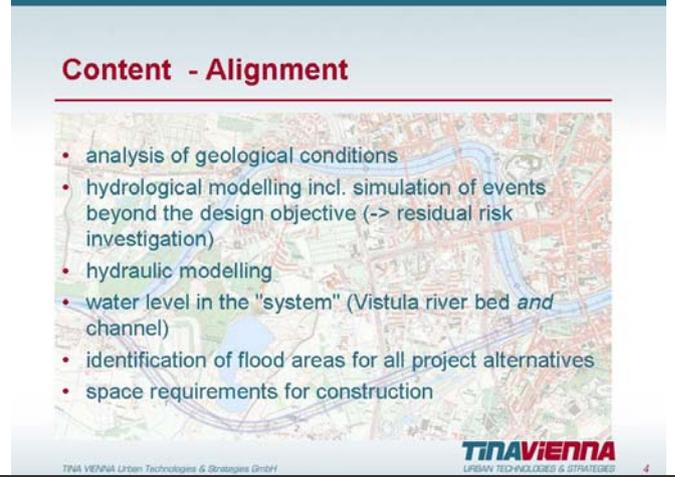
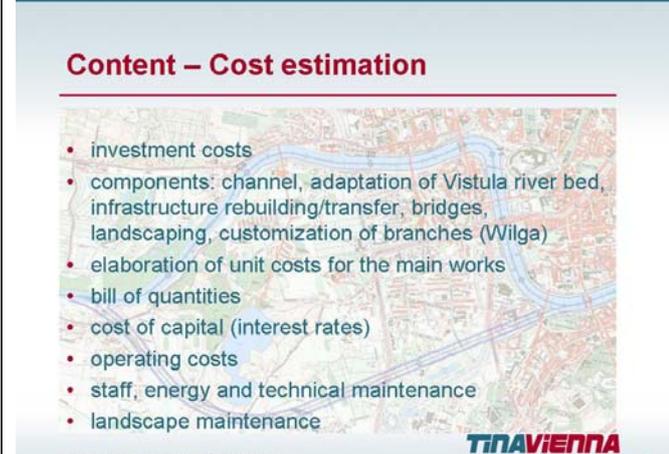
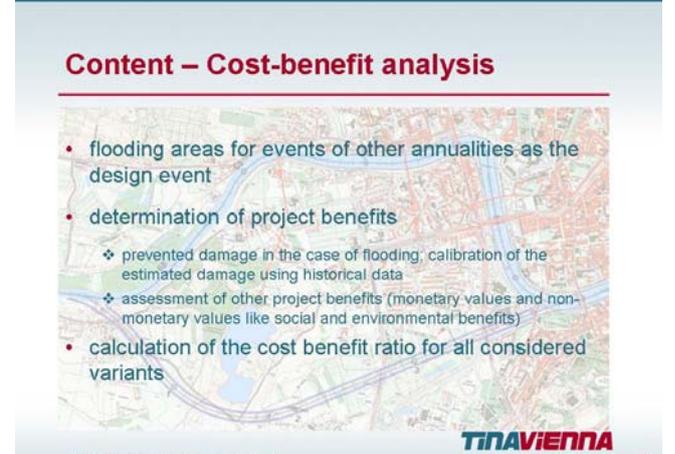






C The presentations

Rainer Mueller

 <p>TINAVIENNA URBAN TECHNOLOGIES & STRATEGIES</p> <p>Ein Unternehmen der wienholding</p> <p>“Kanal Krakowski” - development of concept and feasibility study for the construction</p> <p><small>TINA VIENNA Urban Technologies & Strategies GmbH - Anschutzgasse 1 1150 Wien - Tel. +43 1 4000 84263 - office@tinavienna.at - www.tinavienna.at</small></p>	 <p>Objectives</p> <ul style="list-style-type: none"> • elaboration of a technical concept for a channel protecting Krakow against flooding considering two variants (recreation purposes and inland navigation) • analysis of the impact on regional development and urban planning • assessment of chances for implementation considering technical, legal, economic and organisational aspects <p><small>TINA VIENNA Urban Technologies & Strategies GmbH</small></p>
 <p>Content – basic requirements</p> <ul style="list-style-type: none"> • legal framework • spatial organization and use • affected population • impact on transport at regional level • impact on important objects (e.g. cultural heritage) • impact on environment and natural appearance • assessment and comparison of planned infrastructure projects with the planned channel <p><small>TINA VIENNA Urban Technologies & Strategies GmbH</small></p>	 <p>Content - Alignment</p> <ul style="list-style-type: none"> • analysis of geological conditions • hydrological modelling incl. simulation of events beyond the design objective (-> residual risk investigation) • hydraulic modelling • water level in the "system" (Vistula river bed and channel) • identification of flood areas for all project alternatives • space requirements for construction <p><small>TINA VIENNA Urban Technologies & Strategies GmbH</small></p>
 <p>Content – Cost estimation</p> <ul style="list-style-type: none"> • investment costs • components: channel, adaptation of Vistula river bed, infrastructure rebuilding/transfer, bridges, landscaping, customization of branches (Wilga) • elaboration of unit costs for the main works • bill of quantities • cost of capital (interest rates) • operating costs • staff, energy and technical maintenance • landscape maintenance <p><small>TINA VIENNA Urban Technologies & Strategies GmbH</small></p>	 <p>Content – Cost-benefit analysis</p> <ul style="list-style-type: none"> • flooding areas for events of other annualities as the design event • determination of project benefits <ul style="list-style-type: none"> ❖ prevented damage in the case of flooding, calibration of the estimated damage using historical data ❖ assessment of other project benefits (monetary values and non-monetary values like social and environmental benefits) • calculation of the cost benefit ratio for all considered variants <p><small>TINA VIENNA Urban Technologies & Strategies GmbH</small></p>

108

Technical infrastructure and communication

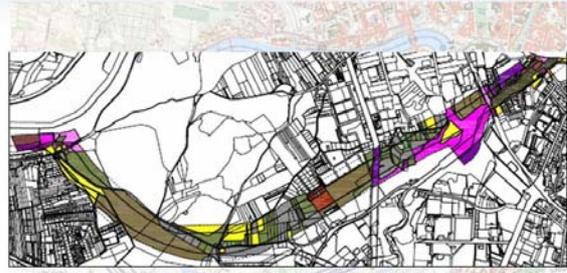


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13

Land ownership

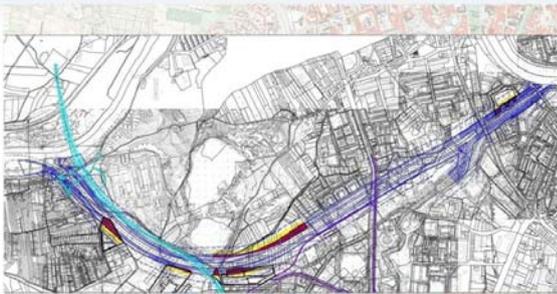


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Investment activities



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Results

- The study cannot be the only basis for a decision on the construction as only from the point of view of flood protection it would not be economically feasible, because:
 - objectives of the study were very limited for the project e.g. project area limited to the section of the channel, missing considerations of flooding on the sewage system of the city
 - lack of an overall project/strategy for flood protection of Krakow
 - lack of a feasibility study for inland navigation on the upper Vistula River

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Recommendations

- Variant I - navigable channel as an integral part of flood protection and the multifunctional optimization of the river area
- Integrative assessment of the channel as part of a series of measures to improve the conditions on the Vistula waterway, e.g. implementation of demand-oriented studies on the economic potential of the Vistula waterway

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Recommendations

- Extension of the area for decision-making in temporal, spatial and content terms
 - improvement of the sewage system for rainwater,
 - Reconstruction/rebuilding of the barrage Dabie, if necessary also the barrage of Przewóz
 - possible improvements of the existing flood protection facilities in the eastern districts and development areas of Krakow
- Preparation of a study on the design and exploitation potential along the Vistula River in the entire city of Kraków

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18

D Photo collage







