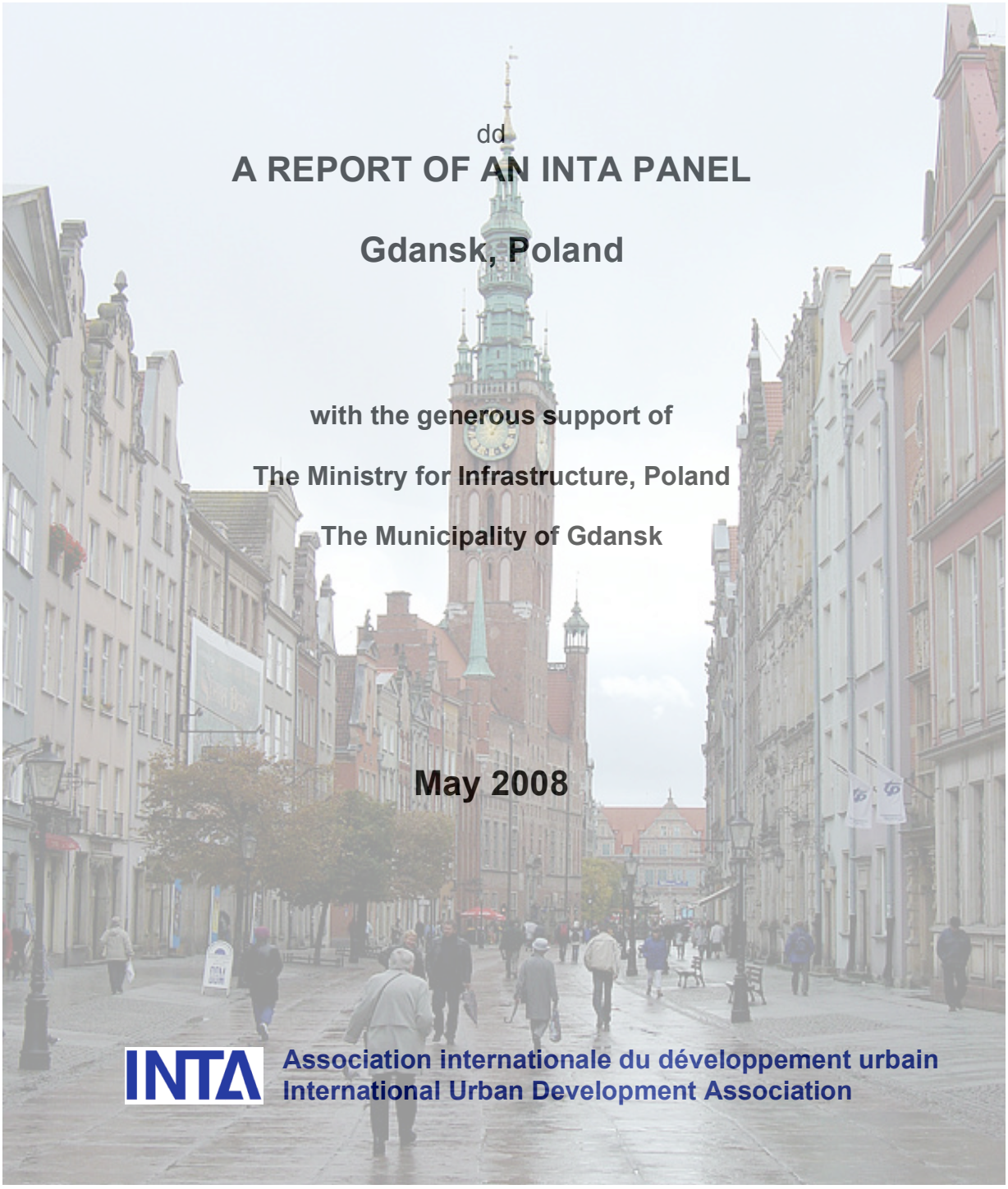
TALL BUILDINGS IN GDANSK: FASHION OR NECESSITY?



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A REPORT OF AN INTA PANEL

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The views expressed in this report are those of the Panel members and not necessarily those of INTA nor the organisations with which each Panel member is affiliated. Data and information were obtained locally

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FOREWORD

In Poland tall buildings are an important topic of debate and nowhere more so than in Gdansk.

The Pomeranian metropolis is set to grow significantly over the next two decades. Change in population and jobs growth will increase demands for the better use of residential and increasingly commercial office space. This is a vital issue, as without a well thought out response there is the risk of households and companies leaving Gdansk for more attractive cities.

The challenge for Gdansk policy makers is to provide the right type and quality of new space. Tall buildings could offer a solution to the expansion needs.

The advisory panel on Smart High Rise Buildings: fashion or necessity, commissioned to INTA analyses the role and contribution tall and very tall buildings could make to Gdansk's urban future.

The INTA Panel focused on Gdansk situation making use of detailed planning studies compiled by our Polish colleagues from the Gdansk Development Agency and the information collected in the course of local interviews. Planning policies and attitudes to tall buildings in the city, but also elsewhere in Europe and the USA, have been examined. Proposals and conditions for a vertical future of Gdansk are included.

I am pleased with the scope of the research and the intellectual rigour that all panellists have applied to this work underlying once more that the INTA Panel service is a highly regarded instrument for exchanging experiences in the field of changing needs and development in cities.

I believe that the insights will provide an important contribution to the current thinking on tall buildings in Poland but also in cities confronted with similar choices.

Budiarsa Sastrawinata
President INTA

ACKNOWLEDGMENT

We came to Poland with our experience of urban regeneration and planning from 7 different countries. Some of us were already familiar with the Region, but Gdansk was new to most of us. Our aim is to give our hosts a frank reflection of the issues and the options raised by high rise development of the metropolitan area of Gdansk.

Our report will need to be followed up by much more detailed studies and analysis. But we have brought to this report our collective experience of other towns and cities. And we have had a unique opportunity over the last few days to hear the views and evidence of a wide range of people. Some of them are already intimately involved in the overall development; others have focussed on specific areas and issues. All of them have come with a positive interest in the urban development of the Pomeranian metropolis.

We hope that this report will give a route map for the next few years. We have aimed to pick out what seem to us the absolutely critical considerations at both the strategic and local levels, and to map out the process that we believe will be needed to make things happen. We have very much appreciated the opportunity to work with Polish colleagues and have learned a great deal ourselves which we will take back to our own towns and cities. We have enjoyed the hard work, have met and talked to many interesting and committed people, and have been impressed by all that has already been achieved to improve the quality of life in Gdansk.

Our thanks are due particularly to **Pawel Adamowicz**, Mayor, **Wieslaw Bielawski**, Deputy Mayor of Gdansk, and to the Minister of Infrastructure, **Olgierd Dziekonski**, for their support and for hosting the Panel during its assignment. The staff of the BRG, in particular **Marek Piskorski** Director of the Gdansk Development Agency, **Barbara Pujdak** Deputy Director and their SLOW team have brought to the panel all of their talent and warm personal qualities which make the Polish hospitality.

We are also grateful to the **SLOW team** for providing us with many of the ideas developed later by the Panel, a very convenient working environment and the help we needed to carry out our study.

We also acknowledge with thanks the many senior personalities who took time away from their busy schedules to meet with the Panel and freely share their knowledge and ideas. Their numbers and community prominence warrant their being listed in this report. It will assure the readers that wide ranging ideas and information were sought and received as part of the investigative study process. Apologies are given in advance if we have inadvertently left anyone off this list.

THE PANEL MISSION

THE CHALLENGES

The issues the Panel was asked to address were:

1) to share experiences and knowledge on high rise development,
2) to analyse the role and contribution tall buildings could make to Gdansk urban future,
3) to contribute to an open debate on high rise development with local communities.

A series of studies and consultation carried over the last months and the comprehensive presentations gave us useful background on the factors relevant to the future development of Gdansk as well as the identification of lines of action.

We knew that, in the course of a few days, we could not match the detailed local knowledge of our hosts. Nor could we hope to master all the relevant social, economic, commercial and political issues. We were also not able to commission new studies or surveys. We therefore concentrated on using the interviews to get as many different perspectives on the key questions as we could, and we tested the evidence and data we were given against each panel member's practical experience of urban regeneration and development.

We started by looking at the overall urban and territorial strategic framework. We have picked out what seems to us the key issues for potential sustainable urban development over the next decade. We then related this to the local area and opportunities that we had been asked to address. Finally, we have tried to set out an approach, identifying the range of decisions and actions that will be necessary to make positive changes.

EXECUTIVE SUMMARY

Accommodate or decline
To remain a major regional centre in the Baltic and the European Union, Gdansk must accommodate significant growth within its existing boundaries.

Gdansk should grow up
The cautious attitude to tall buildings in Gdansk is due to haphazard development and negative attitudes prompted by the dismal high-rises of the 1960s.

In Poland tall buildings are an important topic of debate and nowhere more so than in Gdansk. The challenge for Gdansk policy makers is to provide the right type and quality of new space for growing and more diversified demand.

In Gdansk today and even more in the Gdansk of tomorrow, urban development must adapt itself to the aspirations and signs of things to come, as well as seek to improve today's running of the city and urban forms. This revolution in urban thinking requires in-depth change of the traditional structures for urban production that we have today, not least in urban administration.

Today, urban thinking can no longer be limited by height or form constraints.

Analysis enables us to understand how changes in urban development regulations can offer interesting possibilities for tomorrow's urban development and make up for the high-rise mistakes of the past. Very high buildings embody strong symbols and enable a landscape to take on a strong identity. However, high-rise building is not the only way to improve urban density and intensity.

New centrality mixing high-rises and higher urban density with innovative, well-distributed public transport constitutes appropriate approaches to improve urban fabric while integrating into the existing city structure and dynamics:

mixing functions and uses (at neighbourhood even building level) ;
more building opportunities ;
more space for parks and pubic amenities;
integration of renewable energy technology;
opportunities to mend the urban fabric scarred by infrastructure;
new ways to integrate building entrances (private) into the street (public), etc.

Tall buildings enable to imagine other modes to plan cities and may lead to appropriate answers to tomorrow's challenges:

the need to develop public or private housing in urban centres instead of driving people away into distant suburbs ;
curbing urban sprawl;
developing new centrality linked with the suburbs in areas currently perceived as peripheral.

The physical dimension of a high rise residential or office area should fully take into account the natural and built environment in which it is or will be embedded. The high rise development shall be consistent to and establish a dialogue with the features of the land and

cityscape and to the dimensions, proportions, formal language and materials of the surroundings.

Vertical urban development is a response to economic necessity; promoters would not undertake such complex operations through arrogance. A development of this size would not survive the many economic obstacles if it did not meet a vital need.

The contemporary high-rise may be one of the keys to our current urban problems, if it is integrated into a rational scheme of sustainable planning and development, on condition the vision comes before the project and the project leads to effective organisation and governance.

Modenised and integrated transport system is essential
Quality and capacity constraints on Gdansk's transport system prompt development and regeneration in the agglomeration. If the transport system is neglegted companies and residents from Gdansk may leave the core area and locate to other Pomeranian cities.

Gdansk can take a small dose of higher density
Gdansk can accommodate greater densities of population within existing boundaries. There are ways to allow people to live and work closer together.

Building and filling the built space
Probably the most persuasive evidence in favour of tall buildings is that developers are able to fill their towers with tenants and command high premiums.

Where should high rise be built?
Well-designed tall buildings should be located in strategic clusters and well served by public transport in Gdansk.

When the ground meets the sky
An effective tall buildings policy for Gdansk should take into account their impact on people and places – not only how they affect the skyline. How tall buildings meet the ground is as important as how they meet the sky.

Gdansk is set to grow over the next few decades – but in which direction?
According to the Gdansk Plan, the city needs to accommodate up to 10,000 new jobs and 40,000 new households by 2015 in order to hold onto its "Metropolis of the Baltic" status. Most significantly, it must do so without expanding outwards into the still green surroundings. In other words, Gdansk faces a harsh but simple choice:

either prepare for future growth within its existing boundaries
or fall behind its regional competitors.

Conclusions

1) high rise could be an answer to the lack of residential and office space in Gdansk,
2) high rise seems the preferred type of building for modern offices, a sector central to future development in Gdansk,
3) high rise is a symbol of modernism and high architectural quality is a strong attractor of world attention to the City,
4) high rise location should reflect the strategic vision and plans of the City and create strong polarities on the urban fringe of Gdansk.

EUROPEAN URBAN TERRITORIAL DEVELOPMENT

URBAN DEVELOPMENT AFTER LEIPZIG

The Leipzig Charter emphasises the importance of Cities in the formulation of future EU policies and calls for a greater use of integrated urban development policy by the cities with emphasis on:

creating and ensuring high-quality public spaces;
modernizing infrastructure networks and improving energy efficiency;
proactive innovation and educational policies;
supporting deprived neighbourhoods.

The policy guidelines are expanded to six priorities for spatial development measures:

strengthening of polycentric development and innovation through networking of city regions and cities;
new forms of partnership and territorial governance between rural and urban areas;
promotion of regional clusters of competition and innovation;
strengthening and extension of trans-European networks;
promotion of trans-European risk management including the impacts of climate change;
strengthening of ecological structures and cultural resources as added value for development.

In the light of the Lisbon Strategy the policy objectives for strengthening territorial cohesion are defined as:

improving the strength and diversity/identity of urban centres/networks as motors for territorial development in Europe;
improving accessibility and territorial integration in the EU;
preserving and developing the quality and safety of Europe's natural and cultural values and developing sustainable urban-rural linkages.

The concept of territorial cohesion supplementing social and economic cohesion provides solutions for the specific challenges territorial cohesion is faced with:
Regional disparities and imbalances at EU level and at national level;
Suburbanisation, as one form of inefficient allocation of socio-economic activities (e.g. housing and transportation) but also the pertaining core-periphery orientation of economic activities and population;

The peripherality of regions and other specific geographic characteristics, e.g. island, outermost regions, sparsely populated regions etc., with their negative repercussion on the access to public and private services;

North-south differences, particularly in the endowment and usage of ICT;
Environmental protection; demographic change, having a differentiated territorial pattern and affecting lagging regions disproportionately; increased energy prices, which also will impact differently on individual regions depending on their present energy mix and economic structure and cultural heritage.

THE ESPON SCENARII

URBAN NORTHERN EUROPE

In a world-wide perspective, European global cities have become more competitive, compared to the early 2000s, but their distance from the global cities of North America and Asia has not changed. At Europe-wide scale, the metropolitan areas of the pentagon, together with a few others, have strengthened their leading European position. The pentagon, as defined in the late 1990s, has been expanding along major corridors with significant metropolitan areas, towards the British Midlands, the southern parts of the Nordic Countries, the Rhone Valley and the Danube Valley up to Budapest. The network of high-speed trains interconnects most of the metropolitan areas of the wider pentagon. A number of networks of cities have been emerging inside and outside the pentagon, supported by efficient co-operation in RDT. The consolidation of these networks has led to the development of wider areas, especially the Baltic Sea Region and the new "Triangle" of Central and Eastern Europe, formed by Vienna, Warsaw and Budapest, including Prague, Dresden and Bratislava. The development of polycentricity takes place through the expansion of the pentagon rather than through the development of alternative global economic integration areas.

Remote peripheral regions, and even those with large cities, have generally not been successful in generating or maintaining sustained development processes, so that no global economic development area emerged outside the wider pentagon. As a result, large cities in the peripheries remained rather isolated in their development process and have not significantly benefited from network and synergy effects. At intermediate scale, the level of polycentricity in the national urban systems of the countries of Central and Eastern Europe and of the southern peripheries has been reduced, compared with that of the early 2000s. This is a result of territorial differentiation in the long-range economic trajectories of regions. In the countries of Central and Eastern Europe, rural-urban migrations have been significant up to 2030, precisely because of the process of territorial differentiation. Nevertheless, a substantial part of the rural population has been urbanised in situ, i.e. without long-distance migration. Migration flows have also developed from small to larger urban centres.

In Western Europe, both urban-rural migrations (retirees, self-employed etc.) and rural-urban migrations (young employed, students) have been co-existing during the three decades since the early 2000s, so that the demographic structure of large cities is generally much younger than that of numerous rural areas. A territorial division of generations has progressively taken place. In a significant number of regions with traditional industries, both in Eastern and Western Europe, the large, medium-sized and small towns have been declining in the context of accelerating globalisation and are facing, by 2030, serious difficulties in their attempts to recover and generate new activities. In the wider Europe, a number of regions attractive for residential and tourist functions have developed however, some of them strongly, even in the absence of significant cities. ICTs have contributed to such processes. Important differences with the urban systems of the early 2000s can however be identified at the local/regional level. A number of factors with cumulative impacts have contributed to reshaping urban settlements, the two major ones being increasing insecurity in cities and increasing energy prices. Insufficient economic, social, educational and cultural integration of ethnic minorities (mainly young people from immigrant families) has strengthened social and physical segregation in cities and favoured sporadic troubles and even riots.

The social housing estates where these people live, as well as their surroundings, have been left by the population of European origin and by the ‘better-offs’ among members of immigrants families, who moved to more "secure" and quiet areas, either in other parts of the agglomerations or into smaller settlements of the surrounding rural areas. In many cities as well as in tourist resorts, gated communities have emerged. Electronic security facilities are

omnipresent in cities and in public transport. This type of evolution is stronger in the metropolitan areas of the pentagon and Mediterranean regions. As immigration has also significantly increased in the countries of Central and Eastern Europe; urban social and physical divides have been growing there also. The impact of growing energy prices on settlements has been rather different to that on issues of integration. High oil prices have favoured compact cities, with lower volumes of commuting movements, higher use of public transport systems and better integration of urban functions. Recreation and leisure facilities were developed in the proximity of agglomerations.

Densification and new urban developments took place in the surroundings of the stations of public transport networks. Home working has significantly progressed, so that numerous active people do not need daily commuting into cities and prefer residential locations in surrounding rural areas, in particular those well connected by public transport. The urban pattern at regional and local level is one of increased social/physical segregation combined with compact approaches to new developments and redevelopment. It is however clear that this global pattern is largely differentiated according to the types of regions. It takes different shapes in booming metropolitan areas and in declining industrial medium-sized cities.

Baseline scenario

The Baltic Sea region (BSR) and the Northern periphery area stand out as being fundamentally heterogeneous and dichotomous in nature, especially with regard to the population density divide between north and south, and the economic divide between the south-east and north-western parts of the area as a whole. Thus in demographic terms, by 2030, current trends continue to sub-divide the area along these north-south, east-west, and urban-rural lines. In Denmark and Norway population growth continues, while Finland and Sweden witness urban growth but rural decline. The south coast of the Baltic, Poland and the German part of the Baltic Sea Region (BSR) area see the reverse, with urban decline and rural growth in population terms although, at least in Poland, this may be attributed to urban sprawl around city hinterlands), while the Baltic States and the Russian BSR area all experience a continuing overall decline in population terms.

Large agglomerations on the southern coast of the Baltic Sea however are not so affected. Population ageing increases across the area with the exception of the areas encompassing the major Nordic capital regions, with Poland and the Baltic States in particular seeing significant further population ageing. What's more, while immigration policy has little more than a limited impact on the 'receiving' areas (e.g. the Nordic capital regions) it further exacerbates the demographic problems within particular age groups in the eastern part of the region. Outward migration continues to affect the Baltic States and Poland, and remains targeted to the more western countries, particularly Western Germany, Ireland, and the UK. In economic terms, this region is again fundamentally heterogeneous in nature.

While general economic growth in the region (with the exception of the German and, in particular, Russian BSR areas) continues to outpace the EU average, with labour productivity increasing, spatial polarisation is increasingly exacerbated.

The main engines for development are the main metropolitan areas in the region: Stockholm, Helsinki, Malmö-Copenhagen, Oslo, Gothenburg, Hamburg, Berlin, Warsaw, Krakow, and St Petersburg. At the beginning of the period in question, the BSR area, while hosting many of the EU's wealthiest regions, also included 56% of the 100 poorest EU regions.

Moreover, subregional polarisation remains sharp in the German BSR, Poland, and in the Baltic States, where it is increasing, in the Nordic countries. Regional disparities increase across the board, with the urban-rural divide, or more precisely, the metropolitan-rural divide, being particularly important here as economic development is generally concentrated to

urban growth poles. In addition, the oil and gas pipeline system is upgraded, to reduce energy dependency and ensure energy security, particularly as this relates to the eastern parts of the region.

Similarly, in the nexus of transport, energy and environmental policies, the BSR region and its northern periphery extension are highly differentiated in many respects.

One constant here is, however, the increasing reliance on nuclear energy across most of the region, although the BSR does remain committed to maintaining its lead in the development of 'alternative energy' products, particularly in relation to wind and hydropower (depending on local circumstances). A second is – despite energy price rises – increasing reliance on car transport and thus on motorway construction. The Baltic States do not have significant railway infrastructure and in Poland railways are being neglected.

Cohesive scenario

The impact of the drive for greater competitiveness across Europe has not been uniform across Northern Europe. In demographic terms, the Northern Periphery area and the southern shore of the Baltic both see continuing population decline, as economic opportunities aggregate towards urban centres and, in Poland and the Baltic States, rural areas continue to shed population as the agricultural sector is comprehensively restructured. The Nordic capital regions on the northern shore of the Baltic however, experience a significant influx of people – though not to the city centres themselves – which remain beyond the financial means of most newcomers. A limited number of urban areas beyond the Nordic capital region core, such as Oulu, Umeå, and Trondheim also benefit, given their advantageous positions in terms of high-tech industrial development and/or port facilities and transportation. On the southern Baltic shore, western emigration continues, but at a lower level, as internal economic development proceeds, while countries like Poland themselves become the recipients of a significant influx of new labour from the east.

Significant migration into the largest agglomerations and urban centres on the southern shore of the Baltic, such as for example the tri-city area (Gdansk, Gdynia, Sopot – an agglomeration with close to 1m people), Tallinn, Riga and possibly also Szczecin and Rostock, continues. Resorts on the southern and eastern shores of the Baltic benefit from changes in the choice of tourist destinations, which now attract an increasing number of guests and provide significant employment opportunities for people leaving the rural areas of Pomerania etc, thus reducing westward migration trends and facilitating economic restructuring.

Economically, the 'competitiveness drive' privileges urban over rural areas, as the 'equalisation' ethos of the cohesion scenario is replaced by a focus on emphasising 'indigenous potentials', which effectively reinforces already strong economic areas at the expense of weaker ones. Similarly, high-tech sectors and their ancillary service partners are stressed at the expense of traditional industrial production – though some 'traditional' sectors such as mining do survive and indeed prosper in the northern periphery area in particular. Economic growth remains above the EU average for both the Nordic capital areas and the countries on the southern shore of the Baltic, though the latter continue to suffer from historical problems relating to mis-development and inadequate endogenous investment, with FDI taking up the advantage.

The impact of this on the development of metropolitan areas is significant across Northern Europe as at its northern and southern extremities a profound 'shake up' occurs, with a spatial differentiation immediately becoming apparent between urban winners and losers – based on their ability to succeed at economic restructuring. Regional disparities therefore dramatically increase in comparison with the baseline scenario.

Challenges for Northern Europe

Balance between urban and rural areas, in demographic and economic terms, will not be achieved by 2030 even in the cohesive scenario. Remote and rural areas in the Nordic countries as well as in Poland will continue to lose population, despite development efforts. Better cooperation is needed between the two sub-regions (North and South side of the Baltic Sea). The emigration to the West (from the Baltic States and Poland) is reduced but still continues.

The Espon policy group recommended:

to support to services and creative industries in port cities towards a more knowledge based economy, less dependent on traditional industry and logistics
Creation of employment opportunities, notably through tourism development on the southern shores of the Baltic Sea, in order to reduce westward migration
Diversification of rural areas, especially in the energy sector.
Improvement of transport infrastructure in the North.
Intraregional co-operation programmes based on knowledge exchange and service industries.

This is the development background against which Gdansk plans its own future.

GDANSK IN ITS REGIONAL CONTEXT

THE POMORSKIE VOIVODESHIP

There is no doubt the Poland is becoming an increasingly important economic and social actor in central and northern Europe. Poland sits between two major powers – Germany and Russia, and two groups of regional powers – the Nordic and Baltic countries. As the 3 Baltic countries move closer to the 4 Nordic countries it leaves Poland as the side of a powerful triangle extending from Germany to Sweden and Russia.

Being a side of that triangle creates enormous opportunities for Poland in general and for the Pomorskie region in particular. Pomorskie region, despite being at the fringe of Poland and not yet well integrated into the rest of Europe and listed as a lagging region, is not at the periphery but at a major crossroad where European influential economies can meet each other.

Pomorskie region has a geographical advantage, a long historic reputation, an history of cooperation with regional cities, an extensive economic relations with neighbouring economies and is a prime location on the Baltic sea.

Situated in the north of Poland, on the Baltic Sea, the Region occupies an area of 18 300 $km^{2.}$ The voivodeship comprises 16 poviats (counties), 4 poviat cities and 123 gminas (municipalities): 25 urban municipalities, 17 urban-rural municipalities and 81 rural municipalities.

The region's main spatial characteristics include:

- the mouth of the Vistula river flowing into the Gulf of Gdańsk, making up the longest part (over 60%) of the Polish coastal line;
- strong differentiation in natural conditions – access to the Baltic Sea, Żuławy depression zone, the highest elevation in the Central European Lowlands; many forests and lakes; some of the best soils in the Vistula Valley and very poor soils in the lake districts; original landscapes of the Pomorskie coasts and Lake District, Hel Peninsula, Vistula Lagoon; extensive forested areas such as the Bory Tucholskie;
- strong differentiation in settlement patterns – the Tri-City occupies 2.3% of the region's area with nearly 35% of the region's population, whilst only 40% of the population live in the coastal areas;
- complex and multi-functional coastal conurbation with metropolitan functions **–** one of the main centres of the South Baltic's developing metropolitan cities areas, it stretches along 60 km, production is indirectly and directly linked with the sea, sea transport and specialist services in tourism and fisheries and trans-regional services (science, education, culture, health care, media);
- the city of Słupsk with a population of almost 100 000 inhabitants, is a sub regional centre and hub of activity in the north-west part of the region;
- the valley of Lower Vistula, a major transport corridor, which links the coastal area with other centres on the Vistula in Poland and with the south of Europe, stretches along a dense network of medium-sized cities;
- recreation and residential areas along the coast are a dominating feature of the area's development; a large lake district**,** surrounding the coastal areas, with dense forests, lakes, low population density but little development;
- a region of multiple functions **–**important academic and cultural centre, maritime

economy, mining and processing industry, farming, tourism and recreation, forestry, trans-regional services and infrastructure;
• a wide system of protected areas comprising national parks of primeval forest, landscape parks, NATURA 2000 are. These zones, including NATURA 2000 areas occupaying nearly 1/3 of the voivodeship's area.

The crossroad functions of the region can be seen on the pattern of infrastructure:
• Seaports in Gdańsk and Gdynia with ferry and cargo containers terminals, regional airport in Gdańsk offering domestic and international services.
• Two Trans-European transport corridors cutting across the region:
Helsinki –Tallinn – Riga – Kaliningrad – Gdańsk
the sea and road links from Scandinavia to Central Europe via the Tri-City conurbation (Gdynia, Sopot and Gdansk) then to Łódz, Warsaw and Katowice.

Despite intra regional disparities and slow economic development, the Pomorskie Region in 2020 will be a significant partner in the Baltic Sea Region – offering unpolluted environment; a high quality of life; development based on knowledge, skills, active and open communities; a strong and diversified economy; partnership; attractive and cohesive space; multicultural heritage as well as maritime and solidarity traditions.

The sprawl of population, activities and infrastructure, and the mobility and transport that accompany this sprawl, follows a concentric pattern focusing on the bay of Gdansk. Several "clusters" can be identified supported by a chain of urban nuclei constituting a multipolar spatial structure:

Czluchow - Chojnice – Starogard Gdanski – Tczew - Gdansk
Slupsk – Lebork – Wejherowo – Gdynia - Pock
Kwidzyn – Malbork Elblag - Gdansk
Czluchow - Chojnice –Koscerzyna - Kartuzy

It is along these clusters that the multipolarity of the Region is organised; and Gdansk is both the core and focus of these "clusters".

These global strategies are at work at the level of the counties and of the cities; **Gdansk** is a key player in that strategy.

GDANSK SUB-REGION

Gdansk is the regional capital and benefits from all these assets. The challenge for the City and Region is to work simultaneously at different levels:

Structural, to improve the basic conditions that allow the economy to function.
Spatial, to ensure that land-use and spatial development plans support the economic and social objectives.
Regional, to maintain or increase the competitiveness of the Pomorskie territory.

Gdansk is a city with a rich history which has played many strategic roles within the structure of the Baltic, northern Europe and the German and Russian ambitions and objectives. Today Gdansk is an unstable urban economy still in search of a stable economic base sector to position itself in the global economy. The crisis of the previous economic paradigm for Gdansk requires for this strategic question about the future, and thus about the structure of the city and the metropolis that should serve such strategic role.

The heavy industry complex, linked to the import-export of heavy prime raw materials, and the shipbuilding industry, developed within the regional strategy of the Russian influence is

no more in place, and has no possibilities to be recuperated. A new base has to be built. No hint on this future is felt on the socio-political context of Gdansk. A real effort for strategic thinking about Gdansk must be enforced, and socio-political consensus reached for clarification of the future of the whole economy of Gdansk and its metropolitan structure.

Metropolitan structure

Metropolitan legacy: problems and assets

Gdansk metropolitan structure is characterized by four basic elements:

1) A half rebuilt historic urban center: Although effort has been immense and as such praised, reconstruction has to be finished, to provide a sound base both for social cohesion and identification as well as for the promotion of a strong tourist sector

2) A derelict heavy industrial area: Both a problem and a potential. The reconstruction of the industrial complex is impossible, so a strategy for confronting the problem must be set in place. There is no point of blindly departing from the problem as the heavy pollution of the area can not be obviated. The problem can become an asset as urban development potential exists in the area

3) A linear structure: along the foot of the heights that define the Gdansk-Gdynia urban plane structure between the sea and the wooded hills. This linearity is pinpointed by centres and sub-centres (Gdansk, Wrszeszcz, Oliwa, Sopot, Gdynia) served by an essential railroad infrastructure. This structure and infrastructure becomes an essential asset if confronted to the fact that Gdansk has to expect a growth of car ownership to a saturation ratio of 0.8 cars per inhabitant, meaning the doubling of the actual car ownership (intensive car usage is an additional phenomenon not included in these figures)

4) A homogeneously scattered obsolete residential structure. The plane is fully occupied by a scattered residential structure of residential collective family bocks of the post war period 50's and 60's, that need important renovation works if not substitution for more quality residential typologies. Replacement (undertaken in many the countries of the western world economies), does not yet fit within the discussion of policies in the Gdansk context.

Urban location, rail infrastructure and main urban centers

Centralities in which to build the sub-regional urban structure

Reinforcement of the linear structure

The linear structures are the best to be served by public transport. The inherited metropolitan structure of Gdansk is thus adequate to be reinforced to the best response against the car ownership explosion and the sprawl phenomenon, with all the implications it brings along.

The reinforcement of the linear structure, and the mass public transport usage, is to be produced by the fostering of location of activities, tertiary productive, commercial, leisure and residential, around the railroad stations. Those should become the nodal centers of the region, with multifunctional roles.

The basic functions to be concentrated on those nodes are:

- intermodal exchange nodes
- public spaces
- economic and commercial activities
- residential density
- social facilities
- institutional buildings
- reference icon

The existing centers and sub centers can be completed with complementary sub centres (in a well organized rank structure) that would play the role of potential locations for new activities and developments within the fostered linear structure

Intermediate complementary centralities

Urban network building. Efficient linear

The sub-regional structure

This metropolitan linear structure, based in the public transport railroad line is complemented by a road structure both at sub-regional level and at urban level.

The structure at sub-regional level has taken the shape of a reticular structure. The beyond-heights highway by pass, parallel to the metropolitan structure has provided for two parallel lines of private transport and mobility. Complemented with the perpendicular road links across the wooded heights, the whole builds up a reticular structure. The nodes of this reticular structure would take a relevant role in the reinforcement of sub-regional nodes for further development of a consistent sub-regional mass transit system to protect the abuse of traffic across the environmental valuable wooded heights.

The urban road sub-structure works as well on the reticular basis, as the sea line and the foothills line (and the consequent rail and road, and urban linearity structure) are determinant to a parallel plus perpendicular avenues and street pattern.

Sub-regional and urban road reticular network

Bi&cross - lineal (reticular) hinterland sub-regional structure and reticular urban structure

Location of structural elements of the sub-regional structure

Gdansk sub-region, within the transport and road network (with which it interrelates), apart the nodes and the residential location, has two very distinctive features:

1) **The wooded hills.** The structure of the environmental valuable areas is to be complemented with the wooded areas by the seaside that becomes extraordinarily important urban assets, as the hill woods are for the sub-regional structure.

2) **The industrial, port and shipyards.** Determinant in the reading of Gdansk both in history, in economic structure, and in urban structure. It is one of the main elements of Gdansk complexity and both one of the main problems and asset.

Wooded inland and seashore areas **Main industrial areas**

Environmental system at sub-regional level and industrial shipyard land complex

CONFRONTING THE FUTURE.

It is necessary to build up a metropolitan strategy for the future, based upon a correct analysis that springs out into proposals. Gdansk has to design its future beyond (and probably previous) to the strategy of high rise building. From the definition of that future, and the urban and sub-regional structure that goes with it, to serve it at best, will come the priority location for the iconic elements and high rise, if so is decided.

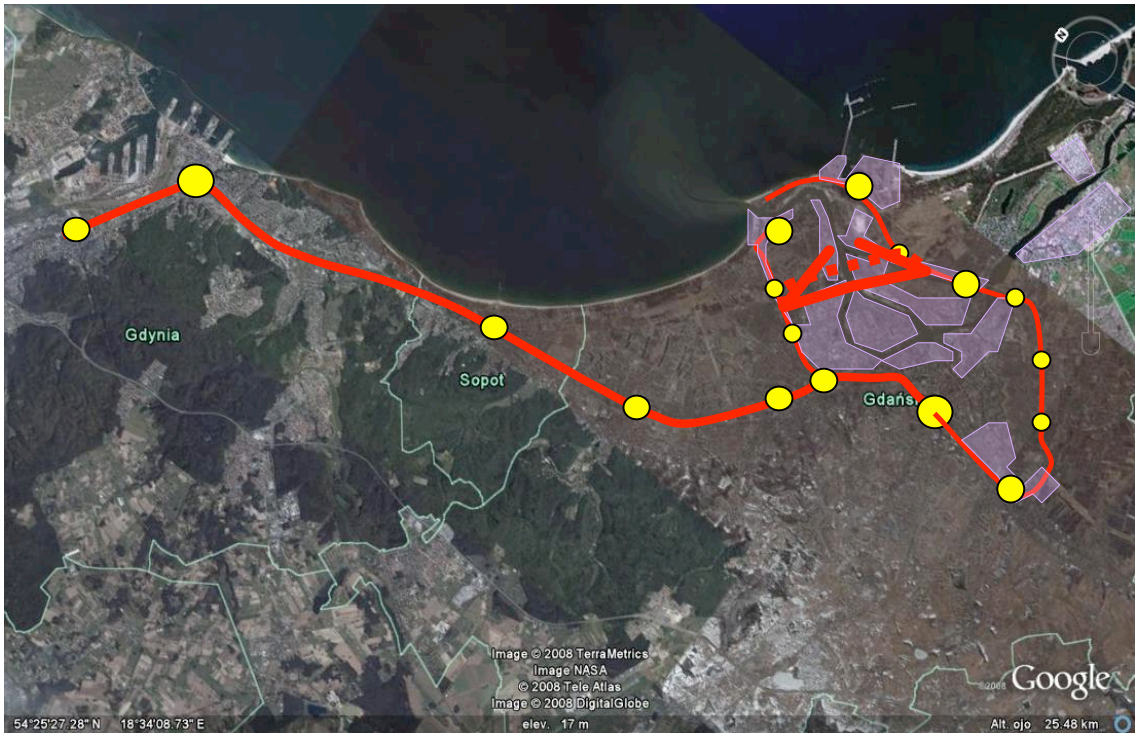
THE URBAN LOOP, THE SEA LOOP, PUTTING A LEASH TO DERELICTION (2020)

The derelict shipyards and industrial land complex is both a first rank urban problem but as well an important asset for Gdansk future. Regeneration is necessary, confronting both the pollution and the decay of the area.

The area allows though for important developments if the correct strategy is set in place. For this purpose there are elements that become assets in this frame of decision making.

a) Centrality: One of them is the fact that the land is central, accessible, and provided (derelict?) with infrastructures. Land can be reused (decontamination would be part of the benefits of this reuse) and those location and infrastructural assets foster urban development. The extension and location will require for subsidiary directional centralities.

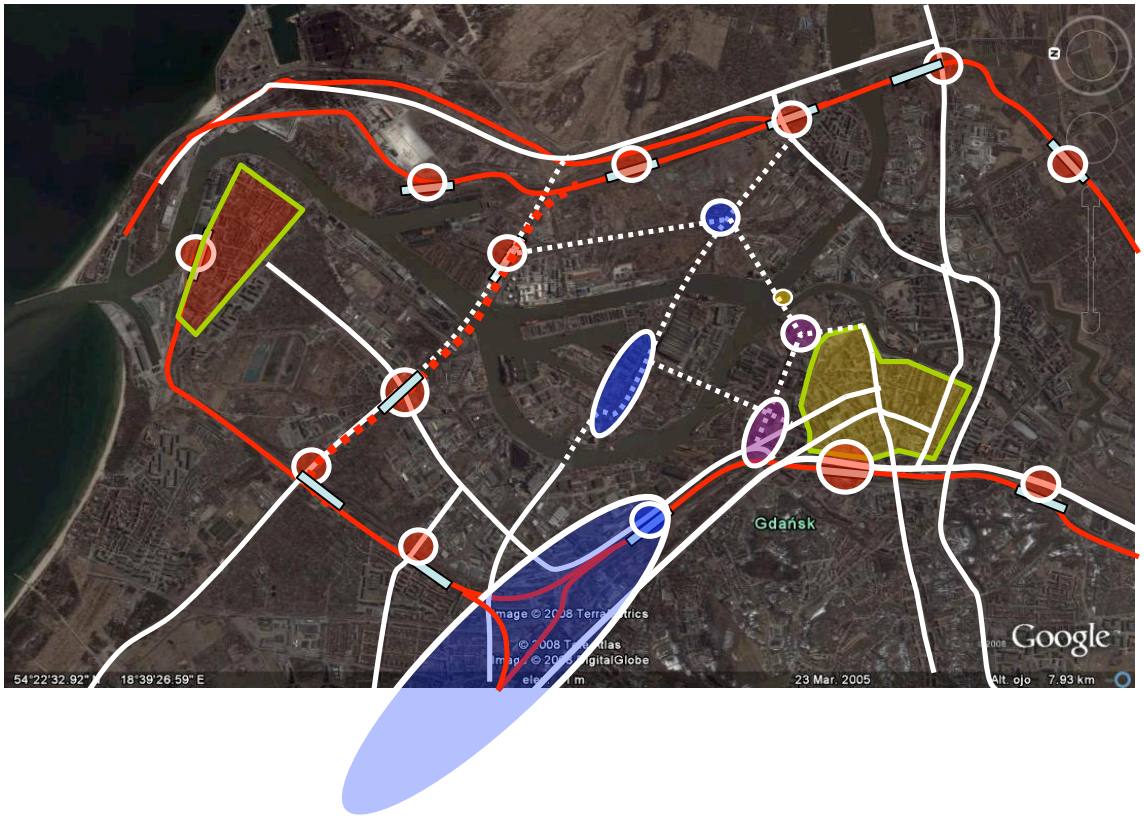
The Urban Loop. Railroad and Industrial land recuperation



Synergies rail-land. Feedback recuperation. **Re-use of derelict land and rail for new**

b) Accessibility: The location is not the main asset. The pre-existence of a rail (industrial) line can be recuperated to build up the urban regeneration process upon a mass public transport system. The recuperation of the two main rail lines, connected into a loop at the river embouchure (see budget), could constitute the backbone of the success of the development. New stations would have to be established. They will constitute complementary centralities for the location of urban activities and the expansion of dense residential development

The URBAN LOOP: Rail and road network. Intermodal and urban centralities



The rail accessibility is produced on the periphery of the urban regeneration area. 15 km^2 is a very large area that will take a long term to be fulfilled. They will require:

1) **Complementary transport modes:** The inner areas of the development will have to be not only served by complementary modes of transport but by other activities and subsidiary centralities.

2) **The inner ring** of subsidiary centralities, central to the whole development, would suggest a more 'Central Directionality' for entrepreneurial office space.

3) **Link to the historic city:** This model of the inner ring links with nodal point of the peripheral center of the Shipyard gates with very strong historical, symbolical and emotional urban location, on top of the strategic nodal link to the historical city.

The URBAN LOOP: Rail and road network. Intermodal and urban centralities

Costs and benefits return on urban investment

Cost of Rail loop: The cost of the railroad improvement scheme requires investment in three aspects:

1) **Tunnel**: The tunnel would have a length of 2 kms. It will have to be deep. This is the cause of a one km long slope. The occasion as well to make Newport station underground and allow for a natural south expansion of the actual core of the urban area around the station. The cost per km can amount to 24 M Euros taking the total cost to an amount f 50 Million Euros.

2) **Stations**: As many as 11 new stations are possible/necessary. At a distance of 1.2 kms from each other. Each over ground station costs 6 M Euros, bringing the total figure up to 66 Million Euros.

3) **Line improvement:** The length of the total line to be improved is 15 kms. The line is on place, so there is no need for land acquisition. The cost of improvement per kilometer would be of 3 Millions. Total cost 45 Million Euros.
It would be worth studying the possibility of a “trench” line in such a way of that in the future the city will not be cut off at both sides of the line and could be connected and continued with a simple cover of the “trench”

Total rail loop cost: 161 M Euros

2. - Urban development benefits

1) Total population serviced: The potential residential location around each station is 1 km^2. With an average of 75 dwellings per hectare, 250 inhabitants, the immediate total population around the station would be 25.000. The total residential population served by the transit system would be 275.000. The rail system would work as an urban transit system, an underground. These figures do feed enough demand for the system to work. Increase is always possible.

2) Investment needs: This figure will take the transit system investment needs to 600 Euros per inhabitant. The charge could although not be put upon the future (not yet existing) inhabitants, but upon the building developments as a charge, especial contribution, for development.

In such case we can calculate a global residential development of 11 Millions m^2 (40 m^2 per habitant as an official rate) and 1.7 millions m^2 of office space. The residential space would mean the location in this area of 1/3 of the new residential developments in the region: Growth of 20 to 40 m^2 per habitant of a stable population of 1.5 million inhabitants. The office space is calculated as an increase of the Gdansk ratio to merge with international cities ratios: From 0.7 to 1.8 m^2 per habitant.

If 50% of the investment was charged on residential space and 50% on office space, the contribution rate would be overall of 7 Euros m^2 for residential and 50% m^2 for offices and commercial. Those are very sensible and realistic figures.

Urban Loop costs

Underground passage	**length:**	**2 kms**
Underground unit cost	**/ km:**	**24 M €**
Total underground cost		**50 M**
New stations		**11 St.**
Station Unit cost		**6 M**
Total stations costs		**66 M**
Length of line improvement		**15 kms**
Line improvement unit cost		**3 M**
Total line improvement cost		**45 M**
Total Loop cost		**161 M**
Potential population serviced		
Affected area / station		**1 Km2**
Affected population / station (250 / ha)		**25.000 inhab .**
Total population		**275.000 inhab .**
Investment per inhabitant:		**600 € / inhab .**
Average squareage per habitant		**40 m2/ inhab .**
Total residential construction		**11 M m2**
Average ratio for the sub -region (1,5 M inhab)		**7 m2 / inhab . (1/3 of total exp)**
Entrepreneurial floor (Office/Commerce/Industry) not included		**…**
Gdansk office space 2028:		**1 M m2 ?**
Office space ratio 2008:		**0.7 m2 / inhab .**
Expected ratio 2028:		**1.8 m2 / inhab**
Expected office space 2028		**2.7 M m2**
New office space		**1.7 M m2**
Tax charge on construction		
50% budget on office development	**(80 M €)**	**50 € m2**
50% budget on residential	**(80 M €)**	**7 € m2**

Further urban zooming would precise furthermore the layout and location of the urban functions and land uses. As an example we provide an approach to the area close to the city centre. The road/street pattern, the location of green urban spaces, public squares, institutional locations, amenities and even metropolitan icons (tip of the island) fall into place quite naturally.

CBD expansion road network, institutional land uses and icons location

Former urban road structure valuably integrated. Links to old town

THE METROPOLITAN LOOP, THE LAND LOOP, PUTTING A LEASH TO SUBURBANIZATION (2030)

The second important threat Gdansk is facing in metropolitan terms is the phenomenon of urban sprawl due to the increasing figures of car ownership and the growth of housing on the rural sub-regional area.

Car ownership is actually at 3.5 cars per person. European saturation figures for consolidated economies are in the 0.7/0.8 figures. Doubling the number of cars in the region should then be expected within the next 20 years. Account should as well be done for the increase of the use of the car stock. 25% increase is the figure expected in metropolitan areas.

To Control of the urban sprawl and the motorization effect on the urban environment is thus a priority. The policy is to be to develop a strong suburban commuting system to provide the public transport alternative to access downtown jobs for the suburbanite population.

For thus the Gdansk region has a potential organization structure as analyzed on the first part of this report. The linear structure of the rail system, and the reticular structure of the road network allows for a completion of the rail structure into a loop that would serve all and everyone of the nodes of the reticular structure. The access to the airport would be integrated in this sub-regional loop railroad system.

Further expansion development is to take place beyond the environmental protected areas (The green shield)

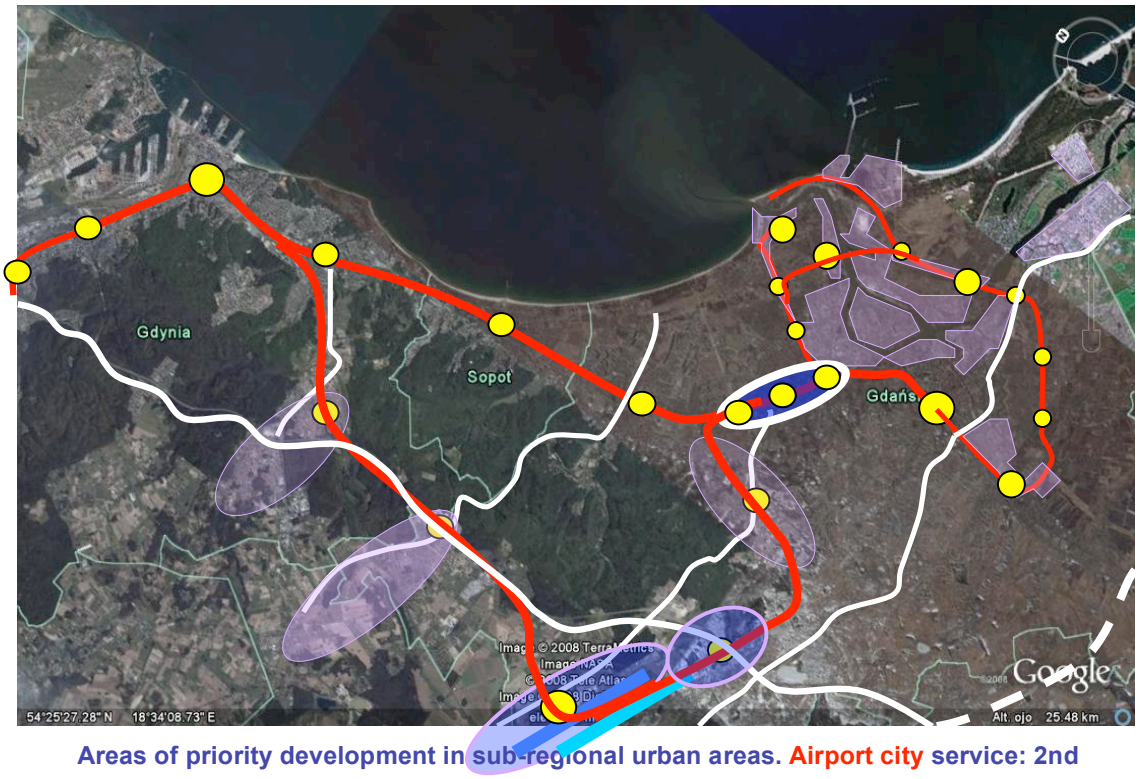
Further expansion development to take place beyond protected

The urban strategy of the sub region should be to limit the areas of urban expansion as close as possible to the sub-regional centers around the regional road network nodes and the railroad stations located on them. These stations would work as deterrent stations for car users with central city destination.

They would become urban centralities that have to be built up with the complexity of functions that define an urban center (see paragraphs A-III). They would be further more efficient if population is complementary served by an integrated intermodal public transport system that would make redundant the use of the car. For this residential density and mix-uses would be required as a feedback complement to the transport system

Note: If the actual expansion prospects for the airport are targeted to 8 million passengers it should be taken into account that a runaway capacity is limited to 11 million passengers. Further expansion of the airport would be limited to an extra 50%. To avoid this limitation a reserve for an extra landing runaway should be care for as this moment as urban and economic growth would most probably saturate available land around and close to the airport

2030 The sub-regional



Areas of priority development in sub-regional urban areas. Airport city service: 2nd

Costs and benefits of a sub-regional loop

1. **Cost of Rail loop:** The length of the railroad investment is on the range of 40 kms. The cost per km would range on the figure of 10 M Euros (this is an upper market figure). This will bring the total cost to 400 Million Euros. With possible construction deviations in any case the figure will go beyond 500 Million Euros.

The finance cost will bring this figure to a yearly payment of 30 M Euros.

2. **Urban development benefits:** The expected suburban population on the Gdansk and Gdynia hinterland amounts to close to 500.000 inhabitants for the next 20 years. The ratio of 40% active population will bring these figures to 200.000 employees. 60% of them might be expected to be commuters, which are 120.000.

Public transport users will depend on the transport policies implemented in central Gdansk, parking control, access control, pricing, etc. The sensible objective should be to achieve a share of 70% of commuter public transport.

We shall not count on those effective policies and accept a low ratio of 50% commuter public transport. That means 60.000 potential users. Two trips per day: 120.000 users per working day. One third of this figure, 40.000 users, for holidays. Working days are 220 along the year. Holidays 145 remaining days. Total passengers along the year would be up to a figure of 33 million passengers.

The share per passenger of the infrastructure cost would be 0.9 Euros. If we account for a running cost of 2.10 Euros (70%) and a public transport subsidy (European and National) of

50%, the final amount to be aid by the consumer would be 1.50 Euros per trip. A figure which is well into the market figures of advanced European economies.

Suburban LOOP Cost

Length:		40 km.	
Unit cost:		10 M € / km.	
Total cost:		400 M €	
Construction Deviations:		500 M €	
Finance (20 years):			**30 M € / year**
Suburban inland population:		500.000 inhabitants	
Working population:	40%:	200.000 employees	
Daily Commuters:	60%	120.000 employees	
Public Transport users:	50%	60.000 passengers	
Daily journeys:		120.000 trips	
Yearly working days:		220 days	
Working journeys:			26.500.000
Daily Leisure journeys		40.000 trips	
Yearly non working days		145 days	
Leisure journeys			≈ 6.500.000
Total trips:			**33.000.000 / year**
Journey infrastructure cost	30%	0.90 € / passenger	
Running costs	70%	2.10 € / passenger	
- Total journey costs		3.00 €	
- Subsidies: 50%		1.50 €	
Journey price			**1.50 €**

DENSITY, INTENSITY AND SUSTAINABLE DEVELOPMENT

In a country where land is scarce, it is crucial to make better use of available resources. The Panel assessment confirms that Gdansk can respond to this challenge, but only if a clear policy on the quality and quantity of new building is developed.

The panel suggests that Gdansk's loose, organic structure can accommodate growing demand for new housing and offices. However, this can only be achieved if urban land is developed more efficiently and transport is improved. This means 'filling in the gaps' offered by under-used urban locations and building well-designed environments at higher densities-*including taller buildings*.

THE DIMENSION FACTORS IN RESIDENTIAL DEVELOPMENT

The physical dimension of a housing estate/area should reflect and give shape to the needs of its inhabitants, it should be consistent to the user's need. Thereafter the importance of the 'brief ': a list of quantity and quality objectives (functions, surfaces, adjacencies) must be structured in a clear priority scale and diagram. The preparation of the brief must be supported by some of the well tested procedures that include interviews, public hearings and open consultation on the basis of alternative proposals with regard to the various aspects of the intervention needed (who does what, how and when). This can be seen as a social component of the physical dimension of a housing neighbourhood and is a well-developed theme of network reflection on participation. In fact, especially in the Seventies, numerous 'scientific' models have been elaborated to specify the quantity and quality of space needed in a new dwelling for each single function, inside and outside the flats - mathematical formulas associating the 'existenz minimum' for the workers family.

These methods have guaranteed a minimum of quality of dwellings, also called 'standard', but have often failed in providing sense of place, cultural identity, flexibility and other components that are much more difficult to identify and quantify in numerical terms. In this sense the culture of 'Standards' is out of date. Some elements of these methods are still valid, they have been translated in building regulations, but this whole concept needs to be upgraded or reviewed and integrated within the holistic perspective. The main tool for this upgrade is the participation tool, which means listening to the user's needs and taking these into account in an integrated project process, just as would be the case with a private client.

Second the physical dimension of a housing area should fully take into account the natural and built environment in which it is or will be embedded. The housing estate shall be consistent to and establish a dialogue with the features of the land and cityscape with special regard to the dimensions, proportions, formal language and materials of the surroundings. This does not mean simply to imitate the existing or just being as 'green' as possible, but taking into account the features of the natural and built environment in order to find an appropriate solution. This can also be seen as both reflecting the economic and environmental components of the physical dimension of a housing neighbourhood, which, in the long term are very closely and strictly related aspects.

The relationship to the surrounding community determines the economic return and environmental sustainability of a building complex. Land is the most precious resource of a community and the control of its development is among the main tasks of the public administration and so in relation to the physical perspective the rule that the environment

shall be improved by every new project is more than valid, creating a good environment for living and minimizing the environmental impact.

Finally the physical dimension of a housing area should be 'appropriate in size, scale, density, design and layout being consistent to the settlements and building typologies that have evolved in its cultural community over the centuries. Like all kinds of human creative activity, buildings have their own codes and languages, they talk to us. It is therefore crucial that the user's needs are shaped in a coherent way and the dialogue with the environment is undertaken being aware of and providing a contribution to the local 'Baukultur'.

THE COMPACT CITY: A PLANNING OPTION FOR SUSTAINABLE DEVELOPMENT

Cities should aim at a very compact and polycentric urban structure, depending on the public transport system: "a city of short distances". Within the outer demarcation of building zones defined by development scheme there could be more categories.

In the Urban Development Plan of Vienna (STEP 05) there are defined zones by the development scheme for the settlement development. This strategy of Vienna could be taken as example or for further discussions in other cities. The scheme for the settlement development could be defined three target categories of building density:

- Multi-storey buildings are specified for the densely-built up urban zone. For central areas accessible by high capacity public transport the targeted building density is even higher.
- The second category defines settlement axes/concentrations. These areas are adjacent to the densely built-up urban zone and are accessible by high-capacity public transport. This category is earmarked for medium scale building density.
- The third category includes areas of low density building. This area is dominated by loosely built-up spaces and by a high proportion of green space with single-family homes and smallholdings in the areas bordering landscapes.

In the first category mentioned of densely built-up urban zones, high-rise buildings may also be erected if the location requirements laid down in the high-rise building scheme are met. In this case e.g. the social und public benefit created by the high-rise must be demonstrated.
Urban development plans are to be adopted for these areas that will define in more detail the design and possible uses of high-rise buildings.

The aims of such intensity cities should be that they are updated to areas by attracting facilities and institutions in the fields of administration, high-tech, research, development and services. It is also important that the housing is promoted in order to attain a certain minimum population that would justify the setting-up of efficient (social) infrastructure.

In less attractive zones, such as those affected by noise and air pollution and those at some distance from public transport stops, the current premises are to be preserved – at least in the medium term –, while at the same time developing new commercial and industrial premises.

Living and working are changing in our time therefore an attractive environment is essential. Workplaces are to be embedded in an environment that satisfies all standards demanded for housing. The competition for highly skilled personnel attaches increasing weight to workplace quality. This not only includes appropriate appointment of the urban environment, but also leisure and recreational facilities.

A networked system of leisure and recreational facilities geared, in accordance with the principles of gender mainstreaming, towards a wide variety of user groups is important, not only for local residents, but – and to an even higher degree – for local workers as well. For this reason, such facilities should be easy to reach both from housing locations and major workplace concentrations. Footpaths and cycling tracks should therefore also be designed for “recreational trips” during breaks.

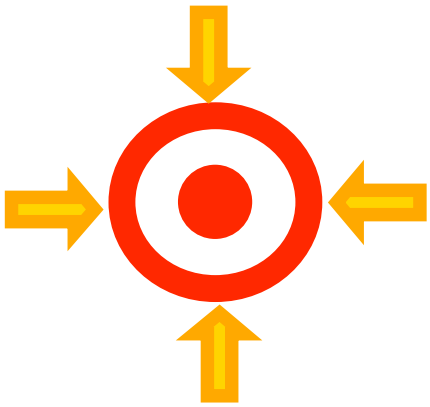
The aimed-for concentrations of different uses must remain within the scope of an overall volume determined by the capacities of the traffic and transport system, with these aimed-for concentrations restricted to special development focuses.

These principles could serve as guidelines to qualify any high rise development policy in Gdansk.

HIGH RISE LOCATION WITHIN THE METROPOLITAN STRUCTURE

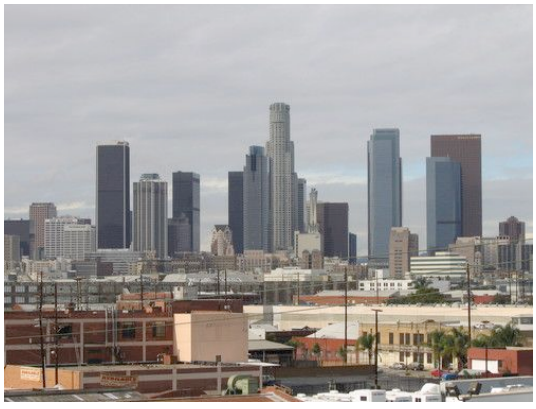
Several location systems work for high rise distribution within a metropolitan structure. They are basically of four types.

1. Centrality:
This model could be represented by the following diagram



This is the most common model for cities without an historic protected centre. The model most used in American cities for instance.

Los Angeles or Chicago are good examples.

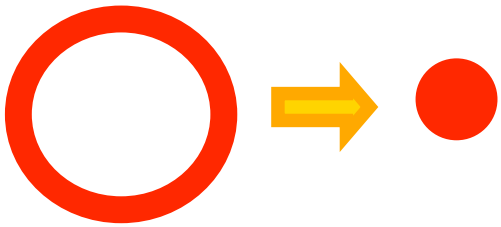


Los Angeles

Chicago

2. Directional centre:

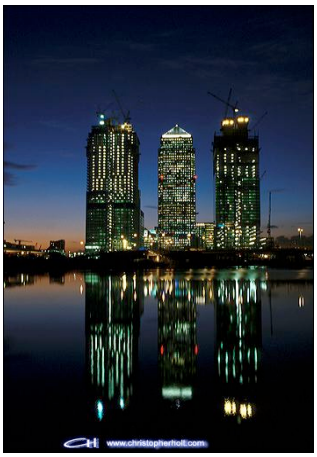
This model could be represented by the following diagram



This is the most common model for cities with an historic protected centre. They try to take pressure (access, market competition, economic overheating, price speculation, traffic congestion, etc) away from historic centers producing a 'direction' for growth that would allow for non congestive expansion.

The model most used in European cities for instance London, Paris or Madrid.

La Defense

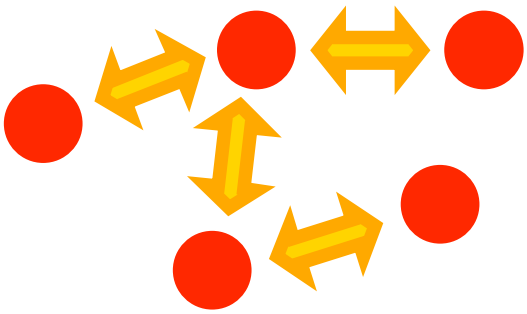


Canary Wharf

AZCA

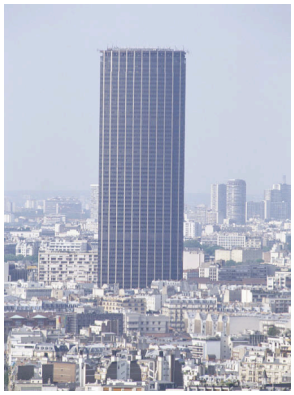
3. Nodalities:

This model could be represented by the following diagram



This is the most common model for cities with a strong topographic structure as the linear type or the reticular type as well as for cities with a polynucleus network development. In occasion it is used as a sub-centrality element for significant nodes of the network structure.

Such is the case in the following examples.



Montparnasse

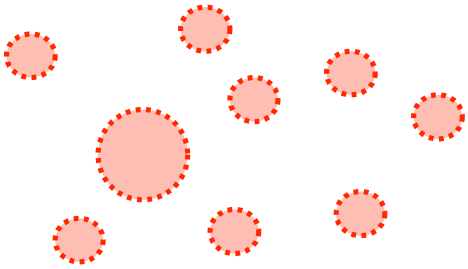
Tottenham Court

Gdansk

The Madrid model is, within this typology, a linear model.

4. Anarchic location: 'Nowhere everywhere'

This model could be represented by the following diagram



This model belongs to cities without a metropolitan structure. Centrality is diluted and alternative centralities have neither the strength nor the capacity to become urban centres. Icons and high rise buildings are just isolated elements on a non existing topology. They become 'non-lieux'. The non-center is nowhere and everywhere.

Such is the case of the British Telecom tower in London.

Prestige versus Urban Structure

- **Centrality:**
  - Orbital systems
  - Control of scarce resource
  - Symbol of social position, economic power
- **Directional center**
  - Historic Centers to be preserved
  - Strategic expansion
  - Magnet and condensation of urban development
  - and economic growth
- **Nodalities**
  - Complex structures
  - Linear, reticular, polinuclear
  - Expression, location reference
- **… the mess (the 'nowhere everywhere ')**

¿ which one would be Gdansk ?

MANY PARTNERS: ONE COHERENT VISION

CITIES MATTER, GDANSK MATTERS

The development of a strategic vision for a city is an integral for a city's vitality, growth and culture.

The INTA panel has found that the foundations for establishing such a vision exist but it seems that a strong urban vision statement is not yet in place.

It is recommended that the City of Gdansk look to establish itself as a city for the 21st century that supports the city's vitality, sustainable growth and culture. This should include economic competitiveness, the creation of inclusive communities, a skilled and adaptable workforce, deliver a high quality of safe urban environment, exploit the city's rich historical character, be a benchmark for the next generation of Polish cities, become a world class tourist destination, create a quality lifestyle, create an effective and efficient mechanism for the delivery of a vision plan.

The development of this strategy should also look to improve the connectivity of the city, promote urban engagement, to promote community engagement and to encourage business development and investment. Making such a statement will serve as a major statement of intent.

The goals that can be set for Gdansk are:

- Think big and aim high.
- Setting the old shipyards/waterfront as a city centre destination
- Creating Wrzeszcz as the commercial and retail centre
- Encouraging living and staying in the Old Town
- Movement, public transport and public realms

The strong visions used in Liverpool and Lyon are examples of how Gdansk can successfully achieve its aspirations. The components of the Liverpool vision should be particular interest as shows a framework for how investment can be attracted, partnering between public and private organisations through to maintaining focus.

DEVELOPMENT PRINCIPLES

The integrated planning framework might include the following elements:

- Transport Oriented Development and multimodality
- Maximise the business attractiveness of the Central Service Belt
- Increase density and intensity around transit nodes
- Organise polycentrism
- Reinforce the modern image of Gdansk
- Bring people back to Gdansk and attract new population by an appropriate housing policy.

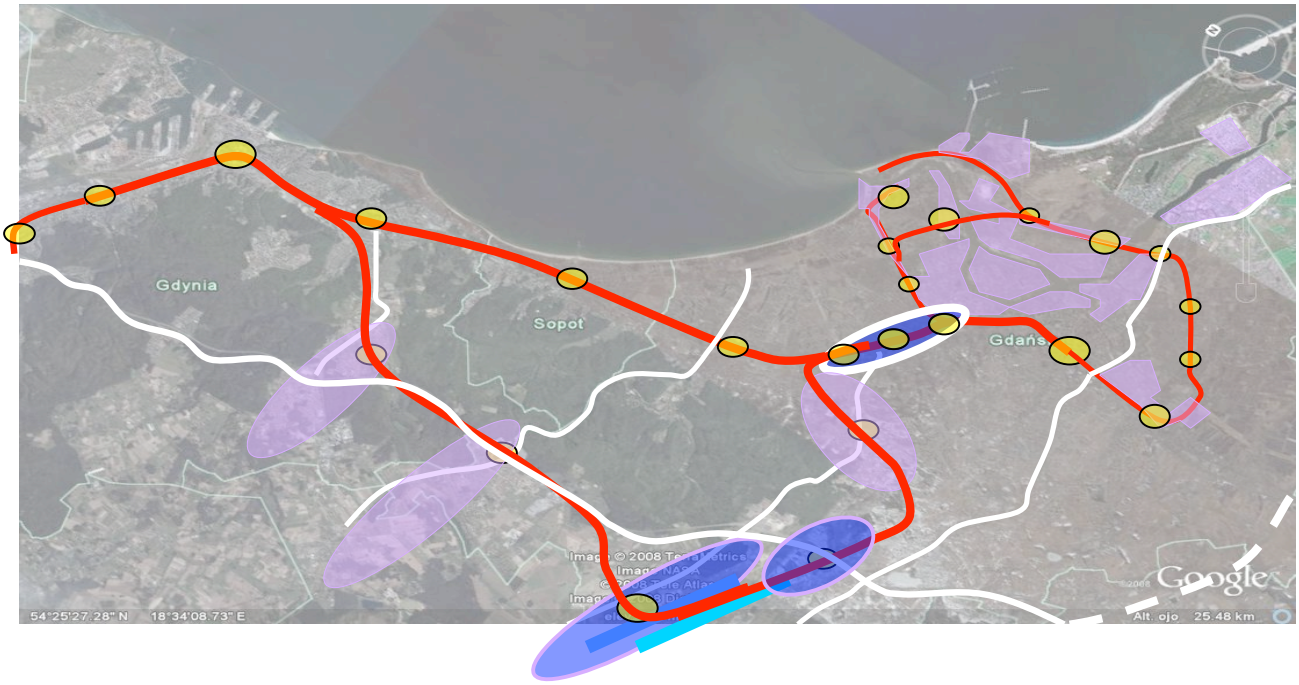
Strategic Objectives

- Reinforce the old centre without diminishing growth elsewhere

- Establish in Wrzeszcz a new modern business centre of metropolitan scale by encouraging High Rise development into the urban landscape.

- Develop the contact with the sea in the coastal area avoiding inappropriate or out-of-scale development

- Support the secondary centres with public amenities, open places and collective transport



- Prepare the future redevelopment of the shipyard

ELEMENTS FOR A RENEWED VISION OF GDANSK URBAN DEVELOPMENT

Il est nécessaire tout d'abord de distinguer les tours véritablement de grande hauteur qui ont un réel impact sur le paysage (+100m) des tours de moins de 55m. Cette hauteur de 55m est d'ailleurs quelque peu banale. Elle est *trop importante* pour assurer un épannelage de qualité dans la vieille ville et dans son extension. Elle est *trop faible* pour créer un paysage urbain dense de caractère.

Remarques sur les vrais tours de grande hauteur

- C'est une véritable opportunité que Gdansk intéresse les investisseurs et il est nécessaire de répondre à leurs offres.
- Ce n'est pas à eux en revanche de faire les choix d'urbanisme.
- Le marché n'autorisera pas la construction de nombreux immeubles de grande hauteur.
- Il faut donc concilier le projet de promoteurs d'investir à Gdansk et les orientations politiques que choisit la ville.

En termes d'aménagement urbain deux grands projets apparaissent prioritaires :

Extension du centre historique avec le « jeune centre », et les autres îlots disponibles à proximité immédiate de ce centre :

- Il est nécessaire qu'une planification fine du cadre de cette extension puisse être discutée et arrêtée par la ville pour permettre c'offrir aux promoteurs des règles claires.
- Le respect du site historique, la mise en valeur de l'eau et des berges, la recherche d'une modernité respectant quelques éléments de vocabulaire urbain doivent clairement émergés des principes d'aménagement arrêtés par la ville.
- Il n'est pas évident et peut être pas souhaitable qu'un immeuble de grande hauteur soit érigé dans cette partie de la ville surtout si, compte tenu du marché immobilier, **il devait être pour longtemps le seul de Gdansk**.
- Il est sans doute plus important que la trame urbaine soit bien définie pour permettre l'implantation d'équipements remarquables comme le Centre Européen de la Liberté. Cette trame permettra à d'autres générations si elles le souhaitent d'implanter des immeubles de grande hauteur.

Creation d'un nouveau centre d'affaires, **de commerce et de loisirs**.

- Il parait nécessaire que les fonctions tertiaires de Gdansk puissent trouver un lieu identifié pour se développer en synergie les unes avec les autres et constituer un signe évident de la nouvelle énergie de la Cité, son modernisme et sa volonté de jouer pleinement son rôle de locomotive régionale
- Le centre ancien n'est pas en mesure de jouer ce rôle même si son activité touristique et ses aménités se trouvent confortées.
- L'étude du territoire métropolitain (le Grand Gdansk) laisse clairement apparaître qu'un site est sans doute le plus approprié pour jouer ce rôle. Il se situe sur le « Belt », sur la commune de Wrzeszcz au sud de l'intersection de la route de l'aéroport avec le « Belt ».

Cette zone présente les avantages suivants :

- Elle est parfaitement bien desservie par les bus, le tram et le train. La gare de Wrzeszcz pourrait d'ailleurs jouer un rôle plus important dans les dessertes nationales au même titre que la gare de Sopot en terme touristique si l'option de ce nouveau centre était confirmée.
- Elle est à un point d'équilibre entre les différentes zones d'habitat et son implantation permettrait de réduire au maximum les déplacements des personnes travaillant dans ce quartier, quelle que soit leur implantation dans le Grand Gdansk. (en ne prenant que le Belt, il y a 70000 habitants dans la zone élargie du centre historique, 140000 habitants dans celle de Wrzeszcz et de ses environs, et 94 000 habitants à Oliwa.
- Elle est au plus proche de l'aéroport par la route directe mais également du nouveau stade ainsi que de la mer.
- Deux centres commerciaux de qualité y sont déjà implantés
- La nature du tissu urbain laisse à penser que du foncier peut être assez facilement libérable.

Si une seule tour de grande hauteur devait s'implanter à Gdansk c'est bien là qu'elle devrait l'être.

- Elle pourrait être multi usage mais surtout bureaux et hôtel avec restaurant et salle réception au dernier étage.
- Elle serait, sur le plan formel, le symbole de ce nouveau quartier et constituerait une sorte de drapeau planté dans le paysage urbain pour en être un des éléments de référence et en traduire l'ambition. Elle serait un repère dans la ville au point de jonction de ses différentes composantes actives. Elle constitue de ce point de vue une réelle opportunité pour Gdansk.
- Les conditions de la réussite du projet tiennent à la qualité architecturale de cette tour et de la qualité du plan d'aménagement de la zone dans laquelle elle s'implantera.

Naturellement l'aménagement urbain de Gdansk ne saurait se réduire à ces deux grands projets. La hiérarchie dans l'action les désignent comme prioritaire mais au moins trois autres politiques sont à conduire en parallèle :

- La politique de **renforcement des autres centres secondaires** en particuliers aux nœuds de transports en commun,
- L'**aménagement du littoral,**

- La **préparation de l'aménagement des docks** lorsque les circonstances le permettront.

HIGH RISING GDANSK

THE QUESTION OF TALL BUILDINGS IN GDANSK

Gdansk has grown in seemingly spontaneous spurts, randomly interrupted by government or local authority attempts to impose order on its expansion. Gdansk is not unique in being a largely unplanned city, but its undisciplined growth is unusual for such a vast and established metropolis.

Modern cities are well known for their unplanned outward spread – but older urban centres, notably Paris, Berlin and Stockholm, are the results of logical 'top-down' planning and co-ordinated development.

Paradoxically, Gdansk's best-known planning success is the Service Belt – little more than a development exclusion zone outside the city's built up area. Inner Gdansk's policy on taller buildings is similarly 'exclusionary'. Its 'View Corridors' define areas where buildings above a certain height cannot be built, at odds with the positive planning approach of other European cities.

It is therefore hardly surprising that Gdansk faces problems in getting acceptance for its development plans.

So the question for the future is: could tall buildings, sensitively designed and located, contribute to the city's need for more offices and homes? The history of Gdansk suggests they could, though immense care would have to be taken to avoid the mistakes of the past. A rational and widely understood planning policy is now needed to ensure an effective and consistent approach in the future.

Gdansk's multi-centred structure (at agglomeration level) provides significant opportunities for growth and change. The decline in the city's industrial and trading activity, especially in the manufacturing and shipyards sectors, has left large gaps of disused 'brownfield' land close to previously active and well-connected centres.

As Gdansk prepares for a sustained period of growth, these areas will increasingly become the focus for development. Gdansk has already accommodated significant population and economic growth through effective use of land. New and bigger residential buildings, the re-use of 'brown' land and a willingness to live at higher densities have will played a part in allowing the city to develop without a proportionate rise in commuting.

Yet capacity constraints on the commuter and transport system mean that Gdansk land must now be used even more intensively. The alternative would be to limit both employment and residential opportunities in the centre itself.

Tall buildings could certainly make an important contribution to the necessary new wave of redevelopment. Denser developments will make it possible for more people to live and work closer together, and proximity to existing transport facilities would allow better use of certain rail lines and bus services. Tall (or at least taller) buildings could therefore play a part in coping with the problems of its ageing and often substandard transport system.

Building on available urban land at higher densities will ensure Gdansk remains sustainable, extending the tradition of some of its most successful residential and business environments.

DEMAND FOR MORE OFFICES & RESIDENTIAL

Planning sources confirms that around 100 000 square metre of extra office floor space will be required in the City of Gdansk by 2010. Other projections suggest that Gdansk will need five to seven times the amount of extra office space currently provided in the centre over the next 25 years.

There is a similar steep growth in demand for housing, set at about 40 000 units, with the need to accommodate a growing demand for comfort over the next 10 years. Gdansk's office market is further characterised by the demands of a growing number of medium sized companies.

While very tall buildings may not be a necessity in these instances, large amounts of floor area, strong internal communication and easy access certainly are. Such requirements can be accommodated either by large 'ground scrapers' (5-10 storey buildings that occupy a large area with potentially negative urban impact) or in taller buildings that offer both user flexibility and efficient use of land.

Perhaps the most compelling evidence about the "need" or "demand" for tall buildings in Gdansk and elsewhere is the capacity of those who develop them to find occupiers. Most of the towers built in Warsaw are occupied – and command a high rent premium too.

Gdansk's economy and competitiveness would almost certainly have suffered without the high-density development in this area of the City, even though its single-use character fails to create the vibrancy of typical Polish communities.

PROPERTY DEVELOPMENTS

A number of economic studies have provided evidence that clustering of industries such as financial and business services leads to productivity gains – and therefore to successful industrial concentrations. Gdansk has been very successful in generating such clusters, although there is no evidence to suggest that tall buildings themselves are needed to sustain clustering.

PAST HIGH RISE BUILDINGS HAVE A REPUTATION FOR POOR DESIGN

and a negative social connotation that has biased the debate about tall buildings in Gdansk, unlike many tall residential towers in the rest of Europe.

COST IMPLICATIONS.

In fact, the taller a building becomes, the greater the costs of construction, servicing and maintenance. Higher floors, however, bring in higher rents – and an increased income that will soon cover the elevated costs of building them. And while the occasional property developer may choose to sacrifice rental potential in the name of aesthetic achievement, it must be assumed that developers in general exist to make a profit. Certain environmental costs may also be associated with tall buildings, although these are difficult to quantify. Many aspects of economic progress, such as car travel, air travel and some elements of food production make negative contributions to the environment – and it would be inconsistent to require tall buildings to account for their own environmental consequences.

GDANSK IS NOT ALONE IN ITS NEED FOR LARGER AND TALLER BUILDINGS

The cities of major expanding economies have had to grapple with this issue for the last decades, balancing heritage and preservation against economic growth, image and competitiveness.

Barcelona, Europe's densest, yet low-rise city, is promoting a new generation of taller buildings in major regeneration areas on the fringes of the old city. With much public debate, Berlin has allowed clusters of taller buildings in inner city areas devastated by war and political division. Frankfurt has established a 'crown' of high-rise buildings in and around the city centre, promoting sustainable and environmentally friendly design through clear design guidelines and policies. Paris and New York have developed their own planning policies that permit taller buildings in specific locations, respecting and contributing to each city's unique architectural character and image.

These are examples of 'proactive' policies that reflect a common understanding and consensus as to how each city is set to grow, develop and change. Gdansk is among the cities having a 'reactive' policy that defines ***where tall buildings cannot be built***.

Gdansk's organic structure lends itself to clusters of higher density development around public transport hubs and existing town centres. Well-designed taller buildings, which adhere to high quality design principles, could be located in strategic locations with good public transport provision (existing or planned).

In line with Gdansk's evolution, the height and quantity of taller buildings should increase gradually over time, rather than radically transform the city's unique character.

QUALITY OF THE URBAN ENVIRONMENT

Yet this has less to do with the height of the buildings than the manner in which they integrate with their setting. The way buildings meet the ground, how they engage with the street and how their impact is reduced by good design are the key factors that determine whether a tall building - or any building – makes a positive contribution to its environment.

Issues such as microclimate, light and shade certainly become more acute as a building becomes taller. But an over-emphasis on a tower's height and its contribution to the skyline has often led to compromises at street level – and residual open spaces that contribute nothing to the public realm.

Above all, the successful tall building must adhere to a set of clear urban design guidelines that affect the following areas: edges, use, public space, urban integration and environmental factors (sun, shade and microclimate).

It is the view of the Panel that the next generation of tall buildings in Gdansk, whatever their location, must be of the highest design quality – and to achieve this must respect guidelines, of which a sample are outlined below.

EDGES

The urban environment is at its most attractive when it shows consistency. The relationship a building has to the street and to the edge of the pavement is critical and defines the public realm. A continuous building setback (the line to which a structure is built) helps provide a sense of enclosure and definition along our urban streets. The street, like a plaza or square, is essentially an outdoor room. To increase the interaction of the building with the public realm and its contribution to street-level activity, it should have a minimum setback from the edge of the pavement. Streetscape elements - trees, bollards, lighting and seating - may be used to define the street edge if the building does not follow the predominant setback line.

A tall building runs the risk of overpowering its environment. For this reason successful tall buildings are often those with podiums. The podium can help to bridge the difference in scale between the tall building and the surrounding buildings. The podium should respect the datum lines provided by adjacent buildings – e.g. building heights, roof and cornice lines.

If a predominant characteristic of the street is that the buildings are all attached to one another or very closely spaced the tall building should be inserted in the same manner. It should be recognised that the pedestrian is most aware of the lower five storeys of a building. The lower floors deflect from the fact that this building is taller than most in the area. Both the horizontal and vertical rhythms of the adjacent buildings can provide clues as to how the new building can be incorporated without mimicry.

USE

Ensuring that a building interacts with, or defines, the public realm is dependent not only on its setback but also its street level uses. Blank walls along the building façade create an unpleasant pedestrian environment. Communal entrances can have the detrimental effect of increasing the amount of blank façade, making the tower a desirable alternative to a single occupant 'groundscraper'. Frequent doors and windows provide relief along the building façade at pedestrian level. It is important that building entrances are visible and easily accessible.

Buildings are increasingly blurring the inside/outside or private/public division by locating public areas in raised atriums or on the upper floor of buildings. This blurring helps to incorporate the building into the public realm. A mix of uses within a building helps provide round-the-clock surveillance.

A consistent building line, in combination with 'active edges', is necessary to create a truly lively public realm. Canary Wharf in London shows consistency, but the public realm suffers from the lack of active shop fronts. Arcades that include shop fronts are far more successful.

PUBLIC SPACE

Too often a tall building stands within its site without contributing to the residual open space around it. This space, inevitably, becomes shabby and unwelcoming. Public space should be designed at the same time as the building itself to ensure that it is not just leftover space. Active edges, such as shop fronts and cafés, can give a building a sense of ownership – of the space or a section of the street. 'Overlook' from upper floors, possible within a tall building, will also contribute to a sense of safety. The most successful public spaces tend to keep the building entrances and the space itself at the same level.

URBAN INTEGRATION

It is critical that a tall building or a group of tall buildings are physically and perceptually integrated with the surrounding context. The tall building should not disrupt existing street networks and pedestrian flows. It must also be accessible and respect local patterns of movement, taking into consideration routes to key destinations such as public transport nodes and civic buildings.

SUN SHADE AND ENVIRONMENT

A building should be sited to avoid overshadowing of neighbouring buildings and land as much as possible. This is a particular challenge in an urban setting such as Gdansk, where sunlight is at a premium. Building configuration can be based on the building's solar envelope so as not to overshadow the solar production potential of neighbouring sites. A podium supporting a tall building can increase the amount of sunlight reaching public spaces. In addition, public spaces should be located to take advantage of their relationship to the sun. Tall buildings affect the microclimate of an area.

To improve environmental conditions around buildings above 6 storeys it is best to avoid:

- large flank walls facing dominant wind.
- funnel-like gaps between buildings.
- buildings pierced at ground level.
- long parallel rows of smooth-faced buildings such as exist at Canary Wharf. The negative effect of wind is less of an issue where buildings are of a similar height and configuration.

A podium can limit downdraught at ground level, particularly if the long axis is oriented to the dominant wind. Protection from downdraughts caused by tall buildings should also be considered. Arcades, canopies, colonnades and awnings can all simultaneously provide shelter from the elements and mediate between the scale of the tall building and the public realm.

ERROR! NO INDEX ENTRIES FOUND.ENERGY EFFICIENCY IN HIGH RISE

Having identified that there are substantial benefits associated with improving the energy efficiency of high-rise residential buildings, in practice the realisation of the significant energy and emissions saving potential is faced with a number of institutional, economic, legal and social barriers, but also opportunities. A comprehensive assessment identified the following issues as significant, needing to be addressed or exploited.

Institutional Issues

! the capacity to gain an accurate picture of the state of high-rise buildings, to administer financial instruments and ensure best practice is applied in the refurbishment of the high-rise stock is crucial. A number of important European projects, notably OPET Building, SUREURO, LOCOSOC and projects underlying this note can contribute to filling gaps in knowledge and know-how;

! rapid privatisation and the much higher proportion of privately owned housing in EU10 and AS3 countries poses specific, but not exclusively, institutional challenges to refurbishment, requiring new approaches and partnerships. Public private partnership approaches to refurbishment could hold much promise, though experience is thin on the ground.

Finance and Economy

! energy prices are a key determinant of the attractiveness of energy efficiency investment; with the lowest European prices likely to rise more rapidly than others, the incentive to save energy should strengthen; the target groups of new and existing financial instruments to promote energy efficiency in high-rise buildings would become more receptive to them. In this context, there is an important opportunity in the extensive European body of knowledge surrounding the design and implementation of effective financial instruments;

! flat-rate tariffs associated with district heating provision in EU10 and AS3 countries in particular, so common in the high-rise stock, pose a significant barrier in that they do not create any incentive on the part of the householder to save energy and thus undermine the effectiveness of grants and subsidies. In these cases, creating the right framework for district heating suppliers to provide a full energy service may supply another means by which to improve high-rise energy efficiency;

! financial incentives designed to link to the Energy Performance of Buildings Directive ís (EPBD) certification requirements ñ and to the Energy End-use Efficiency and Energy Services Directive (ESD) ñ present a powerful opportunity to strengthen the case for incorporating energy efficiency improvement into refurbishment; the effect of the economic cycle and interest rates on housing expenditure and competing priorities for investment ñ in particular for public funds ñ serve to highlight the fact that most investment in high-rise buildings is needed where least is forthcoming, mainly in EU10 and AS3 countries.

Legal

! the EPBDís January 2006 transposition deadline offers a central legal opportunity to drive the improvement of high-rise energy efficiency as part of the refurbishment cycle. The Directive stipulates that whenever a building with a total useful floor area of over 1000m2 undergoes major renovation, its energy performance must be upgraded to meet minimum requirements. This fits the profile of high-rise buildings and matches the argument for integration of energy efficiency into refurbishment: the chance must be taken to ensure the transposition of the Directive interprets it this way;

! the ESD addresses a wide range of barriers, including the removal of competing incentives in the interests of saving energy, the creation of a market for energy services and the requirement to introduce individual metering and billing for each end-user. Potential synergies with the EPBD exist, and the opportunities these present must be investigated further;

! widespread inadequate legislation or procedures governing the collective ownership of and decisionmaking about high-rise buildings or estates pose a significant barrier to implementing energy efficient refurbishments. Effective laws or codes of conduct are essential.

Social

! marketing and energy advice appropriate to the energy use culture and tailored to the individual to ensure energy efficient systems are used effectively is an essential part of any refurbishment, in particular to counter the barrier of entrenched energy use practices, such as opening windows and/or using secondary heating systems in response to the widespread problem in high-rise buildings of over- and/or under-heating;

! the potentially collective nature of living in high-rise buildings should be harnessed to get residents to support each others energy-saving' behaviour, especially in lieu of the requirements for individual metering and billing;

! employing tried and tested methods of holistic stakeholder involvement with both pre-refurbishment consultation and post-refurbishment evaluation of stakeholders' views, helps strengthen communities, eliminate potential problems before they arise and contributes to the body of good energy efficient refurbishment experiences, in turn helping to improve the often negative perception of high-rise living.

IMPACT OF TECHNICAL BARRIERS ON HIGH RISE AND COMPLEX BUILDINGS

High rise building development is commonly used as part of urban regeneration strategies for cities.

In regional cities, the efficiencies provided by high-rise schemes are more sensitive to the economic climate. To achieve these efficiencies, high rise buildings need to have design flexibility and use technology to solve fire safety challenges.

Building and fire codes and the design methods they impose significantly impact on building design. Prescriptive codes are inflexible, are often are not up to date with current design practices and do not necessarily reflect societal or economic expectations.

In contrast, using a performance-based fire code and fire engineering techniques with clearly defined criteria and outcomes, the shortcomings of prescriptive codes can be overcome.
This paper discusses how the adoption of a performance-based code and the use of fire engineering are necessary to allow alternative means of escape principles to support flexibility in design and use.

IMPACT OF TECHNICAL REGULATION

Technical regulations and codes play is an important factor in achieving economic efficiencies and have major impacts on building design.
They are part of the legal instruments intended to ensure that buildings perform in such a way so as to provide essentially equivalent, socially acceptable levels of health, safety, welfare and amenity for building occupants and for the community in which the building is located. This is typically accomplished through regulatory controls on the design, construction and operation of buildings, covering such diverse areas as structural stability, fire safety, heating, lighting, ventilation, plumbing, sanitary facilities, indoor air quality, and sustainability.

These codes have traditionally been developed in an ad-hoc fashion based on the collective knowledge, experience and desires of regulatory developers and interested and affected parties over many decades to address historical catastrophic events.
Such collective experiences have lead to the unrealistic assumption that in all cases, prescriptive provisions will yield the most appropriate results, (ie: will best protect the public). This is not true as this generalises the solutions applicable to a variety of buildings without regard for the differences in building design and use which can result in over regulation, cost inefficiencies and potentially inappropriate design solutions

The overall impact is as buildings get larger and taller, prescriptive codes are unable to efficiently address issues appropriately as prescriptive codes are often inflexible and have a ‘one size fits all’ approach. .

For example, Polish national construction law does not permit high rise buildings over 55 m high to have balconies or windows than can be opened. The reason for such a requirement existing may be linked to when the regulation was developed and the type of building

envisaged at that time. It may that the drafters of the law had commercial buildings, which commonly have fixed facades, in mind. However, with changes in demand and market conditions, high rise mixed use or residential buildings are becoming more prevalent and the occupants of these buildings would expect to have access to their own private space or natural ventilation.

Such an approach limits the use of natural ventilation to support other objectives such as sustainability or green building policies and the ability to provide private open space to all apartments impacting on the buildings usability or attractiveness.

The rapid technological change and faster product cycles of today's business environment require a highly flexible system that is responsive to change. A performance based building and fire code offers the responsiveness required to maintain pace with technological and societal change.

Therefore, to achieve better economic efficiencies and more flexibility, technical requirements need to embrace a performance based approach.

Moreover, in recent times it has been found that an additional benefit of performance-based technical requirements is that they can present a clear indication of intent and societal expectations for buildings. This can provide international credibility for building designs, making them more easily accepted by local as well as foreign investors.

SHIFTING THE PARADIGM – NEED FOR A PERFORMANCE-BASED APPROACH

The way the built environment is regulated is subject to increasingly rigorous scrutiny as society's expectations change. This means that government regulators need to maintain an awareness of emerging issues and ensure that they continue to adopt robust and transparent policy development processes.

To achieve better efficiencies and support building flexibility, fire safety codes need to embrace a performance based approach to technical regulation.

Most countries that have adopted a performance or functionally based building and fire code have a structure that consists of objectives, functional/performance requirements and guidance documents which can be used for simple or smaller buildings.

An example is the approach used in England and Wales where the building regulations consist of a Functional Requirement which sets out what must be achieved and Approved Documents which set down prescriptive guidance which is an acceptable approach.

The important distinction to be made here is that the Approved Document is not what must be followed. It is *guidance only* and the solutions within the document can not be insisted upon. Its purpose is to offer simple solutions to everyday problems.

The importance of the above is that a performance-based framework is conducive design flexibility and can address all building types and levels of complexity.

PROPOSALS

It is recommended that the Polish Government look to explore how performance-based regulations can be adopted for the technical construction of buildings.

To achieve design flexibility and sustainable use for complex and high rise buildings, it is necessary to adopt a performance-based approach to technical construction. It is the only way in which such designs can be achieved in a cost effective and sustainable way.
This is not to say that prescriptive technical guidance is not also an effective mechanism for the delivery of buildings but rather, that these requirements should be retained for use with simple and less complex schemes.

The availability of supporting technology; educational programs; public policy; a support framework; and an implementation process will all critical for a successful implementation. Various options and approaches have been explored by other countries within the EU, US and Australasia who have already completed their transition to the performance approach which could be used for 'lessons learnt'.

The (IRCC) (1998) discussion document, *'Guidelines for the Introduction of Performance Based Building Regulations'*, provides a comprehensive analysis of what infrastructure is required, in terms of public policy, the legal framework and technology, for the development and introduction of a performance based building code. The approach used in this document has been recently used by the Spanish Government as a reference tool for the recent changes to the Spanish construction standards. A copy of this discussion document can be downloaded from www.ircc.gov.au.

OTHER POLICY RECOMMENDATIONS

In recognition of the cost-effective and very substantial CO2 emissions reductions that can be achieved, especially in EU10 and AS3 countries but also in EU15 countries with the existing pattern of energy prices, policy makers are invited to:

! Recognise the inherent market failures and barriers to energy efficiency refurbishment that apply in the building sector as a whole, but most acutely in shared residences, and devise and implement policies to remedy them.

! Incorporate energy efficiency improvement as a legal requirement whenever refurbishment is undertaken in high-rise buildings to maximise cost-effectiveness of investment.

! Facilitate and support the creation of new European funds to accelerate sustainable, energy efficient refurbishment especially for EU10 and AS3 countries where it is most needed, and because no structural funds for housing or energy demand management exist as yet.

! Consider adoption of Danish-style requirements for condominium dwellers to contribute a small monthly payment to a refurbishment fund.

! Consider introduction of fiscal incentives for refurbishment such as tax-deductions for refurbishments that improve the overall energy performance of the building or lower rates of tax on the rental income of landlords that improve the energy performance of their rental stock.

! In the case where high-rise residences are owned by local authorities, consider developing specific additional funds and obligations for energy-efficient refurbishment.

! Consider implementation of general energy efficiency delivery mechanisms that could be used, amongst other purposes, to fund energy-efficient refurbishment activities (potential examples include: a broadened version of the UK Energy Efficiency Commitment scheme and the Italian or French White certificate schemes).

! Prepare for energy market liberalisation, in particular in EU10 and AS3 countries, and ensure that individual metering and billing replaces the existing energy consumption infrastructure.

! Close gaps in building or estate level condominium legislation/collective decision-making rules to facilitate refurbishment.

! Link all actions to implementation of the Energy Performance of Buildings and Energy End-use Efficiency and Energy Services Directives.

Taking the opportunities identified in this Panel' assessment will require work to synchronise the objectives of various City departments and other authorities involved in the delivery of sustainable housing and energy. To this end there is a need to employ consistent methodologies across government to quantify the wider benefits of energy efficiency improvement and to commission further research to identify the most innovative forms of financing.

GOVERNANCE AND DELIVERY TOOLS

CITIZEN PARTICIPATION

The Case of Yerba Buena

The 35 ha (87 acre) Yerba Buena centre project in San Francisco is an area of formerly dilapidated hotels, commercial, and industrial buildings and parking lots. It is situated between the City's Financial District and the Civic Centre and is on land acquired by the Redevelopment Agency that is the City's public developer. The Agency carries out redevelopment plans for areas needing revitalizing that have been approved by the Planning Commission, the City Council and the Mayor.

The project was planned to have a convention centre, 9 million square feet of high rise office buildings and towers for parking 4,000 cars.

Under the Law all public activities require public hearings, notices and meetings. These are formal legally required consultations. All approvals were completed for this project, the public hearings and meetings required by law were held and the local and Federal Government signed off for it to proceed.

What does this have to do with Gdansk
It is an example of human behaviour – so it has quite a bit to do with all projects actually. What we are talking about is **dialogue not debate** we are talking about **discussion not defending positions.** A Mayor or other high governmental level person is not apt to get a good discussion out of a legally called meeting. It takes someone with less authority sitting down in a non-confrontational way **and inviting a conversation to get an openness that permits a real exchange of ideas.**

When the Agency began buying the land, relocating people and businesses the community began to realize what the project was all about! The did not like it at all. There were protests about it but the community was told that the plan was too far along to change it, so they sued the Agency, City and Federal Government - it took 10 years of legal manoeuvring before all entities settled the lawsuits. One of the conditions to settlement was to work with the community to develop a compromise plan.

San Francisco's new mayor, George Moscone, convened a Mayor's Select Committee to see if a compromise plan. The Committee was composed of those who wanted to build the original plan and those who wanted to build nothing. The Select Committee held hearings all over the City seeking opinions on what the community wanted to see built in Yerba Buena Centre.

The compromise plan included the **requirement** for open space, a cultural centre, urban entertainment uses; and **permitted** housing for people of all incomes and 3 million square feet of office and related parking.

This plan was only the beginning of the process. The Agency and its city colleagues were widely distrusted and the community felt that their opinions had not been heard. I became project director at this time and in consultation with our Executive Director and the concurrence of the Agency Commission, my staff and I began a public consultation process that we deeply believed was critical to build creditability. Remember I had enough authority to be creditable and yet not high enough in the politics to the City to be intimidating. Some version of this process might be worth consideration for any major project review. **This has**

nothing to do with legal requirements and everything to do with real dialogue, involvement and transparency.

The agency architectural staff drafted the blend of uses that the select committee had suggested and then the larger community agreed to the result.

Part of our partnership was based on a clear understanding that the Agency staff's role was to do the planning - and the community was to review and provide comment on those proposed plans. We found that people could tolerate (not like) having us say ”no” to suggestions if it was evident that we had seriously considered them. It was also clear that the Agency staff would take the agreed upon goals and do their best of achieve them – but it was not the community's role to try and separately negotiate with our developers. The other commitment the Agency staff made was to be completely open with the community as to our plans – no surprises. I don't know that we ever really became trusted – but it certainly went a long way toward achieving a good working relationship and the Community added immeasurably to the good ideas that we incorporated in the project.

Some of the ways we accommodated the gift of the community’s time and ability to participate was to hold our meetings in the evenings when working people could more easily attend our Committees were made up of people who had bitterly fought us, some who had a particular interest / expertise in the use we were dealing with – like recreational skaters and hockey players on the ice rink committee. We also gave clarity to the committees too by having the Agency Commission appoint them to the Committees so that there was official recognition of their role. We provided protection to the Agency Commission who were brave enough to allow us to ask these community members ”what do you think?” about things that could have been construed as strictly Agency business, we brought them policy statements developed by staff and the community which outlined our agreements. This was a very important part of building creditability because the Commission – by adopting the policy statements- gave strong credence to the work of staff and community.

Again, I cannot emphasize enough the gift that the community gave the plans by sharing their time and talent. Cynically one could say we were getting a “buy off” by this process. NOT SO! For my colleagues in the professional world - the project was infinitely improved and the expertise provided gave us access to the prospective of “users” that was incredibly helpful – this continued through out the project.

The one planning process that was the most demanding and least clear-cut was the development of the arts centre. My simplistic idea was to invite a museum to take space in the gardens. Was I ever wrong? Definitely NOT what the community felt was needed.

As it turned out dancers and artists were performing /showing their art in areas that were not comfortable for audiences to go. Dancers in particularly needed space with good stage wings because they lacked suitable wing space and were often hurt getting off stage in too cramped a place, had no dressing rooms, etc.

How did we learn about the arts’ needs? We met with artists of all disciplines (together for the first time – everyone from street mimes to the opera company). This committee included representatives of all the arts. Numerous needs were expressed, so many that they by far exceeded the budget that we had set for he Cultural Centre with the Committee. The resolution of the needs over the budget was reached by setting up a voting system on the program elements where over 300 representatives of the arts sat together in a room and voted by pressing a button that recorded the votes. As a result the centre ended up with a 750 seats theatre that had a balcony so groups that drew only small audiences as well as larger ones could use it, a gallery with three “state of the art” exhibit spaces, a video film facility (this was an emerging art form at the time) and a multipurpose space that, unlike most

multipurpose spaces, was suitable for all uses with a sprung floor and great acoustics and flexible seating.

The Agency was also very concerned about building these public amenities without ways to pay for their operation and maintenance of them over time. We used a number of creative financing techniques including having a long time lease on the hotel to be built in the area which is dedicated to the operation and maintenance of the Arts Centre – the artists also helped us develop a management program wherein the Agency executed an operating agreement with the Arts Centre. The public has NO role in choosing ANY of the art. The Agency also provided an endowment to hire professional management of the 4 ha (10 acre) gardens.

I have spent a lot of time talking about this process because it is often a place where the so called “public / private” partnerships break down and this is one suggested ways to achieve a winning result.

One of the ideas that didn't work but might given other personalities and circumstances – I hired an architect who was one of our strongest opponents – he felt we should just recreate Tivoli Gardens (from Copenhagen) in the gardens. While we did use some of his ideas he was not satisfied with our determination to be guided by the community. He resigned from the process.

We ended up building our gardens over an expansion of the Convention Centre under the gardens block. While we agreed that the City needed the additional convention space it made it very difficult to build a 10 acre garden over a structure that required wide spans for its use vs. the original plan to put parking underground which had a much more compatible structure. This really tested the communities trust that we could/would achieve the vision for the gardens that we shared.

Another test was the inclusion of the Museum of Modern Art – we had reserved a space for the Asian Art Museum in the base of a tall residential building. The Museum of Modern Art came in after the Asian decided not to proceed and requested a site for a free standing Museum at that site. Again we were transparent in discussing the change and the community supported this and subsequent changes.

The height limit for buildings in the area is 400 feet, the buildings built to support the public amenities included three hotels (two that included housing in the top floors) 3 300 units of housing (one condominium sold for $14 000 000) and of these 1 300 units are for low and moderate income housing was extremely important for the project and we achieved units for a variety of incomes.

The Agency requires a 1% of construction cost for art extraction (for all developers including the Agency) which enhanced the artist’s interest in the site and provided significant art pieces. These amenities – including the arts centre, child care facility, gardens, sustainability of the area (have a well and provide water for the site. - all meant that, with our transparent decision making and community consultation resulted in the media reporting “Everyone knew how to use it “ when the gardens and art centre were opened.

Lessons Learned from Yerba Buena

- Decision makers need to be steadfast – these developments take years to implement and it is sometimes difficult as new officials are elected for them to support the previously adopted plan.
- Listen to the community – only promise what can be delivered and then do all you can to deliver it – try to always be clear what you authorized to commit to – keep the public

informed of what is being done. It is essential to provide an assured means of paying for a high level of operation and maintenance for any public amenities that are built

- With developers, they must make a profit to be able to achieve your mutual success but remember you don't get what you don't ask for – in many cases the money you may ask them to spend that they assert is an "extra" may add uniqueness and / or value to their development.

Design excellence and relating the project the context of the city is always a major consideration

The issue of design provides the community with an opportunity to create a new vision. In our city's case the project resulted in creating an oasis for local people to visit and enjoy vs. just building high rises that didn't relate to community needs.

Is something like this public participation process be useful and would it work in Gdansk? I don't know – I do know that such community consultations take longer but the strengthened relationship through its transparency and participation resulted in a better project for our city and enhanced the creditability of the City - in our experience it was time well spent.

Citizen participation will enrich the ideas of professionals it it occurs in a manner of mutual respect it can build a base of well informed support.

Sustainability of high rise

Tall buildings have the power to attract attention. They can be very exciting – certainly for designers. They assist greatly in orientation, provided there aren't too many of them of similar style. They can inspire and come to symbolize the dynamic of a city, a region and even a nation and its people. And of course, they provide a lot of accommodation on a small footprint.

But the sustainability of tall towers is questionable. Ken Yeang, the architect of eco-tower renown, points out that they use:

- 30% more energy and materials to build
- 30% more energy to operate, and
- 30% more energy to remove and re-cycle.

Tall towers also:

- create wind turbulence at their base
- can be difficult to integrate with the street scene
- intensify travel patterns, requiring huge surplus capacity to deal with movement peaks if congestion is to be avoided.

It can also be argued that tall towers cater best for an elitist society, whether in offices or apartments or hotels, and as such are a cause of social fracturing.

But tall towers are here to stay, for two primary reasons – they are an expression of society at a point in time, and because they are an efficient way of giving a substantial commercial return in a relatively short time to those developing and investing in them.

We should not think about tall towers only in their own terms. We must also think of them in the terms of the urban context into which they fit. Competition between cities leads mayors

and city leaders to want the latest, the most fashionable ideas for their cities. They want them to be realized in the shortest possible time – fresh elections come around very quickly – and there are many property developers ready to help them. This can lead to short-termism and a tendency to forget about the qualities that make for liveable cities; that is, cities in which people *enjoy* living, and have opportunity for exchange.

DELIVERY TOOLS: THE CONCEPT PLAN

A number of principles are helpful as an aid to thinking about tall towers in cities.

Sustainablility principle

Cities have to be more efficiently sustainable - consuming less, wasting less, polluting less and providing opportunity for all citizens through access to living, learning, working, exchanging and behaving responsibly.

Compactness principle

The sustainable city is a compact city. There should be a much greater focus on urban density as a concept for creating vibrant, livable cities. “Smart growth”, for example, is an urban planning and transportation theory that concentrates growth in the centre of a city to avoid urban sprawl and greatly improve sustainability. It is being applied in different cities across the world. The theory advocates compact, transit-oriented, walkable, bicycle-friendly land use, including neighbourhood schools, streets that work for everyone, and mixed use with a range of housing choices.

A useful source of information on the benefits of intensification in urban development is a report for the British Governement by Richard Rogers and his Urban Task Force. Rogers refers to an impressive international portfolio of completed projects as proof that higher-density schemes can be designed and delivered to achieve sustainable community benefit.

Variable height principle

Tall towers are not necessary to create higher density cities, though they may play their part. There are many examples of high density being achieved with a mix of lower rise buildings. Research into this issue is not new. In the late 1960’s, possibly in reaction to the surge of activity in building tower blocks for new housing, Lesley Martin and Lionel March of the University of Cambridge demonstrated that ground-hugging buildings of 7 storeys, built around courtyards, could create as much built area as 21-storey point blocks, provided the dimensions of the street grid allowed. This conclusion is not dissimilar to the common sense thinking that characterised the mid-19th century building forms which followed from apartment developments of five to seven storeys in Haussman’s Paris or in Cerdà’s Barcelona, the latter based on a standard block dimension of 113 metres. A modern day example is provided by the city of Lyon, which has created a whole new quarter to a high density at the tip of the Presque-ile without any towers.

A critical aspect is to have an agreed set of measures or parameters that enable comparisons to be made between options and the realities of examples in different places. Work is required to clarify and help understanding of the environments that are implied by the various measures in common use – persons per hectare/rooms per hectare/dwellings per hectare and plot ratio.

The lighthouse principle

Just as lighthouses often appear on postcards as visual symbols or reminders of the characteristics of a seaside town, so tall towers are being used increasingly in the same way – referred to usually as “iconic” towers.

In cities that are international business centres, or in those cities that aspire to be so, tall towers are a feature. But when there are many of these towers, the individual contribution of any one of them is lost. It could be argued that international business capitals have such a large horizontal scale – with development extending over a radius of several kilometres from the centre– that clusters of towers help to give clarity and structure to the physical form of such cities. But this is not so for smaller cities that need to guard carefully against destroying the domestic scale that aids liveability. Therefore tall towers need to be considered very carefully, The key question is “Why should we have a tall tower at all?”. The answers need to be convincing, because the consequences of saying “let’s do it!” will be long lasting.

The policy principle

A failure of municipalities, large and small, to produce a policy for urban density and the role of high buildings within this policy, will lead to poor decision making and the loss of opportunity through creating sub-optimal urban environments. Local plans should direct where clusters of towers or single, “lighthouse towers” are appropriate and should be located. Views of important buildings and landmarks should be defined and protected. A useful source document is the high buildings guidance note produced by the Commission for Architecture in the Built Environment – CABE – in the UK

The control principle

Cities are more able to influence the policy and practice of creating tall buildings when:

there are laws which require conformity with planning requirements;
the public sector (or a quasi public sector body) owns the land;
the citizens are conscious of the history of their city, appreciate its social, economic and environmental context, and have a clear idea of what they want their city to become (i.e. the vision);
the city leaders and officials have a continuing dialogue with, and an open attitude to working in partnership with, the private sector.

Where these conditions do not exist, or only partially exist, the municipality must:

take initiatives to produce concept plans which will guide developers and investors towards the kind of developments they want;
use the potential of public sector investments to leverage appropriate actions by the private sector.

What is a concept plan?

A concept plan is a device for finding a middle ground between the detailed design of individual buildings and the social and economic considerations that help structure a city. It is a strategic document relating wider issues, such as transport planning and utility infrastructure, to the potential of the site to meet the needs and demands of the wider area. It should describe, in general terms, “development principles” embracing the structuring ideas or guidelines for building form, density, open space and communication routes and how they provide for living, learning, working, taking leisure, and moving through and to the site, It may also show in detail how its fundamental principles can be achieved through example building designs. On occasions it must be prescriptive but for the most part it should be an indication of the opportunities that are available as the plan develops through time.

An example of a Concept Plan is the document produced for Laganside in Belfast almost 20 years ago – a 4 kilometre stretch of waterfront which had been forgotten by the citizens after the decline of ship-building and the movement of the cargo terminal to new docking areas. The Concept Plan was the means by which people could begin to understand, debate and influence, development possibilities for this part of the City. The scheme is virtually all completed, with an investment of over £1 billion sterling, which has helped to completely transform the City.

Other delivery tools

If you can/want take further steps towards more development rules and organizations, you may pick out the "French tool-box" at least the ZAC legal framework.

It is a kind of public contract that within a given perimeter - government (local and national) approved after enquiry and public debate:

- Give the land developer (either public or private) the right to buy land according to a fixed price
- Sets the land uses and other urban and architectural rules the developers will have to comply with
- Tells the public amenities to be realized (from roads and sewerage to schools etc)
- Sort out who is going to pay what, ie compels the developer to participate in the public expenses arisen by the new development

The ultimate step would be to combine both systems: turn the commission into a ***public Agency,*** competent for the given development and empowers it with the "first right to buy" and the role of developer using the ZAC procedure.

This Agency to be fully technical staff, and coming under public governance (local or national or mixed) and funded both with the public money necessary to cover expenditures for buying land and putting in the necessary public amenities, once deduced the product of land sold to private developers.

This system is one that allowed United Kingdom or France to implement their own New Towns Policy or the major Urban Regeneration Projects of the present times. It has proven technical very efficient, financially balanced and transparent, and while being efficient and protective for the elected local authorities, allowing them to retain the permanent and ultimate power (generally via the Agency Board, chaired by the Mayor)

ANNEXES

THE INTERVIEWS

Andrzej	Baranowski	Architect - Professor Gdańsk University of Technology, Department of Architecture
Szczepan	Baum	Baum Kwiecinski Sp z o.o.
Wiesław	Bielawski	Vice Mayor of the City of Gdańsk, Spatial Management Policy
Andrzej	Biernacki	Ekolan
Michał	Błaut	Civic Ecological League Association
Tomasz	Błyskosz	Osrodek Badan I Dokumentacji zabykow w Gdansku - Regional Office in Gdańsk of National Heritage Board of Poland
Ewa	Brach	Member of Urban and Architecture Municipal Commision (MKUA), Pomorskie Voivodeship Conservator of Historic Monuments
Mieczyslaw	Ciomek	Invest Komfort
Andrzej	Duch	Department of Urban Planning, Architecture and Historic Site Conservation, Gdansk City Hall
Slawomir	Gajewski	Torus Company
Aleksander	Gosk	TVP Gdansk
Ryszard	Gruda	Architect, Former Vice Mayor of the City of Gdansk, Spatial Management Policy
Krzysztof	Hueckel	Head of the Department of Urban Planning and Architecture
Krystyna	Jackowska	Wrzeszcz Local Initiative Committee
Andrzej	Januszajtis	Association "Our Gdańsk", Honorary Citizen of Gdańsk
Karol	Kalicki	Vice-President, Polimeni
Zbigniew	Karpinski	Ship Design and Research Centre (owner of the Zieleniak office block)
Danuta	Kochanowska	Member of Urban and Architecture Municipal Commission (MKUA) + Pomorskie Voivodeship Conservator of Historic Monuments
Krzysztof	Koprowski	Trójmiasto.pl
Marian	Kwapiński	Conservator - Member of Urban and Architecture Municipal Commission (MKUA), Pomorskie Voivodeship Conservator of Historic Monuments
Piotr	Lorens	Society of Polish Town Planners, Gdańsk Department Gdańsk University of Technology, Department of Architecture
Zbigniew	Okonski	Robyg S.A.
Feliks	Pankau	Architect - Deputy Director, Department of Regional and Spatial Development in the Office of the Marshal of Pomorskie Voivodeship
Lech	Parel	Dziennik Baltycki Newspapers
Marek	Piskorski	Director, Gdansk Development Agency
Wojciech	Rumian	Project Director, Hines
Gabriela	Sieniawska	Architect - Member of Urban and Architecture Municipal Commission (MKUA), Pomorskie Voivodeship Conservator of Historic Monuments
Stanisław	Sikora	Manager - Polish Tourist Association, Department Gdansk
Michal	Staporek	Trójmiasto.pl
Piotr	Stefaniak	INPRO S.A.

Marcin	Surowiec	Pomeranian Estate Agents Association
Katarzyna	Szczepanska	Wrzeszcz Local Initiative Committee
Bohdan	Szermer	Polish Architects Association, Gdansk Department
Janusz	Waluszko	Civic Ecological League Association
Michal	Wodzinski	Biznes Polska o. Trójmiasto

THE INTA ADVISORY PANEL

THE INTA PANEL PROCESS

INTA is a non-profit, independent international NGO established for the promotion of improved development and management of existing and new towns. INTA is promoting the exchange of experiences and practices as well as strategic thinking on urban policy between policy makers and most outstanding practitioners through regular encounters and meetings.

INTA occupies a crucial position at the cutting edge between practice and research and is the principle network on urban development worldwide.

INTA is building professional capacity by offering unique learning opportunities and continuous professional development on urban development issues around the world.

INTA members represent both the public sector, on national, regional and local levels and the private sector: land developers, planning and renewal agencies, investors, financial institutions, builders and contractors, researchers and scholars.

INTA is about practice and the solving of specific problems by pooling the collective urban intelligence of its members in international, world class advisory panels offering a unique problem solving service to its constituents.

The Association makes available to its membership international advisory services carried out on a voluntary basis by the members themselves coming from the urban development sector and who possess sound expertise in all aspects of land-use planning, development, financing and marketing of large-scale urban projects. During a five-day assignment urban problems are thoroughly reviewed, development opportunities detailed and options proposed.

THE PANEL FOR GDANSK

The INTA Panel for Gdansk benefited from the experience of the following practitioners:

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Pedro is currently deputy director of the Council of Architects of Madrid. He was Director of the Institute for Urban Renewal, a joint venture between the public and private sector in Madrid. He is as well Director of the Master on Town Planning of the University King Juan Carlos of Madrid, and a Partner of the Planning Consultancy firm of Arup & As. Counsellor to the Regional Governments of Navarra and Murcia, as well as to several engineering and development companies as Intevia, SA, Institute of Transport Engineering and Roads, the Centro Superior de Arquitectura, Camuñas Foundation. Member of the expert committee of the Madrid

Nuevo Siglo Foundation, involved in the planning of the Madrid Olympic bid for 2012. Pedro was former Major for Madrid's Central District (Distrito de Salamanca) (1989-1991). Member of the Madrid's City Council (1987-1995). Responsible for Urban Prospective (1993-1995) and for Culture (1991-1993). Director of the Strategic Plan for Madrid (1991-1994). Pedro has been as well Director General for Town and Regional Planning on the Government of Madrid Region, and as such author of the Regional Development Plan of Madrid of 1996 and the Land Planning Law of 1997.

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Jean-Michel was educated in public administration, political science, city planning and architecture, JM Guénod specialized both in city-planning, urban development and regeneration and in low cost subsidized housing, as general manager of the national organization for low cost housing consulting subsidiary, and holding several top-executive positions, within the SCIC (a subsidiary of the Caisse des Dépôts et Consignations public bank and largest low cost housing owner in France). He has been city planner at the *Etang de Berre* New town development corporation in 1970, and CEO of the State Agency in charge of the Euroméditerranée urban regeneration project in Marseille between 1998 and 2004. He has a wide experience of consultancies in France and abroad (Indonesia, Russia and MENA countries : Algeria, Morocco, Tunisia). His main fields of expertise are :

Technical : Housing, city planning and local development, urban renewal, civil and naval architecture.

Managerial : More than 20 years, as CEO, director or chairman of private companies, and management of state agencies, with staffs ranging from 50 to 2800.

Financial : Housing and urban development financing, state-founded projects and public-private financing (PFI).

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Henry is an elected Councillor of the Grand Lyon District. Henry was a French and European Parliamentarian, Deputy Mayor of Lyon in charge of Urban Planning, Vice President of the Urban District of Lyon, Managing Director of the Public Development Corporation of Etang de Berre near Marseilles. He graduated from the Ecole supérieure de commerce de Lyon and the Institut des Hautes Finances.

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Sofia is Director of the Urban Planning Department at the Ministry of Construction and Housing. Sofia heads the department for over 25 years and during

Israel 00972506247617 sofiae@moch.gov.il	that time she was in charge of planning of many neighbourhoods as well as new towns. For the last ten years she initiated the national urban regeneration program that is applied to as many as 200 neighbourhoods. The tools and incentives implemented in the program successfully stimulate the private sector and have an effective impact on urban regeneration. She is a member of the National Planning Committee and on the board of directors of several institutions related to planning and development. She teaches in the graduate program in Urban Planning and Design in the Hebrew University in Jerusalem. She graduated from the Technion Institute of Technology in architecture and urban planning.
Jan Klerks P.O. Box 51102 3007 G.C. Rotterdam The Netherlands 0031 (0) 630118917 post@janklerks.nl	Jan is director of the Dutch Council on Tall Buildings and organises conferences, publishes newsletters, conducts study projects, supports high-rise related activities en maintains the professional network in the Netherlands. He is a member of the steering committee of the International Council on Tall Buildings and Urban Habitat and chairs the Rotterdam Skyscraper Foundation, through which local publications and activities for the general public are organised. Jan initiated the first Rotterdam Skyscraper Festival in 2007. He's also the owner and administrator of skyscrapercity.com, the world's largest online forum on skyscrapers and urban related topics. Jan lectures or writes for a professional, educational or a general audience or conducts high-rise related studies for third parties, such as local governments, ministries and real estate developers.
Wayne Bretherton Buchanon House 24-30 Holborn London ECIN2HS UK 00447920205823 wayne.bretherton@wspgroup.com	Wayne is Technical Director of WSP Buildings based in London and is responsible for WSP's fire engineering consultancy business in Southern UK, France and Ireland. Wayne's expertise is fire safety engineering and the development and application of performance based building and fire codes. He has previously held various senior roles dealing with fire safety and building codes in the private and public sectors in Australia and New Zealand including as a Private Secretary to New Zealand Government Minister responsible for building and fire safety regulatory policy. He has extensive experience in developing and applying fire safety engineering and performance-based approaches for significant high rise schemes in the UK, US, the Middle East, North Africa, Europe and Australasia. Wayne has also been involved in the International Council for Research and Innovation in Building and Construction (CIB) where he was domain leader for the development of

	performance-based building regulation. He currently sits on the UK Royal Institute of Chartered Surveyors Building Control Faculty Board.
Helen Sause 816 Grand Street Alameda CA 94501 USA +5/0 521 39 40 helensause@alamedanet.net	Helen was Deputy Executive Director for Program and Project Management at the San Francisco Redevelopment Agency until 2003. Her activities covered the Direction of project and Management of projects in the implementation of 15 redevelopment projects and areas. Mrs. Sause was Project Director for Yerba Buena Center, an 87 acre, $2 billion downtown project for 17 years. Responsible for project activities including coordinating City, Agency, and private development activities, preparing and presenting information concerning the project. Negotiation of land disposition agreements, and responsibility for coordination of professional activities including architectural, planning, construction, legal, financial and environmental matters associated with the redevelopment of public and private facilities in the project area. This includes the construction of $136 million cultural and children's facilities and gardens.
Markus Olechowski Rathausstrasse 14-16 1082 Wien Austria +43 1 4000/88553 markus.olechowski@wien.gv.at	Markus studied architecture at the Vienna University of Technology then studied practices at different architecture offices notably at the architecture office of Margarethe Cufer and in 2002 he joined the Municipal Department for Urban District Planning and Land Use of Vienna where he is in charge of the Vienna Main Station regeneration, the Erdberger Development Zones, Aspanggründe and Arsenal.
Michel Sudarskis **INTA** Toussaintkade 71 2513 CL The Hague The Netherlands 0031703244526 intainfo@inta-net.org	Michel Sudarskis is the Secretary General of INTA, the International Urban Development Association, since 1987. He has held a PhD in Economics and Political Science. Before joining INTA he taught international co-operation and foreign affairs as Associate Professor with several Universities (Strasbourg, Paris, Nice and Lille) and served with international organisations in Italy and Belgium. Michel Sudarskis writes and speaks regularly on urban issues.
Marek Piskorski	Director BRG, Gdansk Development Agency
Barbara Pujdak	Deputy Director BRG
Adam Rodziewicz	SLOW Team Coordinator
Joanna Bach-Głowińska	
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Małgorzta Walicka-Podolska