



Conference

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Presentation:

Infrastructure and Frankfurt's GreenBelt, KlausWichert, Frankfurt/Rhine-Main, Germany

Ladies and Gentlemen,

I would like to use a slide to show you briefly where Frankfurt is in the world.

I would like to begin by giving you a brief overview of my presentation. After some data on the city of Frankfurt am Main, I would like to talk about Frankfurt's GreenBelt and particularly about its dissection by the infrastructure. I will then refer to the traffic infrastructure (roads, railway lines, ports, airport), social and sports facilities, and residential and commercial areas.

Frankfurt am Main in figures

To give you an idea of what Frankfurt am Main is like, I would like to quote a few figures that establish something of the city's character.

Frankfurt is the fifth largest city in Germany. Compared with Toronto and its population of 2.5 million, Frankfurt – with just under 700,000 inhabitants – is a small city. More than one-third of its inhabitants have a migration background. People with almost every nationality in the world (167 nations) co-exist peacefully in Frankfurt. Frankfurt is the core of the Frankfurt/Rhine-Main metropolitan region, which has 3.8 million inhabitants and a labour force of 2 million people.

Nearly 500,000 people have employment in the city that is subject to social insurance contributions. Two-thirds of the people who work in Frankfurt live in the surrounding area – more than in any other German city. The people work in the service sector and only 10 per cent work in manufacturing.

Frankfurt is an important banking centre in Germany with a key role in Europe and is also home to the third largest trade fair company in the world, hosting important international trade fairs. This is boosted by the fact that Frankfurt has one of the largest airport hubs in the world and the key railway station for German rail transport. It also occupies a central position in the European road network and has a port with a connection to the North Sea and Black Sea.

Frankfurt is not only a cosmopolitan city – it is a green city, too. Green spaces account for some 52 per cent of the 248 km² of the city area.

Frankfurt's GreenBelt

The GreenBelt is Frankfurt's "green lung". It covers 80 km² or roughly one-third of the surface area of the city and forms a green band around it. The GreenBelt reveals the wide range of Frankfurt landscapes, and its municipal forest, orchard meadows, nature conservation areas, streams, farmland, parks, gardens, sports and leisure areas form a microcosm of the different landscapes in the Rhine-Main Region.

All in all, the GreenBelt has tremendous ecological significance for the city and its value in terms of the recreation opportunities available to people who live and work in Frankfurt, as well as visitors to the city, should not be underestimated.

For the past 20 years, the GreenBelt has been protected by a municipal by-law which stipulates that if space is lost in one place, it must be offset somewhere else – both quantitatively and qualitatively. The GreenBelt features in the region's land-use plan. The federal state of Hesse has designated it a protected area, which means that changes require a consistent decision at various political levels. Although the GreenBelt was, and is, not a landscape park around the city and despite the variety of uses made of it, the area has been placed under protection.

Because it has been placed under protection, construction areas and infrastructure projects have been abandoned or adjusted to take account of ecological perspectives. Rules have been established to ensure that any loss of space caused by growth of the GreenBelt area is offset somewhere else. Any extension of sports and recreational facilities in the GreenBelt must lead to an enhancement of the GreenBelt.

Dissection of the GreenBelt

Roughly 17 per cent of the GreenBelt is traffic space: parking places, motorways, roads, railway lines, waterbodies.

A study documented the existence of 209 subways and footbridges, road and rail crossings in the GreenBelt. In the future, these threshold areas are to be designed in such a way that they are perceived differently. The intention is for them to be turned into clear transitions between the different spatial structures. Their divisive impact is to be played down. For example, the subways are to be more pleasant places to pass through.

The traffic areas criss-cross the GreenBelt and make it difficult to cross from one part of the GreenBelt to another. The GreenBelt is a nature, landscape and recreational area within the city. Its heterogeneous nature reflects the multifaceted character of the city. The targeted emphasis of individual areas (e.g. biotope or sports areas), which perceives the dissecting infrastructures not as an impairment but as rhythmic structuring, enables aesthetic accents to be set. Conflicts over use are thus avoided and the GreenBelt is reinforced as an aesthetic place for recreation and discovery.

Infrastructure in the GreenBelt

• Roads

Owing to the large number of jobs available in Frankfurt, around 335,000 people commute to the city each day. Some 65,000 people who live in Frankfurt work outside the city and commute outwards every day. Two-thirds of the commuters use their own cars for this purpose and one-third of them make use of public transport.

There are 70 km of national motorways within the city area. The city is encircled by three very busy motorways. We also have the busiest traffic hub in the German motorway network, the Frankfurter Kreuz motorway junction with 330,000 vehicles a day.

Motor vehicles are the main cause of air and noise pollution in the city area and particularly in the GreenBelt, too. Recreation seekers are particularly affected by the noise. This slide shows the noise bands in the GreenBelt.

The expansion of the existing road network and the laying of new railway lines impinge regularly on the GreenBelt. However, in the past distinct successes were achieved. For example, the idea to build a national thoroughfare in Fechenheim – a district in the east of the city – was totally abandoned. The plans for a bypass to the west of the city were amended. Discussions were held on whether to dismantle the Bahnstrasse in Schwanheim, which passes through the GreenBelt, but the plans met with resistance from the local people. A road in Höchst is currently being renatured – only the cycle track will remain as it is.

- **Railway lines**

Frankfurt's main railway station is a European transport hub. Around 350,000 people pass through there each working day – some 90 million a year. Some 1,730 trains travel to the main railway station each day.

The Rhein-Main-Verkehrsverbund is the third largest passenger transport association in Germany. It covers an area of 14,000 km² and transports 660 million passengers a year.

The urban transport network comprises 7 underground lines, 8 tram lines and 57 bus routes. The local transport system is used by 191 million people a year.

The noise pollution caused by the trains reduces the recreational value of the GreenBelt, and especially of the municipal forest.

The railway line in the western part of the city was originally planned to pass through the GreenBelt. Following a successful voting procedure, a more expensive variant was adopted and the GreenBelt was spared another railway line. The construction of this important connection was needed for environmental reasons, to encourage commuters to use public transport instead of their cars. The project can now be completed in an ecologically acceptable manner – outside the GreenBelt.

- **Ports**

Frankfurt has two ports, with major significance for local industry.

The trimodal port in the Höchst Industrial Park is of relevance for the GreenBelt. It is located on the south bank of the Main in the industrial park. It enables the optimal combination of waterways, road and rail transport routes (trimodal). It is certainly one of the reasons why large chemical companies have been established in the industrial park.

The trimodal port is on the edge of the GreenBelt. Extension measures led to the GreenBelt being cut back to make space for warehousing at the successful industrial port. However, this encroachment on the GreenBelt was kept to a minimum and the space was offset elsewhere.

- **Airport**

Frankfurt Airport is very close to the city. Trains reach Frankfurt's main railway station in the city centre in a matter of minutes.

Frankfurt Airport is one of the main international airports. With 53 million passengers and 2.3 million tonnes of freight handled each year, it is the largest airport and, with 70,000 employees, the largest workplace in Germany. Around 1,300 aircraft take off and land there every day. Flight movements are to increase from 464,000 at present to 700,000 by 2020. So as to cope with the increase in air traffic, a new landing strip is being built and is scheduled to be put into use in autumn 2011.

Early extension plans included a variant in the municipal forest and thus in Frankfurt's GreenBelt. This variant was turned down in favour of a location outside the GreenBelt. I assume that the acute sensitivity of the politicians and the people of Frankfurt regarding the need to protect the GreenBelt helped to make sure that the landing strip was NOT built in the

municipal forest. Nonetheless, the municipal forest already suffers from the high levels of noise pollution caused by overhead aircraft. The inward approach route for the new landing strip will pass directly over residential areas in Frankfurt and the municipal forest. There will be a further increase in noise pollution.

- **Social facilities**

In the past 20 years, repeated discussions have been held about whether to establish facilities for elderly people, children or disabled people in the GreenBelt. However, none of these measures has been implemented.

Introducing new forms of use, adoption and social production to the GreenBelt as a social compensation area is one of the aims of our strategy for the next 20 years. In a metropolitan region that is becoming even more built up, environmental justice plays a special role. In addition to its ecological/climatological and aesthetic/sensual function, the GreenBelt thus also assumes an important social task as a means of responding to the challenges such as demographic change, migration and social inequality. This should encourage its use by various social groups. Intercultural gardens are to harmonise the co-existence of migrants from different countries of origin. People with low incomes are to be shown how to tend gardens set aside in the present agricultural areas and allowed to use them free of charge.

A decision is currently being taken to extend accommodation for the homeless in the Ostpark – in the middle of the GreenBelt. Long-term accommodation facilities will thus be provided close to the city. The area that is taken up for this purpose will also be offset in the GreenBelt, which means that it will gain additional space.

- **Sports and leisure facilities**

3 per cent of the GreenBelt area is occupied by sports and leisure facilities: small football fields and large stadiums, golf courses, tennis courts and a racecourse.

The slide shows the sites of the sports facilities in the GreenBelt.

In accordance with the GreenBelt Constitution of 1991, the sports and leisure facilities are an integral part of Frankfurt's GreenBelt.

“The GreenBelt is an important, versatile area for the people of Frankfurt and the nearby municipalities. It has an all-round importance as a place for everyday use, leisure and recreation as well as a place where people can take advantage of the open air.”

Fundamentally, no approval is given for new facilities but existing facilities may be extended.

“Where areas have been set aside for sport at particularly sensitive points in the GreenBelt, every effort must be made to ensure that, when redesigned, they are remain passable and as open as possible while retaining their function.”

However, this also presents a threat to the GreenBelt as more parking spaces, additional buildings or floodlights are packed on to the sports areas.

The football stadium in Frankfurt's GreenBelt was upgraded for the World Cup in 2006.

Parking facilities were built in the stadium which ensured that there was no need to building parking spaces in the forest.

By way of example, I would like to refer to a swimming pool for which a car park in the GreenBelt was planned. Approval was given for the construction and the area sold. The proceeds covered the cost of renovating open-air pools in Frankfurt. The car park has still not been built.

- **Urban development / residential areas**

The GreenBelt project was launched 20 years ago in a phase of urban expansion, in which the population and the economy were growing strongly. Limits were to be set to this growth so as to secure the quality of life in the city over the long term. This was only possible

because urban planning and its considerations were very much a part of the planning process and a consensus with the other housing development plans was reached.

It was no longer necessary to debate matters of principle regarding the growth of the housing area each time a new project was launched. Until today, urban planning has thus kept to the limits set and no areas in the GreenBelt have been sacrificed for housing.

On the map you can see the residential construction areas that were earmarked for urban development as part of the GreenBelt process. Growth was taken into account. Space was set aside for this both within and outside the GreenBelt – but not in the defined open spaces. This development potential has been exploited over the past 20 years.

Contrary to the general trend in Germany, the population of Frankfurt am Main has continued to grow steadily. Whereas in 1990 around 634,000 people lived in Frankfurt, today some 688,000 people live in our city. That is an increase of 54,000 in 20 years. The population increase is attributable to a natural increase and to positive migration trends.

The growing city of Frankfurt with its need for residential space is presenting urban planning with a major challenge. Measures to fill in the gaps in housing areas within the city have reached their limit. The temptation to extend out into the city's open spaces – which, from a planning point of view, would be far easier to achieve – now comes up against the huge importance assumed by the GreenBelt.

- **Commercial areas**

A large logistics company wanted to transfer its site to the city. It had its eye on a new location in the GreenBelt. Although the company was economically very significant and a large number of jobs were concerned, following extensive discussion the city decided against allowing it to build in the GreenBelt – even running the risk of the company moving away from the area. This decision set the future course for safeguarding the GreenBelt.

Summary

That brings me to the end of my presentation but before I close, I would just like to summarise what I have said.

A unique characteristic of the Rhine-Main conurbation is the economic performance of this polycentric region, which is also very dynamically and actively depicted in the surrounding landscape. This finds its expression in the traffic infrastructure covering the airport, municipal railway routes, motorways and the energy infrastructures. These dynamics are also apparent in the continued growth of residential areas and of many industrial and commercial areas. That places considerable burdens on the people, such as noise and air pollution, and confronts them with “eyesores” such as traffic routes, the edges of housing estates and energy routes, which make massive inroads into traditional ideas of the “countryside”.

The GreenBelt was, and still is, at risk from these claims to its space for infrastructural facilities. The risk comes, on the one hand, from facilities that already exist and, on the other hand, from extensions or the construction of new facilities.

The sustainable city also needs the GreenBelt in the future as a key component of an urban quality of life that incorporates open spaces. In the past 20 years, an appropriate solution has always been found for Frankfurt's GreenBelt.