

# **Dübendorf Innovation Park– evolution through architecture**

By Patrice Gruner

## **Starting position**

The military airfield in Dübendorf is the subject of much debate. The Swiss Federal Department of Defense, Civil Protection and Sport is abandoning flight operations, but the federal government and the Canton of Zurich have not yet managed to agree on the future use of the site. The federal government is keen to pursue a civil aviation direction, which would not be profitable. The Canton of Zurich prefers the option of an innovation park for the promotion of research and commerce. This forms the basis of my considerations and conceptual ideas.

## **Introduction**

In Switzerland we live in an environment that has been developed in an overwhelmingly standardized fashion. Virtually no untouched landscapes remain and there are relatively few cities with clear contours. Seventy percent of the population lives in agglomerations that are spreading ever further. Haphazard development by the autonomous municipalities has resulted in an urban sprawl. This leads to the destruction of more and more landscapes – valuable resources that are part of our basis for life. The only way to prevent this is by limiting the growth of towns and cities and increasing their population density, because the population of Switzerland continues to grow. According to forecasts, it will have increased by 1.13 million people by the year 2060. This will require approximately 50.8 million m<sup>2</sup> of additional living space.

Since the landscape must be preserved, this additional living space can only be created and used in towns and cities. One of the few larger, coherent spaces under consideration in Zurich is Dübendorf airfield. Switzerland cannot afford not to make use of this space. The site has the potential to accommodate not only an innovation park but also another portion of the population. Increasing the population density of the city will mean the surrounding forests and recreational spaces are preserved.

### **Urban planning concept (benchmark Zurich North)**

As part of the urban planning process, the city was analyzed with a focus on the entire Glatt Valley. When the development of Zurich North was being planned in 2006, the ETH Studio Basel addressed the theme of “Switzerland - a portrait of urban planning” with the basic idea that the city would be planned in a ring shape. This was supposed to develop around the Hardwald woods and to link up Oerlikon with Wallisellen, Wangen-Brüttisellen and Kloten airport.

I believe this theoretical concept has not been realized. If you look at the plan for the urban development of Zurich North from 1970 to 2010 (see graphic below), it is easy to see elongated city development in a horizontal (to the North) and vertical (to the East) direction. The municipalities are connected up to the infrastructure, creating a city network. The innovation park could also be developed into a center in this way, which would foster counter-development to the west. To align with this, the Glattalbahn Plus transport project, designed as a ring, will have to be changed and adapted. The route will then run straight through Zurich North and make a big loop through the innovation park. The suburban rail network, existing and new bus routes and the A53 highway will ensure the area is extremely well connected. The site will integrate the dense innovation park, the culture avenue with existing museums, residential and office properties and peripheral areas for future development and flexible use, for example for special events. In addition, the development will permit the Wangenerwald forest to connect up with the green space leading to Lake Greifen, thus functioning as a greenbelt recreational area.

### **Innovation park concept (benchmark Dübendorf)**

The draft is based on a detailed analysis of the municipality of Dübendorf, which also looked at the municipality's characteristics as well as its infrastructure, existing settlement patterns with their uses, central areas, landscape structures and social structures. The latter was determined by means of a survey among residents. They gave details of life in Dübendorf and expressed their hopes and fears regarding an innovation park based on the plans I provided.

The draft stems from the periphery of the surrounding districts, with sub-areas acting as catalysts for accelerating urban development, such as the unused hangars, the Skyguide site or the aircraft museums. Wangenstrasse will be widened and partially upgraded to function as a link between the entrance to the innovation park and the station. The peripheral areas will also be upgraded and density increased.

The innovation park will form the new district center. It will create a new identity for Dübendorf and will be integrated into the neighborhoods with offshoots in places. Success is guaranteed thanks to the geographical proximity of business and academia, the balanced mix (residential, work, leisure, culture), accessibility, location management and political support. These factors have been drawn from the most successful innovation parks, such as Cambridge Science Park, Berlin-Adlershof and Boston Area with MIT, and are being integrated into the plans. The result is a creative and innovative space for research and business. The ETH Institute and the University will be expanded and enhanced with more facilities so that they remain competitive on an international level and guarantee us prosperity for the future too. These research units are being established in a part of the city where there is also space for homes, leisure and services.

The neighborhoods are being planned according to the principle of a collage made up of various city morphologies. These will link up with the existing urban fabric and will be adapted to the location and the surroundings. This will result in varied interaction and subtle differentiation, which differs from the banal uniformity of simplistic construction constellations. This difference will enable creativity and space to flourish.

The morphology of successful cities is the basis for planning new layouts. These will align with the design rules for establishing identity, the possibility of provisional or new uses, interaction density and a balanced mix. This will result in a new district with all the functions of a successful town and various smaller centers. From the innovation park center, the height of the buildings gradually decreases from six stories to finally just one storey at the end of the airfield. These height differences are dictated by the terrain. In between there are only isolated variations in building height. In addition, the undulations in the terrain create their own

levels which help to shape the identity of the district and are useful for orientation.

The runways will be preserved and will form the basis of broad avenues. Parking will mostly be underground. Aside from that, the area will initially be expanded with uniform asphalt throughout. Parks and green spaces will be sectioned off and will form another level of the landscape structure. The city structure makes it possible to create private and public outdoor spaces with the utmost variation. The streams that had been covered over will be opened up once again, thus creating another attractive feature.