# Logistical issues and the redevelopment of Basel's Rhine ports

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In order to safeguard their future, the river port authorities have for some time been reluctant to dispose of any of their land in spite of falling traffic. *Waterfronts* along the lines of those of maritime cities nevertheless provide a tempting model but, while claiming to reforge the ties between the city and the waterway, they may well have the opposite effect of hastening the decline of true logistical functions. In Basel, there has been no categorical refusal of urban development and the case of this city shows how negotiations can pave the way for a genuine redeployment strategy in the port.

## 1. Access to the Rhine performs an essential transit function for Switzerland.

The ports in the canton of Basel-Town constitute the southern terminus of the major Rhine corridor and must cope with the pressures of international traffic. The traffic generated by all modes of transport has a marked impact in the ports, in particular because the area involved measures barely 37km². In tonnage terms, a third of Switzerland's international trade is forced to pass through the city. This interface function forces Basel to manage flows and store bulk products, and the city has a storage capacity of 1 million $m^3$ for oil products and 0.4 million $m^3$ for cereals. Containerization (100,000 TEUs in 2010) plays an important role in Basel. As is the case in all European countries, traffic is very unbalanced, and 80% of tonnages involve the importation of large bulk consignments. The port facilities play a vital supply role and handle 13% of Switzerland's international trade. Rail traffic passing through Basel's ports accounts for 10% of the traffic handled by SBB Cargo.

**Figure 1. The Rhine, a major gateway for Switzerland**
Source: *Schweizerische Rheinhäfen*


| North-South Traffic *Origin* | Traffic in 2008 (Million tons) | Remarks |
|---|---|---|
| Antwerpen<br>Rotterdam | 1.74 (29%)<br>3.44 (57%) | 100% by sea |
| Duisburg, Düsseldorf, Köln<br>Koblenz<br>Mannheim, Karlsruhe | 0.26 (4%)<br>0.08 (1%)<br>0.55 (9%) | |
| **Traffic through the Basel's Ports**<br>Transalpine transit<br>Swiss Imports<br>of which end haulage road<br>of which end haulage rail | **6.07 (100%)**<br>0.40 (7%)<br>5.67 (93%)<br>2.08 (34%)<br>3.59 (59%) | ¾ by rail |
| **North-South Traffic** *Destination* | **Traffic in 2008** (Million tons) | **Remarks** |
| Antwerpen<br>Rotterdam | 0.55<br>0.53 | 100% by sea |
| Duisburg, Düsseldorf, Köln<br>Koblenz<br>Mannheim, Karlsruhe | 0.04<br>0.01<br>0.01 | |
| **Traffic through the Basel's Ports**<br>Transalpine transit<br>Swiss Imports<br>of which end haulage road<br>of which end haulage rail | **1.14 (100%)**<br>0.10 (<br>1.04<br>0.07<br>0.97 | 9% by road<br>91% Swiss-bound |

## 2. Logistical zones as adjustment variables

In view of the lack of space, the city is looking for new areas in order to meet its needs, in particular for the world-leading pharmaceutical groups which are becoming increasingly involved in advanced research in the life sciences. There is not only a need for office space, but also high quality housing for executives and researchers. Growing land pressure is drawing attention to the large areas that have traditionally been given over to transport infrastructure. Some of these areas have already undergone major transformations. One example is the former railway land that has been turned into residential areas (*Güterbahnhof*), and another is the reduction in the amount of space taken up by the tracks in the central station (*Eurobahnhof* project). Land pressure is increasing around the urban ports, as they too are trying to find new logistical possibilities through transborder cooperation. A number of forward-looking studies have already considered transferring some activities from the urban ports to the neighbouring ports of Huningue in France and Weil am Rhine in Germany. However, the authorities favour Swiss-based solutions for the storage of strategic goods in order to conserve full national independence.

The central port spaces of Saint-Jean and Kleinhüningen have certain features that make them interesting for urbanization. Direct access to the Rhine means they can offer the attraction of the river bank and unhindered views over the river landscape. The rejection of large business units has opened up the possibility of major urban planning operations that will ensure the project is coherent and favour density. Basel's city fathers and local government departments have in mind, of course, the construction of *waterfronts*, as in the maritime ports of Northern Europe. This is borne by the fact that the architects they have approached for the development project were from Rotterdam, Hamburg and Düsseldorf.

**Figure 2a and b. The port areas in 2010 and 2030**
Source : *Neue Zürcher Zeitung*, 6/1/2011

Incidentally, this urbanization process has already got under way with the dismantling of the facilities in the port of St Jean ((2010) and the construction of the Novartis campus. In the matter of a few years a whole new district has sprung up in a zone which until quite recently was given over to chemical production. These projects in fact give merely a foretaste of the project for the right bank in the north of the city where construction of the *New Basel* (Fig.2) is planned for between now and 2030. This is a new waterside executive housing zone, able to house several thousand new residents.

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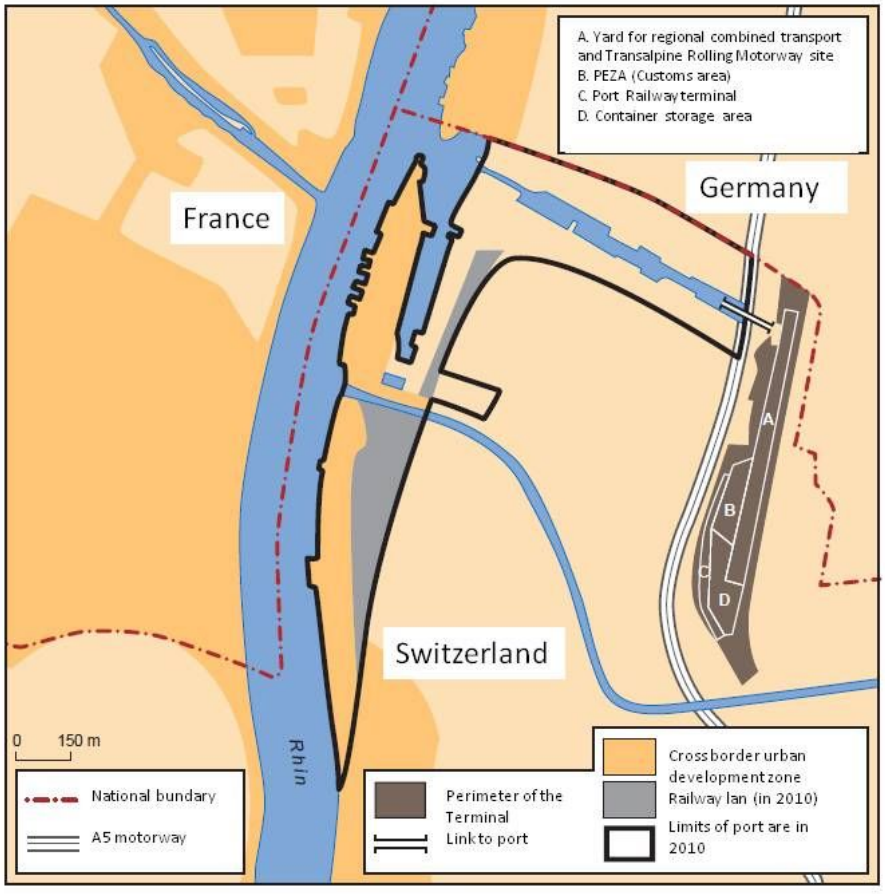
## 3. An ordered withdrawal from the port

For a long time, the port authorities were opposed to any reduction in their usable space, as their activities were already extremely cramped, but they nevertheless gradually began to undertake a comprehensive strategic review. The port authorities are directly dependent on the canton authorities and decided to engage in open negotiations in order to take the greatest possible advantage of their geographical position with a view to developing their logistical activities. This process was to be marked by two events: the merger of the canton's two port institutions (Bâle-Ville and Bâle-Campagne) and the possibility of reallocating the unused railway land belonging to DB. The 2007 merger of the two port bodies of the half cantons of Basel gave rise to the *Rheinhäfen beider Basel*. The end of competition between the two bodies made it possible to increase the specialization of port installations. The reduction in capacity at the Port of Saint-Jean led to the transfer of solid and liquid bulk products to the ports of Auhafen and Birsfelden upstream of the city.

**Figure 3. Redevelopment plan for the urban port of Kleinhüningen and its extension (Basel North Terminal)**
Map produced by Antoine Beyer from information given in the *Bau- und Verkehrsdepartement des Kantons Basel-Stadt*



The second factor that favoured the relocation of port activities is the possibility that the Swiss public authorities would purchase DB's old marshalling yard. The land in question has long been set aside for logistical functions in the Bâle-Ville canton master plan. This yard has the advantage of being adjacent to the existing primary infrastructure, for example the German A5 motorway or the freight line on the right bank of the Rhine (Corridor 24, running between Rotterdam, Bâle and Genoa). It also opens up the possibility of a connection with the yard that handles the freight from the Transalpine Rolling Motorway before it crosses the city, and combined transport operations for just across the German border. The result is an improvement in road and rail access to the port. In particular, container handling capacity will be doubled, increasing from an annual level of 200,000 TEUs to 400,000 TEUs. The remaining problem is to link the two areas that are cut off from each other by the motorway (by building a container movement system or enlarging the port basin) in order to create a European-scale trimodal platform. An agreement between the Swiss Confederation and Swiss Railways (CFF) on the division of land and funding of the project is in the process of being finalized. Transfer of the port thus leads to a complete reconfiguration of access to the port and an increase in the intermodality of the port installations which hitherto have been very much focused on the river.

The restructuring that has been performed and the investments currently under consideration amply compensate for the obsolete installations that have been lost, which were spread out along the banks of the river and often isolated. Access to these installations by land often entailed extremely prejudicial manoeuvres, particularly in the case of rail (returning on the same track, bottlenecks) and passing through residential zones. Investment in the port is completely consistent with the new national intermodal plan that favours two interconnected hubs (Basel and the Limattal Gateway), whereas until now Switzerland had preferred its intermodal yards to be scattered all over the country.

The logistical node formed by Basel's port facilities is essential in view of Switzerland's need to maintain access to the major Rhine corridor. The development of the port of Basel shows that the ambitions of the metropolis cannot be achieved by simply abandoning existing port sites and may provide the opportunity to modernize the port system and adapt it to new trade flows. This requires strong and clearly stated linkage between different geographical levels.

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