

## “Increasing importance”

### Construction logistics honing its profile in Switzerland

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**Construction projects are usually lengthy undertakings with complex logistics processes these days. In Zurich the consultant Dr Peter Acél elaborated to Christian Doepgen on how the potential of the process can be leveraged.**

#### What problems have you ascertained in today’s construction logistics?

The basic problem with construction in Switzerland is that plan formulation and planning permission alone account for 40% of all costs. Since there is no space in cities for transloading, amongst other tasks, the importance of logistics in the context of organisational management is increasing.

#### What solution do you see for logistics, for example if there's a lack of space?

A three-part model has proven its worth, combining an external waiting area and a shuttle system of trucks with a central unloading area. If the traffic is well timed, it's possible to work with ten- to 20-minute windows for deliveries to construction sites as well as for the removal of waste.

#### What examples do you have in mind?

Such solutions can also be used at the largest construction sites in Europe, such as Potsdamer Platz in Berlin, the Stuttgart 21 railway station or the Zurich main station with their railway station connection for excavation, gravel etc.

#### What other options are there when there’s a lack of space?

Let’s look at omnipresent current efforts to reduce energy consumption by replacing a building’s windows, for example. The ‘traditional’ approach of erecting and dismantling a crane in city centres such as Zurich's is becoming increasingly difficult. We know that it can be faster and cheaper to fly the windows in by helicopter and then install them. The result needs less time, produces less noise as well as less traffic jams. You just must have the right – as well as bold – ideas.



**Dr Peter Acél** of Dr Acél & Partner AG in Zurich is not lost for new ideas when it comes to construction logistics.

#### Is this viable in these days of climate-friendly construction?

Of course, but only if the concept is right. Among many other things we’ve found, for example, that paper bags can be subject to up to 20 times more wear and tear than plastic bags. We used the latter in one project – and then thermally recycled them as per the objectives of a circular economy.

### **Why are such ideas rarely implemented?**

Because in many planning processes logistics solutions aren't considered a way to increase productivity. Some cumbersome approaches are preferred (for example, only one building site is allowed on a 12 km highway stretch, so instead of several smaller ones only one exceptionally large one is erected) and there are endless quality regulations. We also have to overcome a tendency for digitalisation 'at brick level'.

### **What do you mean by that?**

It's only worthwhile using digital planning and management tools that provide insights into the system every two to five minutes in large-scale projects.

### **So, what's the right recipe?**

Materials flows in construction projects, including waste disposal needs, have to be properly planned from the outset. An overall concept for all trades with procedures and processes is needed. Costs can be saved through standardisation and prefabricated construction - more than by a general contractor, who doesn't always have to be the best choice. One construction management contact for shell construction, fitting out, etc. helps to prevent the fragmentation of planning. Used correctly, logistics can contribute to the overall success of a building project.