

## Evaluation of competing CT techniques

In preparation for its Combined Transport Roadmap 2050 paper, UIRR commissioned a study<sup>1</sup> to examine the economic viability of different CT techniques in order to determine which is best suited for support under the different circumstances.

Having taken various considerations into account, and conducting discussions with the partner, KombiConsult GmbH, chosen to carry out the study, UIRR decided that the various alternatives may best be evaluated on the example of transporting semi-trailers through Switzerland.

Semi-trailers and Switzerland were chosen as

- Semi-trailer transport by rail requires the largest loading gauge (P400), which places the greatest demand on the infrastructure through its 4m height clearance need;
- The aim of Switzerland to reduce the number of transalpine truck journeys per year to 650,000 by 2018 will likely result, during the coming years, in the shifting of many semi-trailers from road to rail;
- The Gotthard Base Tunnel, slated for completion in 2016, is likely to play a major role in realising this aim; UIRR has already pointed out in a press statement on 20 February 2012<sup>2</sup> that sections of the Gotthard line leading to the new tunnel will require an upgrade to make the loading gauge (P400) homogeneous throughout the entire line.
- Framework conditions for rail transport in Europe are considered to be the closest to mode-neutral in Switzerland.

Three transshipment techniques, **CargoBeamer** and **two variations of Modalohr** (horizontal and UIC), were

chosen for examination in the study, and a comparison of their respective system-level total costs to the “conventional” method – based on vertical transshipment of semi-trailers – known as **Unaccompanied Combined Transport (UCT)** was carried out.

Conducting the actual analysis on an 860km long route connecting Cologne and Milan, the study found **UCT to have the most favourable performance** when measured in overall system costs. Moreover, UCT emerged superior in every cost category examined in the study. **The two Modalohr systems produced 30% higher overall system costs, while CargoBeamer turned out 40% more expensive.**



Martin Burkhardt

UIRR Director General, Mr Martin Burkhardt said: *“Before making a recommendation to decision-makers responsible for delivering the modal-shift aims contained in the European Commission’s 2011 Transport White Paper<sup>3</sup>, as well as the 2018 target for modal shift in Switzerland, UIRR intended to present scientific evidence to support the most efficient allocation of resources by market players, consignors and the transport sector, as well as governments and political decision-makers. And the findings point in one direction: towards “conventional” UCT.”*

### Who is UIRR?

Founded in 1970, the **International Union of Combined Road-Rail Transport Companies (UIRR)** represents the interests of European road-rail Combined Transport Operators. Road-Rail Combined Transport (CT) is a system of freight forwarding which is based upon inserting economically and ecologically sustainable electric rail into long-distance (road) transport-chains through the use of intermodal loading units (ILU).

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<sup>1</sup> <http://www.uirr.com/en/media-centre/leaflet-and-studies/mediacentre/559-study-uct-semi-trailers-switzerland.html>

<sup>2</sup> <http://uirr.com/en/media-centre/press-releases-and-position-papers/2012/mediacentre/491-serious-limitations-on-key-north-south-european-rail-freight-axis.html>

<sup>3</sup> 30% of longer distance (over 300km) road haulage to be transferred to sustainable modes by 2030 and 50% by 2050