



Example 9 **Newly Innovated Mechanically Retractable Ramps for trams**

City (country) **Berlin (Germany)**

good practice for people with ...	kind of vehicle	kind of measure/approach
... motor impairment	tram	engineering/technology approach

**Project description**

The local public transport provider BVG (Berliner Verkehrsgesellschaft) and the company “Schließ- und Sicherungssysteme” from Mühlhausen have developed a mechanically retractable ramp made of several sliding sections that, in total, covers quite a long gap or height difference. It is an affordable alternative to the lift that has until now been used in the low-floor trams. To test the new solution, instalment of the retractable ramps is planned in four FLEXITY trams in Berlin. The ramp is a worldwide novelty that enables people with reduced mobility to bridge the level difference between the tram and the stop on their own. The ramp is in a hinged position and completely integrated into the vehicle while the tram is moving.

To date, the 150 low-floor trams of the BVG have 195 lifts that are operated electronically by the driving personnel. The lifts are characterised by a relatively high probability of operational failure as well as by high costs for investment, maintenance and repair. For this reason, the BVG looked for better solutions and found them in the mechanical retractable ramps. These are characterised by the following advantages compared to the electric lifts:

- The investment costs of the ramp amount to one third of the costs for a lift.
- The repair and maintenance costs are only half as high as for the lifts.
- The ramps weigh less.
- The personnel are directly available for assisting ramp users when necessary.

The new FLEXITY tram will be put into operation in Berlin in the coming years and will slowly replace the old Tatra trams. The FLEXITY tram is a 100% low-floor tram produced by Bombardier Transportation. The first four pilot vehicles will be in use from 2008 on. The order includes the option for 206 more trams. The intention is to order those trams starting in 2011 after the test phase with the first four trams has been successfully completed.

Source:

Newstix: Neue Wege in die Straßenbahn: Neue Lösung als Einstiegshilfe für mobilitätsbehinderte Fahrgäste zum Patent angemeldet (de), [www.newstix.de](http://www.newstix.de) - Suche - Einstiegshilfe BVG (21/10/2007)