


Table 39. Dynamic routing.

Initiative 38: Dynamic Routing	
<p>Description: Dynamic routing systems are used by public authorities to enhance safety and prevent violations of access regulations. The private-sector uses are in-vehicle routing as part of a decision-support system to enhance the efficiency of fleet management.</p>	
<p>Targeted mode: All traffic</p>	<p>Geographic scope: City, area</p>
<p>Type of initiative: Logistical management: intelligent transportation systems (ITS): dynamic routing</p>	<p>Primary objective: Improve traffic flow/improve efficiency, enhance safety</p>
<p>Expected costs and level of effort to implement: Truck routing and the decision-support system are based on ITS; they require high quality real-time traffic data, information on the road network, and land use in the area. Large benefits can be expected when the guidance system is connected to commercial vehicle operation (CVO) systems to optimize fleet management. The planning process should include extensive stakeholder and government involvement. The costs are mainly those associated with the operational cost of the management system, data collection, analysis, and dissemination. There are different CVOs, ranging from low-cost technology installations to large-scale networks of systems.</p>	
<p>Advantages:</p> <ul style="list-style-type: none"> • Increase efficiency • Reduce operational costs • Improve reliability • Reduce congestion • Environmental sustainability • Reduce fuel consumption 	<p>Disadvantages:</p> <ul style="list-style-type: none"> • Require real-life traffic information • Require very high/high capital investments
<p>Examples:</p> <ul style="list-style-type: none"> • Examples of CVOs for truck guidance and coordination include Berlin, Germany; London, England; and Paris, France (BESTUFS 2007, 27) • New York City, United States; Paris, France; and London, England, have successful freight traffic management centers (PIARC 2011) 	
	
<p>Source: Dong et al. 2004</p>	
<p>Related alternatives: 1. Restricted Multi-use Lanes; 2. Traffic Control; 3. Real-Time Information Systems; 4. Vertical Height Detection Systems</p>	
<p>References: Taniguchi and Thompson 2002; Marquez et al. 2004; BESTUFS 2007; CASTLE 2009; Department for Transport 2009; START 2009; C-LIEGE 2010; PIARC 2011; Reynolds 2011; SUGAR 2011; Ben-Akiva et al. 2013</p>	