**Table 24. Low emission zones.**

<table>
<tr><th colspan="2">Initiative 21: Low Emission Zones</th></tr>
<tr><td colspan="2">Description: Low emission zones (LEZs) are environmentally sensitive areas where vehicle access (both passenger and freight) is constrained. LEZs may ban all vehicular traffic, or just vehicles that do not meet a minimum environmental standard (engine-related restrictions)</td></tr>
<tr><td>Targeted mode: All traffic/large trucks</td><td>Geographic scope: Area</td></tr>
<tr><td>Type of initiative: Traffic management: environmental restrictions</td><td>Primary objective: Environmental sustainability</td></tr>
<tr><td colspan="2">Expected costs and level of effort to implement: The planning process should involve extensive stakeholder engagement to analyze impacts both in and out of the impacted area, and should be done in accordance with environmental legislation. The main costs may be related to enforcement technologies, such as license plate recognition.</td></tr>
<tr><td>Advantages:<br>• Environmental sustainability<br>- Improve air quality<br>- Reduce noise<br>• Society support<br>• Reduce congestion inside the target area</td><td>Disadvantages:<br>• High probability for unintended consequences:<br>- Increase operational costs<br>- Increase congestion<br>- Hamper economic activity</td></tr>
<tr><td colspan="2">Examples:<br>• European cities: Stockholm, Sweden; Göteborg, Sweden; Malmo, Sweden; Lund, Sweden; Rome, Italy; Milan, Italy; Berlin, Germany; Amsterdam, The Netherlands; London, England; Madrid, Spain; Paris, France; Copenhagen, Denmark; and Budapest, Hungary (Quak 2008; TURBLOG 2009; C-LIEGE 2010; LEEZEN 2010; Transport for London 2012)<br>• Oregon, United States (Oregon Department of Transportation 2009)<br>  <br><br>Source: Oregon Department of Transportation 2009</td></tr>
<tr><td colspan="2">Related alternatives: 1. Emission Standards; 2. Engine-Related Restrictions; 3. Road Pricing; 4. Operational Incentives for Electric/Low Emission Vehicles; 5. Anti-Idling Programs</td></tr>
<tr><td colspan="2">References: Quak 2008; Oregon Department of Transportation 2009; TURBLOG 2009; C-LIEGE 2010; LEEZEN 2010; Transport for London 2012</td></tr>
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