

**Table 3. Freight cluster development (freight village).**

<b>Initiative 3: Freight Cluster Development (Freight Village)</b>	
<p><b>Description:</b> The concentration of freight users such as distribution centers, manufacturers, truck terminals, and intermodal facilities into a single location, typically at the urban fringe, to provide efficiency and economies of scale. Cluster development is a common land use approach that consolidates a single type of activity in an area to reduce that activity’s negative impacts on other areas, such as residential developments.</p>	
<p><b>Targeted mode:</b> Large traffic generators</p>	<p><b>Geographic scope:</b> City</p>
<p><b>Type of initiative:</b> Infrastructure management: major improvements</p>	<p><b>Primary objective:</b> Reduce congestion/land use planning</p>
<p><b>Expected costs and level of effort to implement:</b> Costs to construct a new freight village are very high, but most costs and effort are taken by the private sector. The cost of purchasing land for a freight village may be very high, and may possibly be assumed by the public sector. Because the intention is to concentrate freight activities in one location, coordinated efforts are required, involving the public sector, private sector, and the communities. The implementation and construction of freight cluster development takes a long time.</p>	
<p><b>Advantages (inside the urban area):</b></p> <ul style="list-style-type: none"> <li>• Reduces congestion</li> <li>• Environmental sustainability</li> <li>• Enhances safety</li> <li>• Enhances operational efficiency</li> <li>• Enhances livability</li> <li>• Reduces freight activity inside urban areas</li> </ul>	<p><b>Disadvantages (area of impact of freight cluster):</b></p> <ul style="list-style-type: none"> <li>• Requires very high capital investment (land acquisition and construction)</li> <li>• Requires extensive cooperation between stakeholders</li> <li>• Environmental impacts associated with new construction</li> <li>• Moderate to low probability of unintended consequences                             <ul style="list-style-type: none"> <li>– Increased perceived noise in surrounding areas</li> <li>– Increased traffic in the vicinity of terminal</li> <li>– Increased vehicle-miles traveled</li> </ul> </li> </ul>
<p><b>Examples:</b></p> <ul style="list-style-type: none"> <li>• Portland, Oregon, United States (Holguín-Veras et al. 2012a)</li> <li>• Seattle, Washington, United States (Holguín-Veras et al. 2012a)</li> <li>• Abertis Logistics Park in Santiago, Chile (Abertis 2010)</li> <li>• Frankfurt Freight Village (Oder), Germany (GVZ Frankfurt 2013)</li> </ul>	
	
<p>Source: GVZ Frankfurt 2013</p>	
<p><b>Related alternatives:</b> 1. <a href="#">New and Upgraded Infrastructure, Intermodal Terminals</a>; 2. <a href="#">Relocation of Large Traffic Generators (LTGs)</a>; 3. <a href="#">Integrate Freight into Land Use Planning Process</a></p>	
<p><b>References:</b> Smart Growth Network and ICMA 2002; CASTLE 2009; Allen and Browne 2010; C-LIEGE 2010; Department for Transport 2010b; Nobel 2011</p>	