Clean Fuels for Clean Air

Issues with oil:

Economics - cost
Cost for oil up to € 1 billion per day for the EU in 2011
Trade balance deficit in oil: ~ 2.5 % of GDP

Energy - security of supply
Oil counts for 94% of transport fuels, 84% imported
Access to oil vulnerable and prone to interruptions

Environment – climate change, pollution
Greenhouse gas emissions from use of fossil energy
Air pollution from combustion of oil in transport
Clean Power for Transport Package

- **European alternative fuels strategy**
  Communication - COM(2013)17

- **Deployment of alternative fuels infrastructure**

- **Action Plan on LNG for shipping**
  Staff Working Document - SWD(2013)4

Link to all Documents:
Communication on a European Alternative Fuel Strategy

- **Comprehensive mix of alternative fuels** to substitute oil as energy source for all transport modes on the long-term:
  - LPG
  - Natural gas (LNG and CNG)
  - Electricity
  - Biofuels
  - Hydrogen

- **Priority actions:**
  - EU-wide infrastructure
  - Common technical standards
  - Consumer acceptance
  - Technological development

→ **Framework for investment and technology development**
Directive on Infrastructure Build-up

- National policy frameworks required
- Electrical charging points for vehicles in all Member States and shore-side electricity for ships in ports
- Hydrogen refuelling infrastructure in active Member States
- LNG refuelling points for ships in TEN-T Core ports and for trucks along TENT-Core roads
- Natural gas refuelling points for EU-wide mobility
- Common standards for all alternative fuel infrastructure
- Consumer information on vehicle/fuel compatibility
# Alternative Fuels for all Transport

<table>
<thead>
<tr>
<th>Mode</th>
<th>Road</th>
<th>Air</th>
<th>Rail</th>
<th>Water</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Urban</td>
<td>Short</td>
<td>Medium</td>
<td>Long</td>
</tr>
<tr>
<td>Range</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Natural gas</td>
<td></td>
<td>LNG</td>
<td>LNG</td>
<td>LNG</td>
</tr>
<tr>
<td>Electricity</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Biofuels</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hydrogen</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>