German Asphalt Industry
Overview and future trends

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## Classification of German roads

<table>
<thead>
<tr>
<th>Type</th>
<th>Length (%)</th>
<th>asphalt percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Motorways</td>
<td>1,9 %</td>
<td>72 %</td>
</tr>
<tr>
<td>federal roads</td>
<td>6,7 %</td>
<td>99 %</td>
</tr>
<tr>
<td>state roads</td>
<td>14,1 %</td>
<td>100 %</td>
</tr>
<tr>
<td>local roads</td>
<td>77,3 %</td>
<td>mainly asphalt</td>
</tr>
</tbody>
</table>

Total length of German roads: 650,000 km
Customers of the asphalt industry

- contractor
- federal government
- states
- local authorities

⇒ couple of 1000 road constructing companies, most of them very small
Financing of Road projects

Taxes from road traffic
(tax for cars, petrol, VAT, toll roads): 53 Mrd. €

Public expenses for roads: 17 Mrd. €
Expenses of the Federal State for Roads

- 2001: 4.66 Mrd. Euro
- 2002: 4.71 Mrd. Euro
- 2004: 4.93 Mrd. Euro
- 2005: 5.20 Mrd. Euro
- 2006: 5.14 Mrd. Euro
- 2008: 5.07 Mrd. Euro
- 2009: 6.16 Mrd. Euro
- 2010: 5.83 Mrd. Euro
- 2011: 5.41 Mrd. Euro
- 2012 (Plan): 5.41 Mrd. Euro
- 2013 (Plan): 4.97 Mrd. Euro
- 2014 (Plan): 4.79 Mrd. Euro
Guarantee

- asphaltproducer: 5 years
- client: 2-5 years depending on course and thickness
- contractor
DAV
(German Asphalt Pavement Association)

Board

DAV-office

8 regional boards:
no office, no own money

3 working groups:
• asphalt technology
• machinery and environment
• economy
Jürgen Reifig, Deutscher Asphaltverband e.V. Bonn

DAI

(German Asphalt Institute)

Board

Scientific committee  DAI-office

Research Institutes
Members of DAV

ca. 190 asphalt producing and/or laying companies with ca. 460 mixing plants (from 650 in total)

ca. 100 associated members like laboratories, mixing plant manufacturers, bitumen suppliers …
### Year | Asphalt-Production | Recycling in Million tons and percent | Percentage of Recyclingmaterial in Production
--- | --- | --- | ---
2000 | 65 | 12 (from ~ 15, means ~ 80 %) | 18.5
2001 | 63 | 12 (from ~ 15, means ~ 80 %) | 19
2002 | 58 | 11.5 (from ~ 14, means ~ 82 %) | 20
2003 | 55 | 11.5 (from ~ 14, means ~ 82 %) | 21
2004 | 52 | 11.5 (from ~ 14, means ~ 82 %) | 22
2005 | 57 | 11.5 (from ~ 14, means ~ 82 %) | 20
2006 | 57 | 11.5 (from ~ 14, means ~ 82 %) | 20
2007 | 51 | 11.5 (from ~ 14, means ~ 82 %) | 23
2008 | 51 | 11.5 (from ~ 14, means ~ 82 %) | 23
2009 | 55 | 11.5 (from ~ 14, means ~ 82 %) | 21
2010 | 45 | 11 (from ~ 14, means ~ 79%) | 24
2011 | 50 | | |
Problems of the Asphalt Industry

- More than 50 % of the production is produced from September to December
- Bitumen supply (especially during production peaks)
- CO$_2$ emission trade system
- Costs: bitumen, energy, aggregates …
Future trends

- low temperature asphalt
- porous asphalt and other noise reducing pavements
- generally: lowering the emissions during production and laying and improving the effectiveness of energy consumption
- Recycling
- Quality
- Asphalt in cities
Questions?

Statements?