

# The German Bitumen Forum Co-operation in partnership



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# The German Bitumen Forum



- History, Members
- Co-ordinated projects
- Exposures on workplaces
- Low Temperature Asphalt
- Some 'political' aspects
- Outlook, more Information

PRACTICAL SOLUTIONS

# The German Bitumen Forum History



In 1996 limit values for fumes and aerosols arising from work with hot bitumen were on the agenda  
and  
according to EU criteria bitumen would remain in the group of suspected carcinogens



**The German BITUMEN Forum was founded**

# The German Bitumen Forum Members



Producer of

- bitumen
- asphalt
- sheetings

User of bitumen

- paving companies
- roofers
- construction companies



- Health and safety org.
- trade unions
- ...

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# The German Bitumen Forum

## Co-ordinated projects



- ⇒determination of EPA-PAH in the bitumen,
  - ⇒animal inhalation experiments,
  - ⇒epidemiological study,
  - ⇒dermal absorption of fumes and aerosols from bitumen
  - ⇒BGFA bitumen-human-study,
  - ⇒measurement of fumes and aerosols from bitumen,
  - ⇒... ,
- and above all

**The promotion of Low Temperature Asphalt**

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# The German Bitumen Forum Exposures on workplaces\*



**\*fumes and aerosols from bitumen (95 percentile);  
limit value 10 mg/m<sup>3</sup>, suggested by the BITUMEN Forum**

<b>Production of bitumen</b>	<b>2,6 mg/m<sup>3</sup></b>
<b>Production of asphalt</b>	
<b>Control centre</b>	<b>0,8 mg/m<sup>3</sup></b>
(Inside the asphalt plant	<b>30,5 mg/m<sup>3</sup> )</b>
<b>External Area</b>	<b>0,7 mg/m<sup>3</sup></b>
<b>Transport of asphalt</b>	<b>4,3 mg/m<sup>3</sup></b>

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## Exposures on workplaces\*



### Rolled Asphalt

Paver operator	6,5 mg/m <sup>3</sup>
Screed operator	10,4 mg/m <sup>3</sup>
Roller driver	2,6 mg/m <sup>3</sup>

### Gussasphalt (Limit value suspended, suggested by the BITUMEN Forum)

Tapster (mechanical)	61,4 mg/m <sup>3</sup>
Screedman (mechanical)	40,4 mg/m <sup>3</sup>
Smoother (manual)	35,9 mg/m <sup>3</sup>
Filling (manual)	38,0 mg/m <sup>3</sup>

\*fumes and aerosols from bitumen (95 percentile); limit value 10 mg/m<sup>3</sup>

# The German Bitumen Forum Exposures on workplaces\*



Bucket-Transport 12,8 mg/m<sup>3</sup>

Gussasphalt

Smoother 35,9 mg/m<sup>3</sup>



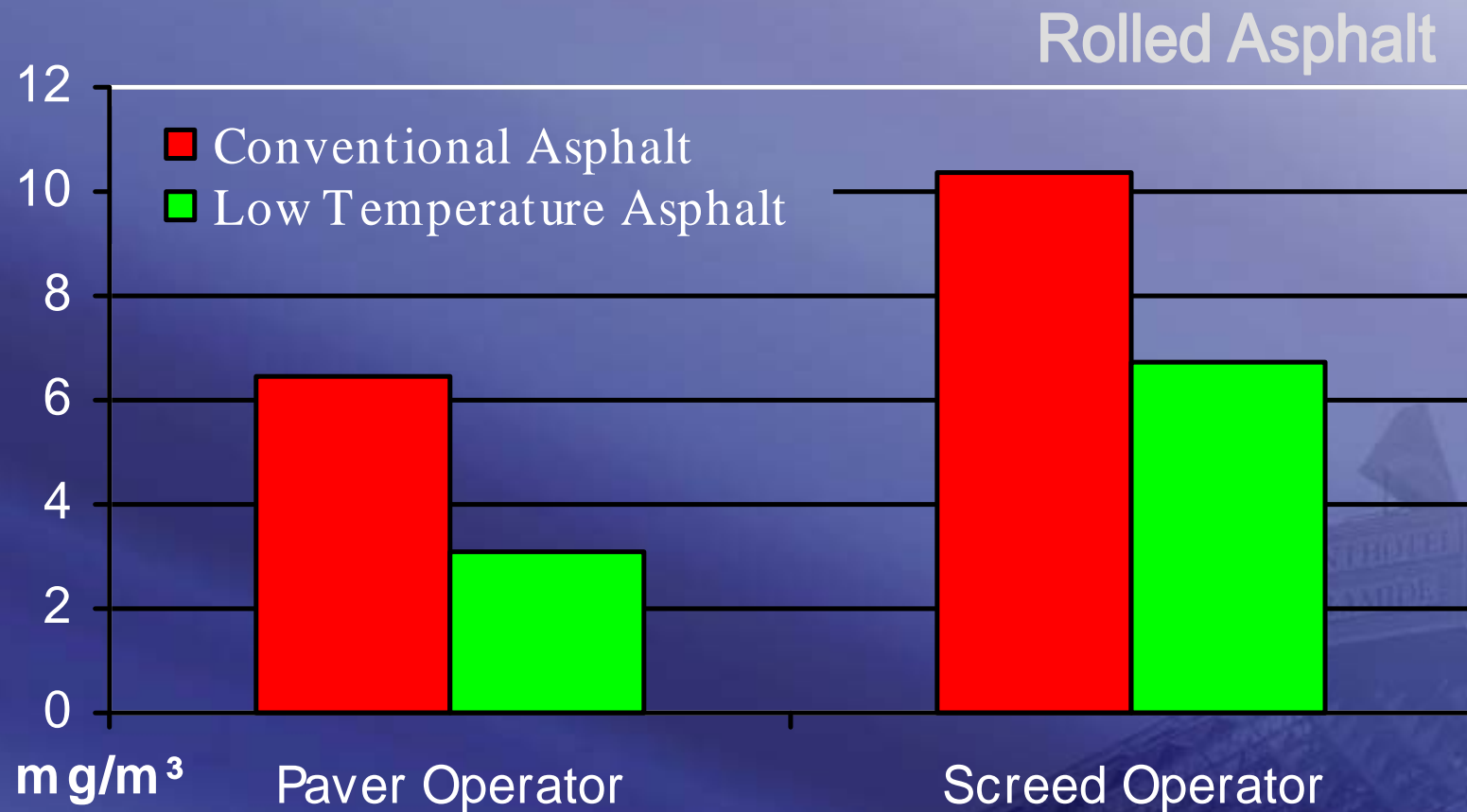
**\*fumes and aerosols from bitumen (95 percentile)**

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# The German Bitumen Forum

## Low Temperature Asphalt\*



**\*fumes and aerosols from bitumen (95 percentile); limit value 10 mg/m<sup>3</sup>**

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## Low Temperature Asphalt



... the way to reduce



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## Low Temperature Asphalt



... and

- less wear of the plant;
- hardly any ageing of the binder;
- less emissions on the mixing plant;

**less but not least**

- less fumes and aerosols at the laying process.

*The best way for health and safety*

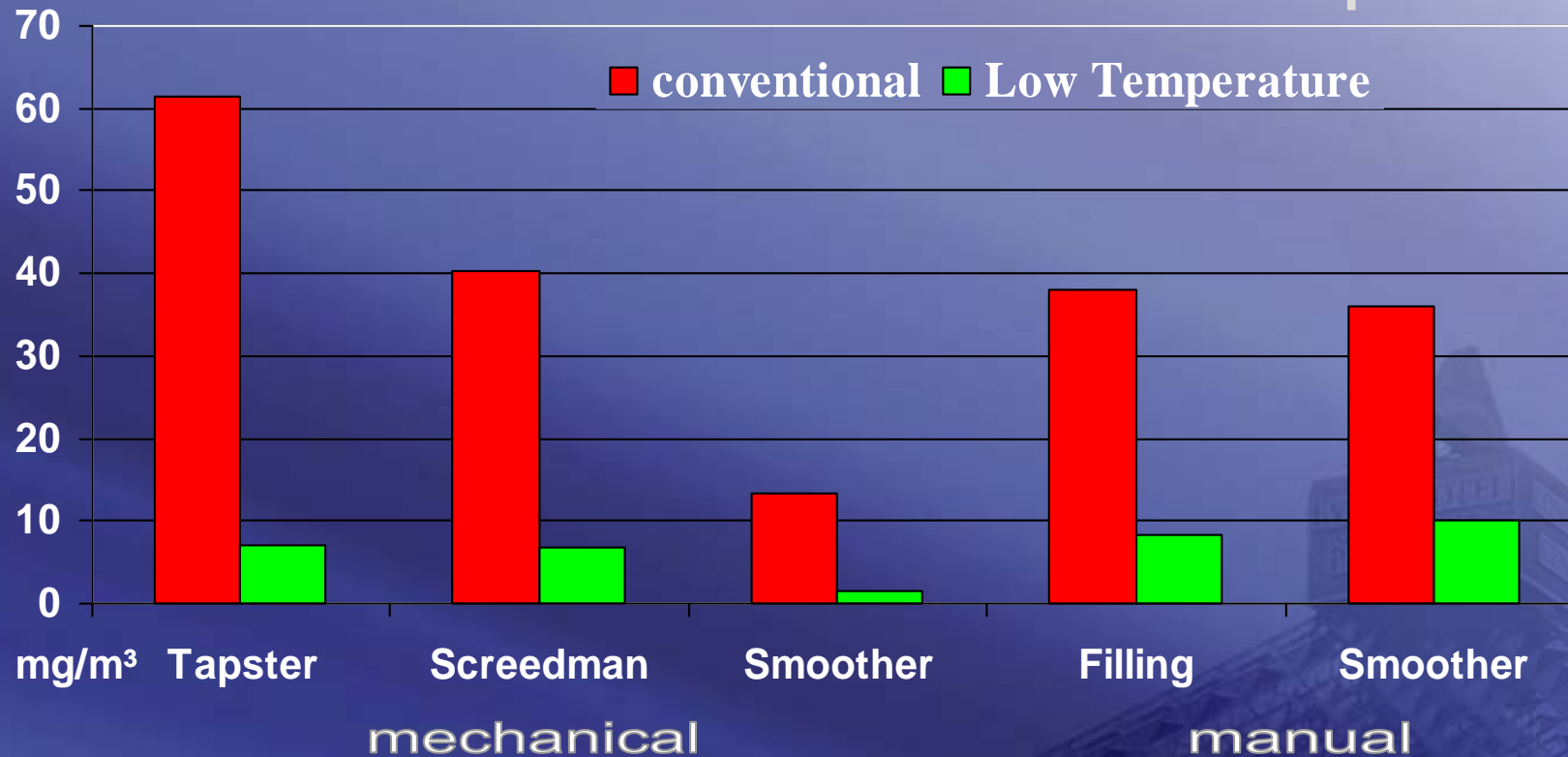
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## Low Temperature Asphalt\*



### Gussasphalt



\*fumes and aerosols from bitumen (95 percentile)

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Some 'political' aspects



The Forum's work is clearly acknowledged  
by the  
Ministry for Labour and Social Affairs  
and the  
committee of hazardous substances  
because ...

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# The German Bitumen Forum

## Some 'political' aspects



...

- all groups, which are affected by bitumen, are involved; this makes a deviating from the goals of the forum very heavy;
- studies will uncover possible deficiencies in the present classification or protective measures;
- all results are made public.

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# The German Bitumen Forum Future Tasks



## Working together

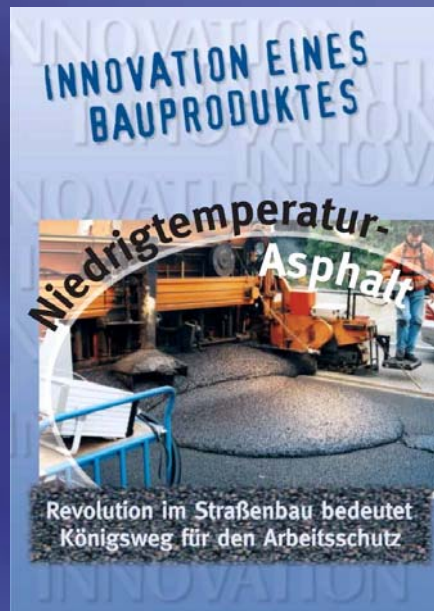
- for a safe handling with bitumen
- and
- for the promotion of low temperature asphalt to minimize emissions, energy consumption and CO<sub>2</sub>-production

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# The German Bitumen Forum more information



## Poster Session Poster 4 - 3



[www.bfg-strassenbau.de](http://www.bfg-strassenbau.de)

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