



ISAET '21

7th International Symposium on Asphalt Emulsion Technology

Asphalt emulsions markets worldwide

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Content

- Background: where do we come from?
- Data collection: worldwide survey 2017 – 2018 - 2019
- Results of the survey
- Past trends: learning for the future
- Future?
- Conclusion

Background

- Any industry has to know and understand its own market v/s competition, so that to build its strategy and take the right decisions
- Until the IBEF was created in 1996, no international data about asphalt emulsion was publicly available
- No comprehensive and international survey had been done at that time
- For some countries, data were recorded: Japan, UK, France
- Success stories from other countries can benefit to the others
- A need for a global approach: international surveys
- Survey 2017 – 2018 - 2019

Background

International symposium on Asphalt Technology

- ISAET 2008
- ISAET 2012
- ISAET 2016

Presentation about figures from 1990 to 2005

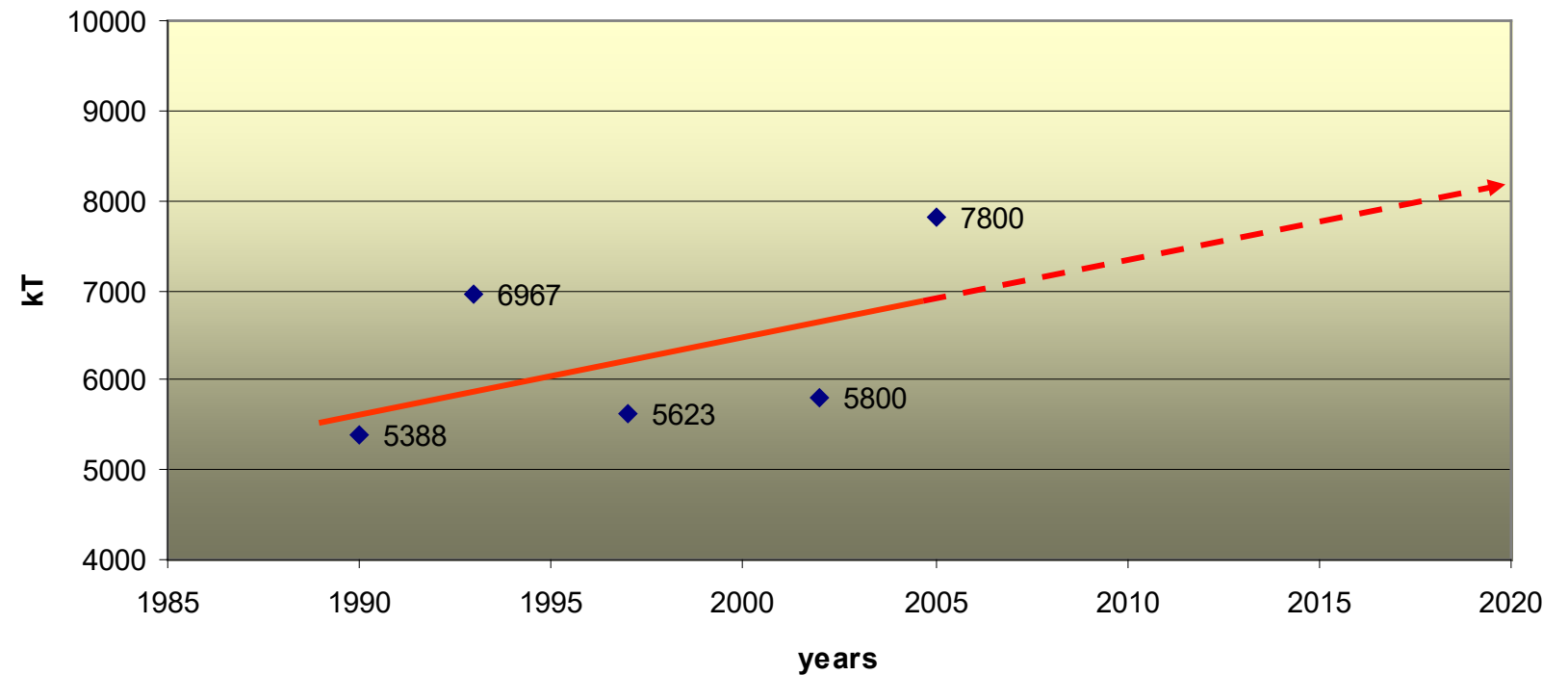
- Collection of various data from 1990 to 2002
- Survey for 2005
- Forecast from the industry: trends for 2010 and 2020

Background

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Presentation about figures from 1990 to 2005



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Emulsions in the World: main trends

- Pros & cons
- Funding shortage (subprimes crisis)
- Technological breakthroughs

***Preservation & Rehabilitation
More Miles, Less \$\$\$\$***

Background

International symposium on Asphalt Technology

- ISAET 2008
- ISAET 2012
- ISAET 2016



New Polymer Modified Asphalt Emulsion for Tack Coat

Trackless Asphalt Emulsion



Outline

Trackless Asphalt Emulsion is polymer modified bitumen emulsion especially developed for tack coat, which does not tack to tires after it is placed and broken, while it keeps the adhesiveness between layers.

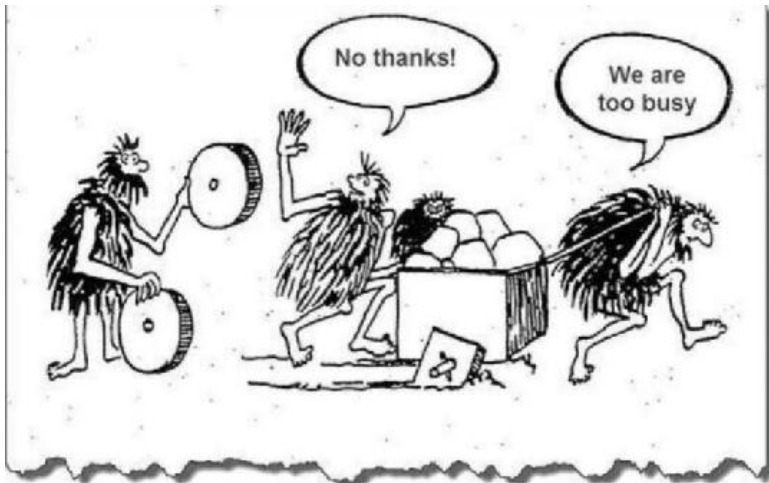
Features of Trackless Asphalt Emulsion

After modified asphalt emulsion is sprayed and broken, the surface is not sticky and it improves "equipment tracking" problem. The pavement around job site is always clean.

Background

International symposium on Asphalt Technology

- ISAET 2008
- ISAET 2012
- ISAET 2016



Markets and challenges

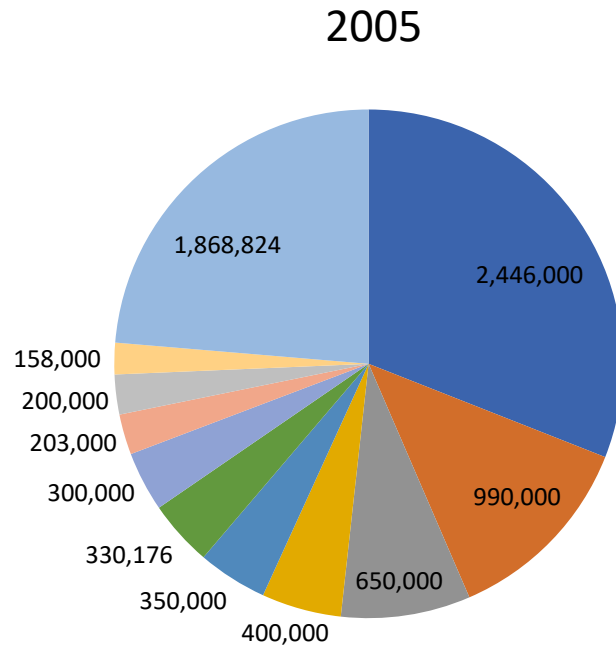
- Survey 2013
- Forecast from the industry (2020)
- Challenges to address
 - Asphalt quality and consistency
- Recommendations
 - Act local, think global: use the IBEF vehicle

Background

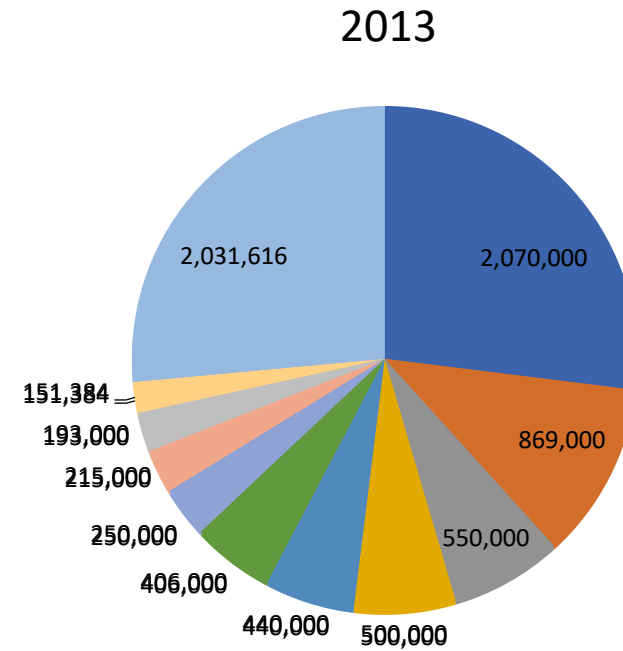
International symposium on Asphalt Technology

- ISAET 2008
- ISAET 2012
- ISAET 2016

- USA
- France
- Mexico
- Brazil
- Canada
- Spain
- China
- Japan
- Russia
- Italy
- Others



7,896,000 T



7,676,000 T

- USA
- France
- Brazil
- Mexico
- China
- Russia
- Canada
- India
- Japan
- United Kingdom
- Others

Data collection

What?

- Consumption of asphalt and asphalt emulsions from 2017 to 2019
- Asphalt: 137 countries
- Emulsions: 99 countries
- No specific details about the techniques

How?

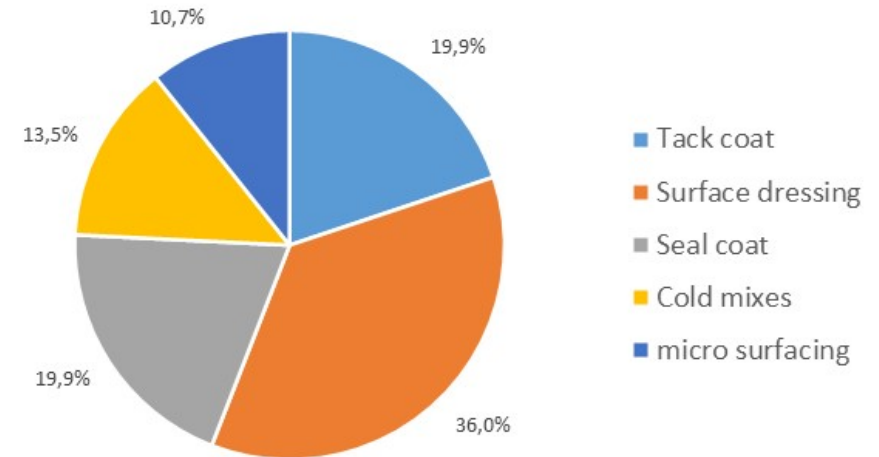
- IBEF members and network (34 members)
- National associations
- Industry: emulsion, chemicals, equipment
- Personal network

Data collection

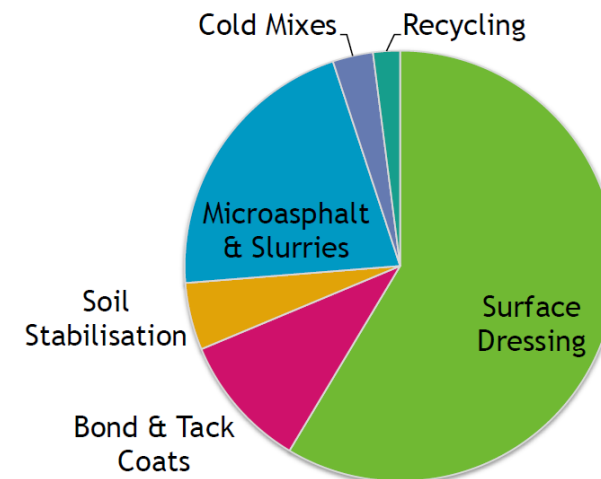
What?

- Consumption of asphalt and asphalt emulsions from 2016 to 2019
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France



UK



Data collection

What?

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- Asphalt: 137 countries
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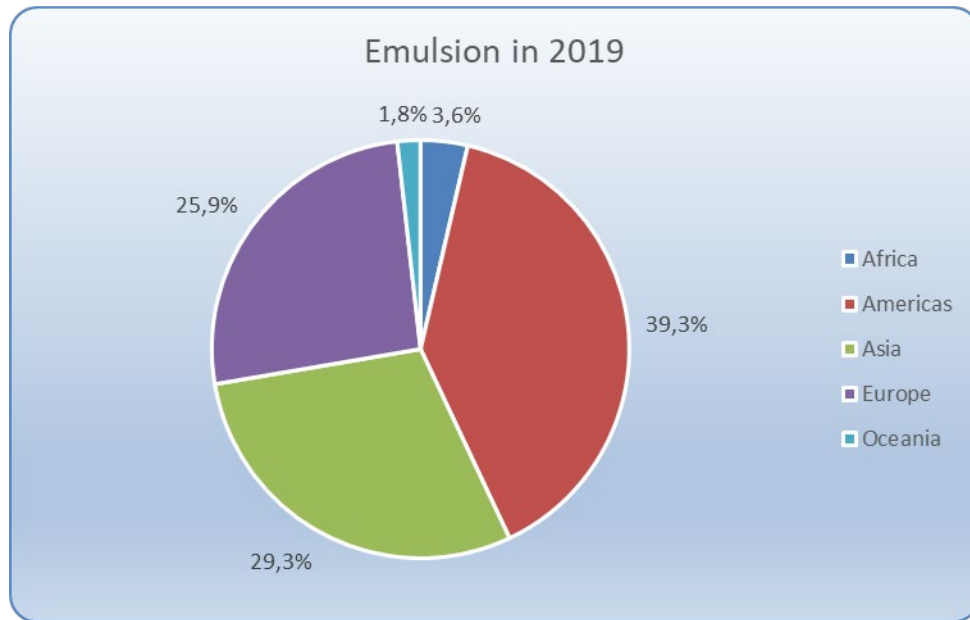
Limits / validity

- Some data are estimates, including for big countries
- Means are sometimes meaningless
- Importance of medium – long term changes

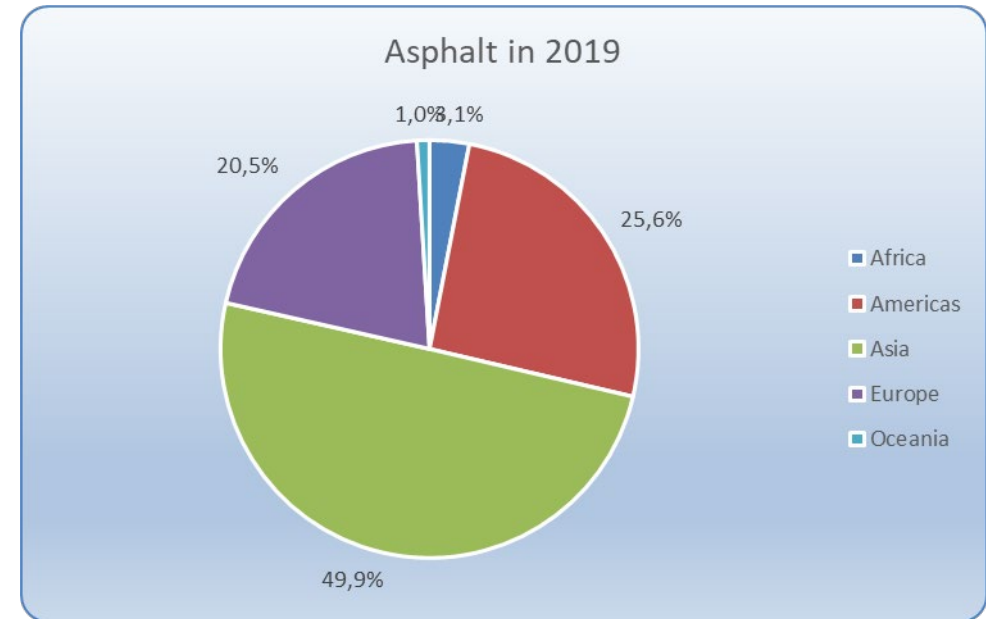


Results

- Asphalt emulsion
 - 8.7 millions MT



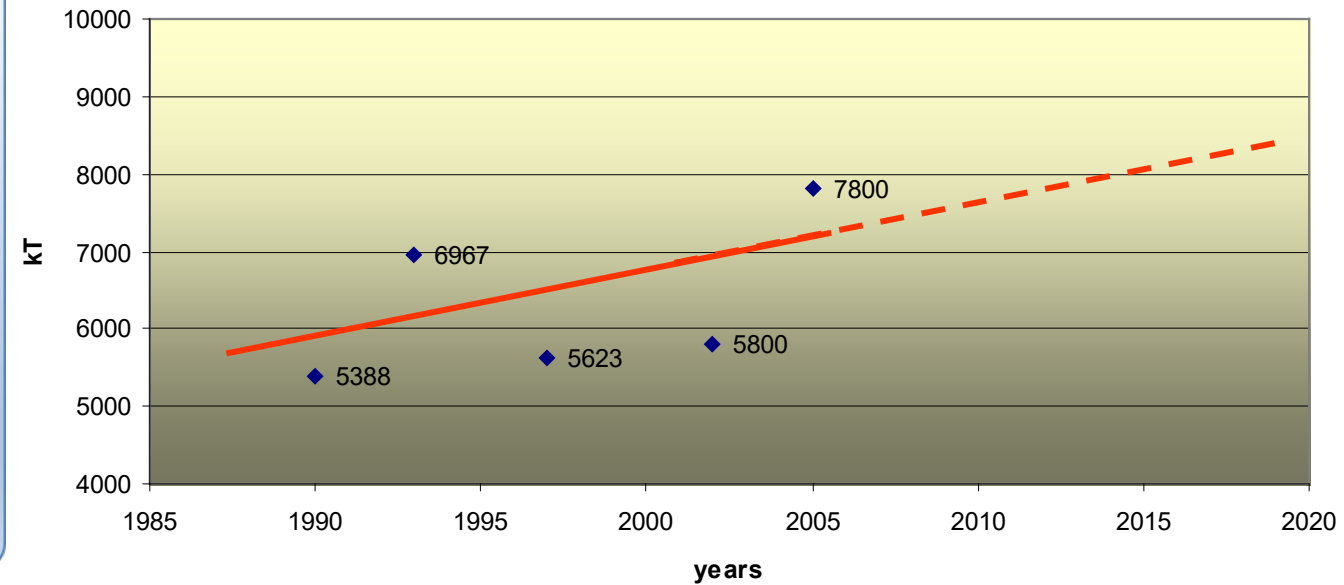
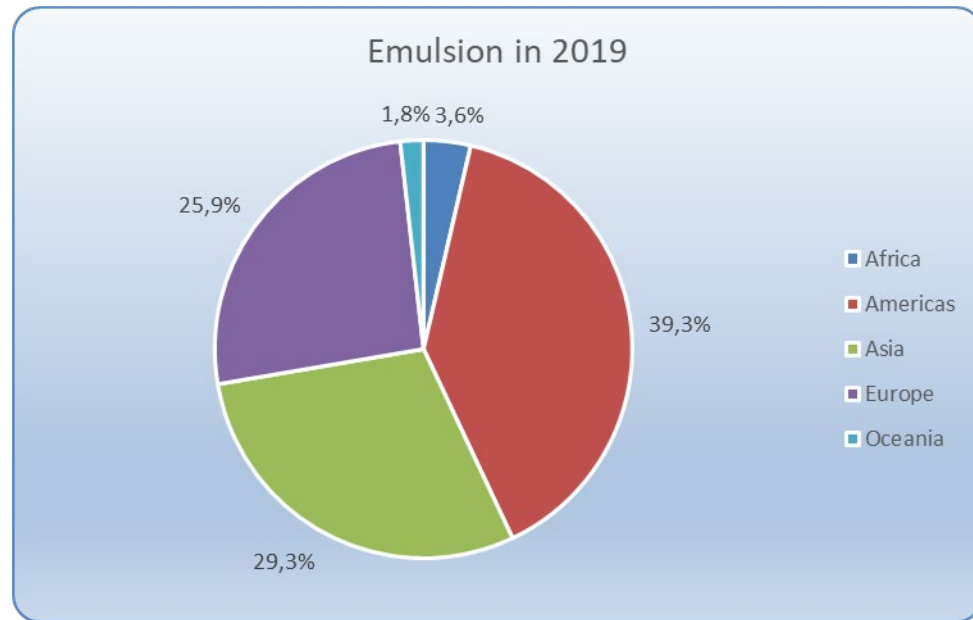
- Asphalt
 - 111 millions MT



(Argus asphalt annual 2020: 141 millions MT)

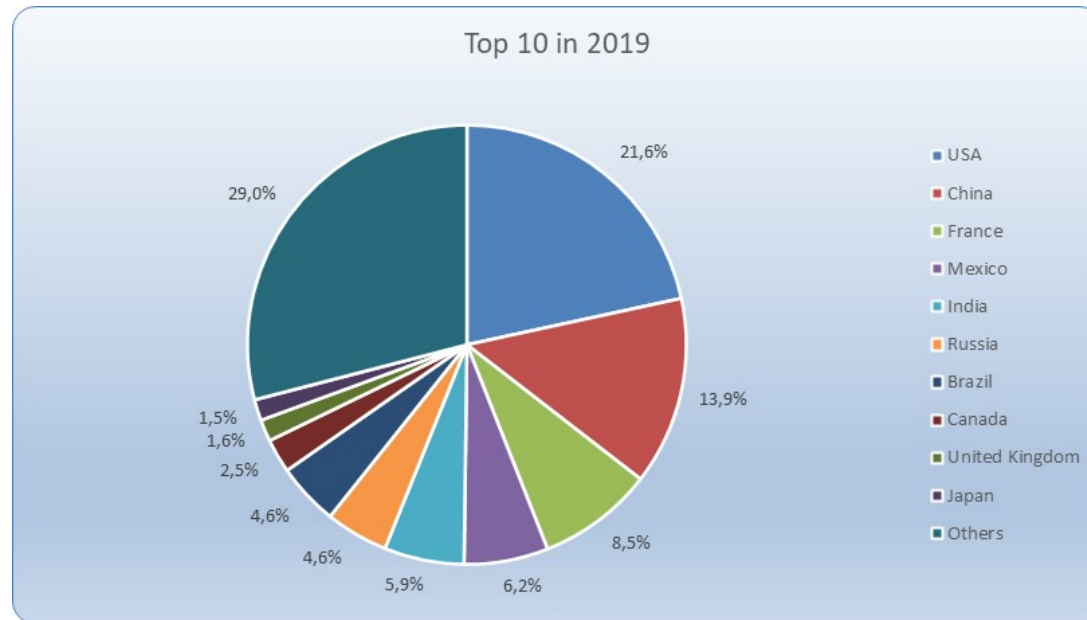
Results

- Asphalt emulsion
 - 8.7 millions MT



Results (contd.)

- Asphalt emulsion
 - 8.7 millions MT

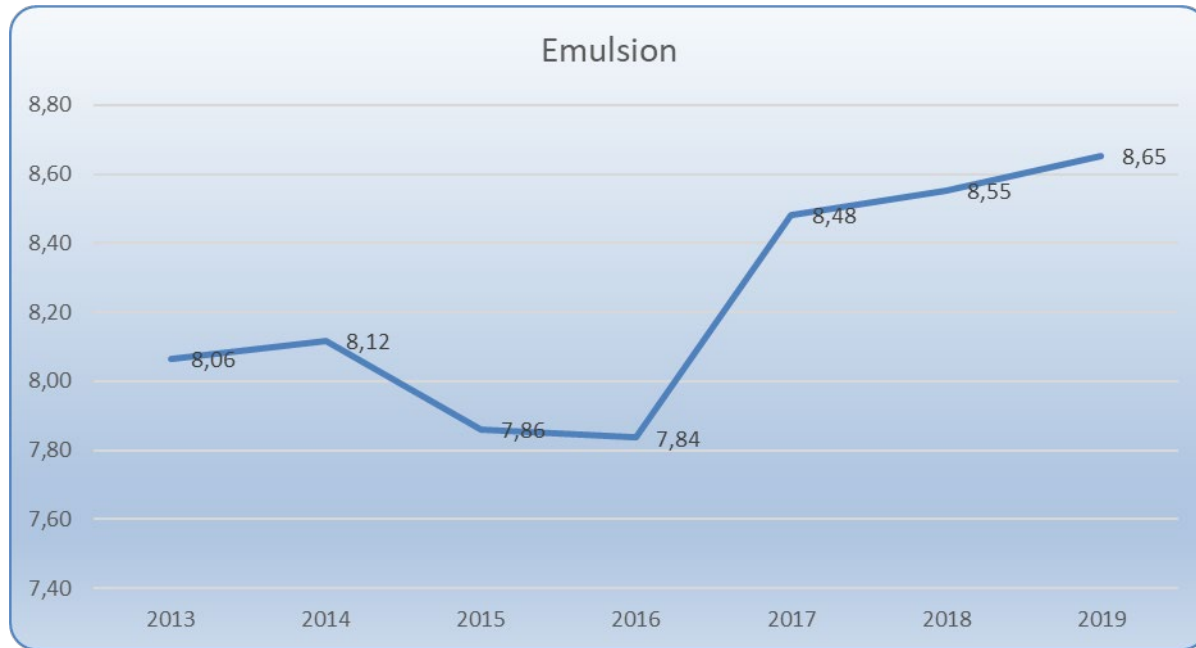


Top 10

- Top 4 countries produce 50% of the Worldwide volumes
- Top 10 countries produce 70% of the Worldwide volumes
- 4 countries are from Americas
- Growing shares of China #2 and India #5

Past trends

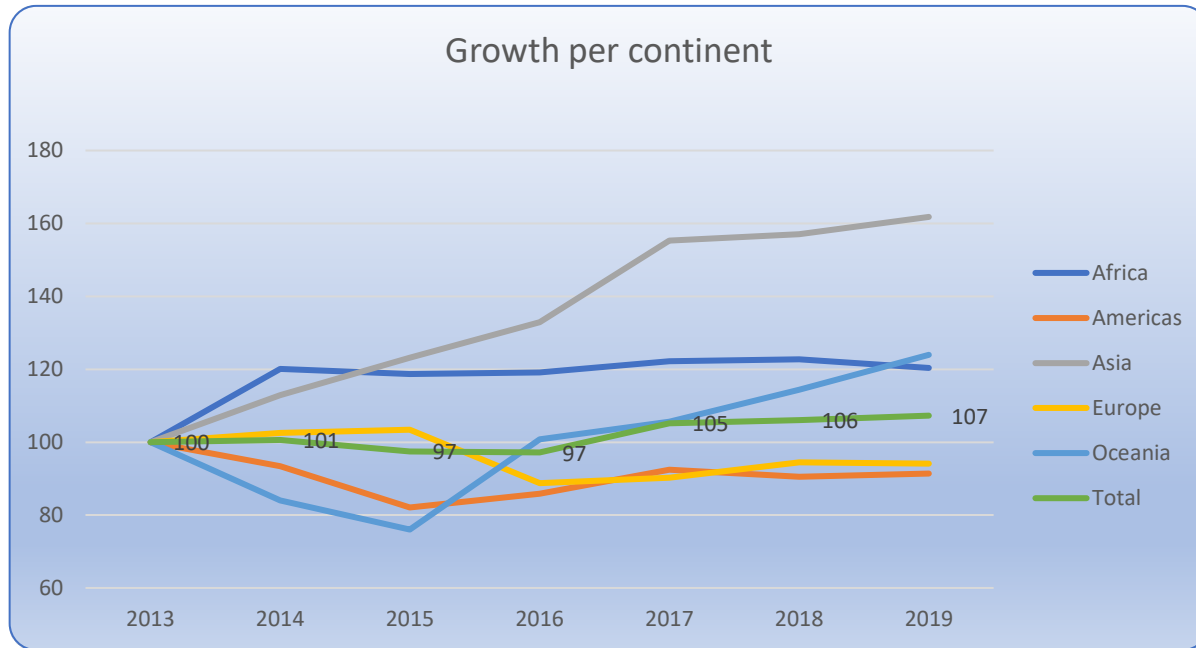
- From 2013 to 2019



- Average growth: 1% @ year from 2013 to 2019
- Drop in 2015 & 2016 (Brazil)
- Growth mainly driven by Asia, especially India & China

Past trends (Contd.)

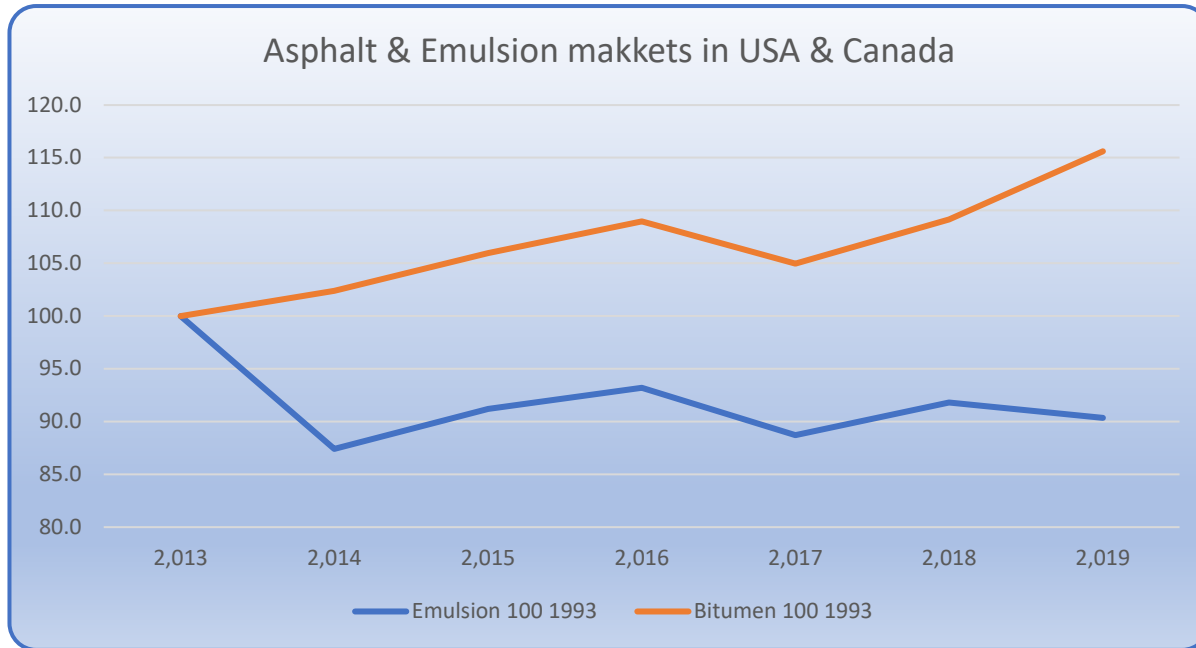
- From 2013 to 2019



- Average growth: 1% @ year from 2013 to 2019
- Asia: + 62%
- Rest of the World: - 6%
- USA & Canada: - 10%

Past trends (Contd.)

- From 2013 to 2019



- USA & Canada: - 10%
- Decreasing market share of asphalt emulsion
- Asphalt emulsion: - 10%
- Liquid asphalt: + 15%

Future trends?

Forecast from the industry in 2008:

Trend for 2020

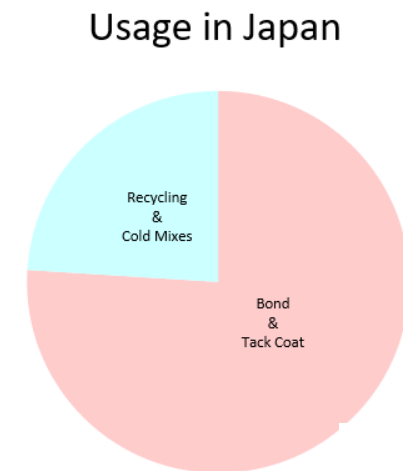
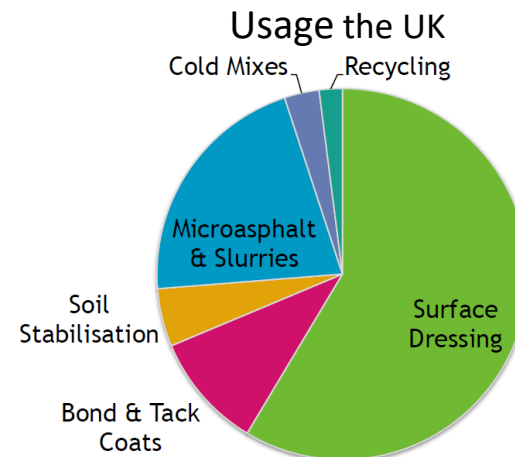
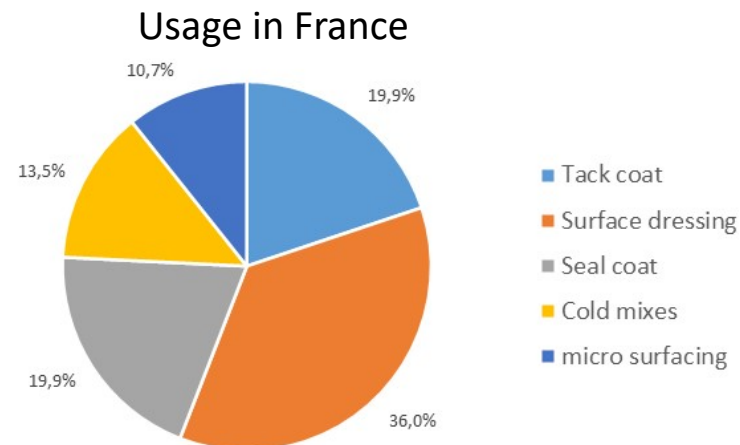
- USA: increase
- China: decrease
- France: increase
- Mexico: Increase
- India: Increase

Forecast v/s actual in 2019

- 2,200 kT v/s 1,870 kT
- 300 kT v/s 1,200 kT
- 911 kT v/s 739 kT
- 750 kT v/s 536 kT
- 205 kT v/s 510 kT

Future trends?

- The industry is not that aware of its own market
- The right knowledge of the domestic market is a pre-requisite for realistic forecasts
- This knowledge should include the various usages of the emulsions



Future trends?

External parameters

- Funds allocated by road agencies for pavement preservation
- Regulations: HSE, CO2, IMO
- Competition with other systems

Internal parameters

- Making the public and politicians aware of the importance of pavement preservation (lobbying)
- Adapt the offer to the needs of the road agencies
- Build credibility based on success stories
- Learn from the others

Future trends?

Learn from the others



Missions

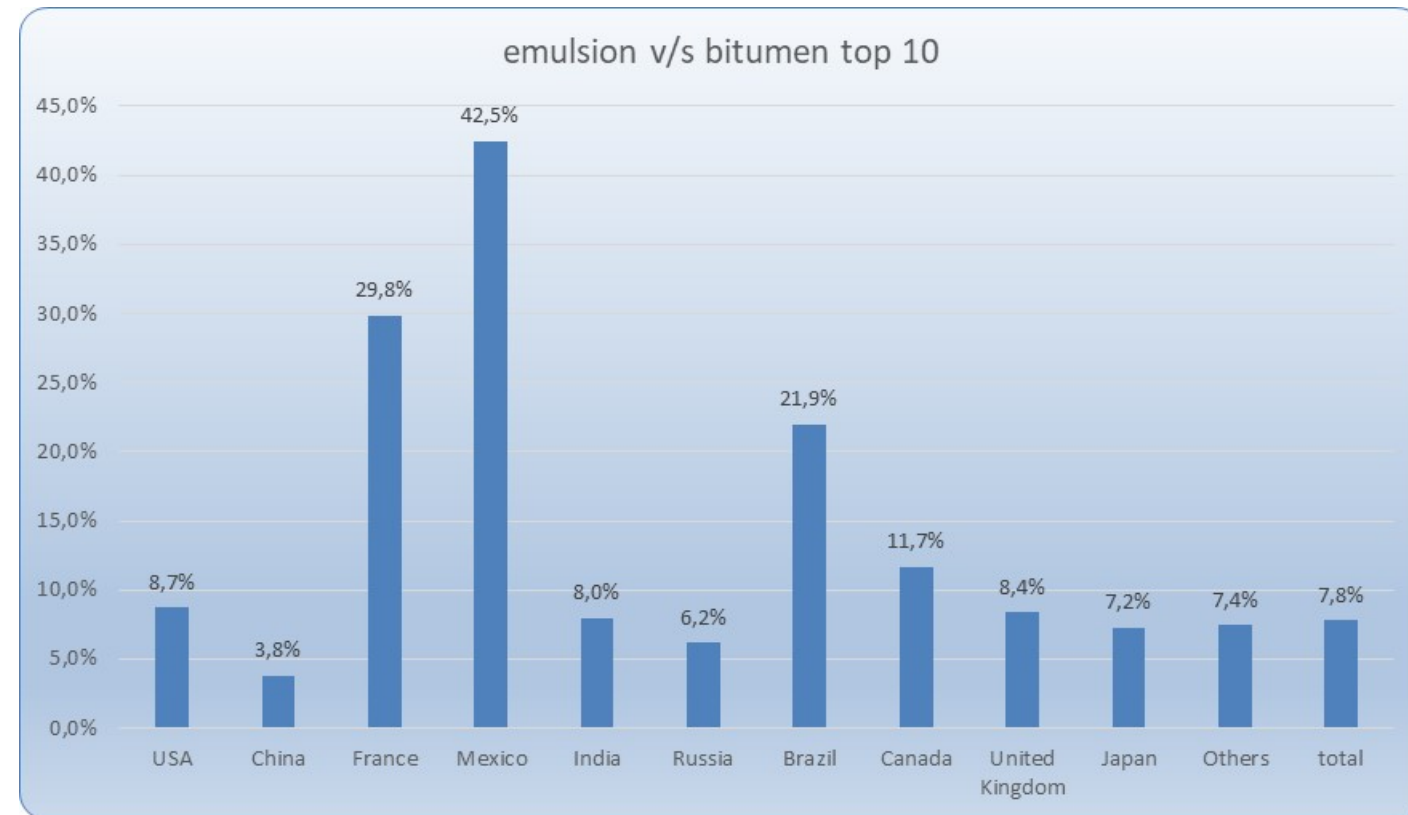
" The IBEF, exchange forum"

- Promote the use of bitumen emulsions worldwide
- Study the promotions in producing countries and disseminates them for the benefit of all
- Exchange technical information on bitumen emulsions, in particular on the manufacture and use of bituminous binders
- Exchange standardization information
- Exchange safety standards information
- Organize periodically global technical symposium on bitumen

Future trends?

Learn from the others

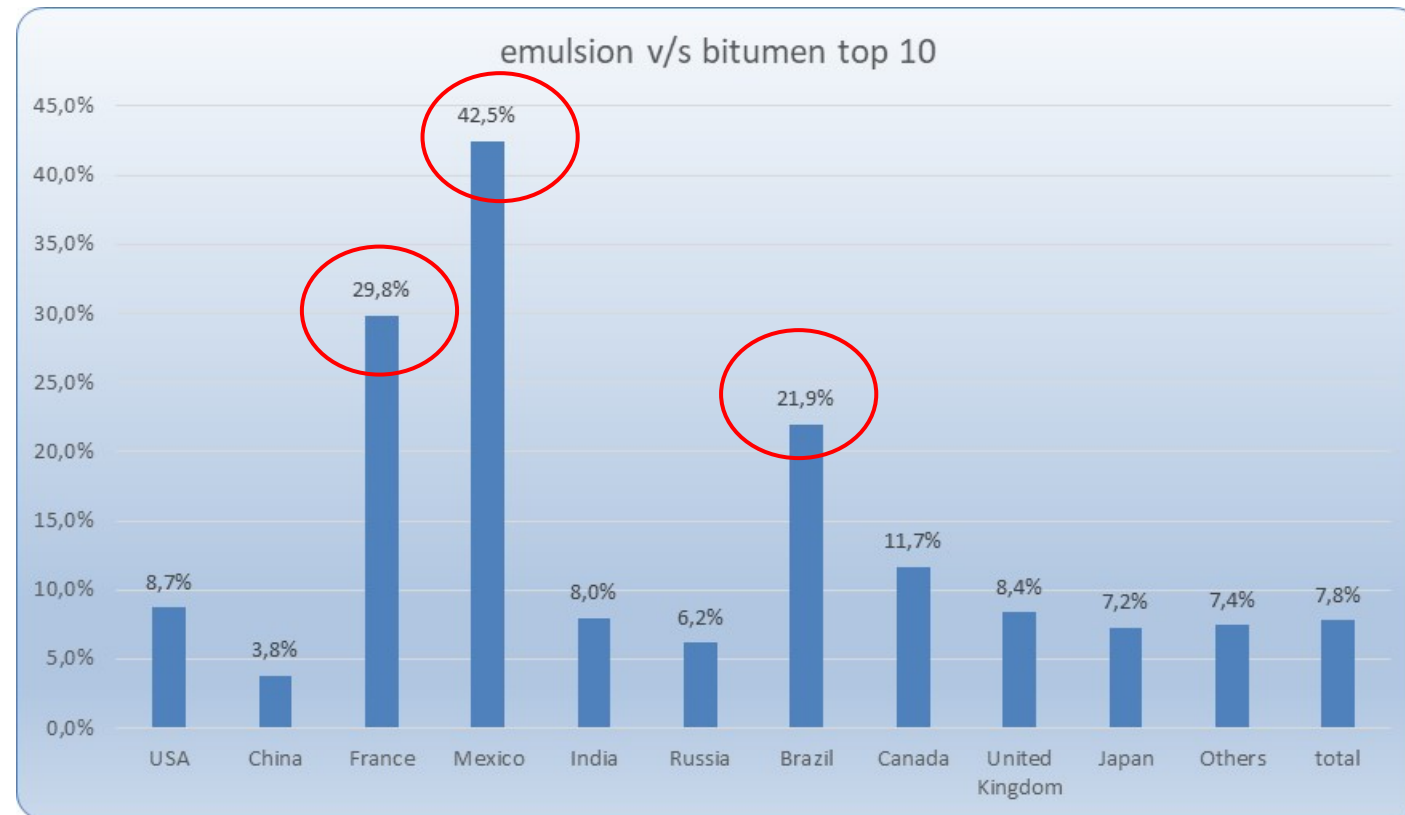
- A single example: market penetration
- Defined as volumes of emulsion v/s total volumes of asphalt used in a country



Future trends?

Learn from the others

- Why Mexico, France and Brazil are doing so well?
- An extensive use of asphalt emulsion for pavement preservation, especially for surface treatments



Future trends?

Learn from the others

- Why Mexico, France and Brazil are doing so well?
- An extensive use of asphalt emulsion for pavement preservation, especially for surface treatments

Figures are figures

- Average ratio for Mexico, France and Brazil: 30.1%
- Average worldwide ratio: 7.8%
- Ambition means realism
- The goal is in our own hands: from 8.7 to 33.5 millions MT
- Is that a dream?????

Conclusion

future
is in our
hands

- The goal is in our own hands:
from 8.7 to 33.5 millions MT

Thank you for your attention

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