

# Warm mix asphalt

## The French situation

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Australian asphalt pavement association study tour in Europe

# Summary

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1. Context
2. The role of Sétra
3. Objectives
4. Work structures
5. IDRRIM technical guide
6. Evaluation of performances
7. Quantities produced since 2008



# 1. Context

✓ 03/25/2009 : Voluntary commitment agreement

✓ Signed by:



✓ Objectives :

- Preserve unsustainable resources
- Decrease green house gases emissions and energy consumption
- Improve corporations' environmental performance
- Take part in research and innovation development
- ...

→ These commitments lead to the development of new techniques, including warm mix asphalts.

## 2. The role of Sétra

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### → Supporting operational services

#### ✓ Who?

- Scientifical and technical (public) network,
- Owners and technical engineers (public and private),
- ...

#### ✓ How?

- Elaboration of technical reference documents → first step to update the French doctrine concerning warm mix asphalts,
- Integration of these techniques in the normative reference,
- Organization of technical workshops to promote exchanges between actors



# 3. Objectives

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## ✓ Promote warm mix asphalts

- Maintain the sustainability of infrastructure and quality of road network
- Optimize maintenance operations (saving natural and financial resources)
- Reduce workers exposure to bitumen fumes

→ Significant work concerning the evaluation of warm mix asphalts, their characteristics and performances



## 4. Work structures

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- ✓ IDRRIM (Partenarial French institute concerning streets, roads, and infrastructures of mobility)
  - Creation of working groups dealing with topics targeted by the voluntary commitment agreement : warm mix asphalts, recycling,...
  - Consideration of working conditions of workers (working group on health and recycling)
  - ...
- ✓ Standardization committees (WMA are not standardized yet)
- ✓ Device of road innovation support
- ✓ Instances of the Ministry of Ecology and Sustainable Development (public concertation)
- ✓ Union of the French road industry (private concertation)



## 5. IDRRIM Guide

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- ✓ IDRRIM technical guide concerning warm mix asphalts:
  - description of the different techniques: additive, foaming, ...
  - recommendations for use and implementation for master builders and building owners,
  - Description of additives used in formulas (and the associated safety sheets to be provided by the manufacturer),
  - Contract monitoring
  
- ✓ Technical guide in progress, expected in 2012
  - Important because of the normative vacuum on the subject
  - Eagerly awaited by the whole profession



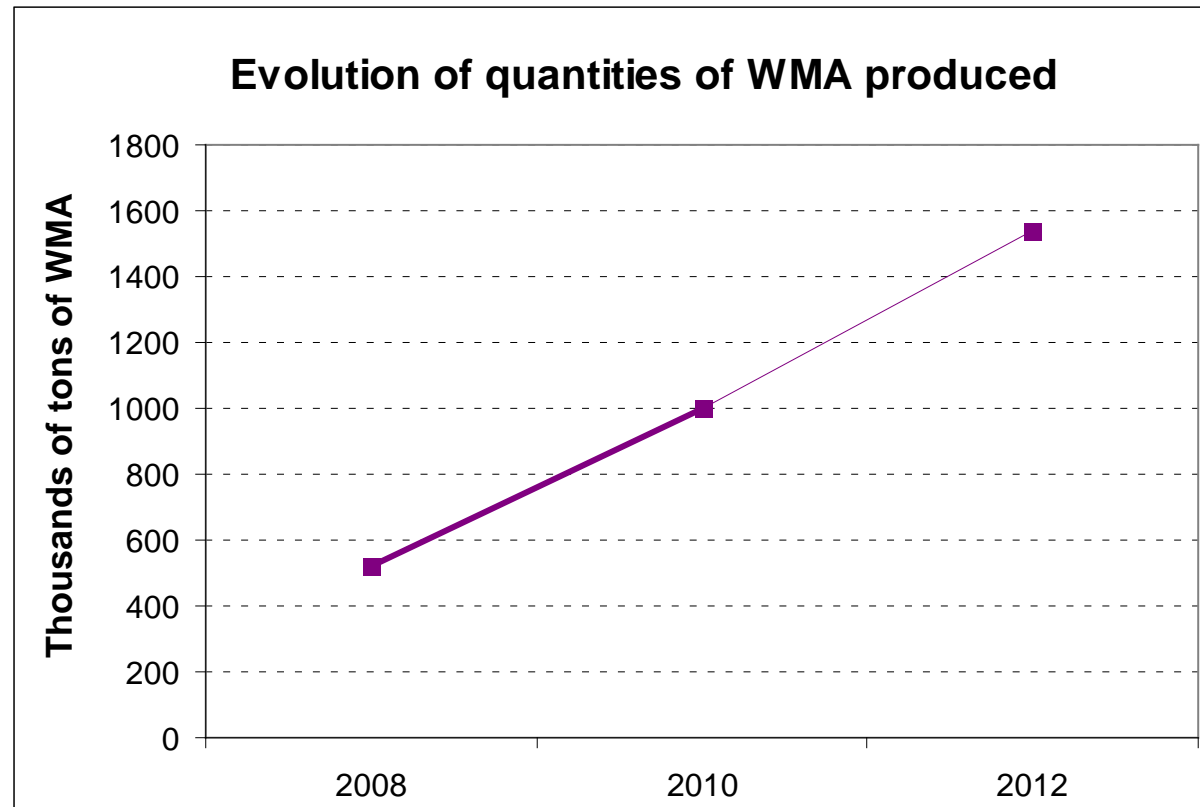
# 6. Evaluation of performances

- ✓ Monitoring the quality of national road network
  - Road network database
  - Identification and location of projects completed in warm mix asphalts
  - Exchange groups of contracting authorities
  
- ✓ Device of road innovation support – on roads or highways
  - Monitoring experimental sections
  - About 7 products currently receive these devices : technical monitoring before, during and after completion of projects (evaluation of surface characteristics and performances)
  - 2 warm mix products certified in 2011
  - At least 3 certificates between 2005 and 2008





# 7. Quantities produced since 2008



Source : IDRRIM

- Production multiplied by 3 since 2008
- Proportion is still low compared to hot mix asphalts : ~ 2,5%

# Thank you !

## A 75 – Béziers-Valros - Enrobé 3<sup>E</sup> GB et BBSG- sept 2008

