sustain. euro> _road

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About USIRF

- The USIRF (Union of French Road Industry Associations) has for mission to :
  - Federate, represent the roads construction companies
  - Be a strength of proposal to defend, promote, value the profession with the various economic and political players
  - Be a vector of promotion of the street and the road
  - Evolve in a logic of proximity : the USIRF federates 20 regional road associations: the SPRIR

About the ERF

- Non-profit association which coordinates the views of EU road infrastructure sector
- Founded in 1998 as an initiative of five National Road Associations
- It acts as a platform for dialogue and research on mobility issues
- It represents stakeholders in the field of road infrastructure (64 members):
  - ✓ National Road Associations (20%)
  - ✓ Industry stakeholders (80%): construction companies, barrier/ road marking/signs manufactures, research center, academia

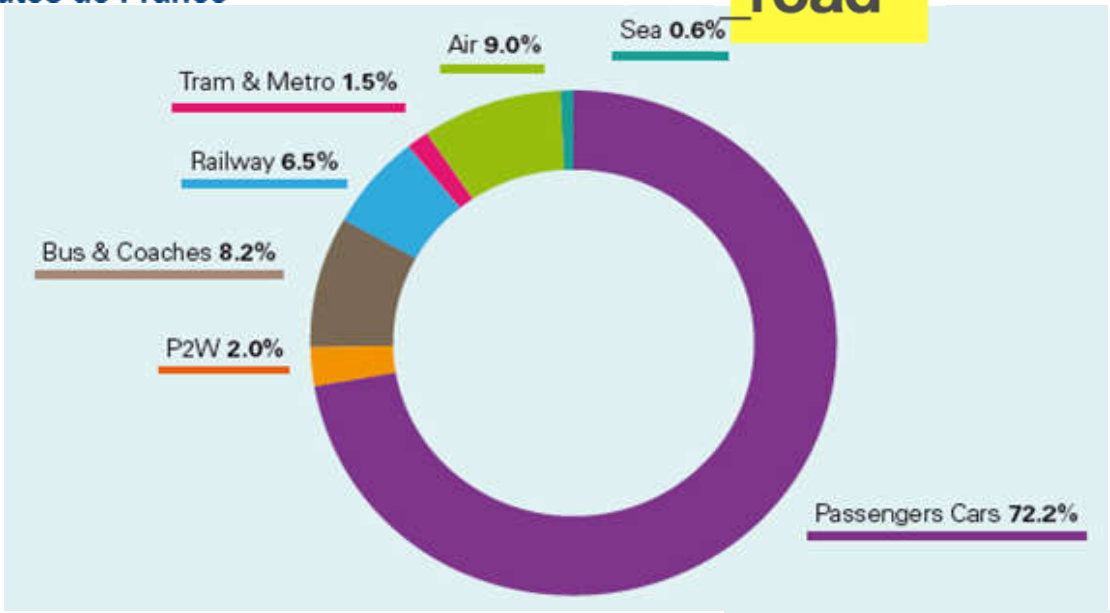
COP21 international agreement

European Commission
2014-2019

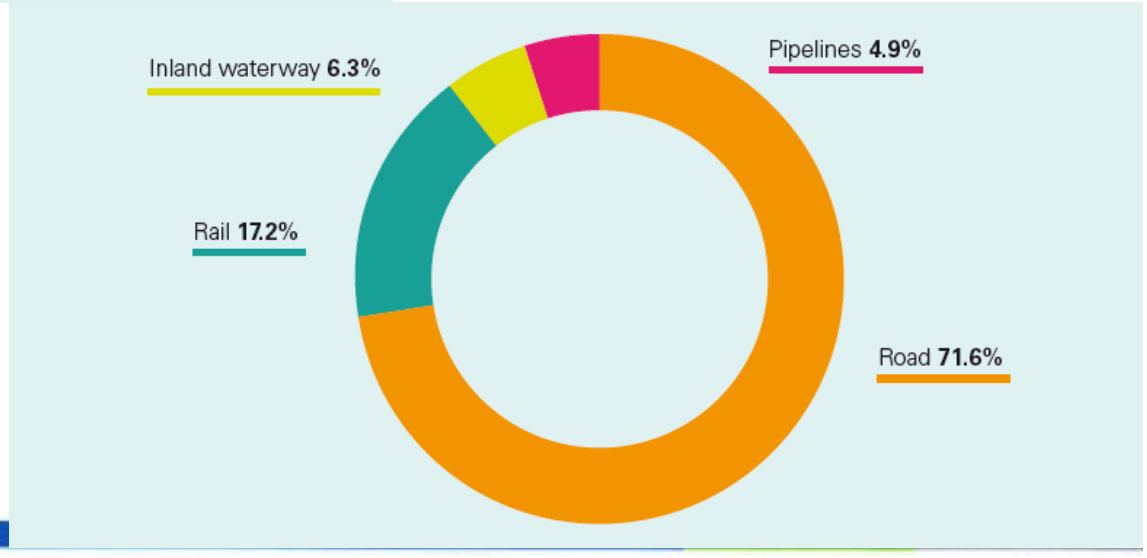
Where do we stand?

- Transport accounts for 1/3 of GHG emissions, energy used and energy-import bill
- Transport sector has increased emissions by 22% since 1990
- Road transport: 72% of CO2 emissions
- European Road Network: +/- 5,5 million kms
- Socio-economic importance of roads in Europe:
  - Direct: 5 million jobs or +/- 5% of GDP
  - Indirect: 14 million jobs or +/- 11% of GDP

In addition…



82.4 % of passenger journeys were completed using roads



71.6% of inland freight transport in 2012

Road Infrastructure: Main environmental problems

- High levels consumption of energy, including fossil fuel and natural resources
- GHG emissions linked to road building and maintaining processes
- Use of natural resources (natural aggregates)

White Paper on Transport and Europe 2020 Strategy

- Roadmap to decarbonise transport sector (60% reduction in transport compared with 90s levels)
- Climate change/energy:
  - 20% GHG emissions lower than 90s
  - 20% increase in energy efficiency
  - 20% energy from renovables

New Public Procurement Vision

- Promote innovation and sustainability
- Move away from the principle of the *'cheapest price'*
- Environmental Assessment Tools

Creating Know-how: the SEVE software

- *« Grenelle Environnment »* : Political agreement in 2007 to promote environmental commitment in France
- Creation of the **SEVE eco-comparateur** in 2010: ***S**ystème d'**E**valuation des **V**ariantes **E**nvironnementales*
- Initiative developed by road industry and broadly used in the construction and maintenance operations

Extending a successful national experience to Europe

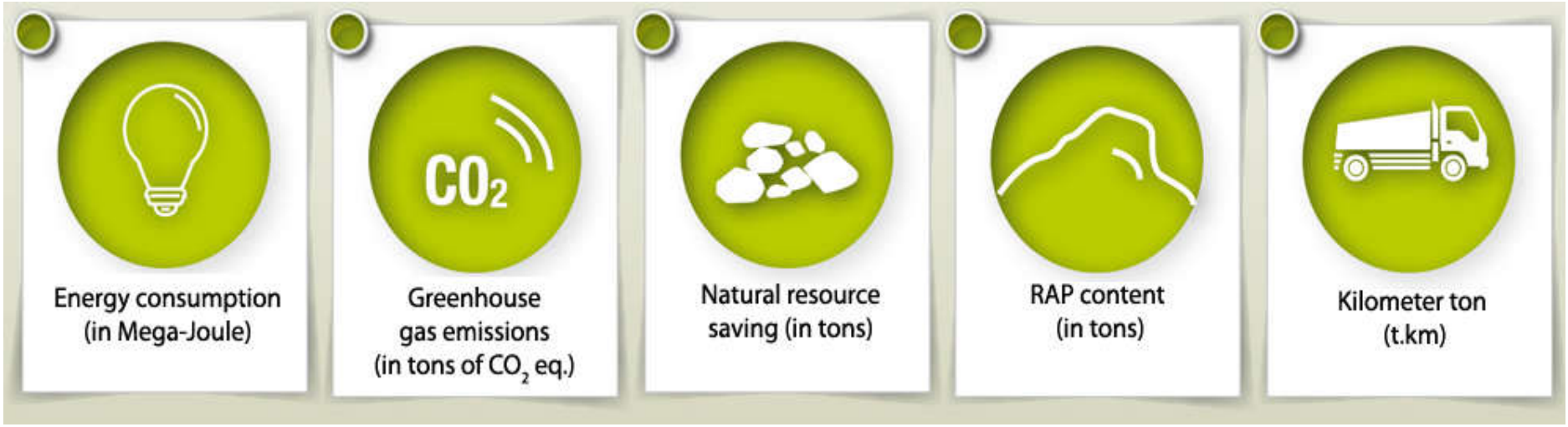
- Policy framework to improve innovation and environmental performance
- Development of a tool to assess other elements rather than CO2 emissions: energy and natural resources consumption
- Extrapolate a French software/methodology: harmonization at EU level
- Lining up with new Public Procurement Directive 2014/25/EC : inclusion of initiative and environmental criteria

SustainEuroRoad LIFE Project: intro

- France: USIRF (Union of French Road Industry Association)
- Spain: ASEFMA (Spanish Road Industry Association)
- Hungary: COLAS
- France: CD 33 (Departmental Council of Gironde)
- Germany: EUROVIA
- Belgium: ERF (European Union Road Federation)

SustainEuroRoad: content

- Creation and validation of an innovative software to reduce the environmental impact of road construction and maintenance
- Development of five indicators:



SustainEuroRoad: jobsite demonstrators

In order to validate these ambitious targets, the software will be tested in several demonstration sites, in 4 countries:

- Hungary, France, Spain and Germany
- Different technical requirements
- Different meteorological and road conditions

SustainEuroRoad: advantages

- The project will provide a unique tool to reduce the environmental impact of road industry by keeping the same technical performance or improving it
- Local authorities will be able to evaluate the environmental impact between different solutions in the part of adjudication
- By limiting the impact of industrial activities on global warming, the project will enable to help European and national authorities to reinforce the legislation and challenge enterprises in the environmental aspect

SustainEuroRoad: actions and means involved

- Collect technical and environmental data throughout Europe
- Implement key parameters from this collection in the software
- Measured parameters (on plant and jobsites) will be compared to estimations calculated in the software

Use of the software on a jobsite demonstrator

Comparison between basic road solution and environmental road solution

- Jobsite realised in local road RD1089 (Libourne – Pomerol) close to Bordeaux
- Traffic 12 000 vehicle/day and 7% Heavy Trucks
- L= 5 km and w = 7m

Basic Solution

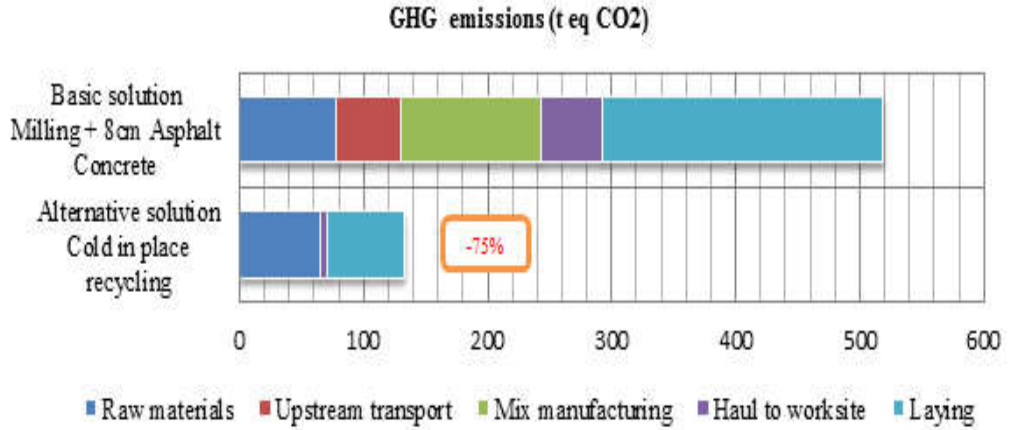
- (8cm) Milling operation ➔ 6750t RAP (outgoing)
- (8cm) Hot mix asphalt concrete ➔ 6750 t (incoming)
- (5cm) Warm mix asphalt concrete for surface layers (30%RAP) ➔ 4000 t (incoming)

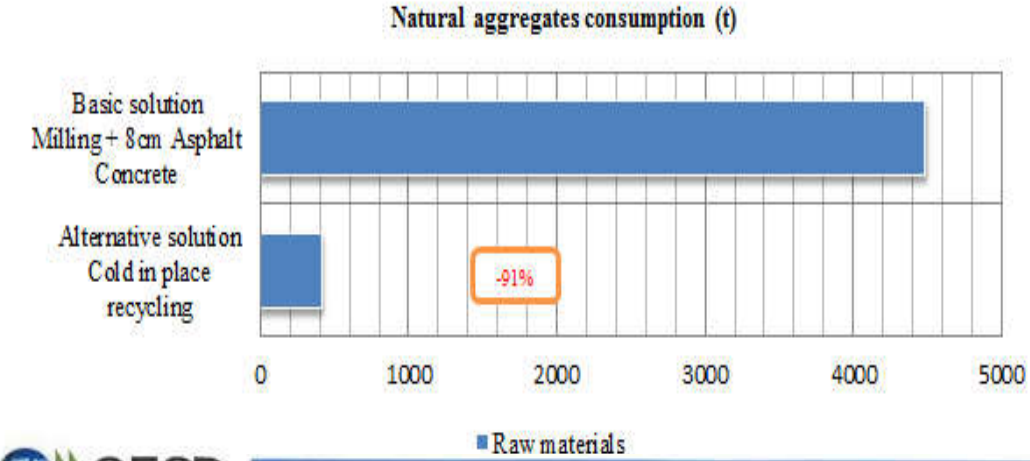
Environmental Solution

- (10cm) In-place recycling with emulsion ➔ 30 t CEM III (incoming) + 250t emulsion 60% (incoming)
- Tack coat ➔ 20 t emulsion 65% (incoming)
- (5cm) Warm mix asphalt concrete surface layers (30%RAP) ➔ 4000t (incoming)

Use of the software on a jobsite demonstrator

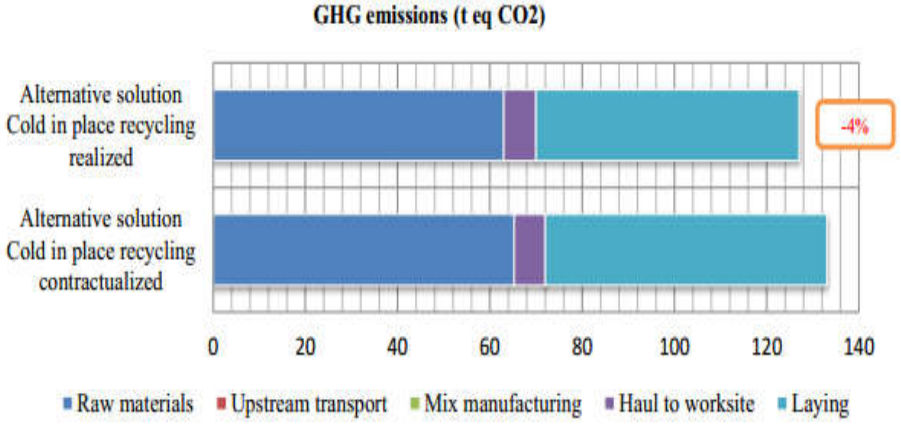
Comparison between road basic solution and road environmental solution : Ex-Ante Study

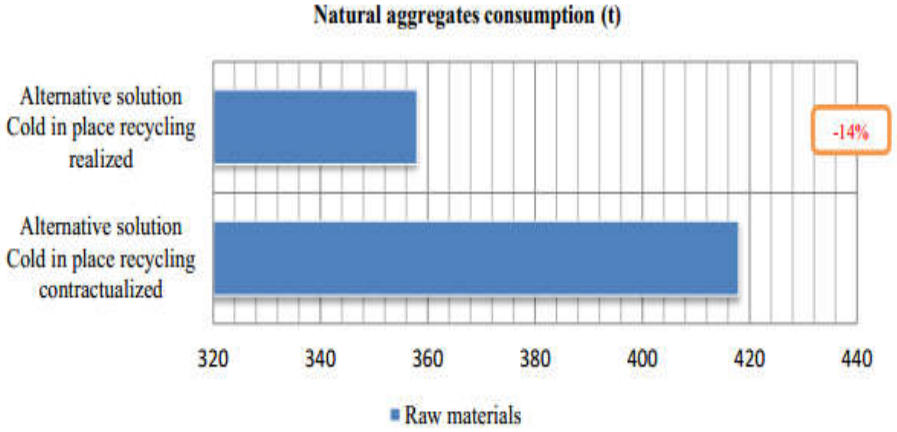


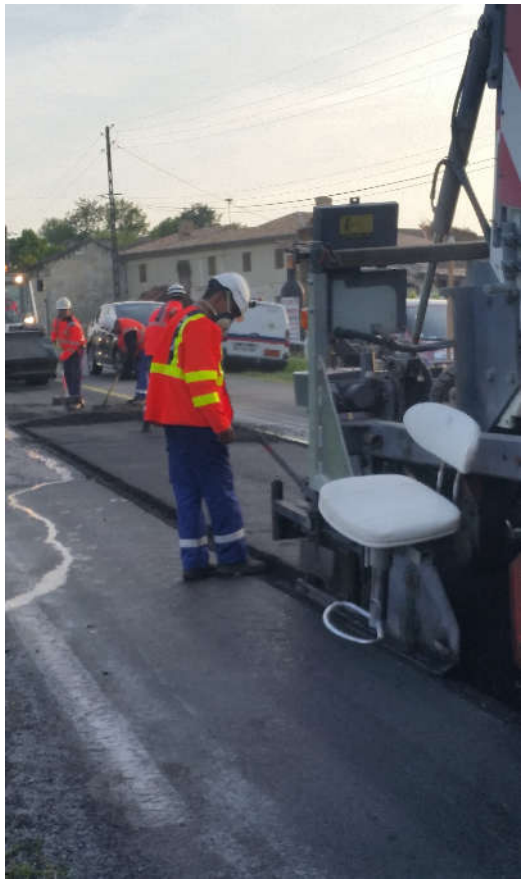


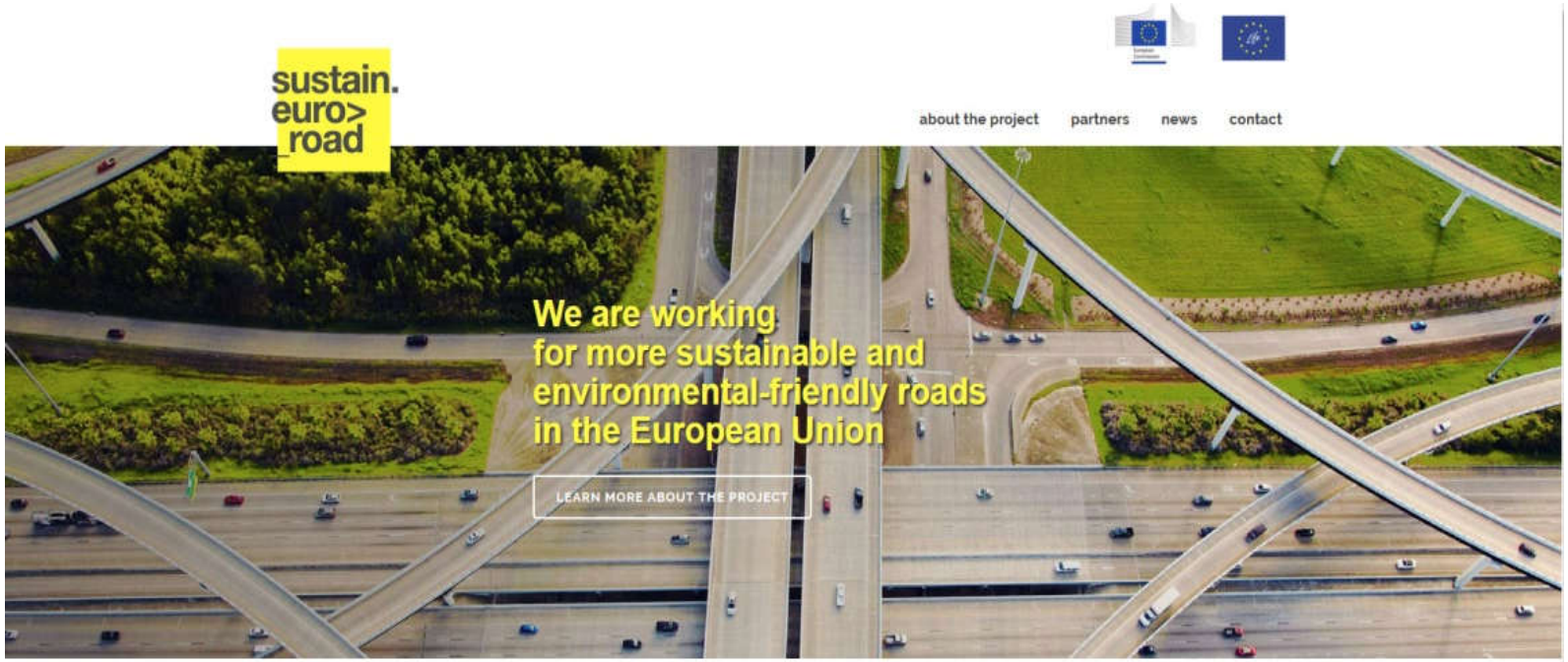
Use of the software on a jobsite demonstrator

Comparison between contractualized road environmental solution and realized Ex-Post Study









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Thanks for your attention