



**Groupement de Recherche**  
**Ville *S*ilencieuse dura*B*LE**

**Research Group**  
**Quiet Sustainable City**

**Urban noise : German-French**  
**researches**

**Bordeaux 12 May 2011**

Pierre-Olivier Mattei (CNRS-LMA)  
Michel Bérengier (IFSTTAR)  
Markus Auerbach (BAST)



## Origin

Research group initiated in 2010.

Collaboration between a formal French research group (« Groupement de Recherche ») and a German research group headed by the BAST.

Strong collaborations exist for a long time (DEUFRAKO is an example) : there is the need to a more formal and intense network

## The Group

**40 teams, from the academic world to industry as well as institutional,  
Around 170 persons (2/3 France – 1/3 Germany)**

- ▶ Academic: acoustics and mechanics labs, roads research labs, architectural schools
- ▶ Institutional and industry: small to huge societies working in fundamental acoustics, energy or car manufacturers; societies linking industry, research and institutions; semi-private societies working in building trade and transportation

## 4 Research Fields

**two leaders (one academic and one from industry) for each field**

- 1 - Interaction between vehicle and infrastructure
- 2 - Internal and external vehicle acoustics
- 3 - Propagation : relation sound/meteorology and innovative noise reduction devices
- 4 - Man, society and sound

## Motivations

**Develop cooperations and research programs about sound (waves perceived by humans in everyday life) in urban environment**

The research groups have an important part to play:

- ▶ As regard their community: structuring, leadership, training, information, expert list...
- ▶ As regard their(s) institution(s): entry point into a community, strength of proposal, prospective, interdisciplinarity

## Approach

**Action:** develop common structured projects, strengthen collaboration between public and academic institutes

**Network:** exchange informations, federate and share efforts on national and methodological researches

**European perspective:** reinforce relationships and active collaborations with foreign colleagues leading to a strong European core (at least German/French) on sound in urban area

**Scientific monitoring:** detect emergent domains, initiate innovative researches, favour links with industries and transfer competences

## Approach (cont'd)

**Education by research:** strengthen exchanges between junior researchers and doctoral or post-doctoral students, workshop

**Training for professionals:** dissemination day, promoting relations with institutionals, mutual assistance during experiments, sharing of equipment

**Internal and external communication:** promote and disseminate knowledge through website, (bi)national symposia and summer school



## Deufrako :

### French-German cooperation on landtransport research

**Cooperation** between the French **Predit Programme** and the German **Mobilität und Verkehrstechnologien** Federal Transport Research Programme since 1978.

**Framework** for funding **bilateral research projects** made by French and German research laboratories (academic and industrial), framework for **scientific workshops and seminars** to share views and results.

#### **Main topics in DEUFRAKO:**

Rail research (there exists a DEUFRAKO working group)

Logistics and freight transport

Clean vehicles

Management of transport systems

And transport noise reduction (DEUFRAKO working group)



## Contact

### Joint secretariat

MEDDTL / CGDD/ DRI / Secrétariat permanent du Predit

Ulrike Martin

Tour Voltaire, F- 92055 La Défense Cedex

Tel: 0033 1 40 81 63 28

e-mail: [Ulrike.Martin@i-carre.net](mailto:Ulrike.Martin@i-carre.net)

### People to contact in Germany

TÜV Rheinland Consulting GmbH

Alexander Spieshöfer

Projektträger Mobilität und Verkehr,

D- 51101 Köln

Tel: 0049 221 806 41 53

e-mail: [Alexander.Spieshoefer@de.tuv.com](mailto:Alexander.Spieshoefer@de.tuv.com)



Deutsch-Französische Kooperation auf dem Gebiet der Verkehrsforschung  
Coopération franco-allemande dans le domaine de la recherche en transport

**Website:** [www.deufrako.org](http://www.deufrako.org)



## Let's go working...

- ▶ FiL-Rail - Functionally-integrated noise reduction and more by *Eberhard Hohnecker* (KIT Karlsruhe)
- ▶ Soundscape, urban transport, city's heart and environment by *Catherine Semidor* (GRECAU-Bordeaux)
- ▶ Tramcars and noise by *Markus Hecht* (TU Berlin)
- ▶ Prediction and Propagation of Rolling Noise by *Markus Auerbach* (BAST) & *Michel Bérengier* (IFSTTAR)

### Debate :

- What are the future challenges that urban transport noise research will face ?
- What are the different approaches in France and Germany, what synergies can be considered ?