INFRAMIX project

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# INFRAMIX

## Partners

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TECHNICAL UNIVERSITY OF CRETE

BMW

Preparing road infrastructure for mixed vehicle traffic flows


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**www.inframix.eu**

**INFRAMIX** is preparing the road infrastructure to support the coexistence of conventional and automated vehicles. The key outcome is a *hybrid* road infrastructure able to handle the transition period and become the basis for future automated transport systems. To achieve this goal INFRAMIX employed new advanced microscopic traffic flow models, advanced simulation techniques, innovative control strategies, as well as appropriate new and adapted existing physical and digital infrastructure elements. All were cross validated against user appreciation and safety performance leading among others to a novel road infrastructure classification scheme.

## INFRAMIX ACHIEVEMENTS

- Designed new and upgraded existing physical & digital road infrastructure elements;
- Developed a co-simulation environment;
- Designed and implemented novel traffic estimation, monitoring and control strategies;
- Developed hybrid testing system;
- Designed novel signalling and visualization elements;
- Evaluated users' appreciation and acceptance;
- Evaluated traffic safety;
- Created a Road Infrastructure Classification Scheme;

# 8 DIFFERENT USE CASES

### Scenario 1: **Dynamic Lane Assignment** (incl. speed recommendations)

1. Real time lane assignment under dynamic penetration rate of automated vehicles
2. Exceptional circumstances e.g. adverse weather conditions
3. A conventional vehicle drives on a dedicated lane for automated vehicles

### Scenario 2: **Roadworks zones**

4. Single lane closure (e.g. short term constructions)
5. New lane design (e.g. long term constructions)

### Scenario 3: **Bottlenecks**

6. Automated vehicles driving behaviour adaptation in real time at sags
7. Lane change advice to connected vehicles at bottlenecks
8. Lane change advice combined with flow control at bottlenecks for all vehicles

## Real tests on modern highways

autopistas an Abertis company

**Girona**
**(Spain)**

ASFINAG

**Graz**
**(Austria)**