

ELASTIC

A Software Architecture for Extreme-Scale
Big-Data Analytics in Fog Computing Ecosystems

Smart mobility use case in the city of Florence

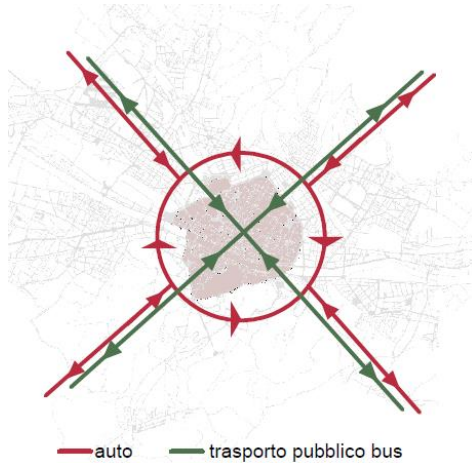
Jürgen Assfalg (ICT Manager, Città Metropolitana di Firenze)



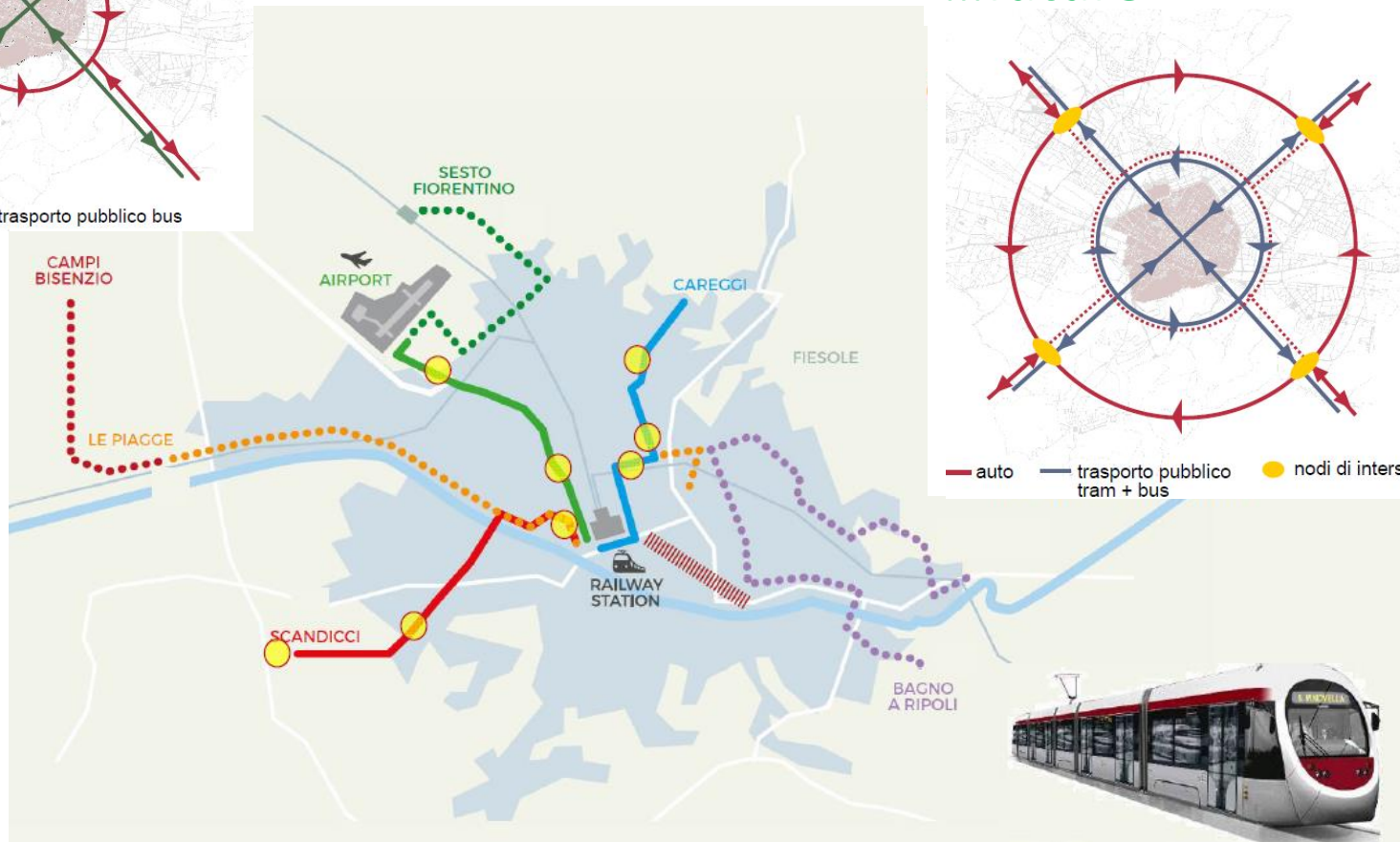
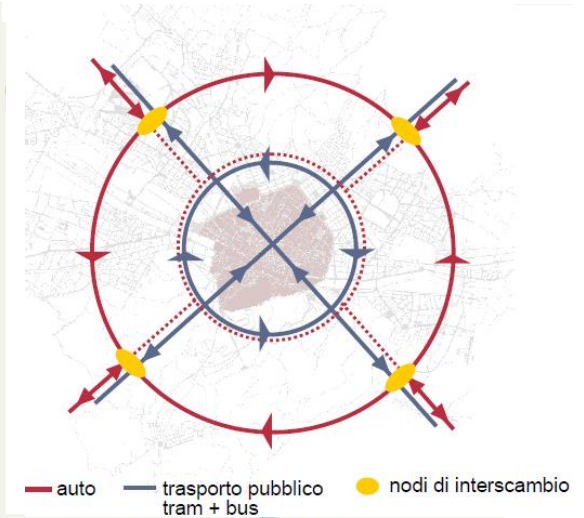
"The ELASTIC project has received funding from the European Union's Horizon 2020 research and innovation programme under the grant agreement No 825473"

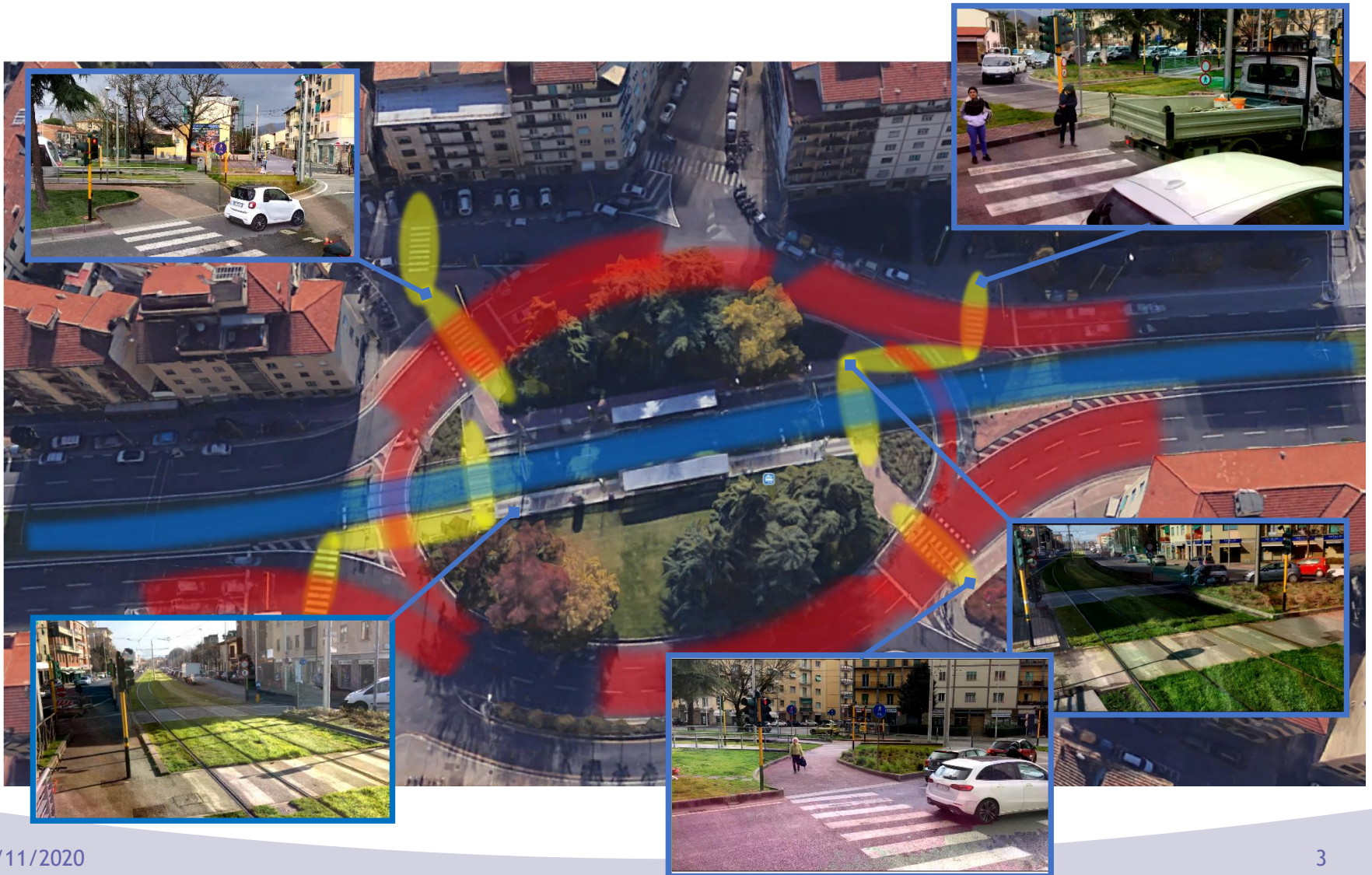
04/11/2020

past...

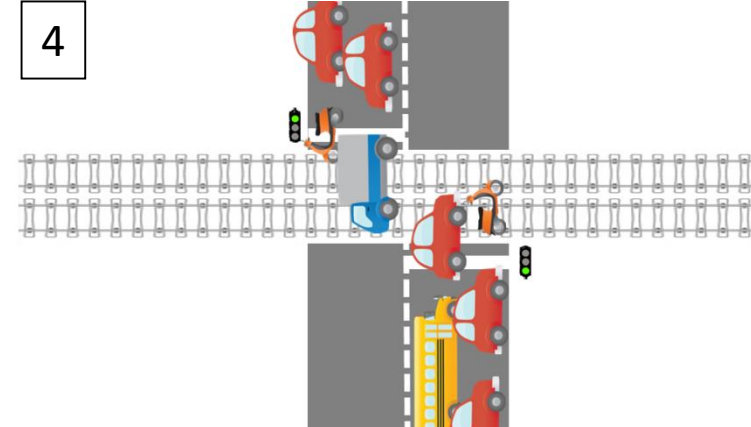
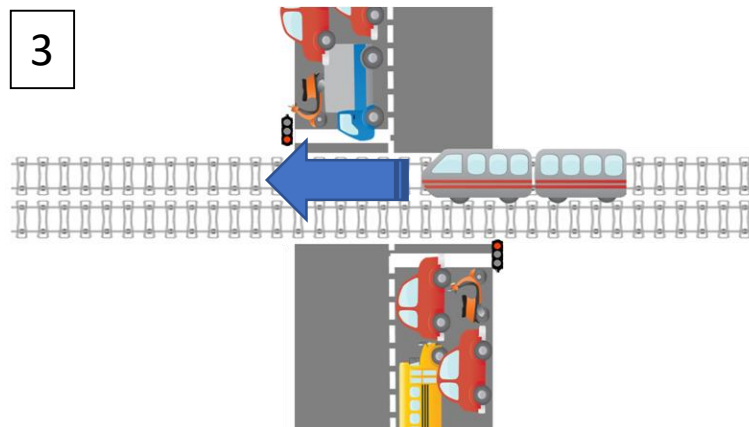
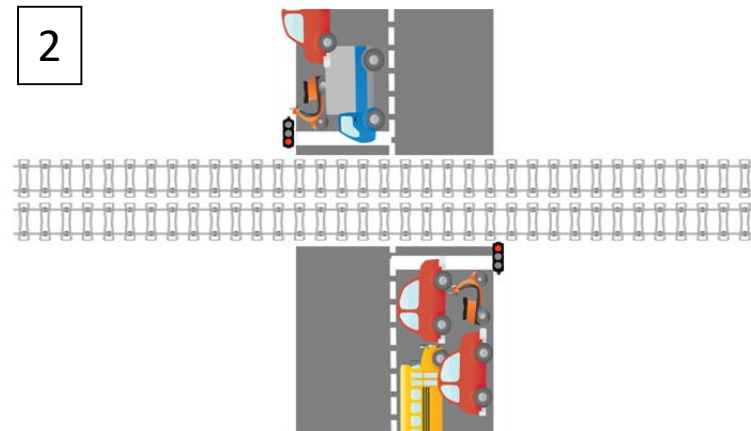
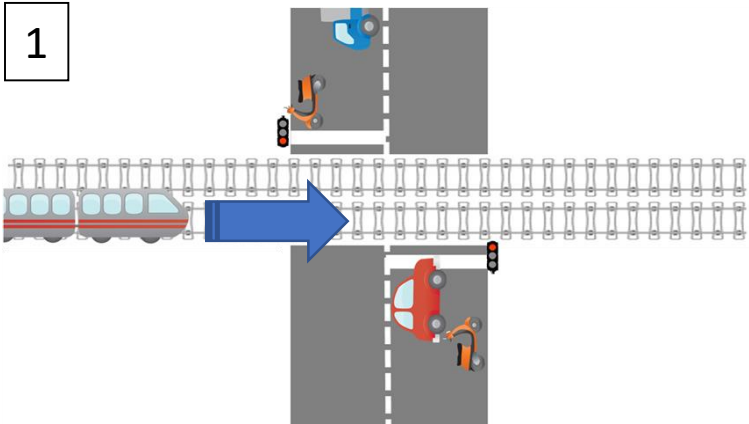


...future



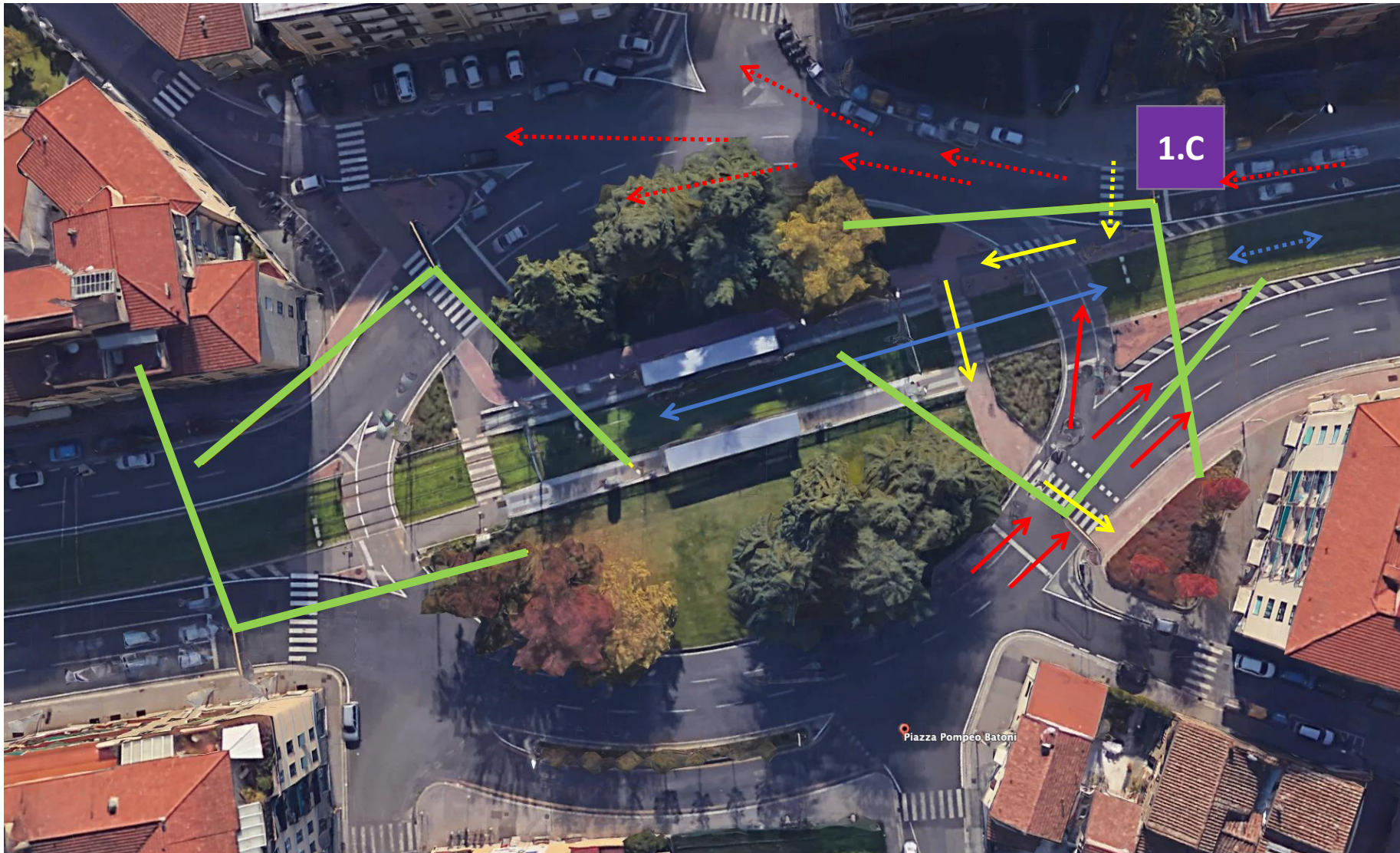


Interaction between transportation modes: Performance

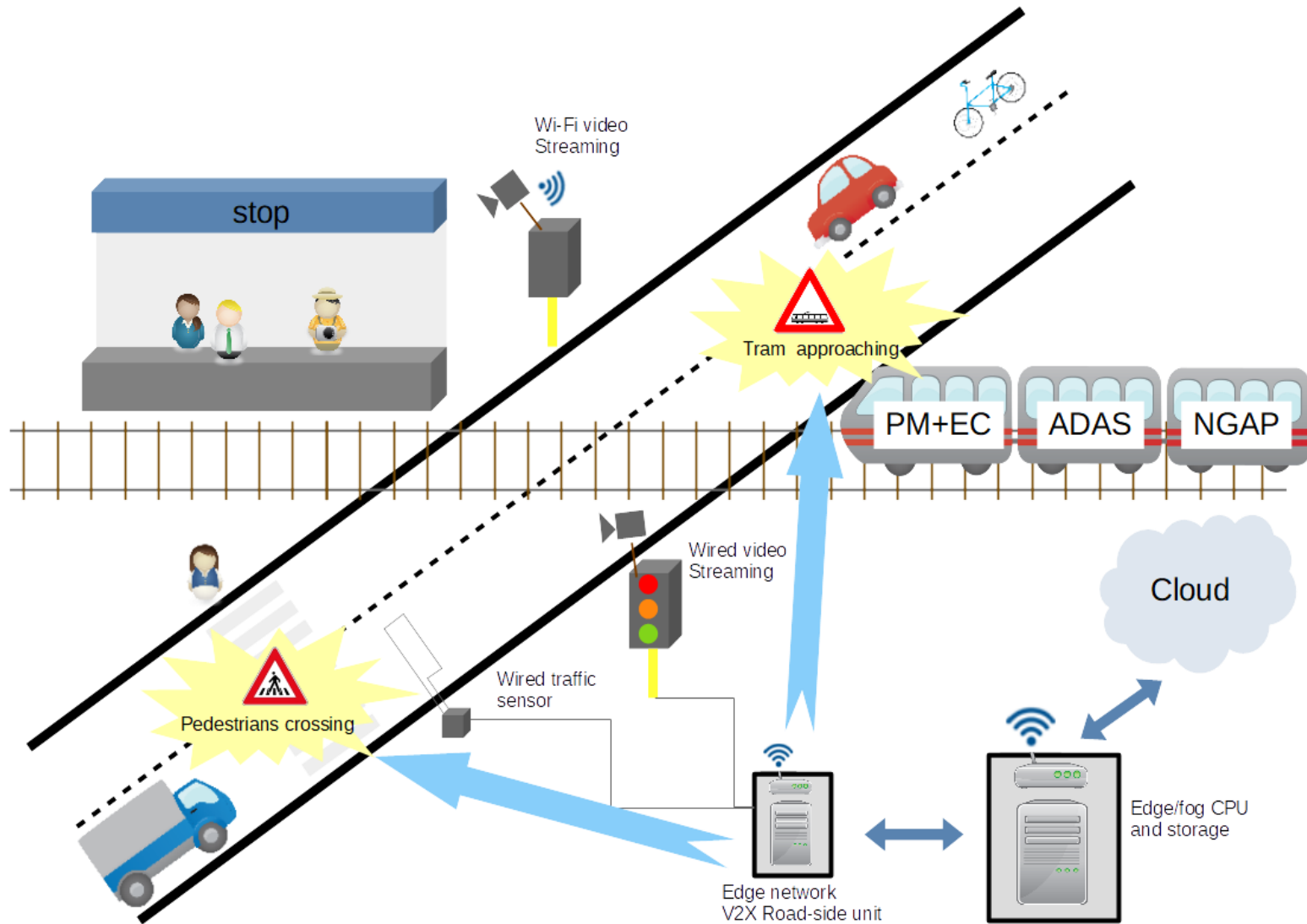


Interaction between transportation modes: Hazards





—— framed not framed

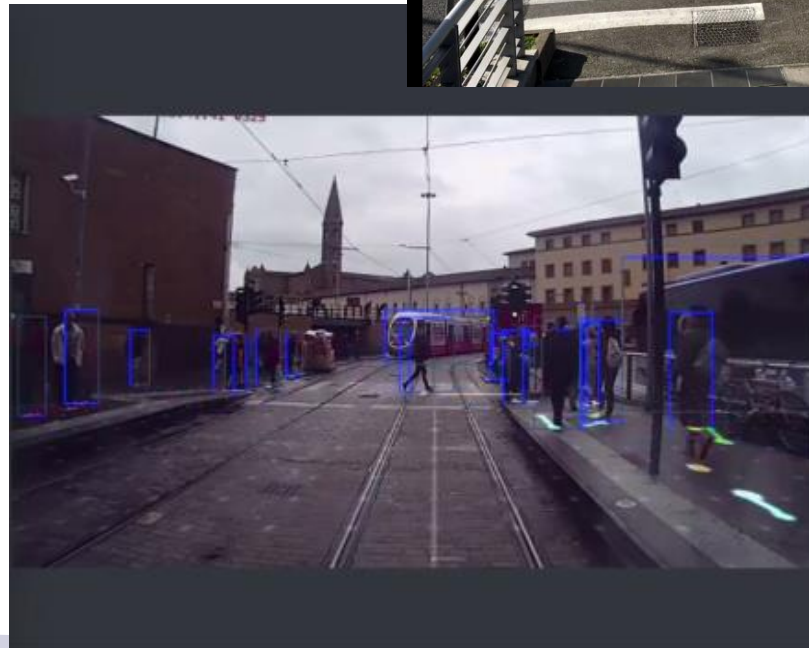


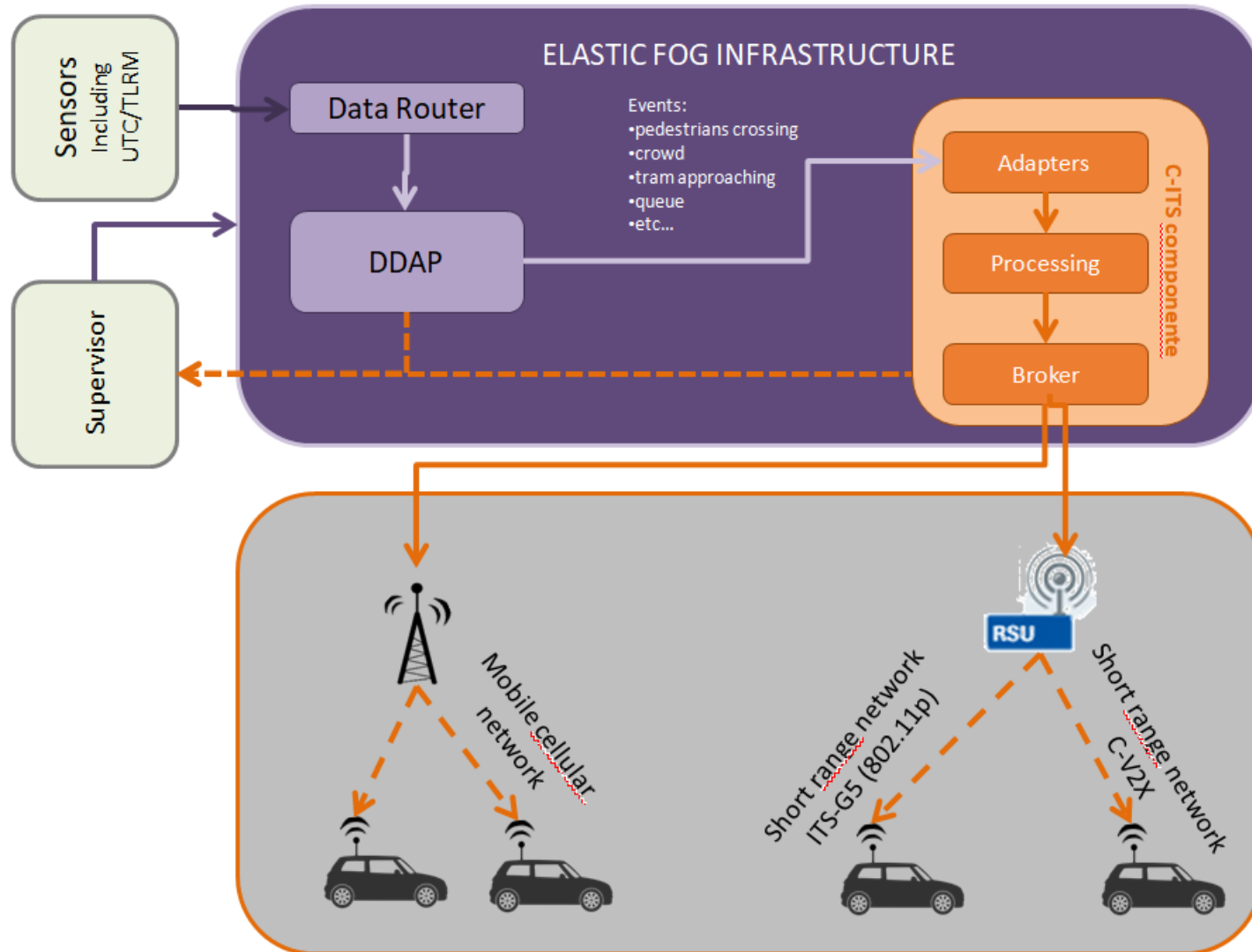
Sensing and event detection

- fusing data from multiple sources
- fully exploiting ELASTIC architecture

Sensed objects

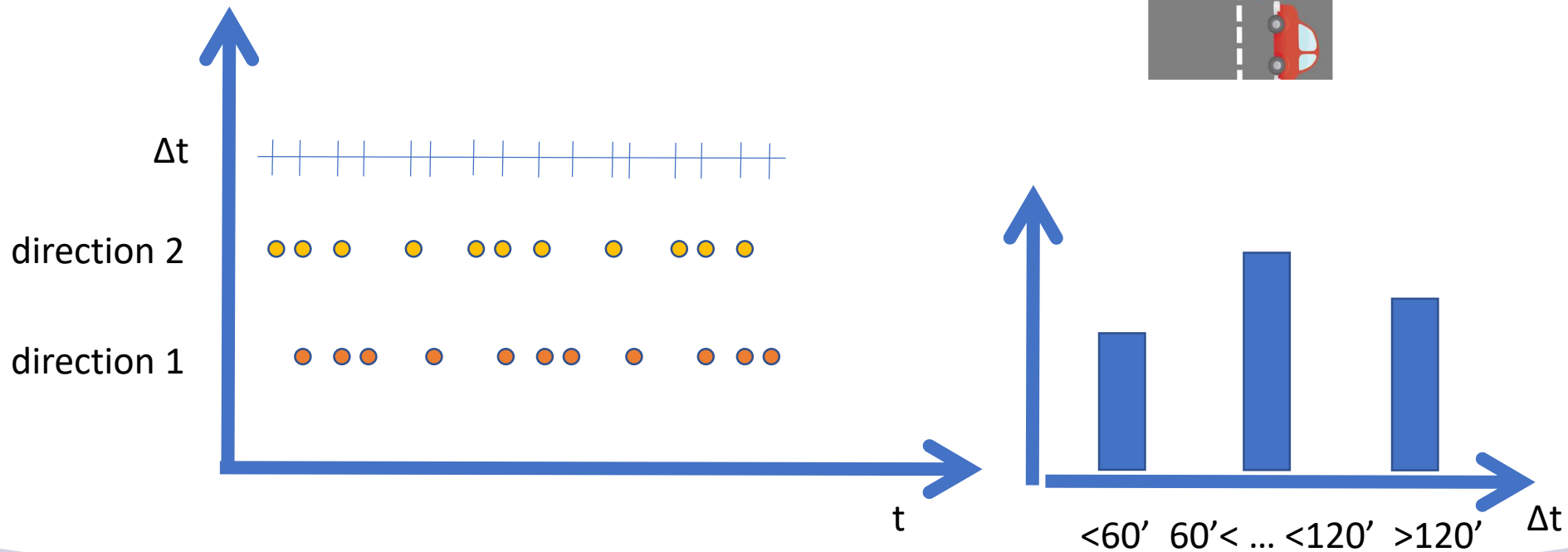
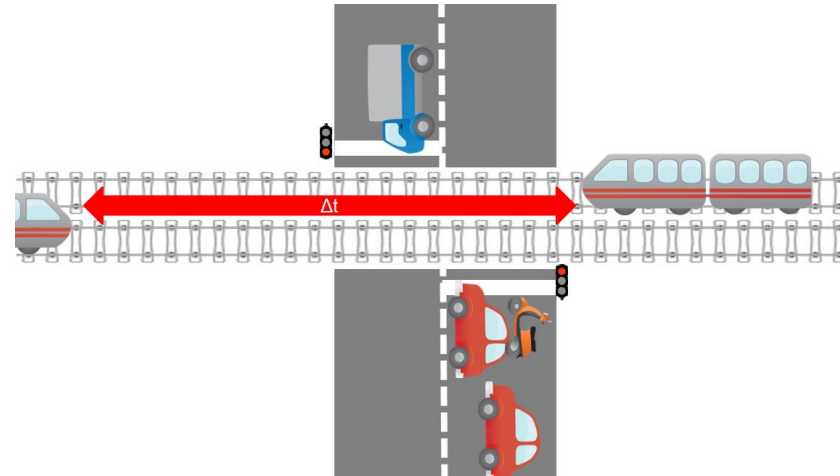
- Cars
- People
- Traffic lights (TLRM)
- Obstacles (ADAS)
- Trams (NGAP)





Expected outputs #1

- (Visual) data analytics tools supporting assessment of transportation network performances



- Provide drivers with information/alerts through V2I



Pure edge or pure cloud architectures barely match the needs of our use case.

The ELASTIC fog-computing architecture is expected to meet the wider spectrum of requirements of forthcoming **assisted and autonomous driving** smart mobility scenarios, supporting

- **smart coordination of edge and cloud resources**
- **vehicle-to-everything communication (V2X) technologies**



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www.elastic-project.eu

Thank you

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