Hellenic Institute of Transport

Thessaloniki smart mobility living lab

www.imet.gr

Hellenic Institute of Transport

Who we are

HIT is a part of a greater team CERTH which consists of 5 INSTITUTES
www.certh.gr

HIT
established in 2000
scientific team: 80 members

Our Institute consists of 3 sectors

No1 in the top list of research organizations in terms of EU Funding in Greece

No 17 in EU

Vehicle Safety Accessibility

Smart Sustainability Freight Transport Networks

Transport Economics Environment Non-Land Transport

Research on sustainable mobility, with emphasis on land transport networks.

What we do

We develop technologies and techniques for collecting, managing and certifying data from multiple sources. We also develop algorithms for solving specific transportation problems, such as managing fleets and providing routing services

Data collection and processing
Algorithm design
Data analytics and Data models
Data visualization

Develop ,Implement, Deploy , Test and assess mobility solutions and services in a real-world environment

Our Offices

Thessaloniki

Volos

Athens

Pireas

Rhodes

Infrastructure

○ **Physical (hardware)**

  ○ Web, Application, Database and Virtualization servers

  ○ High Performance Clusters

**HIT PORTAL**

○ **Digital (software)**

Knowledge creation
  ○ Test beds
  ○ Living labs
  ○ Simulators

The Hit Portal

The H.I.T. Portal is a web-based data collection, management and aggregation provisioning platform designed, developed and maintained since 2008.

Data Collection Data Store

Data processing

Model

Visualize

Applications
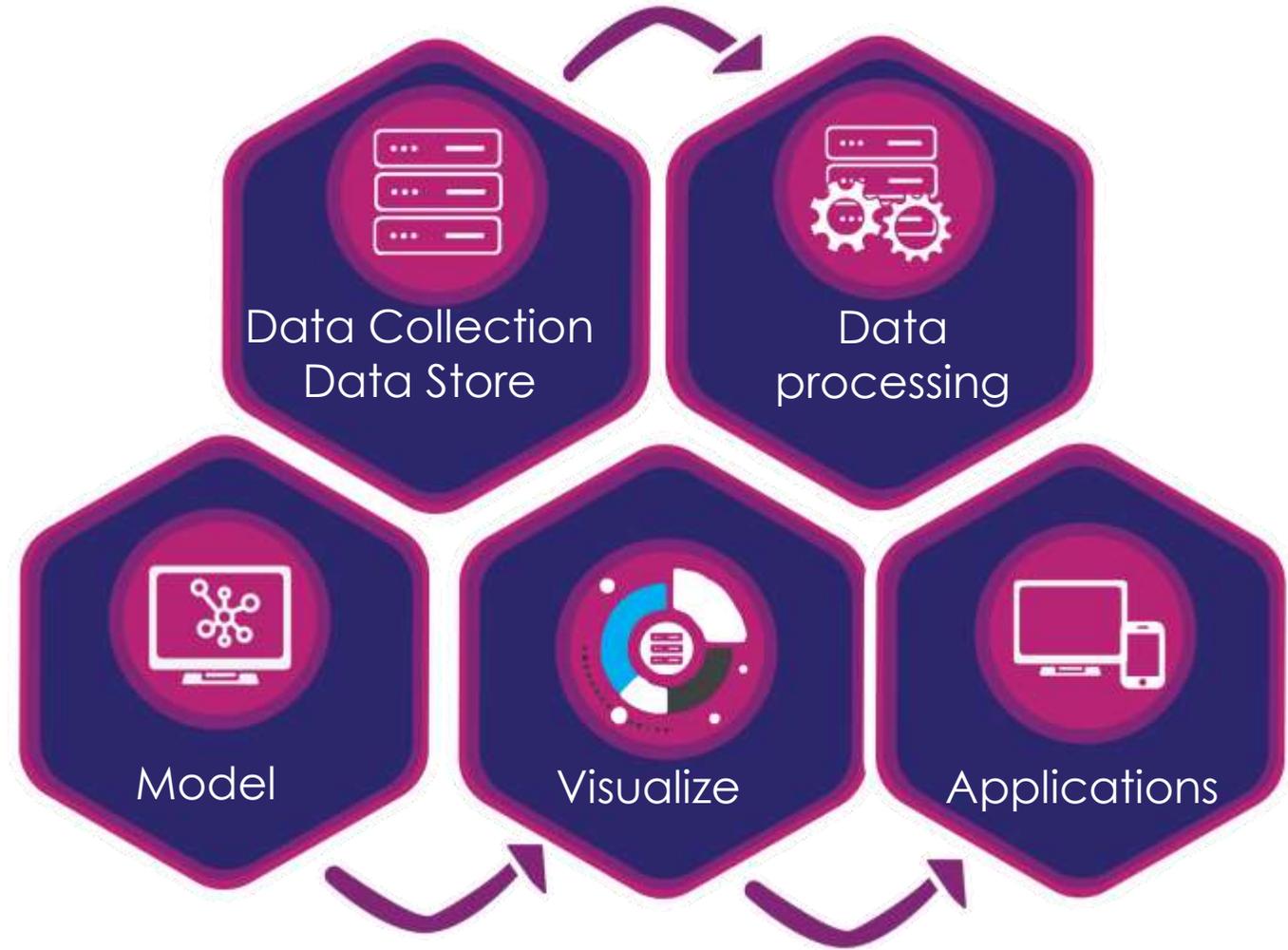
Data

We aggregate data from our eco system with different types of Detectors.

Bluetooth Detectors
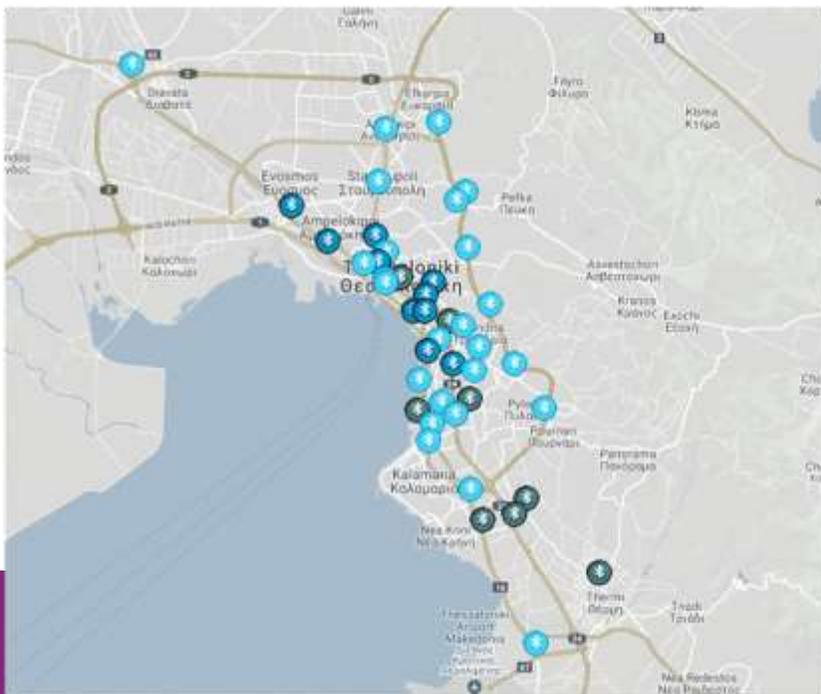
**Loops and Cameras**
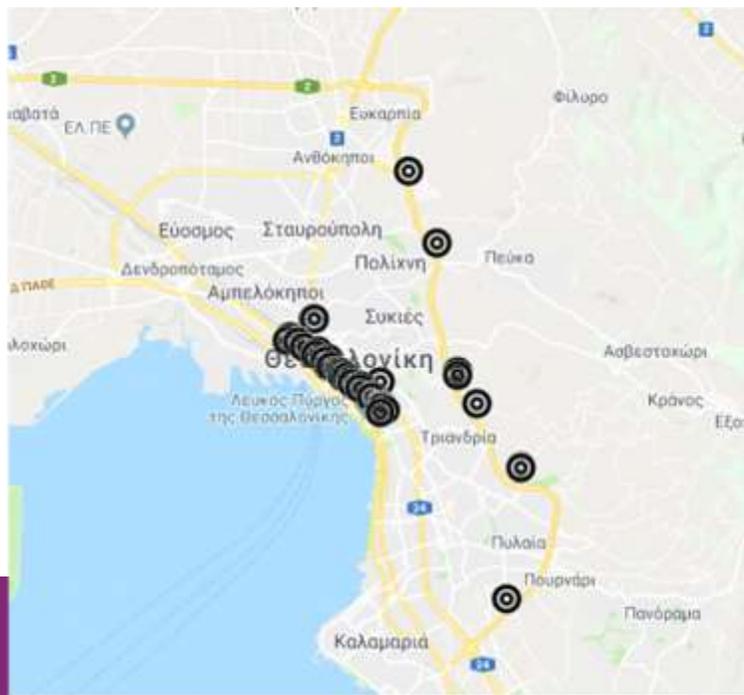
Floating Car Data
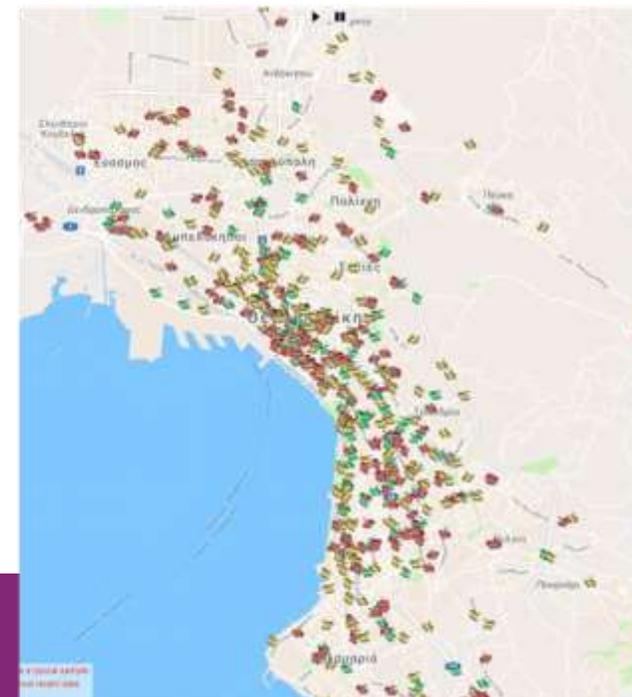
Data

The processing of these data can lead to useful conclusions about current land use and may also reveal mobile mobility patterns that can be used to predict traffic conditions.

Smart Traffic Lights

Facebook Graph API
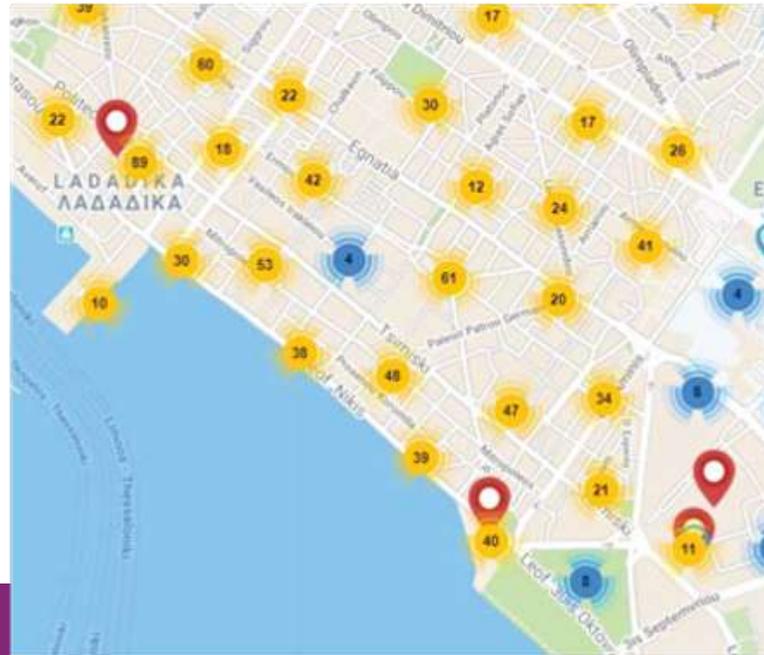
Floating Train Data
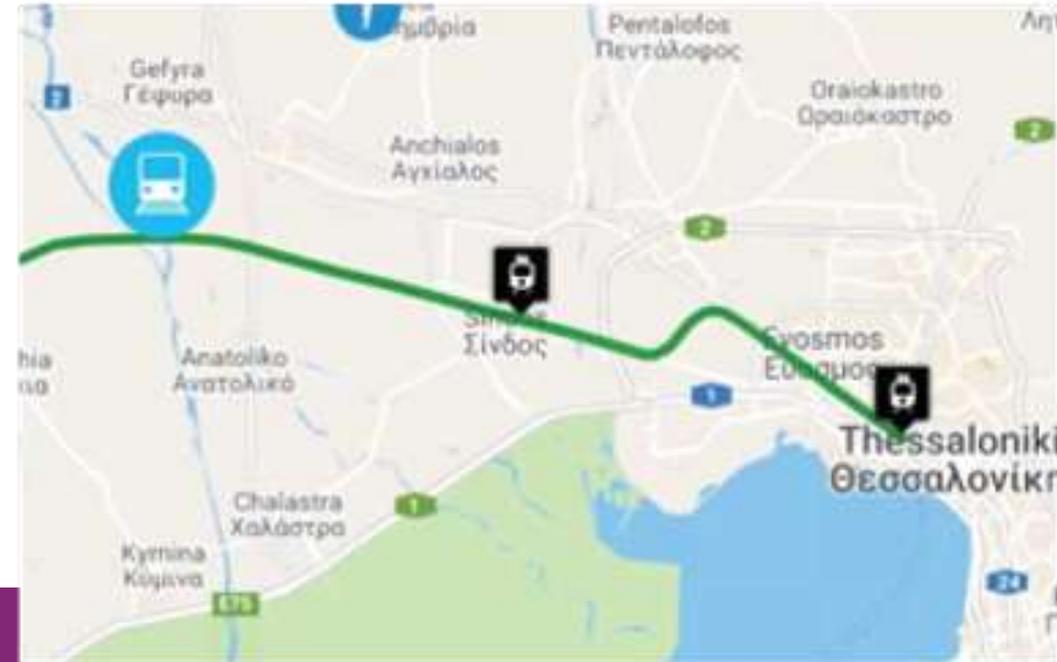
PORTAL SYSTEM
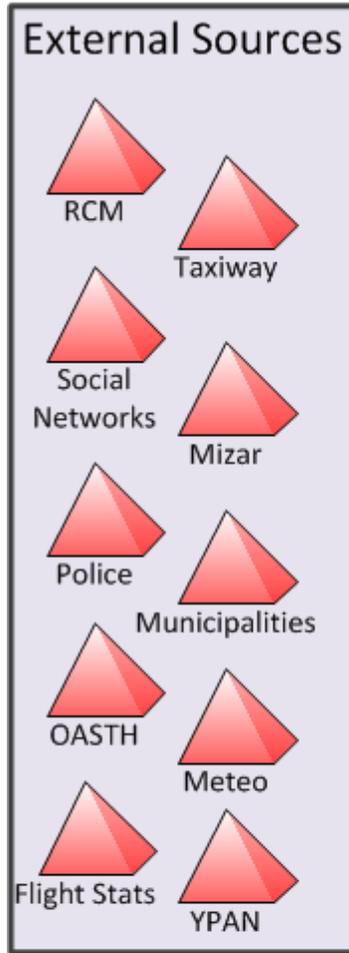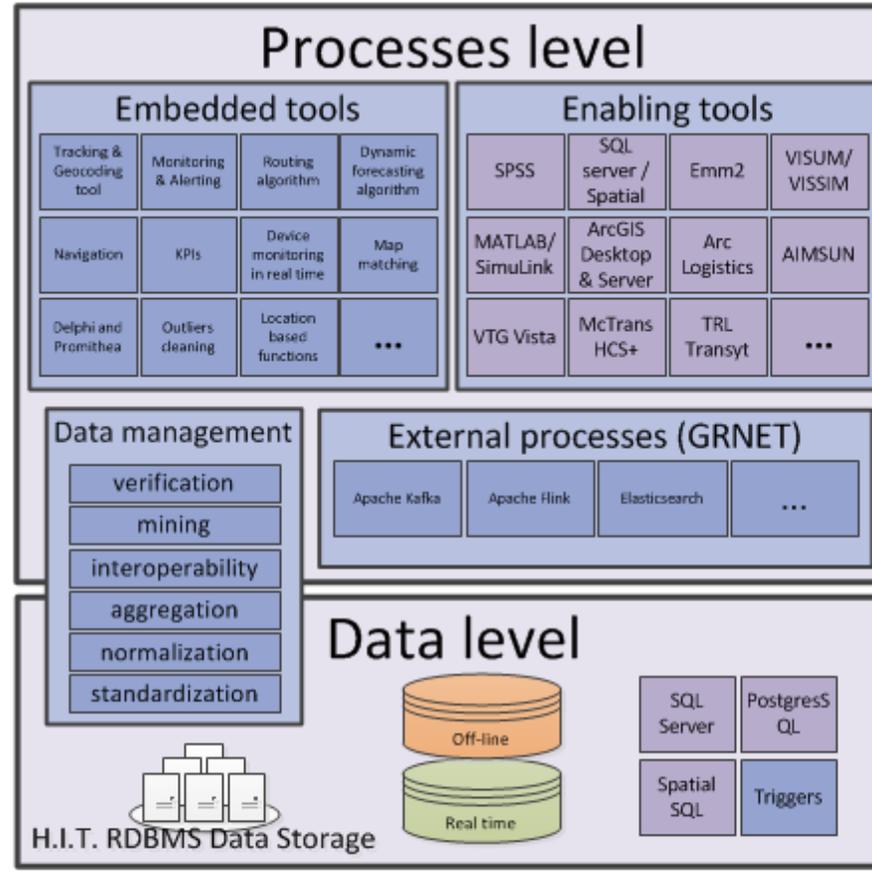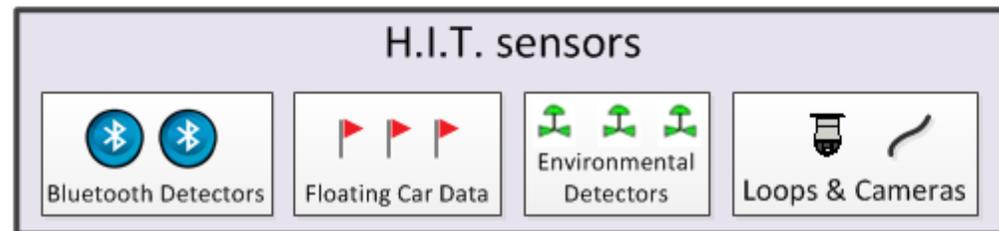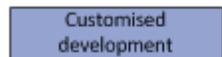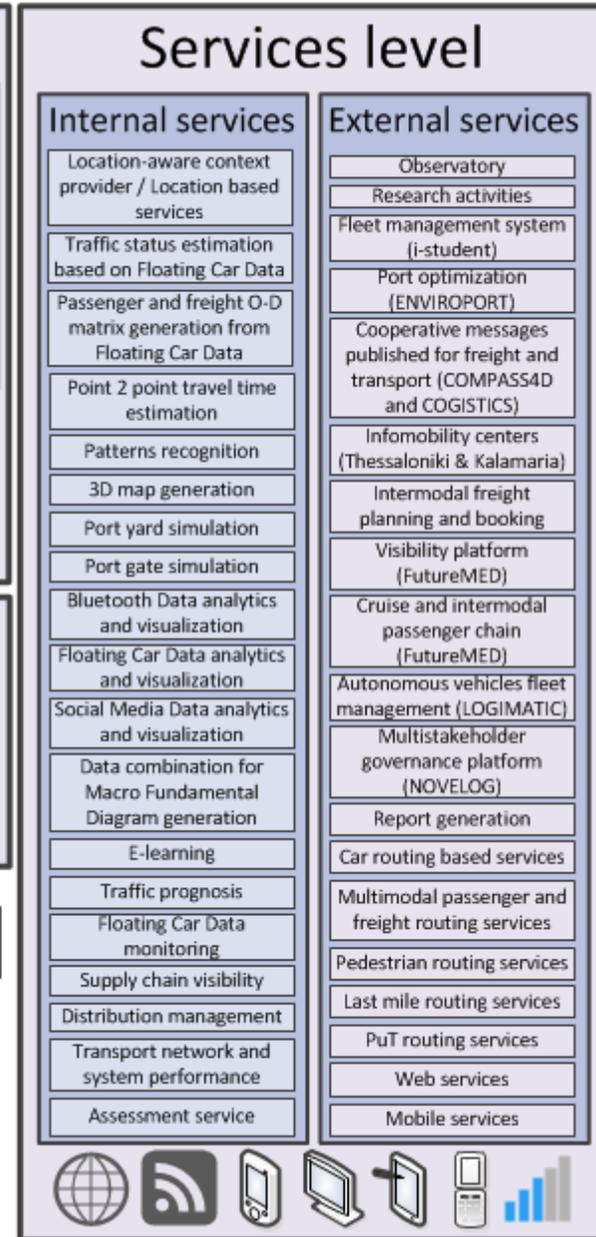
Services and Applications

Transport Observatory
Search and retrieve transportation related content.

Traffic & Routing Management
Provides information about traffic status in a region. Gives the ability to schedule a route from one point to another by different means of transport.

Network modeling and simulation
Provides tools to model and simulate transportation networks.

Application Development & Testing Platform
Enables users to develop and test their own applications using H.I.T. Portal.

Freight routing and logistics fleet management algorithms

The data of HIT PORTAL is available in the form of useful applications for the end user .

Applications
- www.trafficthess.imet.gr
- www.trafficpaths.imet.gr
- www.trafficthessreports.imet.gr
- www.opendata.imet.gr
- www.thessmd.imet.gr

The Team 👥

Georgia Aifadopoulou HIT's Deputy Director

Civil Engineering, Informatics, Transportation Planning Engineering, PhD in fleet routing and scheduling problems of transport fleets

Evangelos Mitsakis

Dipl. Civil-Transport Engineer, PhD in Transport Engineering-

Jason Papathanasiou

Dipl. Physics, PhD in Operational Research

Josep Maria Salanova Grau Engineering-Management

Civil Engineer, Msc in Transport Engineering, PhD Transportation/ Mobility Management, Specialization in Data Science

Panagiotis Tzenos Computer Science-IT

Computer Programmer, Msc in Communications Systems and Technologies

Georgios Tsaples

Electrical and Computer, Engineering, Msc in Engineering and Policy Analysis, Operational Research

Projects

IRIS Utrecht
Define mobility-related indicators
Minor support in the demos
Major support in the replication activities

Port Vehicle Management
Fleet management algorithm
LogiMatic

GALILEO FOR MOBILITY
MaaS algorithms development
System Pilot implementation, testing and reporting
Impact assessment
Data analytics and Business intelligence

Re-design KOMVOS
Big Data tools and knowledge
New data-sets and services
BIG DATA EUROPE
Empowering Communities with Data Technologies

SAFER-LC
Human behavior modeling
Business model issues
System development
Pilot implementation, testing and reporting

Skills and Expertise

Algorithms development (fleet management, user clustering and vehicle routing)

Mobility modelling and systems simulation

Data analytics and visualization
Business Intelligence
Knowledge extraction

System development, implementation and testing

Impact assessment and qualitative interpretation

Stakeholders part of Thessaloniki smart mobility living lab (passenger transport)

Eco-system

Public Administration

Region of Central Macedonia
http://www.pkm.gov.gr/

City of Thessaloniki
www.thessaloniki.gr

Transport network operators

taxiway
http://www.taxiway.gr

Thessaloniki's Integrated Transport Authority
www.thita.gov.gr

Industry and technology providers

ITS HELLAS
Intelligent Transport Systems
Intelligent Transport Systems
http://www.its-hellas.gr/gr/

Research and Academia

HIT (Hellenic Institute of Transport –
Center for Research and Technology Hellas)
Greece
www.hit.certh.gr

ARISTOTLE UNIVERSITY OF
THESSALONIKI
www.auth.gr/en

HELLENIC
REPUBLIC

UNIVERSITY
OF MACEDONIA

Research Interests

Data-driven analytics and knowledge extraction

Mobility and activity patterns identification

System optimization

Added value services and monetization of data

Multi source data analytics and visualization

Mobility modelling and innovative mobility schemes