## The Project objectives

The Development and Validation of Technologies for Indoors User Location, Network Planning and Management for mobile users in a networked environment and for new generation mobile devices (Smartphone, LTE and Femtocells).

- · Mobile user indoor location
- · Technologies for independent management of heterogeneous networks, which will optimize the performance of networks and resources
- Prototype applications using these platforms



Advanced Management Platform for Mobile and Heterogeneous Next-Generation Networks with Indoors User Location

Localization Subsystem (LOS)









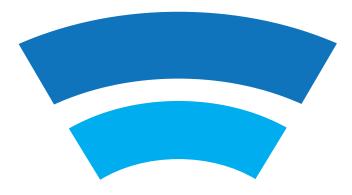
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### **Challenges**

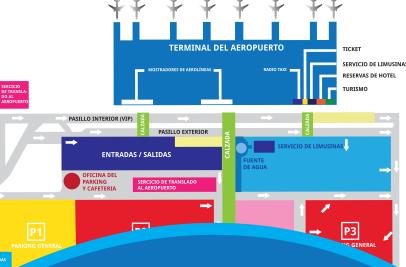
- Network Deployment and Management:
  New paradigm of mobile network deployment.
  - -From large macro networks to client-side networks. New network schemes.
  - -Self-Organizing Networks Self-healing
  - -Interaction between customer side and core network.
  - -Commissioning and decommissioning of mobile network infrastructure elements
- Positioning

-Application of mobile network positioning in indoor (beyond the cell ID). Unstable positioning environment. Trade-off: cost and applicability, functionality and performance. No universal indoor solution like outdoor GPS

# **Approach**

Based on Small-Cells Networks and on Smart phones. No additional hardware. Battery saving. Network-aware. Small-cells outage detection and compensation and power transmission changes aware via SON info.

Reduces unpredictable results using a recalibration system capable of detecting the environment changes and minimizing their adverse effects.



#### The MONOLOC Platforms offers

A high Tech Location and Network Management Solution developed by best of class Research Centers.

A Partnership of High Tech Industry Partners with Flexible Application Engineering and designers adapted to the Market .

#### For the Telcom Operator

deploying added value SON, Reconfigurable Mobile Networks with minimum impact and cost.

### For the Shop Manager

wishing to Offer Premium Customers an enriched Shopping experience linked to preferences and, adding location based focused promotion of products or services

#### Further info:

http://monoloc.grupoinnovati.com/

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