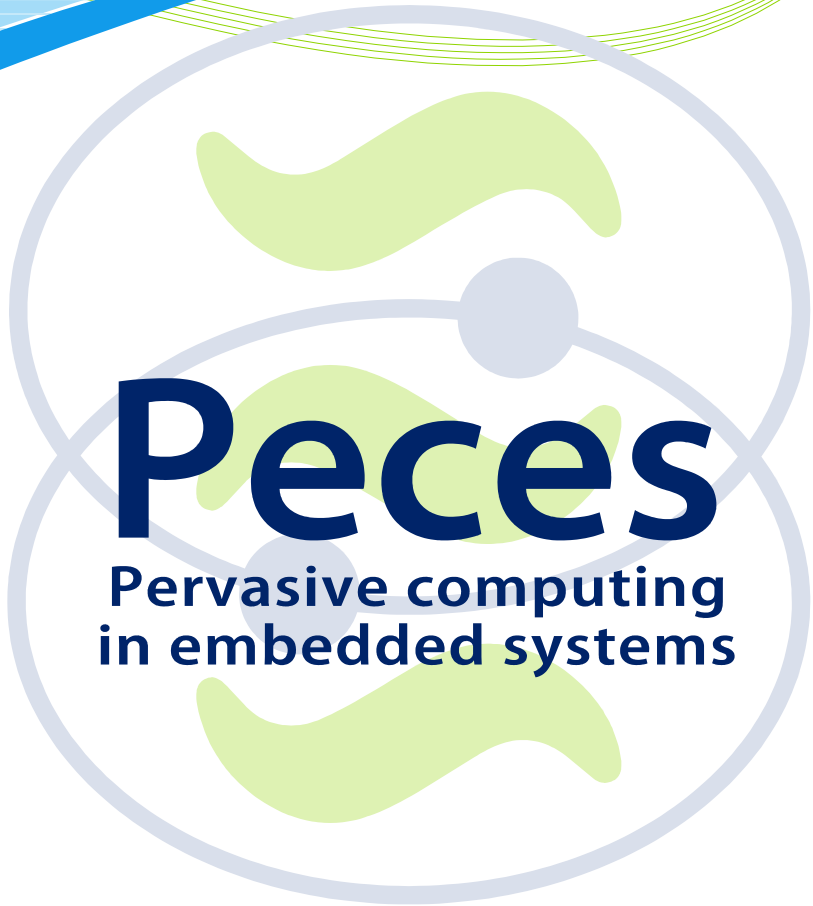
EUROPEAN COMMISSION

Community research

Application demonstrations



ETRA I+D
UNIVERSITY OF BONN
FRAUNHOFER
FRONTENDART
UNIVERSITY OF NEWCASTLE
NATIONAL UNIVERSITY OF IRELAND GALWAY
UNIVERSITY OF DUISBURG-ESSEN

PECES Middleware

A comprehensive software layer enabling the seamless cooperation of embedded devices across various smart spaces on a global scale in a context-dependent, secure and trustworthy manner

VERSATILITY

PECES is demonstrated within the project in three different application domains

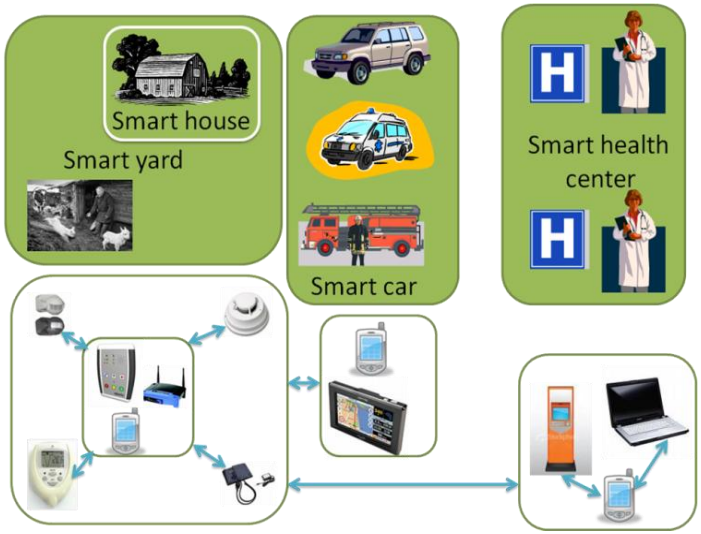
Applications

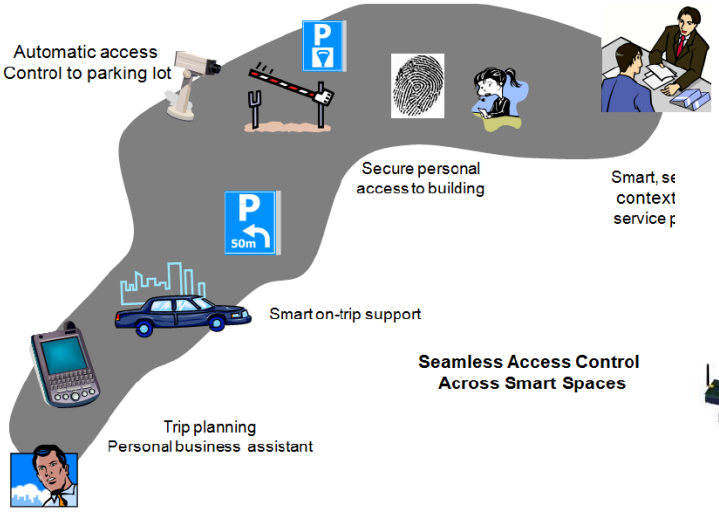
Development tools and Applications

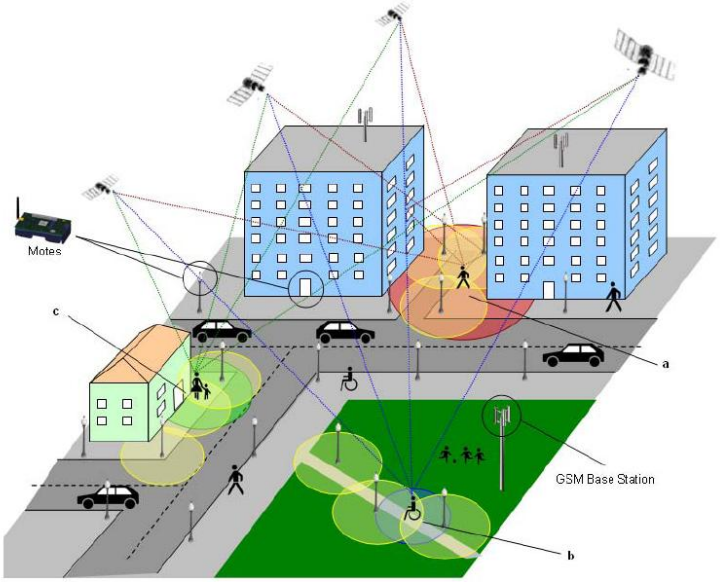
Smart Access Services

E-health Nursing Care Services

Trade Show Guide System

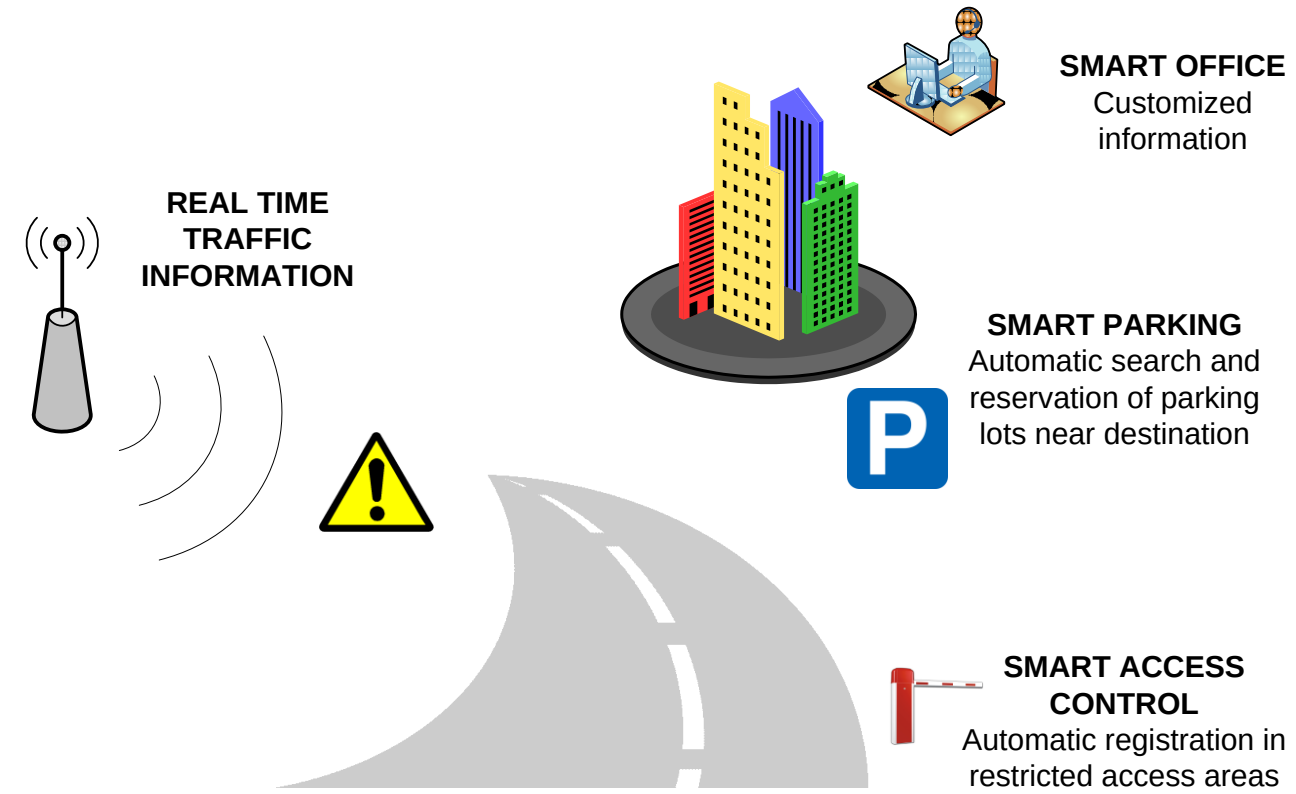




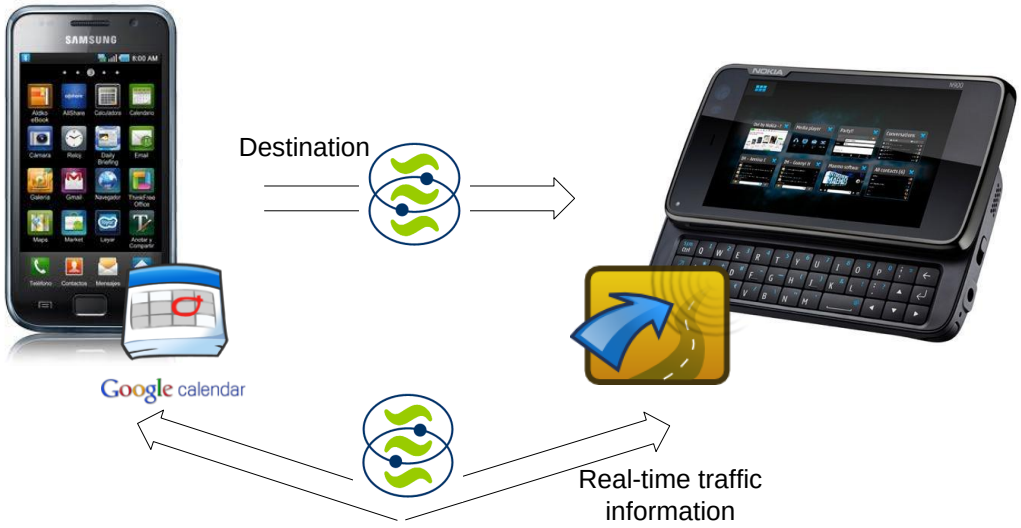


Smart Access Control Application

- **Objective: provide seamless assistance in a typical work day**

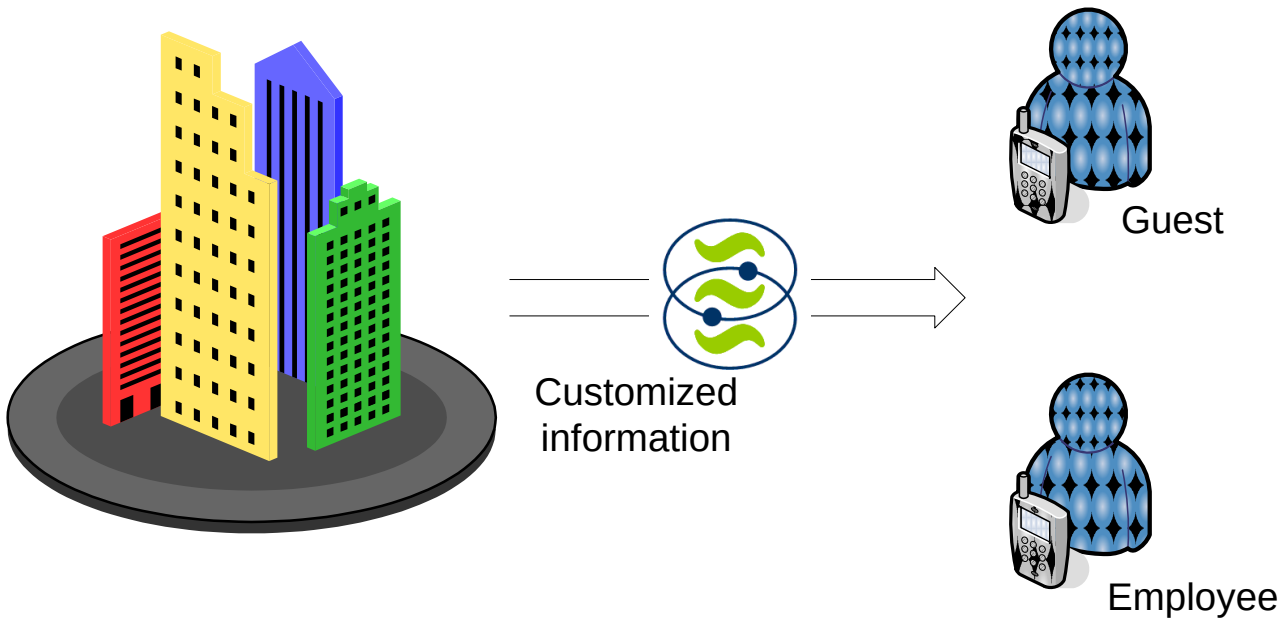


Smart Access Control Application - Demo



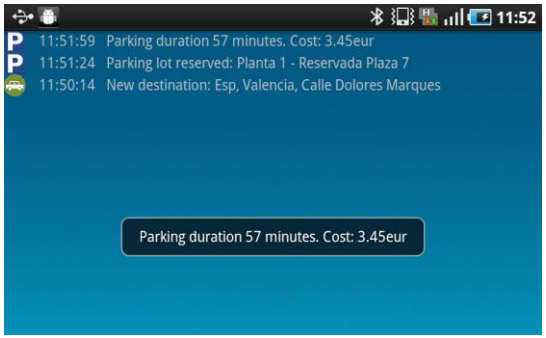
- Smart Car: destination of Satellite Navigator is configured based on contents of Google Calendar, as soon as the user enters the car. PECES-enabled security mechanisms control the identity of the user (key: user identity)
- Real-time Traffic Information: PECES enables the selective broadcast of traffic information to those devices located in the controlled urban area (key: smart car location)

Smart Access Control Application - Demo



- **PECES-enabled security and trust mechanisms (based on certificates) are used to identify users and provide suitable information as soon as they enter the smart office**

Smart Access Control Application - Pilot



- The Smart Parking scenario is installed in a shopping center, in the city of Valencia (Spain)
- PECES has allowed the integration between the parking management system and end-users (Android app)
- The application allows:
  - Seamless reservation of a parking lot
  - Automatic opening of barriers upon license plate detection on entrance and exit
  - Automatic ePayment (simulated)