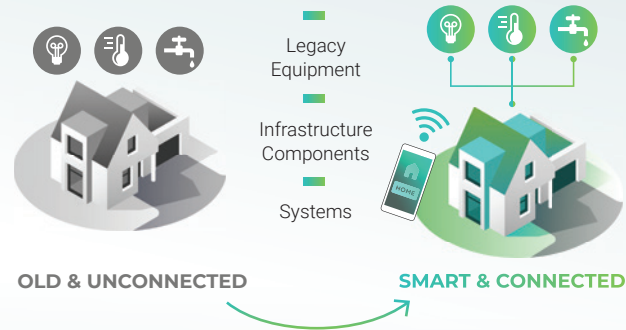


## THE CHALLENGE

An important part of Europe's clean energy transition is to shift the role of buildings from energy consuming entities to structures that are conscious of and responsive to the occupants and their environment. This means that buildings need to be upgraded with equipment and applications that "understand" the occupants' needs in terms of energy requirements, services, safety and security.

## INTEGRATION TO APPLICATIONS



## THE SCOPE

To address this gap between generations of building equipment and systems, PHOENIX has come to develop solutions that turn existing buildings with legacy equipment into active structures, which have the ability to control and optimize their energy consumption, production and storage in order to increase energy performance, maximize the occupants' comfort and connectivity.



PHOENIX

## PARTNERS



Adapt-&-Play Holistic Cost-effective and User-Friendly Innovations with high replicability to upgrade smartness of existing buildings with legacy equipment



This Project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 893079



[www.eu-phoenix.eu](https://www.eu-phoenix.eu)

## THE SOLUTION

The envisaged PHOENIX solution will be a Smartness hub based on ICT with modular components to integrate seamlessly the legacy equipment of buildings in order to offer user-friendly and cost-effective services adaptable to the specific needs of buildings users and grid utilities.

## The Phoenix project focuses on 7 MAIN OBJECTIVES:



Seamless  
Adapt & Play



Innovative  
Technologies



Real-time  
Communication



Human-centric  
approach



Cost-Effective  
Services



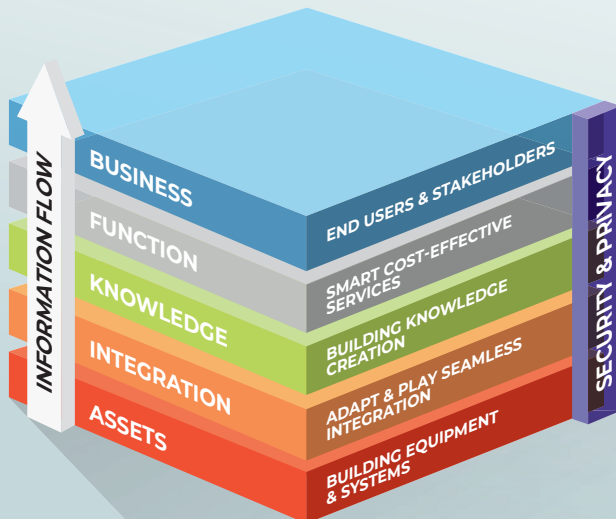
Security and  
Building Privacy



Suitable Building  
Strategies

## THE PHOENIX ARCHITECTURE

The PHOENIX project proposes an architecture divided into five horizontal layers and a security vertical layer:



## IMPACT

The main impacts from the PHOENIX project:

- Provision of user-friendly services for users (e.g. building owners and occupants) to maximize comfort and convenience
- Minimization of costs for and building upgrades into smart ones
- Increase in energy savings and buildings' energy performance
- Achieving grid flexibility
- Efficient and easy flow of information between users and stakeholders



### SWEDISH PILOT SITE Skellefteå

Mixed-use building,  
commercial & residential  
Relevant Equipment & Systems



### IRISH PILOT SITE RISEC, Dublin city

- (a) Commercial building – Rediscovery Centre.
- (b) Social Housing Block Relevant Equipment & Systems

## DEMONSTRATION CASES

Validation & Evaluation



### SPANISH PILOT SITE #1 Region of Murcia

Commercial & Residential Building  
Relevant Equipment & Systems



### GREEK PILOT SITE KaMa in Thessaloniki

Relevant Equipment & Systems



### SPANISH PILOT SITE #2 University of Murcia

Two office buildings at University Campus  
Relevant Equipment & Systems