



# FRAMEWORK ARCHITECTURE

The background of the lower half of the page is a composite image. On the left, a woman in a light-colored blazer stands next to a white electric car, holding a charging cable. On the right, a hand holds a smartphone displaying a 'Smart Home Design' app interface with various icons and data points. The background shows a modern interior with large windows and a dining table. The entire scene is overlaid with a network of white lines and circular nodes, suggesting a smart infrastructure. A solid orange vertical bar is on the far right edge.

**LIFE PROGRAMME PROJECT**  
easySRI Brochure, September 2023

IMPROVING and  
DEMONSTRATING  
the POTENTIAL of  
SMART  
READINESS  
INDICATOR





To follow the progress and achievements of easySRI project, you can follow our website and social media channels.



<https://www.easysri.eu/en>



easysri



@sri\_easy



@easysri2022

# ABOUT PROJECT

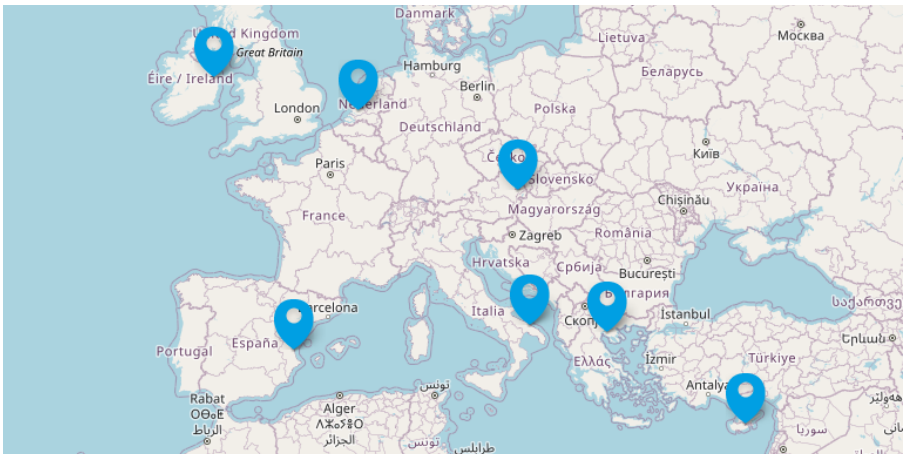
easySRI aims to enable a smooth and extendable web platform that offers services for the automated calculation of the SRI according to the Final report on the technical support to the development of a smart readiness indicator for buildings accomplished under the authority of the European Commission DG Energy ENER that will act as a basis for an effective implementation of the SRI and allow further testing at Member State level. easySRI aims to introduce additional parameters that address energy efficiency and financial dimensions in view of making the acquired information more understandable and quantitative for the user of the building. Furthermore, easySRI will support the implementation of a number of ML services (i.e. ML-based core engine and wizard tool for performance and smartness upgrades and SRT interventions), which will assist the evaluation and assessment of the building system's performance and smartness in more than one normalised metrics as per the SRI framework, and provide customised recommendations for upgrades, considering the cost of investment. Furthermore, novel business strategies will promote adoption and engage stakeholders towards evaluating and upgrading smartness in their facilities, while dedicated workshops and training material will facilitate deployment. Finally, the project aspires the update of current standards as well as the inclusion of its outcomes in new or future standards and will investigate links with other EU initiatives such as EPCs, B-Logs and renovation passports in order to maximize the use of SRI concept in EU policies in the fields of energy and buildings.

# ABOUT US

easySRI consortium consists of ten high-profile European partners from seven countries, selected based on their excellence and complementarity to provide the knowledge, expertise, and background required for the success of the project.



**CERTH**  
CENTRE FOR  
RESEARCH & TECHNOLOGY  
HELLAS



# DEMONSTRATION CASES



Site 1: nZEB Smart House  
Thessaloniki, Greece



Site 2: Fredrick University Main  
Building  
Nicosia, Cyprus



Site 3: Case Study Austria  
Vienna , Austria

The selected project demonstration cases will allow a fine calibration of the tools to be developed, and a demonstration of the methodology adopted by easySRI, by enabling the validation of different building typologies in different climatic regions, substantiating also on a highly participatory community engagement, and strong SME participation, which can promote further the awareness and scalability of the proposed solutions.

Site 4: DEMO Office Building  
Delft, Netherlands



Site 5: CETMA & E@W Building  
Brindisi, Italy



Site 6: SGS Building  
Madrid, Spain





# PROJECT OBJECTIVES

The main objectives of the project are defined as follows:

1. Developing a customisable **web platform** that will support stakeholders understand and deploy the **SRI methodology** and support Member States in the implementation of SRI in national context.

2. Promoting **user awareness** and providing **recommendations** towards optimising building performance and smartness.





3. Providing training and **certification packages** and developing novel **business models** for the uptake of SRI and smart ready technologies.

4. Delivering **practical knowledge** for the improvement and extension of SRI into the national and European energy legislative framework.

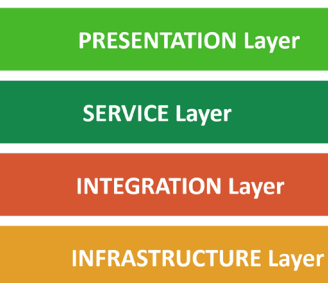


# FRAMEWORK ARCHITECTURE

The layered conceptual architecture of easySRI consists of four layers as follows:

- The **Infrastructure Layer** is responsible for connecting the physical world to the platform via smart metering devices and communication interfaces including all devices, sensors, and systems like the Building Management System (BMS), and Energy Management System (EMS), for gathering building information. If weather data or geolocation is not available on-site, external weather APIs will be used. The main duty of this layer is to transmit real-time information to the upper layers of the platform using open communication specifications.
- The **Integration Layer** is a primary component in the easySRI system that interacts with the building assets in the physical layer. Its tasks include retrieving the required information, converting it to a widely recognized format, and streaming it to the easySRI repository. This data can then be used in other layers of the easySRI architecture.
- The **Service Layer** is the key component of the easySRI conceptual framework and includes a majority of the necessary easySRI components and sub-components for providing all the essential functionalities and mechanisms.

- The **Presentation Layer** constitutes the front-End layer that allows interaction between end-users, operators such as engineers, building owners, registries, and third-party platforms or stakeholders like SRT suppliers or policymakers. It includes easySRI components such as:
  - easySRI Web Platform
  - SRI report mechanism
  - Multiple-purpose dashboard/UI



#### **easySRI platform Calculation Engine**

- Building Operational Rating Module
- Asset Rating Module
- Input Data Validator
- SRI methodology module

#### **SRI Wizard tool**

- SRIs /KPIs
- Building profiles & classification
- Visual Analytics
- Performance Alerts & Notifications
- Cloud Service module
- Data quality tool

#### **easySRI ML-based core engine**

- Decision support algorithms
- AI-driven recommendations
- AI-driven energy performance Forecasts

#### **SRI-to-energy efficiency tool**

- Energy Performance Benchmarking
- Roadmapping Tool
- SRT energy savings
- Supplier Response Time



## **Project Coordinator**

Dr. Dimosthenis Ioannidis

Centre for Research and  
Technology Hellas,  
Information Technologies  
Institute (CERTH)  
[djoannid@iti.gr](mailto:djoannid@iti.gr)

---



Co-funded by the European Union. Views and opinions expressed are however those of the author(s) only and do not necessarily reflect those of the European Union or CINEA. Neither the European Union nor the granting authority can be held responsible for them. Grant agreement no 101077169.