

- ✓ Create new functionalities, capabilities and opportunities to reduce inefficiencies and guarantee performance
- ✓ Introduce mobile devices to the construction site
- ✓ Gain efficiencies and reduce administrative burdens on workers, inspectors and managers by automating data capture, inspection steps and quality check measures with smart devices, intelligent surveys and data analytics
- ✓ Gain an additional level of performance by linking data within an integrated collaborative design and construction management framework
- ✓ Make this technically feasible, cloud-capable and synchronized between devices in the office or on-site via a virtual construction management platform

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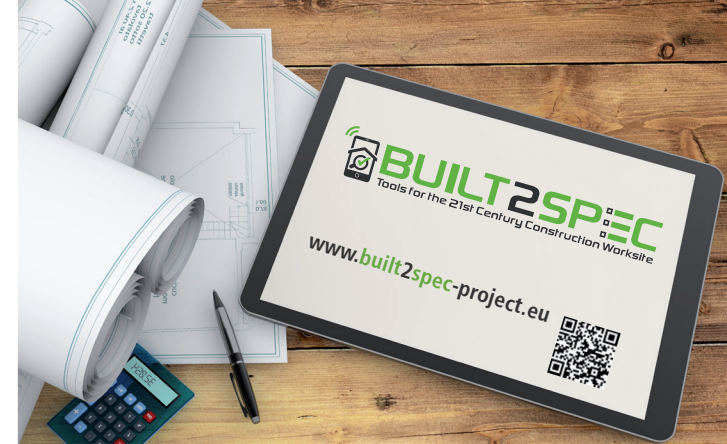


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## Boosting construction practices through a new set of technologies

- ✓ Reducing the energy performance gap



More information at our website  
[www.built2spec-project.eu](http://www.built2spec-project.eu)

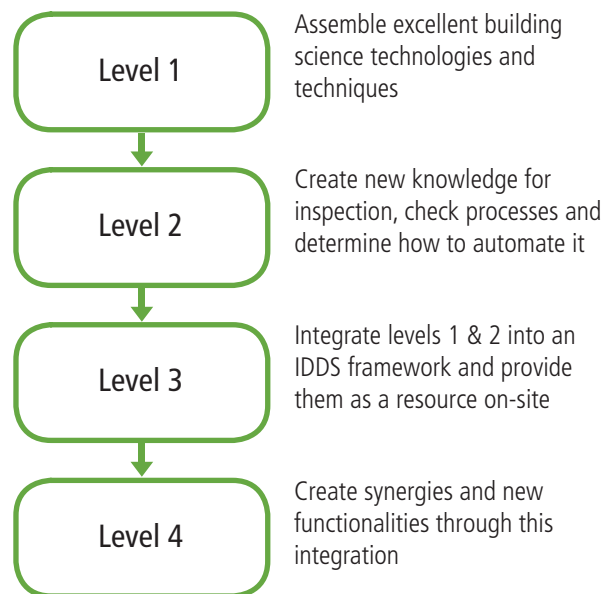
# About the project



Built to Specifications (Built2Spec) is a Horizon 2020 EU-funded project involving 20 European partners that seeks to reduce the gap between a building's designed and as-built energy performance.

To do this, the project will put a new set of breakthrough technological advances for self-inspection checks and quality assurance measures into the hands of construction professionals. This collection of smart tools will help building stakeholders at all levels in meeting EU energy efficiency targets, new build standards and related policy goals. The project started in January 2015 and will last four years.

## Project Concept Innovation on 4 levels



### Energy Efficiency Quality Checks

Built2Spec will compile and further develop the know-how of various experts to achieve an easily usable expert tool and to guarantee high quality construction work.

### Thermal Imaging Tool

In the construction sector, measurements from TIR devices are exploited in a mostly qualitative way. Built2Spec will propose methods to allow quantified assessment of thermal properties of buildings.

### Indoor Air Quality Tool

Built2Spec will optimize the first analyzer dedicated to real-time measurement of indoor air quality by developing a truly portable version, designed and adapted for field operation.

### Airtightness Test Tools

A new device enables quick checks (< 1min) by generating a low pressure pulse from an autonomous unit without penetrating the building envelope.

### Acoustic Tools

Built2Spec will develop a novel lightweight sound source for acoustic testing that provides a more diffuse field than standard loudspeakers and ensures easy portability and regulation compliance.

### 3D and Imagery Tools

3D reconstruction aims to capture the shape and appearance of real objects. This process can be accomplished either by active or passive methods. The combination of these methods can be used to reconstruct a large variety of scenes in 3D!

### Smart Building Components

Built2Spec will implement the novel use of embedded sensors in precast elements in order to continuously monitor both the thermal and structural performance of the building.

### Building Information Modelling

Built2Spec will use the information in BIM to check whether the as-built situation complies with the design – not just after the project is delivered, but also during the construction process.

### Virtual Construction Management Platform

All tools will be connected to a Virtual Construction Management Platform supporting the collection and sharing of all project data, from initial design to delivery.

