



## APPLICATION CATEGORY: PERFORMANCE

### Energy performance, indoor condition evaluation and intelligent energy management in buildings

Innovative business models for improved energy efficiency and comfort-aware buildings with the use of Big Data analytics for data-driven services.

#### Challenges

- ◆ Building operation and monitoring
- ◆ Energy fingerprinting and optimal energy balance
- ◆ Smart building as active node of a smart grid
- ◆ RES energy prediction and maintenance
- ◆ Increase of self-consumption of RES
- ◆ District Heating Network optimisation



#### Services

- ◆ Building Automation and Control
- ◆ Technical Building Management
- ◆ Energy prediction
- ◆ Optimisation of Network Operations & Energy Matching Capabilities
- ◆ Performance KPI calculation
- ◆ Building infrastructure technology catalogues
- ◆ Geoclustering
- ◆ Digital Twin



#### Benefits

- 1 Energy efficiency increase
- 2 Operation management optimisation for better planning activities
- 3 Energy and comfort aware buildings connected with smart grids and local RES resources
- 4 RES energy prediction and operation maintenance
- 5 Energy demand prediction for optimised District Heating Network operation



#### Building Value Chain

Building owners  
Energy and facility managers  
Utility companies  
ESCOs  
Energy communities  
EPC facilitators  
Prosumers  
District Heating Network Operators