

SMART READINESS INDICATOR (SRI)

Case study n°3

THE BUILDING:

Building type	Non-residential (office building)		-	
Location	Aix-en-Provence, South of France			
Surface area	13,772 m ²	Construction year	1970's	
Specificities	This research center is a group of several buildings supplied by a collective boiler room.			61



MAIN TECHNICAL CHARACTERISTICS:

EPC* class: E Heating by gas boiler with remote controlled device

Cooling by air/water heat pump Single flow ventilation for 90% of the floor area and double flow on 10%

Some EV charging points

* EPC = energy performance certificate

HOW THE SRI WAS ASSESSED:

The assessment was carried out in the framework of the official test phase conducted in France, making use of the non-residential service catalogue of the SRI calculation sheets adapted by France (<u>https://www.ecologie.gouv.fr/smart-readiness-indicator-sri-lindicateur-potentiel-dintelligence-des-batiments</u>).

OUTCOMES OF THE SRI ASSESSMENT:

Overall SRI score: 39%

Scores per impact criteria:

Energy efficiency	۲	44%
Maintenance and fault prediction		44%
Comfort		45%
Convenience		56%
Health, well-being and accessibility	۲	48%
Information to occupants		66%
Energy flexibility and storage	۲	21%

Scores per technical domains:

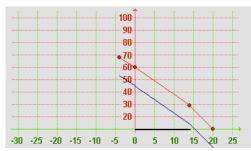
Heating		35%	
Cooling	*	38%	
Domestic hot water	\bigcirc	63%	
Ventilation	۲	23%	
Lighting	٢	16%	
Dynamic building envelope		0%	
Electricity	9	35%	
Electric vehicle charging	۲	44%	
Monitoring and control		57%	

FOCUS ON ONE SERVICE:

H2-a "Heat generator control (all except heat pump)"

The building's heating system is equipped with a remote control allowing the temperature control based on the outside temperature. Therefore, the functionality level for this service is 2.

Functionality level 0 (non-smart default)	Functionality level 1	Functionality level 2 (smartest level)
Constant temperature control	Variable temperature control depending on the outside temperature	Variable temperature control depending on the load



ModeStatus .C

Heating , False

SetPoint 10

ReducedOffset

OutDoorTemp

Reduced

14.3

True

True

 \sum

ASPECTS POSITIVELY IMPACTING THE EVALUATION:

Variable speed pump control of the heating system Individual room control for heating and cooling Cooling plant multi-stage control based on building loads

Remote reporting of real-time energy use per energy carrier, combining TBS of at least 2 domains in one interface Performance evaluation of the DHW system including predictive management and fault detection

10-50% or parking spaces have recharging point

* DHW = domestic hot water

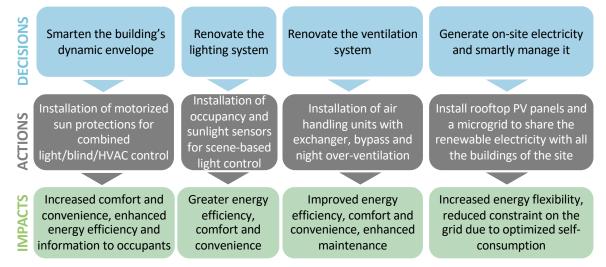
IMPROVEMENT POTENTIAL:

Central indication

of detected faults

and alarms

To increase the overall SRI score from 39% to 51%



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- European Commission Contact: <u>ENER-BUILDINGS@ec.europa.eu</u>
- Twitter: @Energy4Europe #SmartReadinessIndicator

