SMART READINESS INDICATOR (SRI)

A FOCUS ON VENTILATION SYSTEMS

SRI is a common EU scheme for rating the smart readiness of buildings.

Ventilation is one of the **nine technical domains** addressed by the SRI.

Ventilation systems in buildings replace 'used' air with fresh air from outside. This is often done using ventilation units: these consist of fans, motors, electronic controls and other devices (such as heat recovery systems) and are connected to buildings by air inlets and outlets or ventilation ducts. Alternatively, ventilation can also be provided by natural ventilation systems, e.g. consisting of windows with trickle vents and dedicated shafts purposely built to create a chimney effect.

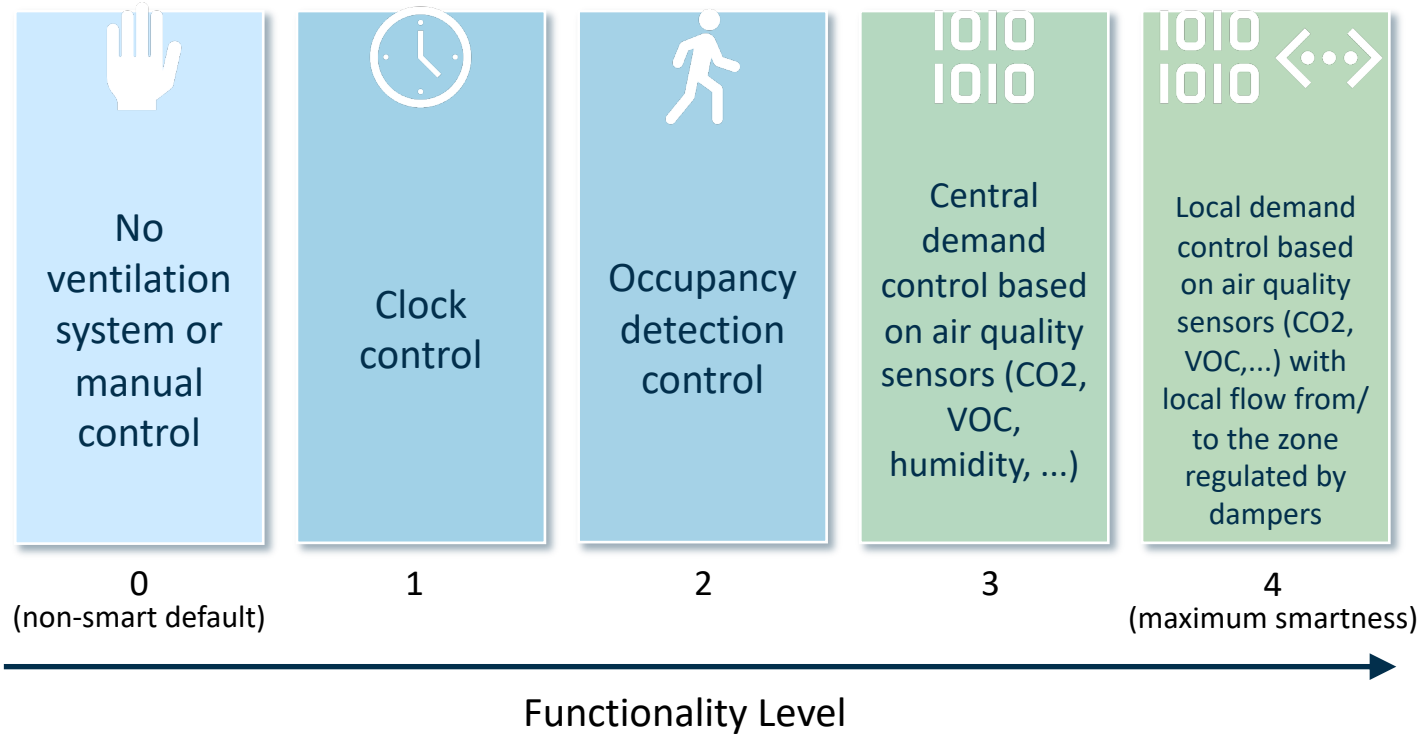
Ventilation units consume more than 2% of all electricity in the EU, and are amongst the biggest consumers of indoor electricity, after heating and cooling, and lighting. Adequate ventilation is essential for the health and comfort of building occupants. Furthermore, the ventilation rates resulting from the ventilation system (be it mechanical of natural ventilation) also greatly impact the heating and cooling energy demand of buildings.

AN EXAMPLE OF SMART-READY SERVICE

The SRI implements a catalogue of smart-ready services. The next page provides one example of smart-ready service categorised under the Ventilation technical domain. An example of a full Smart-ready-services catalogue can be obtained by requesting the SRI assessment package at support@smartreadinessindicator.eu

Service group: **Air flow control**
Smart-ready-service: **Supply air-flow control at the room-level**

Standard : EN 15232



FUNCTIONALITY LEVELS CORRELATION WITH SRI IMPACT CRITERIA

Each functionality level of a given smart-ready service has corresponding individual scores for each of the **seven impact criteria** addressed by the SRI, as illustrated below.

	Energy efficiency	Maintenance and fault prediction	Comfort	Convenience	Health, well-being and accessibility	Information to occupants	Energy flexibility and storage
Level 0	0	0	0	0	0	0	0
Level 1	1	0	1	1	1	0	0
Level 2	1	0	2	2	2	0	0
Level 3	2	0	3	3	3	0	0
Level 4	3	0	3	3	3	0	0

- **Level 1** | Clock control - offers increased energy-efficiency, improved comfort, convenience and improved health and well-being for building occupants.
- **Level 2** | Occupancy detection control - offers a higher level of comfort, convenience and improved health and well-being for building occupants.
- **Level 3** | with its central demand control based on air quality sensors - combines increased energy efficiency and offers a maximum level of comfort, convenience and improved health and well- being for building occupants
- **Level 4** | with its local demand control based on air quality sensors with local flow from/ to the zone regulated by dampers - offers a maximum level energy efficiency combined with maximum level of comfort, convenience and improved health and well-being for building occupants.

According to the SRI delegated regulation, Member States shall make available at least one smart-ready catalogue to be used by experts as the basis for identifying and assessing smart-ready services. Smart-ready service catalogue includes the list of smart-ready services to be considered for calculating the smart readiness score, related functionality levels, and corresponding individual scores for the impact criteria. Member States may decide to make available several smart-ready catalogues, for instance for different building types.

FURTHER READING

Examples of European and International associations to learn further about controlled ventilation include: EUROVENT, EVHA, EVIA, REHVA, AIVC

FOLLOW US AND CONTACT US

- SRI website, newsletter, FAQ and resources: https://ec.europa.eu/smart-readiness-indicator
- European Commission Contact: Brigitte Jacquemont: ENER-BUILDINGS@ec.europa.eu
- Twitter: @Energy4Europe #SmartReadinessIndicator

Several projects are developing Research & Innovation activities around the SRI.
Stay updated by joining the European Smart Buildings Innovation Community at:
https://smartbuilt4eu.eu/join-our-community