



## Technical sheet #2




### Technology solution package

	Energy efficiency	✗	Comfort, health and well-being
	Smart grid readiness		Informed users
<b>Building typology</b>			
	 Residential	✗	 Office




### Short description

Solution package focused on thermal and visual comfort and indoor environmental quality, in order to improve the physical and emotional health of office users by better controlling ventilation and shading systems.

### Solution package specific services

Domain		Standard configuration		Proposed configuration
	Ventilation	Supply air flow clock control		Variable air flow control based on air quality sensors (CO <sub>2</sub> )
		Supply air temperature control with constant setpoint		Supply air temperature control with variable setpoint
	Dynamic Envelope	Manual shading control		Shading control on room sensor data (illuminance levels)

### SRI Score<sup>1</sup>

	Comfort	+10-20%
	Health, well-being and accessibility	+20-30%
	Convenience	+10-20%

### Main impacts and added values

- An advanced control of ventilation system contributes to an improved Indoor Environmental Quality (IEQ), which is linked with higher occupant satisfaction or with employee health and increased productivity, reduced sick leaves, reduced turnover.
- Another perspective is relating the benefits of an improved IEQ to containing negative effects such as direct medical costs or indirect costs related to poor employee performance, which could either cause higher absenteeism, reduce work effectiveness and employee recruiting and retention.
- Improving the control level of a shading system can not only reduce heating and/or cooling needs but also improve thermal and visual comfort of employees, enhancing the office experience.
- Visual contact to nature has proven to have positive effects on concentration, stress, and cognitive performance.

<sup>1</sup> Calculated using SRI assessment package v4.4.

[https://energy.ec.europa.eu/topics/energy-efficiency/energy-efficient-buildings/smart-readiness-indicator\\_en](https://energy.ec.europa.eu/topics/energy-efficiency/energy-efficient-buildings/smart-readiness-indicator_en)