CONNECTED HOME & BUILDING : FOSTER ENERGY SAVING THROUGH WELLBEING

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SOMFY IS A WORLDWIDE ACTOR

58 COUNTRIES
114 SUBSIDIARIES
51 AGENCIES & OFFICES
Somfy designs and develops automated management systems for solar protection, a form of "integrated intelligence" built into façades.

We propose equivalent solutions for houses and dwellings.
STARTING POINT

Buildings are responsible for 40% of energy consumption and 36% of CO2 emissions in the EU
- Source BPIE -

OPEX (commercial buildings)
- 90% : employee wages and costs
- 9% : rental / loan costs
- 1% : energy related costs
A GLOBAL CONCERN

PEOPLE LIVING IN MODERN SOCIETIES SPEND 90% OF THEIR TIME INDOORS

© ACTIVE HOUSE
People care about:

- Daylighting & nice outdoor views
- Thermal comfort
- Ventilation & Fresh Air quality
WHAT ARE THE BENEFITS FOR OCCUPANTS?

Several studies prove the benefits of healthy & energy efficient homes and buildings on occupants.

1. INDOOR AIR QUALITY & VENTILATION: 101%
2. NOISE & ACOUSTICS: 66%
   - Why? Fall in staff performance as a result of distracting noise.
3. BIOPHILIA & VIEWS: 7-12%
   - Why? Improvement in processing time at one call centre when staff had a view of nature.

- THERMAL COMFORT: 6%
  - Why? Fall in staff performance when offices are too hot and 4% if too cold.

- DAYLIGHTING & LIGHTING: 46 minutes

- OUTSIDE VIEWS
  - Mental Function & Memory
  - Cell Processing
  - Hospital Work
  - 10-25% Better
  - 6-12% Faster
  - 8.5% Shorter

- DAYLIGHT
  - Students achieve 5-14% higher test scores and learn 20-26% faster.
  - Workers are 18% more productive.

- SYSTEMS
  - Productivity increases by 23% from better lighting.
  - 11% from better ventilation.
  - 3% from individual temperature control.

World Green Building Council, 2013
MOTIVATIONS FOR RENOVATING A HOUSE

Nowadays, 50% of Europeans are only moderately or even less satisfied with their current home.

Home owners are motivated to renovate both to save energy expenses and to improve wellbeing.

Energy savings will be indirect benefits of a renovation improving wellbeing.
A DICHOTOMOUS EQUATION?

Sunlight is a source of heat, which is helpful in winter when we heat our homes...

... but there are also times when sunlight will feel too intense or warm, and can be a cause of discomfort and glare.
EXAMPLES OF WHAT WE DO TODAY...

Stop heating while airing out

Window opening sensor prevents wasting energy while airing out

Natural heating & visual comfort

Automated blinds are used to manage natural heating and natural light
EXAMPLES OF WHAT WE DO TODAY...

Night cooling

Building is cooled down using motorized windows at night

Modulating heating profile according to occupant presence

Heating strategy depends on weather forecast, occupants presence habits...
ENERGY EFFICIENCY THROUGH BUILDING AUTOMATION & CONTROLS (BACS)

ONIX BUILDING EXPERIENCE (REGION HAUTS DE FRANCE) WITH AUTOMATED BLINDS

- 2000 m²/floor
- North/South/East Floor to ceiling Glass facade
- No solar protection
- Basic HVAC automation
- Thermal discomfort issues
- 2ND FLOOR Equiped for the test

«The right balance of natural daylight & artificial lighting is a key performance factor for comfort and efficiency»

Results after 1 year:
- 54% Energy saving on lighting
- 10% Energy saving for cooling & heating
- 29% Total annual energy saving

White paper Onix Building
EXAMPLE OF WHAT WE DO TODAY

**TaHoma**
- 120,000 connected households /EU
- 1,300,000 connected objects
- User satisfaction rate: 95%
- 80% of users use TaHoma every day

**New countries launched, 2017**
- Middle East, China, Japan, Thailand ...

**Rising importance of strategic partnerships and openness**
WHAT DO WE NEED TO GO FURTHER?

• Lack of awareness
  • Promotion on standard medias

• Boost renovation programs in Europe
  • Financial incentives or fines are needed to boost healthy buildings programs

• Technical solutions are on shelves
  • Interoperability across verticals is a must to maximize the dispositive efficiency

• New buildings and homes
  • Healthy and wellbeing grade promotion
THANK YOU

Inadequate housing is an international issue. As a global company, Somfy wishes to bring its contribution to give access to proper housing to everyone in society.

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