



# Improving sustainability from hospital processes: Green hospital, green healthcare.

Dr Natalia Allué, Fundació Sanitària Mollet



Fundació Sanitària Mollet is a non-profit organization that offers social and health services in Vallès Central, Barcelona, Catalonia, Spain

**Our purpose:** Improve the lives of our people



**Hospital**   
Universitari Mollet



**Sociosanitari**   
Hospital Sociosanitari Mollet



**Salut Mental**   
Addiccions Mollet

Residència   
**Pedra Serrada**Residència   
**Santa Rosa**

Obra Social   
**El Roure**

Residència   
**La Vinvota**

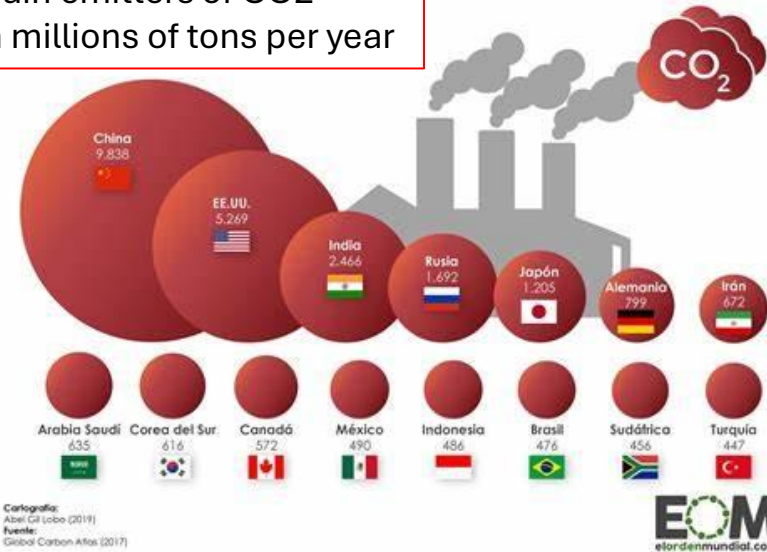
# Committed to sustainable quality

For the FSM, one of the institutional principles is Green Culture and Environmental Sustainability, which is manifested through the commitment of senior management and the involvement of process leaders, making this culture reach all employees.



# Introduction: Why?

Main emitters of CO<sub>2</sub>  
In millions of tons per year



Health sector, if compared with the pollution of a country, would be equivalent to the **5th most polluting country in the world.**

Hospitals are responsible for **4.4% of total CO<sub>2</sub> emissions in Europe.**



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From FSM and over the course of 14 years, we have worked to progress **reducing the impact of our activity on the environment and our carbon footprint.**



**1. Structures 2. Processes 3. Governance 4. Culture**

# 1. Structures



**Light wells and  
sustainable architecture**

**40% less consumption for lighting**



**Radiant ceilings and  
sustainable roofs**

**Thermal insulation and  
acoustic control**



**Collection and use of  
rainwater**

**Water consumption has been  
reduced from 32,000m<sup>3</sup> to  
26,000m<sup>3</sup> per year**

# 1. Structures



**Geothermic energy**

**148 wells that reduce air conditioning energy consumption by 30%**



**100% renewable electrical energy**

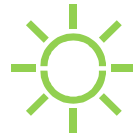
**Certified renewable energy**



**Recycling and waste management**

**From 9 to 25 types of managed waste**

# 1. Structures



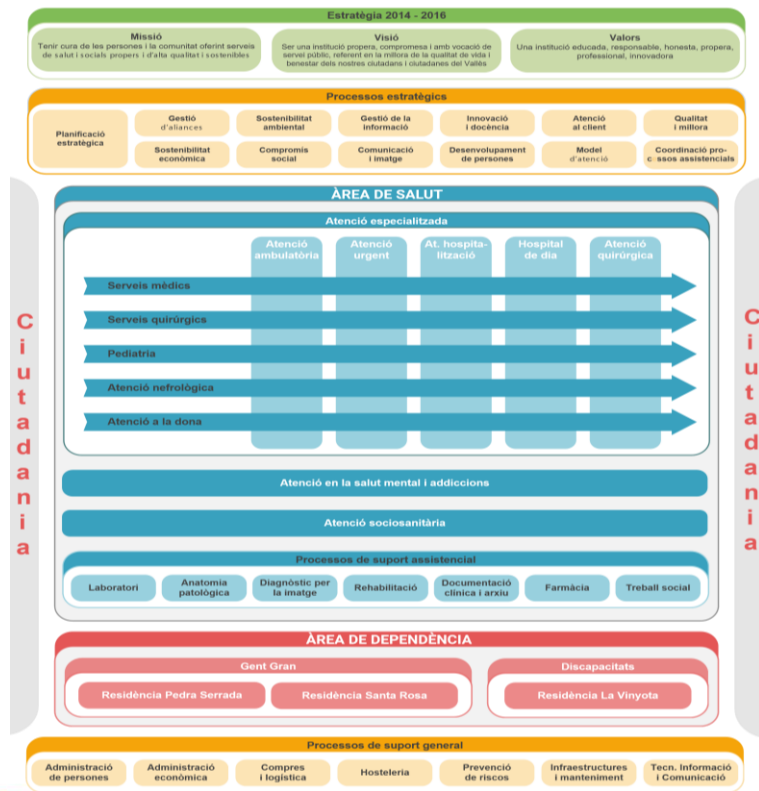
Photovoltaic cover

**1,368 solar panels in 6,500m<sup>2</sup>A**  
**saving of 120 tons of CO<sub>2</sub>**  
**emissions >15% on average of the**  
**total energy consumed by the**  
**hospital**



We plant **1** tree every day

## 2. Processes



Analysis of the processes of the Acute care hospital was carried out with the aim of identifying the factors with the greatest impact on CO2 emissions and the possibility of **improvement**.

The **involvement** of all professionals was decisive in determining the most feasible actions with the greatest impact to reduce the carbon footprint.



## 2. Processes

### Reduction of in hospital days

- 1 day of hospitalization generates 7kg of solid waste
- If unnecessary stays are reduced, the environmental impact is also reduced



Home hospitalization



Fast-track for hip and knee prostheses

## 2. Processes

**Avoid unnecessary  
travel**

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**7% of the emissions**



**Virtual visits have increased by 24%**



**New Rehabilitation YouTube  
channel to improve treatment  
follow-up from home**



**High-efficiency visits**

## 2. Processes

**Avoid unnecessary tests. Promoting right care**

High impact of diagnostic tests on energy consumption and waste generation



**Semi-automatic medicine cabinets throughout the FSM: patient safety with impact**

The generation of medication waste is reduced by 29%



## 2. Processes

### GreenLab

Efficiency and waste reduction



### Capture filters for anesthetic gases

prevent their release into  
the atmosphere.



## STRUCTURES

1. Radiant ceilings and sustainable roofs
2. Courts of lights and sustainable architecture
3. Solar panels
4. Control panel
5. 100% renewable electrical energy
6. Rainwater collection
7. Waste management
8. Geothermal
9. The Oak of Vallès (social)
10. Natural environment (Gallecs)

## PROCESSES

### Reduction in hospitalization days:

1. Prioritization of hospitalization at home
2. Fast-track for knee and hip prostheses

### Reduction of travel and sustainable mobility

3. High-performance urology consultation
4. Teleconsultation
5. Recupera't online project
6. Parking and loading of bicycles and scooters for professionals
7. Electric car and parking

### Waste reduction

8. Semi-automatic medicine cabinets
9. Returnable cafeteria containers
10. Reusable surgical clothes
11. Installation of water fountains

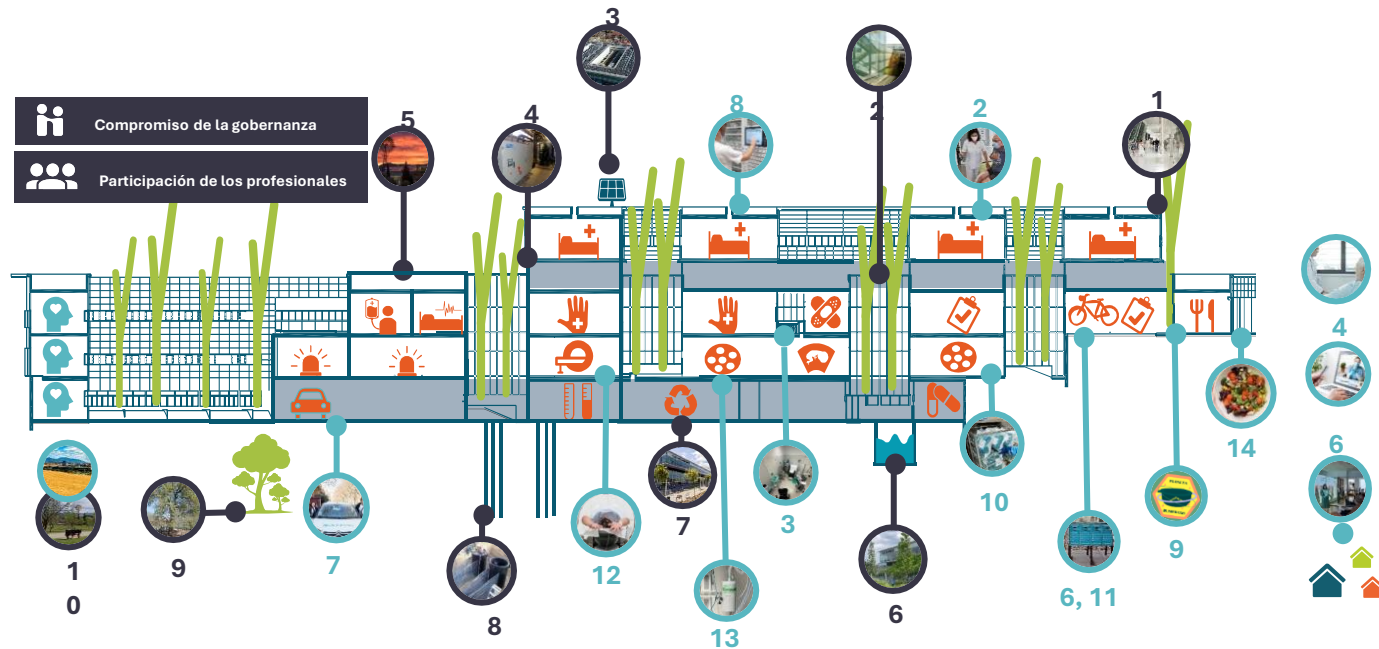
### More efficient systems

12. Diagnostic suitability
13. Capture of anesthetic gases

### Circular economy

14. Gallecs products in the dining room

# A SUSTAINABLE HOSPITAL



# 3. Governance

## Institutional ethics and governance

### Motivation: Institutional Principles

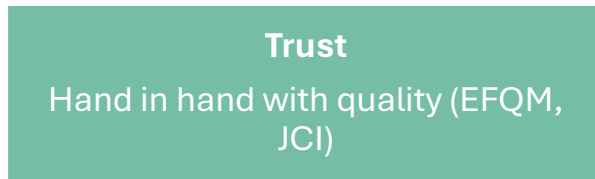


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#### Ethical thinking

Unfolding the ethical proposal



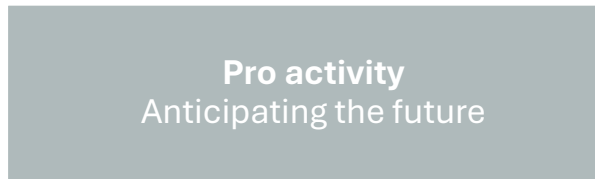
#### Trust

Hand in hand with quality (EFQM, JCI)



#### Green Culture

Commitment to climate action



#### Pro activity

Anticipating the future



## 4. Culture

### RESULTS



**49%**

Professionals participation



**43%**

Use new technologies to avoid unnecessary travel



**9.41/10**

Knowledge about what the FSM is doing in environmental matters



**44%**

Professionals have been trained to manage the health effects of heat waves and tropical diseases

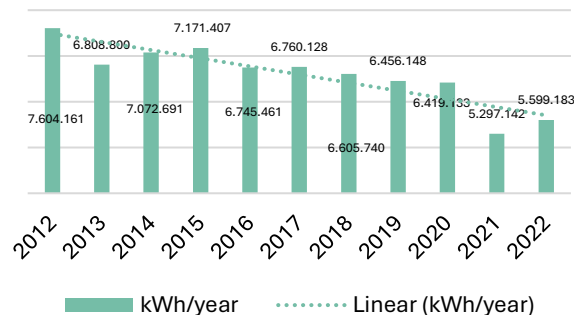


**8,72/10**

“It is a priority for the FSM to achieve 0 emissions”

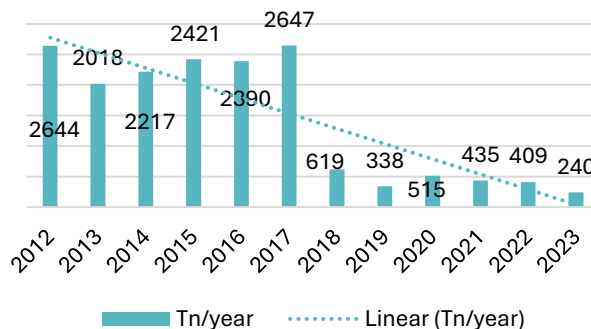
# Results

## Annual electricity consumption



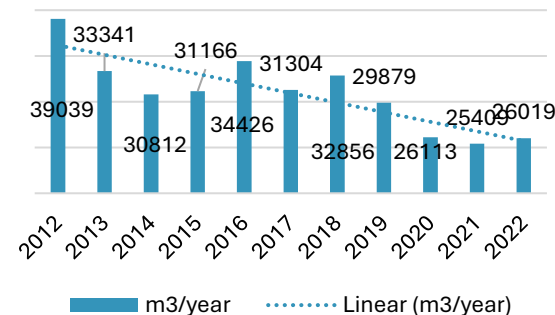
Given that activity at the hospital has increased over the last 11 years due to an increase in the population it serves. Nonetheless, electricity consumption has decreased by 26,37%.

## Annual CO2 emissions (Tn)



The hospital has achieved a significant reduction in emissions (scope 1 & 2): **91% over 12 years of activity.**

## Annual water consumption (m3)



The water consumption has decreased by 36,36%, thanks to improvements in resource management, installing irrigation systems with lower water consumption, rainwater control and flow reducing equipment in all the hospital showers. 15% of the roof is landscaped or covered in plants.

The **Green Hospital project**, active for a decade, prioritizes sustainable facilities, processes, and green culture.

For these reasons, in the last 14 years **the Mollet University Hospital has achieved a 92% reduction in direct CO2 emissions and offset the rest.**

**Today we are a Net  
Zero Hospital.**



A cluster of colorful geometric shapes, including triangles and polygons in shades of pink, teal, and blue, positioned above the main text.

# THANK YOU



**Natalia Allué**

n.allue@fsm.cat