

# Sustainable practices guide



# Making the CBM more sustainable

Introducing the *CBM Sustainable practices guide*! As an institution, we recognize the importance of contributing to global health and well-being and preserving our environment while doing science of the highest quality.

This handbook, which we will be updating, aims to inspire meaningful changes that will lead us toward sustainability in every aspect of our operations.

Through environmentally friendly practices and conscious decisions, we aspire to lead not only at the forefront of biological research but also in promoting a greener and more sustainable future.

If you have ideas, suggestions or questions, please contact us at [sostenibilidad@cbm.csic.es](mailto:sostenibilidad@cbm.csic.es).



# Why is it important to be sustainable?

Adopting sustainable practices in biological research provides a number of benefits ranging from environmental to economic and social, such as:

## Benefit #1

### **Preservation of the environment.**

Reduction of carbon footprint and waste generation.  
Minimisation of the negative impact on natural resources, such as water and soil.

## Benefit #2

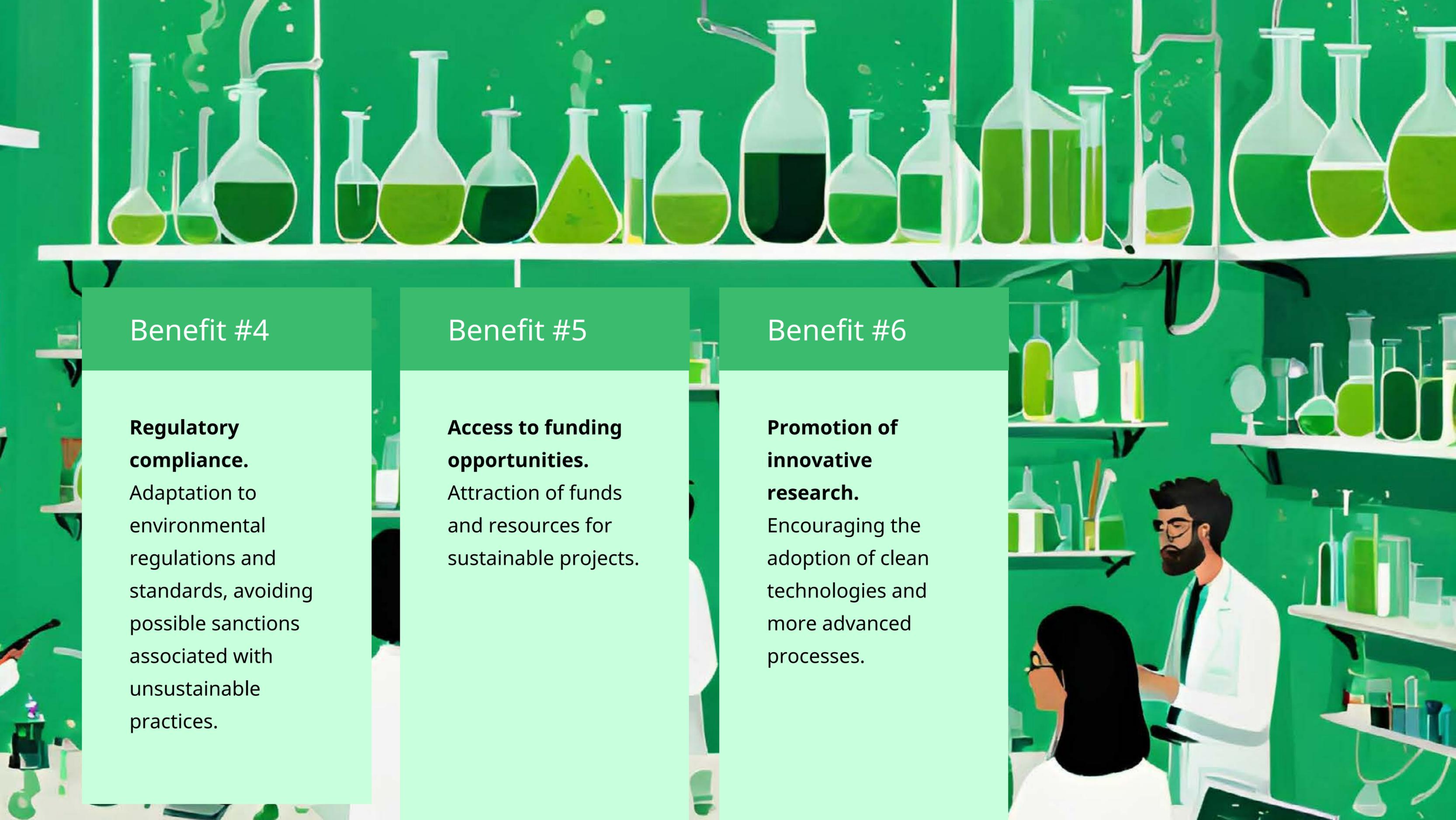
### **Saving resources and energy efficiency.**

Cost reduction through efficient use of energy.

## Benefit #3

### **Social responsibility.**

Improvement of the CBM's reputation.  
Contribution to the well-being of the local and global community.  
Promotion of social awareness and citizen participation.



#### Benefit #4

##### **Regulatory compliance.**

Adaptation to environmental regulations and standards, avoiding possible sanctions associated with unsustainable practices.

#### Benefit #5

##### **Access to funding opportunities.**

Attraction of funds and resources for sustainable projects.

#### Benefit #6

##### **Promotion of innovative research.**

Encouraging the adoption of clean technologies and more advanced processes.



How to be  
sustainable  
in the lab?



# Goal #1 Save energy

- Turn off equipment (centrifuges, baths, PCRs...) and lights when they are not needed.
- Do not leave heaters/ovens permanently on when not in use. Turn them on a while before use and turn them off when finished.
- Share the use of incubators and other equipment with other labs whenever possible and switch off unused equipment.
- Remove unusable material from  $-80^{\circ}\text{C}$  and  $-20^{\circ}\text{C}$  freezers and remove built-up frost regularly.
- Avoid using the goods lift, unless transporting material.
- If you won't be working remotely, turn off the computer at the end of the day.



## Goal #2 Reduce water consumption



- Use deionised (Milli-Q) water sparingly and only when strictly necessary. For every litre of Milli-Q water produced, about three litres of water are required.
- Some applications do not require sterile material, so consider whether you need to autoclave all material.

## Goal #3 Replace, Reduce, Reuse, Recycle



- Plan your experiments well and try to use as little plastic material as possible. Look for glass alternatives (e.g. pipettes, bottles...).
- Reuse washable plastic material (e.g. Falcon tubes, plates) for less stringent applications.
- Dispose of recyclable plastics in the yellow bin (see available infographics if in doubt).
- Use the buffers and media available from the Protein Biotechnology and Cell Culture services instead of buying them. This way, in addition to generating less plastic waste, we reduce the carbon footprint due to its transport.



## Goal #4 Reduce toxic waste



- Store your toxic waste properly. When in doubt, ask for help from biosafety ([sbiologica@cbm.csic.es](mailto:sbiologica@cbm.csic.es)).
- Look for alternatives to toxic reagents (e.g. ethanol instead of methanol...).\*
- If you are going to use a toxic chemical sporadically, try to find out if someone else in the CBM also uses it to share its use, rather than buying it to keep it on the shelf.
- Try to scale down your experiments where possible to generate less waste.

\*<https://www.mygreenlab.org/green-chemistry3.html>

## Goal #5 Buy sustainably



- Buy energy-efficient equipment.
- Try to group orders and buy in batches to reduce the carbon footprint of transport.
- Look for more sustainable alternatives for your products: use ACT eco-labels.\*

\*<https://actdatabase.mygreenlab.org>



Together we will make the  
CBM more sustainable.

**Thank you for  
your cooperation!**

