



How to make your interior fit-out project as sustainable as possible

This section provides fit-out teams with practical guidance on how to create a workplace that not only fulfils functionality and aesthetic aspects, but also implements sustainable solutions in line with Roche objectives.

"A well-planned fit-out will deliver sustainability benefits for many years".



When planning an interior fit-out, it is important to take sustainability into consideration to ensure later operations run in an efficient and sustainable manner. The following elements should be considered in all fit-out projects:



Lighting and air conditioning systems

- Natural daylight should be utilised wherever possible with glare reduced to a minimum
- LED lighting systems comply with Directive K18 Annex 2.5: Roche Energy Efficiency Standard for Lighting
- Use intelligent control systems to adapt air conditioning via presence sensors or timers for afterhours set-back, and to adjust artificial light levels to supplement daylighting
- Incorporate plants into the design to improve air quality, humidity levels and aesthetics

Layout design

- Maximise the efficient use of space
- Design for maximum flexibility in terms of use
- Layout should facilitate and encourage the use of stairs instead of elevators

Waste management

- Provide an easily accessible central waste collection area with separate bins to promote recycling
- Install water dispensers and dishwashers in break areas to support the elimination of single-use cups and plates, and to promote the use of washable cutlery and crockery

Water management

- Where appropriate consider installing water saving fittings and equipment, including:
 - waterless urinals
 - o low-flow taps (faucets) and shower heads
 - water efficient dishwashers





Cooling & fire suppression systems (K6 Directive)

- Cooling systems in Roche dedicated spaces must only use natural refrigerants, such as ammonia, CO2, water or natural hydrocarbons such as propane
- Fire suppression systems should only use dry powder or inert gases such as argon and not FM200 or NOVEC 1230, which are not compliant with Roche Directive K6

Materials & furnishings

- Use long lasting materials, consider full life-cycle
- Use recyclable and recycled materials
- Use only wooden products certified to FSC, PEFC or USGBC standards
- Use materials produced in a socially responsible manner
- Use local materials wherever possible
- Use low emitting materials and avoid synthetic materials wherever possible (e.g. PVC)

Construction & commissioning

- Ensure waste materials are correctly separated for recycling or disposed of correctly (e.g. refrigerant gas is incinerated) during construction
- Regularly check adherence to health & safety best practice during construction
- Check that the building performs as intended prior to handover
- Ensure relevant personnel are trained in energy-efficient building operation

Procurement & communications

- Make sure that sustainability objectives are communicated to all project team members
- Ensure that Procurement include sustainability requirements in all contracts and orders



How water dispensers help the environment

Installing water dispensers during workplace fit-out projects delivers multiple environmental benefits:

- It eliminates the need for single-use plastic bottles
- It supports Roche's 5-year environment goals on reducing non-hazardous waste and plastic waste
- It reduces storage space needed for full and empty bottles, and avoids additional cooling
- It minimises transportation associated with the supply of full bottles and the collection of empty bottles
- It avoids the need for recycling, incineration or landfilling empty bottles



- Water dispensers connected directly to the freshwater supply are the best solution.
 However, in cases where water quality is an issue, water coolers with exchangeable
 water tanks are an option. Be sure to check K6 compliance of any in-built cooling
 units.
- Kitchen areas should additionally be equipped with dishwashers to ensure that conventional cutlery and crockery is used instead of single-use cups and utensils.

Why natural flooring should be used instead of PVC

The use of natural flooring materials, such as linoleum or rubber, is recommended for impervious surfaces, as opposed to PVC for the following reasons:

- The production of PVC can result in the release of hazardous substances that are toxic to workers and the environment
- In the event of a fire, PVC can release potentially hazardous gases that are toxic to building occupants and firefighters
- Chemicals added to PVC to make it flexible, such as





- phthalates, may be toxic to building occupants. Some phthalates are non-toxic, however, the long-term effects of others are not yet known.
- PVC flooring produced in Europe may have better environmental properties (better health protection for workers, not using heavy metals or adding only safe phthalates), however, the majority of production is in Asia, which is less regulated.
- PVC does not degrade naturally, so disposal is a challenge. Landfilling is not
 permitted in many countries and only high temperature incineration with advanced
 flue gas treatment, which is not available in many countries, can destroy PVC safely.
 Recycling perpetuates the issues described above.

Key Takeaways

- 1. Measures planned during workplace fit-out will have sustainability impacts on operations for many years.
- 2. Sustainability considerations must be well communicated and included in procurement contracts.
- 3. Sustainability aspects should be regularly checked on the construction site.

Reducing environmental footprint -Improving employee wellbeing