COMPUTER SIMULATIONS FOR BUILDING CONSTRUCTION

OBJECTIVE

Incorporate adaptation into technical guidelines.

DESCRIPTION

Adopt the necessary actions for incorporating environmental changes into guidelines.
When studying the impact of climate change and the consequent indoor environment, energy consumption and carbon emissions, it is possible to make computer simulations by historical weather data. Private sectors collaborating with public administrations could finance the identification of potentially dangerous areas.
New knowledge needs to be updated to the new probabilistic information and to incorporate risk-based decision making in the design of buildings.

EXPECTED RESULTS

Buildings constructors will consider environmental change during future technical realizations.

RESULT INDICATORS

Carbon dioxide emission [tons]
Energy consumption [kWh]

INVOLVED ACTORS

Private sectors, builder, engineer, public administrations.

EXPECTED TIMELINE FOR ACTION

- Short term (1-4 years)

BEST PRACTICES

- Piemonte Region – Italy
- Anversa – Belgium
- UK

CRITICALITIES

Computer simulations do not give a realistic representation of future performances.

SCOPE OF THE ACTION

- Adaptation
- Mitigation

TYPE OF PROPOSED ACTIONS

- Soft

SECTOR OF ACTION

- Energy
- Industry
- Public health
- Transport and infrastructure
- Urban settlement

CLIMATE IMPACTS

- Extreme temperatures
- Other

IMPLEMENTATION SCALE

- Province
- Region / Country
- Other

SOURCE

https://www.ukcip.org.uk/