Resource Efficiency Framework

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SUSTAINABLE ENERGY WEEK
An initiative of the European Commission

MACRO-OBJECTIVES & INDICATORS

1. GHG Emissions
Along the building lifecycle

Primary & Delivered Energy consumption in use: kWh/m²/yr

Global Warming Potential
embodied CO_2 eq./m²

2. Material Impacts
Low impact material life cycles

Bill of Materials:
Abiotic fossil fuels, minerals and metals, Biotic materials

Waste Flows: kg/m²
Disposed, reused, recycled, E recovery

3. Water Use
Circular use of water resources

Use Phase Consumption:
m³/occupant/yr

Service Life
Adaptability Deconstruction/Reuse/ recyclability

Other LCA Criteria:
ozone depletion, acidification, eutrophication, Photochemical ozone creation

4. IEQ
Healthy & comfortable spaces

Indoor Air Quality: ventilation rate l/s/m2; CO2 ppm; RH %
Pollutants: TVOC, CVOC, RI VOC, formaldehyde, benzene, PM2.5 & 10
Thermal Comfort: % time out of range degree days or hours

Light
Acoustic
Visual

5. Climate Change
Adaptation, resilience & impact

Extreme weather events under future climate scenarios:
Thermal Comfort: % time out of range degree days or hours 2030/2050
Flood Risk: surface water runoff; flood risk area

Sun Rain
Wind Snow
Sea level

6. Cost & Value
Optimised over whole life

Life cycle costs
EUR/m2/yr

Value Creation & Risk Factors:
Data quality of indicators