

Sustainable Construction Overview and opportunities

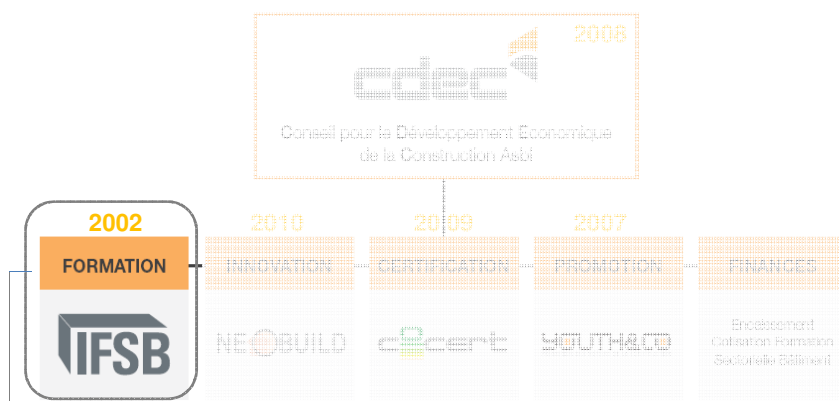
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SECTORAL STRATEGIC DEVELOPMENT



IIFSB Regulations



Le Parlement européen siège en session plénière »

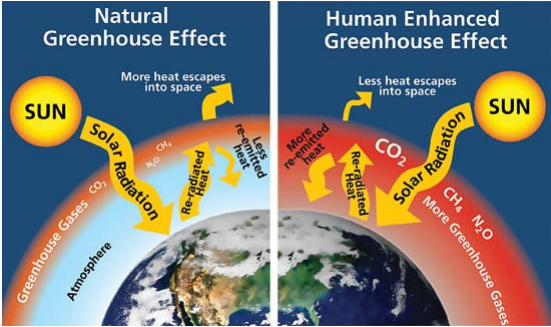


From 2019 each new construction has to be identified as zero energy building.

Production of their own energy after 31th December 2018


BACKGROUND

IIFSB Greenhouse effect



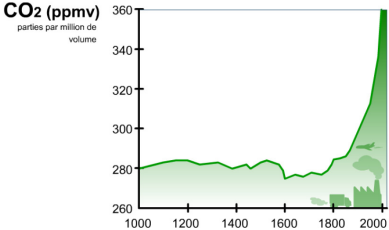
Natural Greenhouse Effect
 More heat escapes into space
 SUN, Solar Radiation, Re-radiated heat, Less heat, Greenhouse Gases (CO₂, CH₄, N₂O), Atmosphere, Earth

Human Enhanced Greenhouse Effect
 Less heat escapes into space
 SUN, Solar Radiation, Re-radiated heat, More re-emitted heat, CO₂, CH₄, N₂O, More Greenhouse Gases, Earth



KNOWLEDGE

CO₂ (ppmv)
 parties par million de volume



Year	CO ₂ (ppmv)
1000	~280
1200	~280
1400	~280
1600	~280
1800	~280
2000	~360




The Carbon Footprint

- In order to reduce the impact of human activities on the Earth ecosystem
- This is the total set of greenhouse gas (GHG) emissions caused by an organization, event, product or person, through
 - transport
 - land clearance
 - the production and consumption of food, fuels, manufactured goods, materials, wood, roads, buildings, and services.

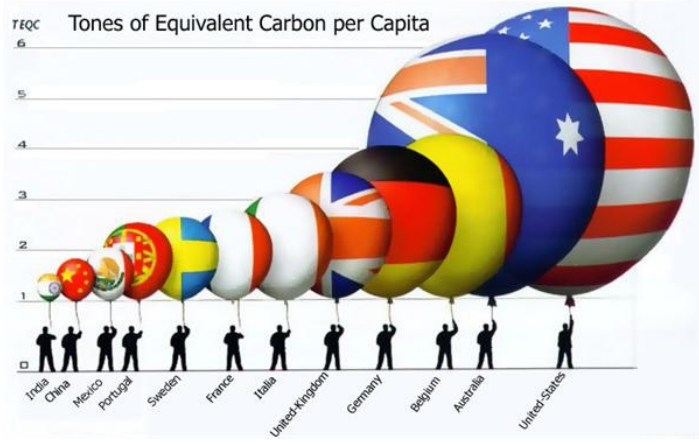
FOOTPRINT







Tones of Equivalent Carbon



Country	TEQC (Tones of Equivalent Carbon per Capita)
India	~0.5
China	~0.8
Mexico	~1.2
Portugal	~1.5
Sweden	~2.0
France	~2.5
Italy	~2.8
United Kingdom	~3.5
Germany	~4.0
Belgium	~4.5
Australia	~5.5
United States	~6.5

source of www.ecoclimax.com

IIFSB The building sector

ACTION



EUROPE


- 1.196 Billion of€
- 10,4 % of the GDP
- 2,7 millions of companies (UE 27)
- 15,2 millions jobs
- 7,2 % of the active population in Europe
- 1st industrial employer

LUXEMBURG


- 2200 companies
- 45.000 jobs

40 % of consumed resources
40 % CO₂ emissions
40 % of total waste


IIFSB Sustainable Construction Principles



Thermic insulation
Airtightness

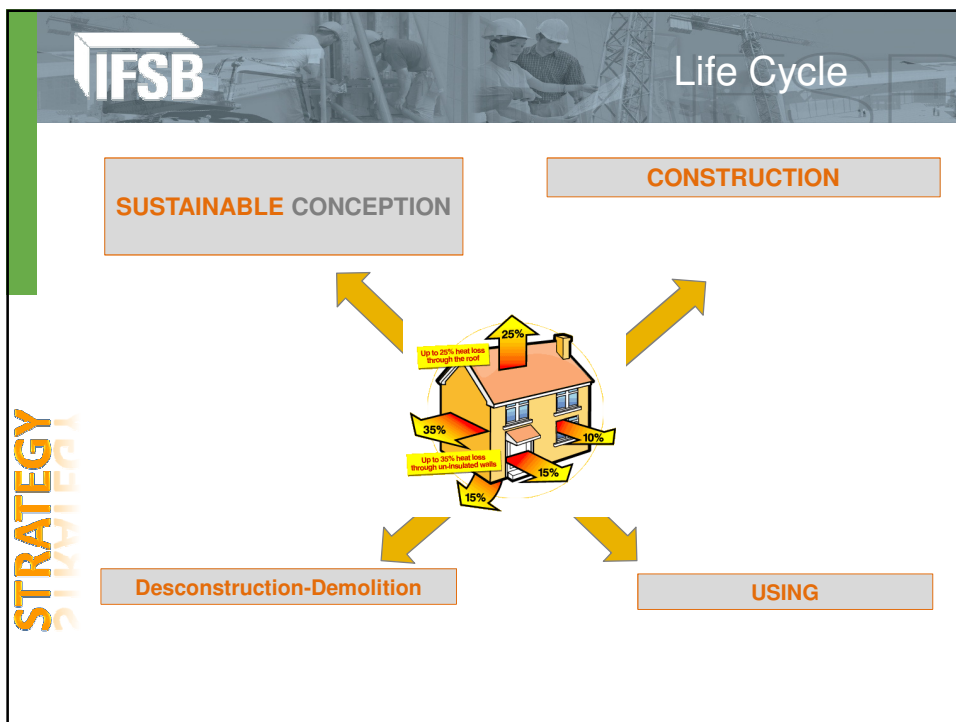


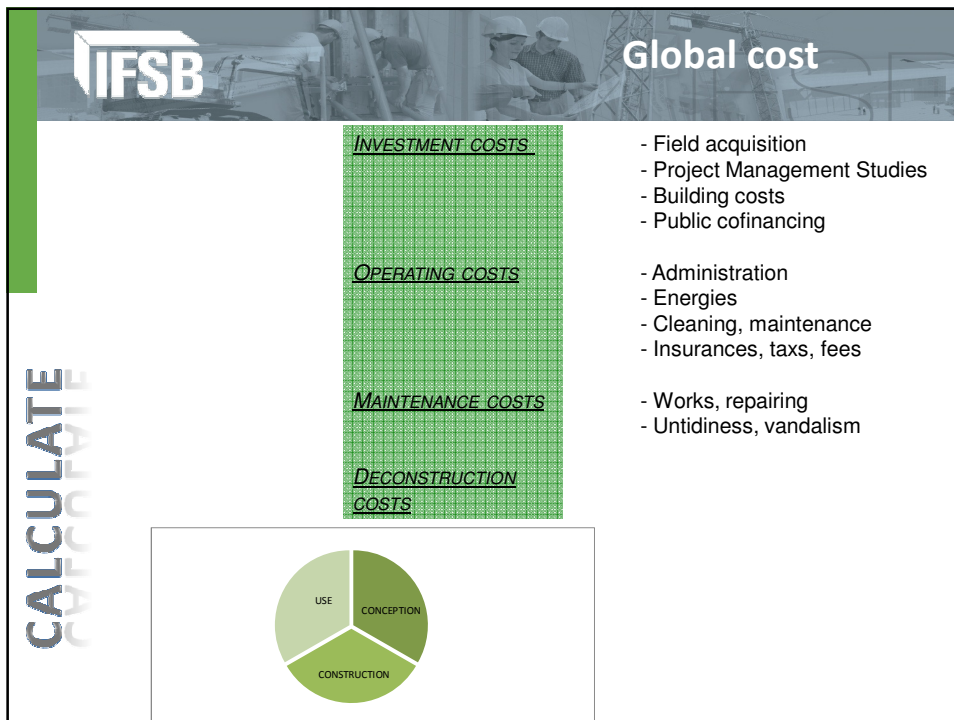
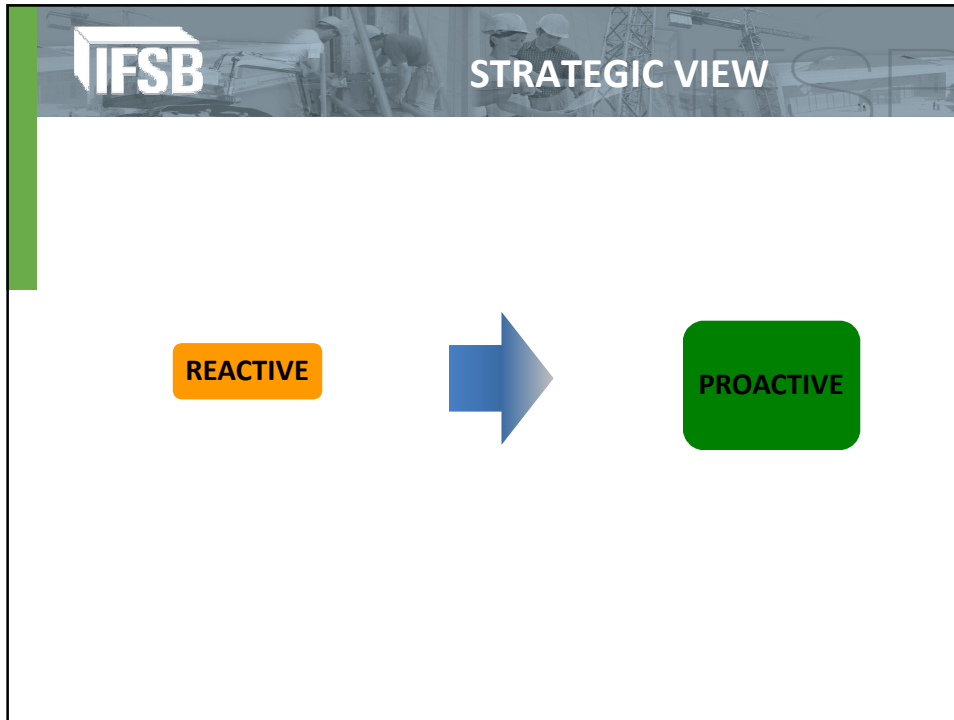
Ventilation




Renewable energies

From MINERGIE







BENEFITS

INTEGRATION

<p style="text-align: center; margin: 0;">PROJECT OWNER</p> <ul style="list-style-type: none"> • Asset's financial attractiveness • Increase of patrimonial value • Improve of the risk management • Decrease of technical risks 	<p style="text-align: center; margin: 0;">CONSTRUCTION COMPANY</p> <ul style="list-style-type: none"> • Best quality of construction • Decrease of construction site risks • Risks management • Attraction of the sector • Strategic differentiation
<p style="text-align: center; margin: 0;">PROJECT MANAGER</p> <ul style="list-style-type: none"> • Positioning strategy (new market) • Best technical funds 	<p style="text-align: center; margin: 0;">USER</p> <ul style="list-style-type: none"> • Decrease of the use costs • Comfort et inside life quality • Health quality • Trademark
<p style="text-align: center; margin: 0;">BANQUES</p> <ul style="list-style-type: none"> • Risks management loan • Possibility of new banking products development 	<p style="text-align: center; margin: 0;">INSURANCES</p> <ul style="list-style-type: none"> • Better risks management • Minimise resort to decennials guaranties • Indirect health costs minimised

