Energy
Governance
Digital city
Biodiversity
Climate
Quality of life
Resources
Local economy
Mobility

City21

International observatory for sustainable cities




Powered by:

Construction21
The social media for sustainable building & cities

Supported by:

ADEME
Agence de l'Environnement et de la Maîtrise de l'Energie

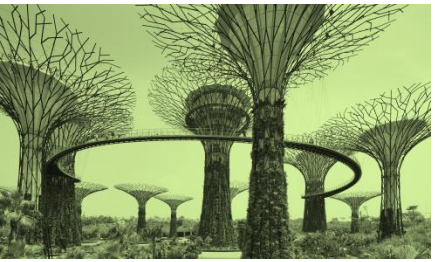
R20 REGIONS OF CLIMATE ACTION

Construction21
The social media for sustainable building and cities

Avec le soutien de ADEME
Agence de l'Environnement et de la Maîtrise de l'Energie

City21

The international observatory for sustainable cities




Introduction

The main objective of this web tool is to highlight all kind of territories with great performances in terms of « sustainable urbanism ».Feedback about these experiences and innovative solutions will be presented to inspire local authorities, communities and city planners.

Each case study will describe the main characteristics of the urban project, and provide some figures and key indicators in order to evaluate the quality of the urban intervention. These final indicators are based on the main French and European standards in sustainable development including the RFSC (Reference framework for European sustainable cities) and the French Eco quartier Label.

9 thematic tabs:

- Governance
- Quality of life
- Local development
- Mobility
- Digital/Smart City
- Resources
- Biodiversity
- Energy/ Climate
- Buildings

Each tab will contain text fields to describe the strategy developed on the urban project in each topic and some quantitatif indicators. A specific field will be available to describe innovative solutions and their providers. *(ex: a smart Grid or a renewable energy production system, a water resource or waste management solution, a citizen participation approach, a circular economy project….)*

Preambule

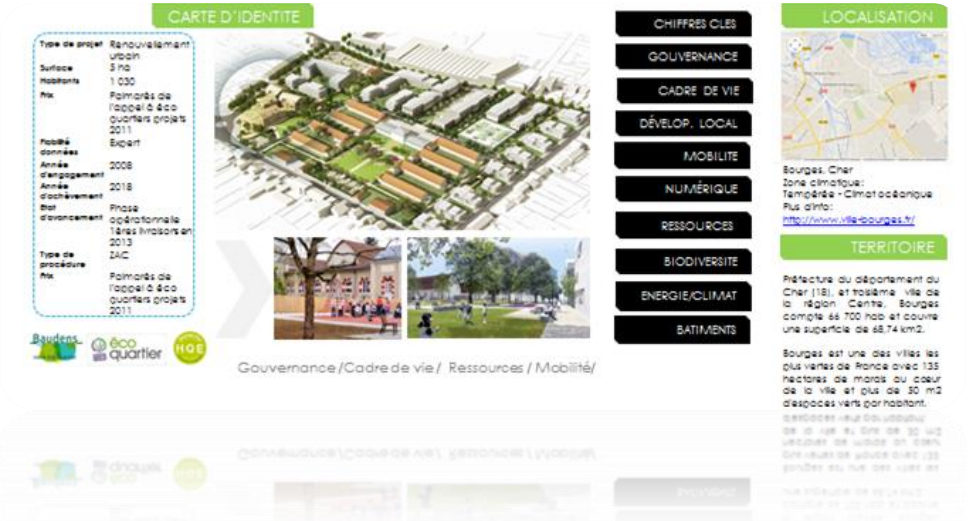
This tool will let you upload information about urban project of any scale and in any kind of context: urban, suburban or rural, and specific projects such as activity zones, commercial zones, university campus or hospitals.

NB: Only a small part of the following information is mandatory (marked with ** in the following pages) and displayed on all the projects described in the database .

Only completed fields and indicators will be visible on line.

1. IDENTITY CARD

General information of the main characteristics of the project, such as the architectural program, important dates of the process, environmental and design approaches. As well as the investments and the keywords related to the project performance.



Pre-figuration phase

Mandatory field **

- Project name**
- Type of project **
  - ✓ Urban reconversion
  - ✓ Urban renewal
  - ✓ Urban extension
- General description**
- Program**
  - ✓ Housing
  - ✓ Office Buildings
  - ✓ Commercial and services
  - ✓ Public facilities
  - ✓ Public spaces
  - ✓ Parks and Green spaces
- Total area**
- Population
  (Projected number of occupants)
- Number of employees
  (Projected number of jobs)
- CO2 Emissions
  (Savings of Carbon Dioxide gases emissions in tons)
- CO2 emissions calculation method
  (method used to calculate the CO2 impact)
- Launch date **
- Delivery date **
- Progress **
  - ✓ Delivery Phase
  - ✓ Operational phase
  - ✓ Management phase
- Type of procedure (local buildings codes)
  - ✓ Urban development permit
  - ✓ Building permit
  - ✓ Other…
- Specific requirements and zoning (modifiable list according to the country)
  - ✓ Protected perimeter
  - ✓ Special protected zone or patrimony
  - ✓ Natural protected zone
  - ✓ Coastal and coastal ocean zone
  - ✓ Highland zone

Pre-figuration phase

Mandatory field **

- Strengths of the project **
  - ✓ Governance
  - ✓ Quality
  - ✓ Local development
  - ✓ Mobility
  - ✓ Connectivity
  - ✓ Resources
  - ✓ Biodiversity
  - ✓ Energy /Climate

- Keywords

(Some words or concepts which particularly characterize the project) , free entry

- Environmental Approches **

(Modifiable list according to the country policies)

- Logo **

(Modifiable list according to the country references)

Classification in 3 categories: Operational/preoperational / delivery)

- Labels /certifications **

(Modifiable list according to the country adopted certifications)

  - ✓ HQE aménagement
  - ✓ LEED-ND
  - ✓ BREEAM
  - ✓ Other…
- Label/Certification logo
- Total project cost
- Data reliability **
  - ✓ Self-declared
  - ✓ Expert
  - ✓ Certified

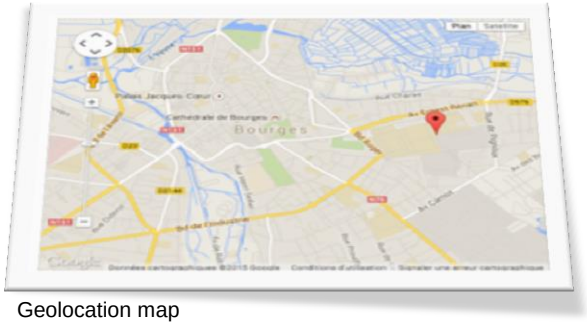
The strengths of the project correspond to the main dimensions used to formulate the thematic website tabs. They will be highlighted automatically, if a "strategy" field or a "urban solution" is filled out in the tabs. These criteria will also be available in the research tool.

Mandatory field**

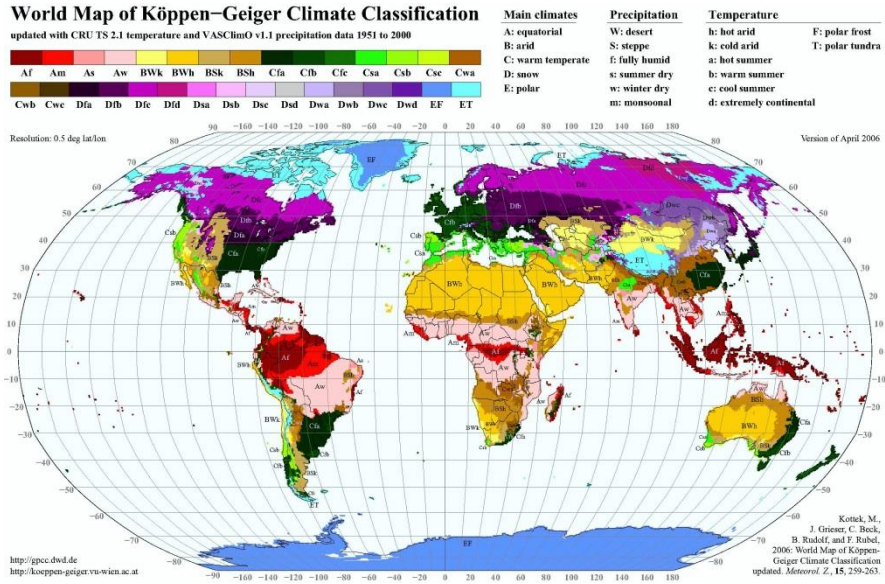
2. TERRITORY

Geolocation and detailed description of the area and context of the project.

- Geolocation
- Address –postal code
- Address - City
- Address - Country
- Address -State
- Address - Region
- Climatic zone
  - ✓ Cf. Map
- Price of land to build
- More info
- Pictures



Geolocation map



Map of köppen-geiger climate classification

Mandatory field**

3. KEY FIGURES

Quantitative data about the surface and the scope of the project to assess its profile.

- Impervious surface (m2)
- Built surface on natural or agricultural spaces (h)
- Green surface (roofs included) (m2)
- Public spaces surface (m2)
- Office floor area surface (m2)
- Commercial floor area surface (m2)
- Public facilities floor area surface (m2)
- Housing floor area surface (m2)
- Renovated floor area surface (ha)
- Residential units
- Number of social residences
- Green spaces m2/ hab.
- Public spaces m2/ hab.
- Total investment costs (€HT)**
- Amount of the investment taken in charge by the local authorities
- Total of contributions
- Detail of financial aids
- More information

Mandatory field**

4. GOVERNANCE

- Project holder. Identification of the project manager.
  - Name**
  - Type**
    - ✓ City
    - ✓ Region/Province/State
    - ✓ Public Development Agency
    - ✓ Company
    - ✓ Parapublic agency
  - General description**
  - Development strategy documents
  - Logo

- Project management.

General strategy of the project steering (Citizen Participation and inclusion of users and actors practices, legal and financial structure, public/private on the project organization or actions implemented …)

- Stakeholders
  - Name
  - Function
    - ✓ Urban Contractor
    - ✓ Assistance to Contractor Authority
    - ✓ Construction manager
    - ✓ Technical Consultancy Agency
    - ✓ Environmental Consultancy Agency
    - ✓ Developer
    - ✓ Urban Planning Agency
    - ✓ Architecture agency
    - ✓ Land developer
    - ✓ Operator
  - Role: Mission of the actor in the project.

    (Ex. ARTELIA / AIC : General management and steering committee.)
  - Contact
  - Link to the company page on Construction21
  - More information

Solutions:

Ex. Solidarity initiative / Cooperation initiative / Urban Self-Management Approach

Mandatory field**

5. QUALITY OF LIFE

Strategies implemented to improve the quality of life of the inhabitants in the territory: design of individual and collective housings, healthy and comfortable workplaces, integrated green areas, cultural and learning places.

- **Density:** Actions that enhance the rehabilitation of the existing city and help to fight against urban sprawl.
- **% Urban sprawl of the neighbourhood** (calculation): Surface area on natural and agricultural areas in ha / total area in ha
- **Gross density** (calculation): Number of housing units /total land area.
- **Net density** (calculation): Number of residential units /land area off-street and public spaces.
- **Culture and Patrimony** : Strategies that value historical and cultural identity of the site.
- **Social diversity** : Actions that promote social and age diversity .
- **Social inclusion and safety** : Strategies that ensure the integration and security of citizens.
- **Ambient air quality and health** : Assessment strategies and risk control related to air and noise pollution.

Solutions:
Ex. A local consultative approach / protection approach and dissemination of local know -how/ spaces and various and quality local services.

Ex. Management and protection of environmental noise / CO2 level control system inside buildings / Implementation of a tool for atmosphere monitoring / sound barrier system.

Mandatory field**

6. LOCAL ECONOMY

- **Local development:** Strategies that contribute to balanced and solidary development of the local economy. (Business Incubator, job creation, development of local production channels, social economy).
- **Functional mixing**: Actions implemented to promote the diversity of functions in the context of territory for short distances.
- **% public spaces** (calculation): Surface area of public space / total area of the project
- **% de office spaces** (calculation) Surface area of the offices / total area of the project
- **% commercial spaces** (calculation): Surface of commercial areas / total area of the project
- **Circular economy** Project strategies that promote the development of a circular and industrial economic model.

Solutions:
Ex. Business incubator , Employment Agency .

7. MOBILITY

- **Mobility strategy**: Implemented strategies to stimulate connected, affordable and diversified mobility and to develop "soft" and low environmental impact transport modes. Ex. Number of parking lots; % of housing , shops and offices near transportation.

Solutions:
Ex. Solar cycle path / Shared electric vehicles system / Collaborative Transportation Systems : Carpool / teleworking.

Mandatory field**

8. CONNECTIVITY

- **Digital city strategy:** Urban strategies to develop the means of communication needed for the digital transition and the access to information (infrastructure and services) . Ex. % Housing units connected to the internet with a speed greater than or equal to 30MB / Sec

Solutions:
Ex. Measuring housing connected to high speed internet / A district level surveillance system

9. RESOURCES

- **% Paved surfaces** (calculation) : Sealed surface areas / Total area of the project
- **Water management:** Strategies and implemented actions promoting the proper management of water resources and the reduction of consumption. (Fostering the infiltration, recovery and treatment of rainwater).
- **Soil management** : Strategies implemented for the rehabilitation and proper management of soils (pollution control operations, rehabilitation of polluted soils, fertilization, adaptive management techniques).
- **Waste management**: Implemented strategies prevent waste generation, promote its re-use and stimulate recycling.(Ex of indicator: % of housing within 200 meters of a voluntary collection point).

Solutions:
Ex. Communal storm water collection system / Efficient sanitary fixtures / Decontamination procedures / Soil rehabilitations.
Ex. Action Plan for the management of urban waste / automated waste collection systems / recovery of organic waste / awareness raising initiatives for citizens and communities.

Mandatory field**

10. BIODIVERSITY

- **Biodiversity and natural areas** : Actions taken to ensure the protection of natural spaces and biodiversity. Ecological-networks, waterway and wetlands.

11. ENERGY/CLIMATE

- **Adaptation and preservation of resources, GHG emissions**: Implemented actions to boost the capacity of the territory to adapt to new climate conditions and to optimize use of resources. For example, materials used for construction of buildings and infrastructure.
- **Energy savings**: Undertaken strategies to limit consumption and avoid losses on the produced energy.
- **Energy mix**: Detailed description of all used energy resources and their respective contributions to the energy needs of the project (% and MWh).
- **Total electricity needs** of the area covered by the project per year
- **Total electricity production** of the area covered by the project per year

Solutions :
Ex. Urban CO2 capture system / Management of the urban 'heat island' effects.

Ex. Solar power station / Smart grids / urban heating and cooling network based on biomass and geothermal power / urban lighting network with photovoltaic solar power / recharging network for electric vehicles.

Mandatory field**

12. BUILDINGS

- Building strategies implemented on the global project. (Specific goals, charter …)
  Ex. Net zero energy building.
- More info: Download the charter defining the minimum energy performance of buildings on the territory.
- Link to the ***Cases studies*** on Construction21 platform, describing some buildings constructed as part of this project.

SUSTAINABLE URBAN SOLUTIONS

Within each tab, City21 will allow a description of innovative solutions implemented on the project and its author with a double objective :

- ✓ *Encourage other communities to replicate these solutions in their territories.*
- ✓ *Promote innovative companies who implemented these solutions.*

Available information on each solution

- Name**
- Description**
- CO2 impact (par ex: ICLEI carbon standard calculator)
- Company ** -> link to the company page on Construction21 website.
- Visual**
- Category**
- Comments
- More info / Web link
- More info/ doc

These solutions will be published by the project holder that added the urban project case study or by the company that implemented the solution.

Pre-figuration phase

Mandatory field**