A social media to accelerate building & city sector transition to sustainable development
# Two logics of innovation

<table>
<thead>
<tr>
<th>Innovation origin</th>
<th>Technology push: R&amp;D or technology breakthrough drives the launch of new products.</th>
<th>Market pull: The market demand for a solution to a problem or a need initiate the development of a new product.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Innovation policies</td>
<td>Supply-side oriented</td>
<td>Demand-side oriented</td>
</tr>
<tr>
<td>Innovation process</td>
<td>Linear diffusion process</td>
<td>Complex and systems-oriented.</td>
</tr>
<tr>
<td>Innovation type</td>
<td>Technology Product (good or service) Process</td>
<td>Social innovation Organizational method</td>
</tr>
</tbody>
</table>

**Question:** What type of information system for innovation system?
### Proposal for characteristic of innovations and projects

**Type of innovation**
1. Technology, Product, Process
2. Marketing and organization
3. Social innovation
4. Eco innovation
5. Community and territorial
6. Digital and information...

**Type of bearer**
1. Big business
2. SMEs
3. Innovative start up
4. Social enterprise
5. Association
6. Community
7. Individual...

**Innovation network**
1. Business ecosystem (private)
2. Public/Private Network (innovation ecosystem)
3. Community of Practice (knowledge ecosystem)

**Maturity**
1. Maturity of Technology (TR)
2. Maturity of the innovation system
3. Level of formalization
4. Maturity of the bearer and its organization

**Knowledge base**
1. Scientific knowledge
2. Patents (source of knowledge)
3. Standards and norms
4. Training
5. Experiences
6. Tacit knowledge

**Targets and customers**
1. Base of the pyramid
2. Individual consumer
3. Citizen
4. Business
5. Community ...

**Finance**
1. Green funds
2. Crowd funding
3. Angel investors
4. Venture capitalist
5. Assurance
6. Private banks

**Intellectual property**
1. Patent
2. Marketing
3. Franchise
4. Open and free
5. Informal...

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**Various combination of characteristics**

**Define an common ontology for various platforms**
A local AND global approach

• An organized social network
• Collectively managed by professionals
• To develop competencies & green business
• To foster innovation

An international network of 11+1 platforms

• Managed in each country by a non-profit organization
• Coordinated by an international association
Spain

France

Romania

Luxembourg

Cote d'Ivoire

Senegal

China

Germany

Italy

Brazil

Canada

Belgium

Morocco

Spain

Lithuania

Algeria

11 + 1 platforms today

>>> World wide target
Various formats for information and promotion

<table>
<thead>
<tr>
<th>Information</th>
<th>Solutions &amp; innovations</th>
</tr>
</thead>
<tbody>
<tr>
<td>News</td>
<td>Innovative Buildings &amp; Solutions Database</td>
</tr>
<tr>
<td>Events</td>
<td>City &amp; urban solutions Database (districts)</td>
</tr>
<tr>
<td>Videos</td>
<td>Infrastructure Database (energy, waste, transport...)</td>
</tr>
<tr>
<td>Trainings</td>
<td>Case already implemented. Published by project partners integrated in an (inter)national awards process</td>
</tr>
</tbody>
</table>

People

- Directory of users, companies, networks
- Online communities

Connected

- Connected with other social media
An online meeting place for all professionals

- Contractors, entrepreneurs
- Architects, planners, engineers
- Construction companies, urban services, business
- Promoters, developers
- Researchers, teachers
- Networks, public agencies
- Local communities

700 000 VISITS /year
2 000 Case studies
20 000 registered
50 000 Unique user/month
Case studies access in each national languages

建案名称：中国石油大厦

项目类型：新建建筑
建筑类型：高于28米高层办公
建设年份：2004
交付年份：2012

气候区：Cwa温和，冬季干燥
楼面总面积：200,838 m²

建筑/改造费用：2,147,483 647 ¥
户/工位数工位：3,500 工位
费用/m2：10,693 ¥/m²
费用/工位：613,567 ¥/工位

Project type: New Construction
Building Type: High office tower > 28m
Construction Year: 2004
Delivery year: 2012

Climate zone: [Cwa] Mild, dry winter, hot and wet summer.
Net Floor Area: 200,838 m²
Construction/refurbishment cost: 2,147,483 647 ¥
Number of Work station: 3,500 Work station
Cost/m2: 10,693 ¥/m²
Cost/Work station: 613,567 ¥/Work station
Access to innovations

- You publish in your native language
- Case study visible in English, Chinese, French, Spanish, Italian...
International awards connected to COP

- 150 candidates
- 19 countries
- 1 video for 9 winners
- A global promotion
- 50 media partners
- 500,000 view
# Key elements for experience Construction 21

<table>
<thead>
<tr>
<th>Objectives</th>
<th>Problem</th>
<th>Solutions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Access to innovative case studies already on the market</td>
<td>Balance quality / quantity Complex indicators deters candidates</td>
<td>Awards to attract and online support for posting case Communication on awards</td>
</tr>
<tr>
<td>Local to global approach</td>
<td>Relevance of national level (national innovation system)</td>
<td>Governance based on national chapters Communities on-line and open process</td>
</tr>
<tr>
<td>Access of national stakeholders to global knowledge</td>
<td>Language issue : English is not universal</td>
<td>National portals in national languages Translation process and multilingual database</td>
</tr>
<tr>
<td>Strengthen National Innovation System (NIS)</td>
<td>Lack of institutional leadership Communication difficulties</td>
<td>Media partnership to help NIS partners communication Steering the information system is a transaction tool to make stakeholders work together</td>
</tr>
<tr>
<td>Disseminate online knowledge to professionals and decision-makers</td>
<td>Low ability to use digital technology, communication tools or networks practices</td>
<td>Promotion of digital literacy through training sessions</td>
</tr>
<tr>
<td>Foster participation and contribution on the portal</td>
<td>No personal return for public involvement</td>
<td>Implementation on the portal of personal and organization pages valuing contributions</td>
</tr>
<tr>
<td>Attractive site that generates recurring uses</td>
<td>New media competition and rapidly evolving use</td>
<td>Agile development for new uses (smart phone) and social networks (Twitter, LinkedIn ....)</td>
</tr>
<tr>
<td>Exchanges in online communities</td>
<td>Lack of loyalty</td>
<td>Organization of physical meetings through partnerships with trade shows</td>
</tr>
</tbody>
</table>
Governance

Strategy
- Construction21 AISBL Board
- Strategic decisions

International
- Awards management, New functionalities...

Operational
- International Organizations, NGO, Foundations, enterprises, Universities/Schools

National C21 support
- Content management
- Communication
- Communities management
- Administrative & financial portage
- Member of C21 international

Steering comity
Representing the national innovation system

Finance
Fee, sponsorship, services, subventions

Community manager
Contributors

Members registered
on the platform

Users

Network heads, clusters, platforms, media, trade shows...

Actors in the field:
construction companies, industrial, engineers, craftsmen, architects, urban planners, real estate, training, local communities

International Organisation, NGO, Foundations, enterprises, Universities/Schools

Associations, institutions, enterprises, academics

Construction21
Le média social du bâtiment et de la ville durable
Join City21

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www.construction21.org
Drivers of eco-innovation

## Service and finance for innovation

### Finance

#### Actors
- Green funds
- Crowd funding
- Angel investors
- Venture capitalist
- Assurance
- Private banks

#### Types
- R&D support
- Subsidies
- Guarantees
- Public/Private Venture Capital Funds
- Subsidized loans
- Carbon finance
- Others ???

### Networks & services to innovators

#### Services
- Scientific validation
- Market study
- Tests
- Development of the business plan
- Facilities
- Contacts with partners
- Prototypes
- Legal studies
- Semi-industrial demonstration
- 1st client
- Infrastructure

### Support to innovators

#### Innovation trajectory
- Stage 1: R&D
- Stage 2: Demonstration
- Stage 3: Deployment
- Stage 4: Diffusion

#### Technical platforms
- Research centers
- Incubators
- Technical platforms
- Pooling of project
- Clusters

#### Support to innovators
- Technical support
- Legal studies
- Development of the business plan
- Semi-industrial demonstration
- 1st client
- Infrastructure
The ecosystem behind Construction 21: Portals and software solutions

Construction 21 is powered by an NGO: CIRIDD (www.ciridd.org/), developing different portals and social media forming an ecosystem of software solutions and sharing of experience.

Portal innovation for francophone developing region, focused on digital
Map of clusters and resource centers

News portals on sustainable development by regional, thematic or actors access.
A specific portal is concerning STI

International portal interconnected with sub-national portals on circular economy

www.economiecirculaire.org
www.genie.ch
www.eclaira.org
www.recita.org

www.mediaterre.org/scientifiques