

Open Innovation: Saint-Gobain's practice

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Intellectual Capital for
Communities
In the Knowledge Economy

Saint-Gobain



Sales

€42.116bn

195,000
employees

Innovative Materials



Flat Glass

- No. 1 in Europe
- No. 2 worldwide
- Operations in 41 countries
- Over 34,000 employees

High-Performance Materials

- No. 1 worldwide
- Operations in 42 countries
- More than 27,000 employees

22%

of 2011 consolidated net sales

Construction Products



- No. 1 worldwide in ductile cast iron pipe
- No. 1 worldwide in plasterboard and plaster
- No. 1 worldwide in insulation
- Manufacturing operations in 55 countries
- Nearly 48,000 employees

25%

of 2011 consolidated net sales

Building Distribution



- No. 1 in Europe building materials distribution network
- Operations in 26 countries
- 67,000 employees

44%

of 2011 consolidated net sales



9%

of 2011 consolidated net sales

“ To be the worldwide leader in “habitat” by providing innovative solutions to the essential challenges facing our world today: growth, energy and the environment”

P.A. De Chalendar, CEO, nov. 2007



Our challenges: energy and environment

The biggest reserve for energy is energy efficiency

- Better insulation of buildings
- Better use of fossile energy: fuel cell, ..
- Renewable energy: solar, photovoltaic, biomass...

- Solar solutions
- Fuel cells
- Intelligent glass
- Lighting
- High performance insulation systems
- External wall insulation systems
- Functional flexible substrate
- Energy efficiency and environmental impact of processes

Saint Gobain: beyond “classical” R&D, towards Open Innovation

- **A strong internal R&D**
- **NOVA: Techno-Marketing & Start-Ups**
- **SUN: Saint-Gobain University Network**
- **Partnerships with customers/ other industrials**
- **DomoLab, the new SG Innovation Center**

NOVA : when our innovation originates from start-ups

- Collaborate with start-ups through...
 - Licensing, co-development
 - Production agreements and distribution
 - Joint ventures, equity investments
- A dedicated team spread over 3 continents to
 - Identify relevant startups
 - Validate technology and market
 - Identify potential collaborations
 - A specific committee with 8 representative from CP and IM sectors
 - Dedicated legal support from the legal department
- Results (in 5 years)
 - More than 1400 start-ups examined
 - 120 start-ups analyzed in detail, with business support
 - 28 contracts signed across all sectors



Nova and TMT

- **Techno Marketing Team**
 - Identify new applications for an available technology
 - Explore new markets or new technologies (new for SG or really new)
 - Explore beyond the well-known territories of our existing BUs (cross fertilization)

SUN: Saint-Gobain University Network

Objectives

- **Reinforce interactions with the best teams in our domains**
- **Know and hire the best competences**
- **Strengthen our presence in countries of strategic importance for Saint-Gobain (Russia, India,...)**

SUN Saint Gobain University network

Objectives

- Reinforce interactions with the best teams in our domains
- Know and hire the best competences
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Master agreements
Research contracts

UCSB

Harvard

U Mass

Penn State

MIT

Accord cadre CNRS,
Chaire X/ESPCI

Moscow
University

Aachen University,
Fraunhofer

IIT Madras

NIMS

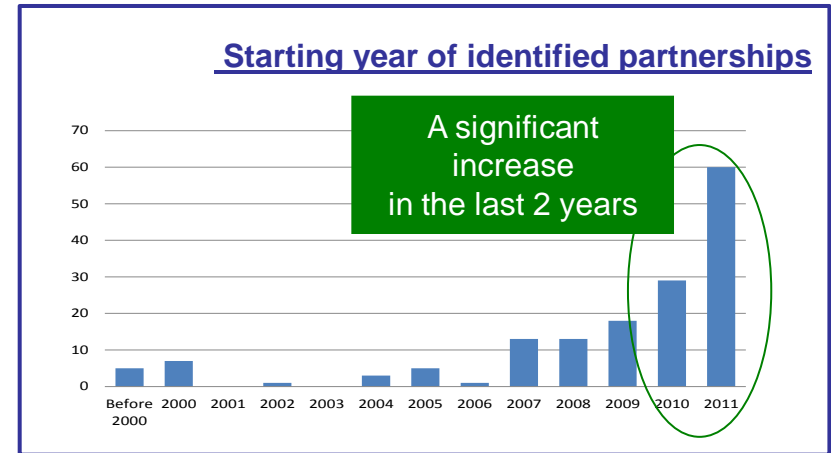
Partnerships

Objectives

- **Anticipate evolution of market demand, technologies...**
- **Benefit from external ideas**
 - “not all smart people work for us (!), and we need to work with smart people outside our company”
- **Co-develop solutions with technologies unavailable in-house**
- **Split costs and risks**

Partnerships: SG practices

- An increasing number of partnerships
- A large variety of types
 - From Co-Dev (Air tightness control machine) to new Service for customer (Asphalt roof recycling)
- **Good Practices:**
 - sharing/ selecting / structuring/ scouting
- **Hurdles:**
 - Not a “quick-win”
 - Fight the “not invented here”



Domolab: SG's Innovation Center

The first Innovation Center dedicated to « Habitat »

Why?

- To exchange about innovation with the key market influencers
 - Architects, contractors, engineering practices, developers...
- To better understand market evolutions
- To generate new research projects



Domolab: SG's Innovation Center

A three-fold visit in order to innovate together

1. Feeling

« Sensitive » modules to illustrate in a poetic way the link between materials and the functions they perform: acoustics, thermics, light, aesthetics...

2. Understanding

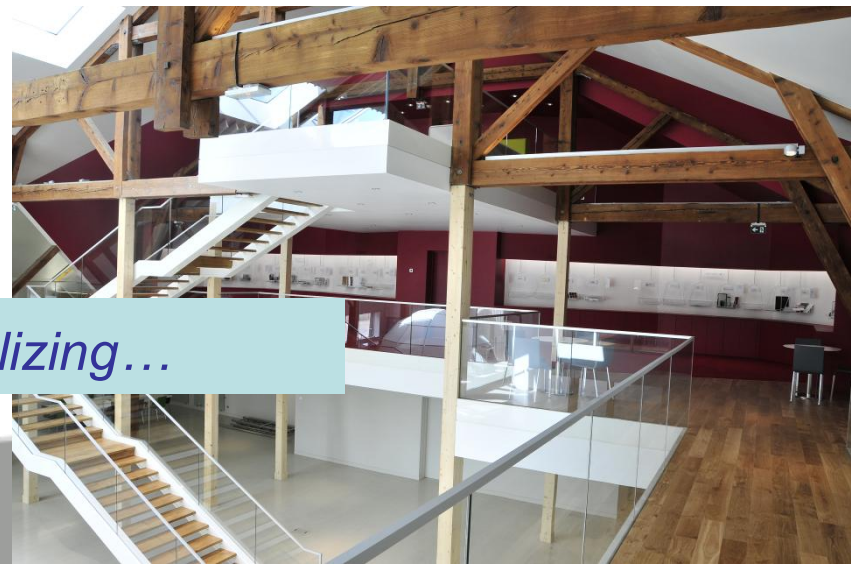
Mock-ups, virtual reality, demonstrators

A 3-D projection room with spatialised sound

3. Discussing and innovating

Comfortable working spaces

A « solutions' library »



Because innovation is not only about rationalizing...



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Thank you

Saint-Gobain: a strong internal R&D



6 Main R&D centers



3,700

employees



396 patents
filed in 2011



12 Research centers
and about 100
development units
worldwide

A center of Excellence with the NIMS

- **National Institute for Material science**
 - Tsukuba
- **MOU signed by PAdC October 2009**
- **A mix team SG and NIMS working on material for the future**
 - Energy
 - Environment
 -
- **Two projects already launched**
 - A third in progress





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Intellectual Capital for Communities in the Knowledge Economy Nations, Regions, Cities and Emerging Communities

