

## International sustainable campus network Zürich meeting 23-25/4/2008

**Working group III:**  
Financial and decision mechanisms

**Theme:**  
sustainable buildings on campuses



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## Université libre de Bruxelles Environmental Coordination

### September 2004

Birth of Environmental Coordination  
Environmental management department

Trial period: 2 years

### October 2006

Permanent internal funding  
Integration of the department within the  
institutional organigram  
department of health and safety at work (SIPP)



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## Environmental Coordination Mission

- ▶ to introduce environmental management within the university
- ▶ to define a coherent environmental policy
- ▶ to coordinate environmental management activities
- ▶ to facilitate internal environmental communication
- ▶ to promote best environmental practice in all fields
- ▶ to provide environmental advice
- ▶ to undertake projects that improve ULB's environmental performance
- ▶ to raise environmental awareness and promote eco-friendly behaviour
- ▶ to monitor the environmental performance
- ▶ to publish the results



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## Environmental Coordination Vision



- ▶ constant improvement in environmental performance
- ▶ efficient environmental management system for all sites
- ▶ involving an ever-growing number of people in daily environmental management
- ▶ coherent, progressive and up-to-date environmental policy



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## Environmental Coordination

### People involved

- ▶ environmental coordination team
- ▶ environmental coordination committee (reps. faculties & departments)
- ▶ students: intern traineeships, master's dissertation projects
- ▶ ULB staff from all departments and faculties



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## Environmental policy

### Part I:

Environmental policy statement

### Part II:

Working documents covering 13 action fields

- ▶ global issues
- ▶ goals for ULB
- ▶ actions already taken by ULB
- ▶ future actions



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## Environmental policy

### Action fields:

1. Clean environment
2. Well-being
3. Energy
4. Water
5. Waste
6. Air
7. Noise
8. Ground
9. Green spaces & biodiversity
10. Buildings & landscaping
11. Eco-consumption
12. Relationship with external suppliers
13. Mobility



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## Environmental actions + funding

- ▶ inventory of environmental impact
- ▶ environmental management
- ▶ waste & energy management
- ▶ ecoconsumption
- ▶ information campaigns
- ▶ etc.



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## Environmental actions + funding

### Funding:

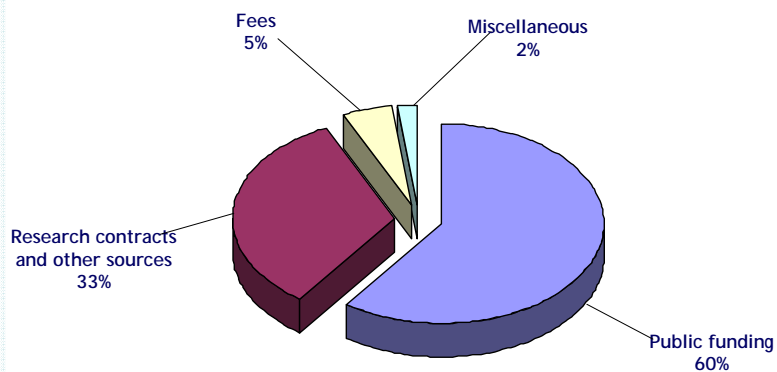
- ▶ annual budget for environmental actions
- ▶ public incentives (competitions, grants, env. laws)
- ▶ green accountancy: identify environmental and financial savings
- ▶ public/private partnerships



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## Budget & financial instruments IN > funding (excluding buildings)



Annual budget: 226 000 000 €

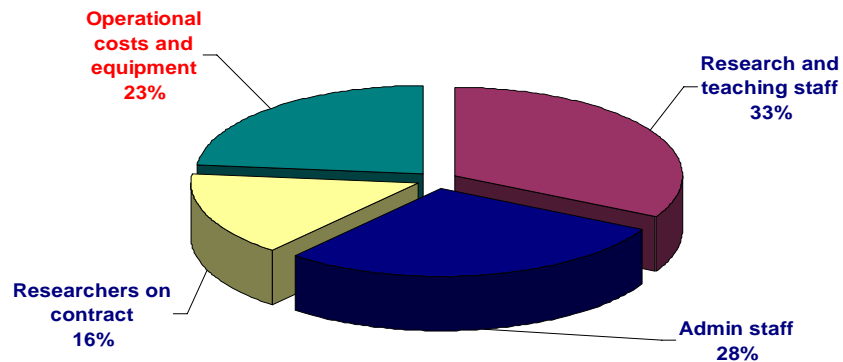


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## Budget & financial instruments

**OUT > costs** (excluding buildings)



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## Building and renovation projects Funding

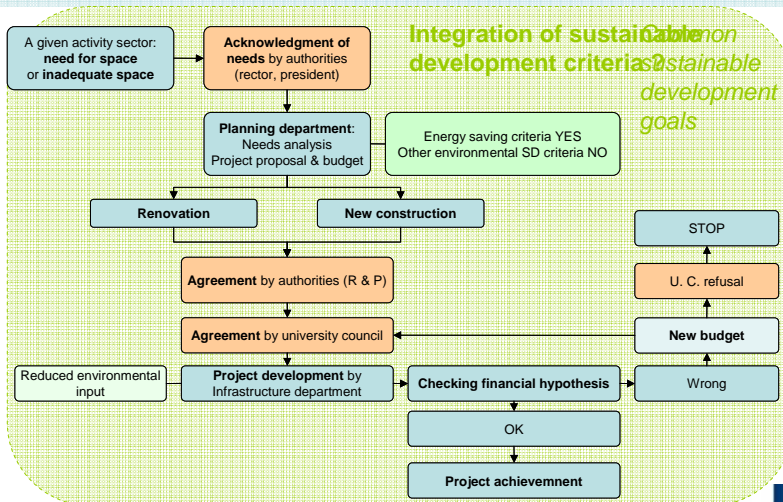
- 1. Public allocation** (Communauté française)  
1.922.214 € / year (indexed)  
Renovation, small building projects  
Teaching, research, admin
- 2. Exceptional public grant**  
18.000.000 €  
For big building investment
- 3. Real estate sale**  
2007: 50.000.000 € (sale of land, campus de la Plaine )  
Limited income
- 4. Private Donors**  
Extraordinary, limited funding



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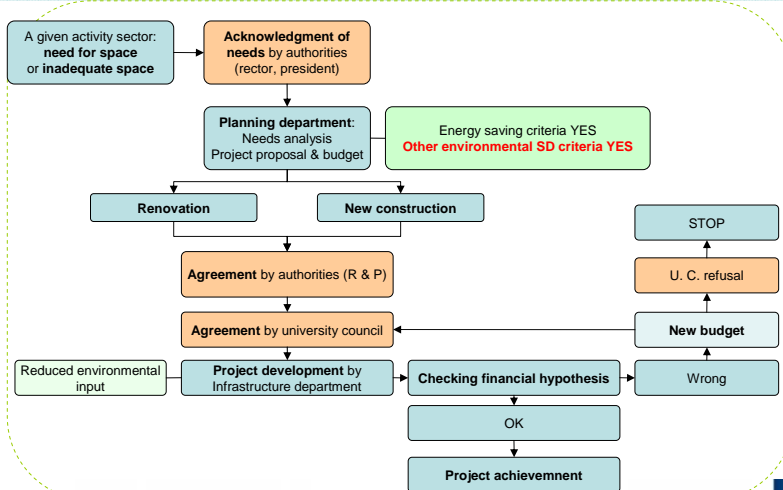
## Building and renovation projects Financial and decision mechanism



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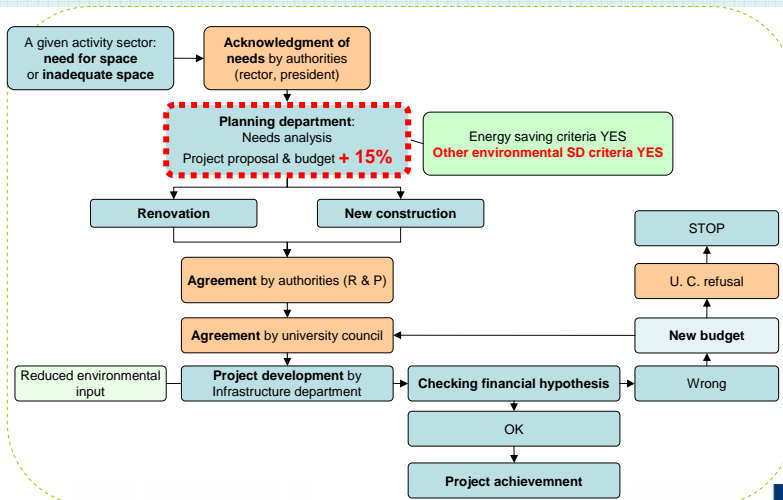
## Integration of sustainable development criteria



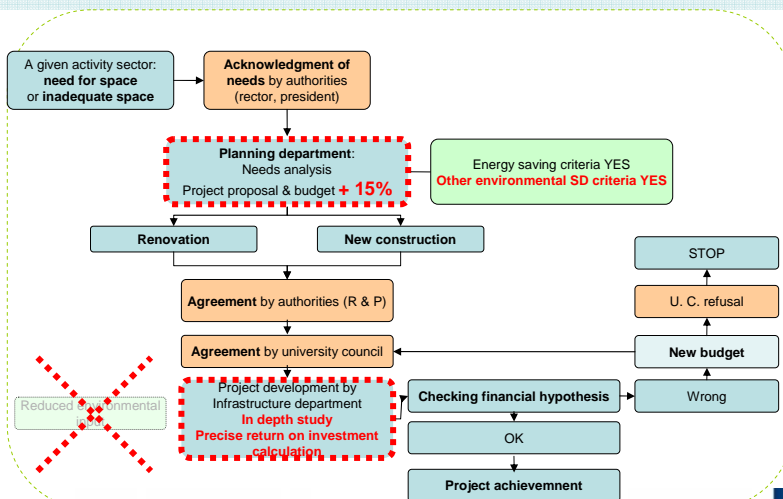
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## Integration of sustainable development criteria



## Integration of sustainable development criteria





## Steps towards sustainable building design: common SD goals

### University - at all levels

#### + - Need for common sustainable development values

environmental values = ok, cf. environmental policy  
extend to sustainable development values

#### - Statement by rector & president

need for stronger environmental and sustainable development commitment



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## Steps towards sustainable building design: common SD goals

### Infrastructure department

- + Strong environmental commitment
- + High environmental quality assessment of each project\*
- + Use of durable building materials and equipment
- + Environmental building guidelines for architectural agencies

e.g. standard equipment: rain water collectors

\* French methodology: Haute qualité environnementale®, PHPP2004



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## Steps towards sustainable building design: decision & financial processes

- Initial budget estimation has to consider costs of environmental/SD design and equipment

> Identify **future savings** on operating costs and invest against them\*

> **Public incentives**

(have to be adapted to university needs)

\* 'green accountancy': investment budget directly connected to operating budget



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## Steps towards sustainable building design: decision & financial processes

> **Partnerships** with entrepreneurs, demonstration pilot projects

> Increase **sponsorship** (cultural obstacles?)

> **"1/3 investor"** (ULB or private investor, specialized in environmental, energy saving and renewable energy equipment)



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## Steps towards sustainable building design: decision & financial processes

- Return on investment needs to be determined precisely
  - > pilot projects
  - > learning by doing



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## Life in a sustainable building: obstacles

- Irregular space occupation
  - > overcome difficulties of interior climate and lighting optimization
- Appropriate user behaviour
  - > Information campaigns



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## Life in a sustainable building: obstacles

### Preview sufficient budget for maintenance

> 10 -15% of building cost/year (depending on age)

### Monitor input & output

(energy & water consumption, waste, pollution)

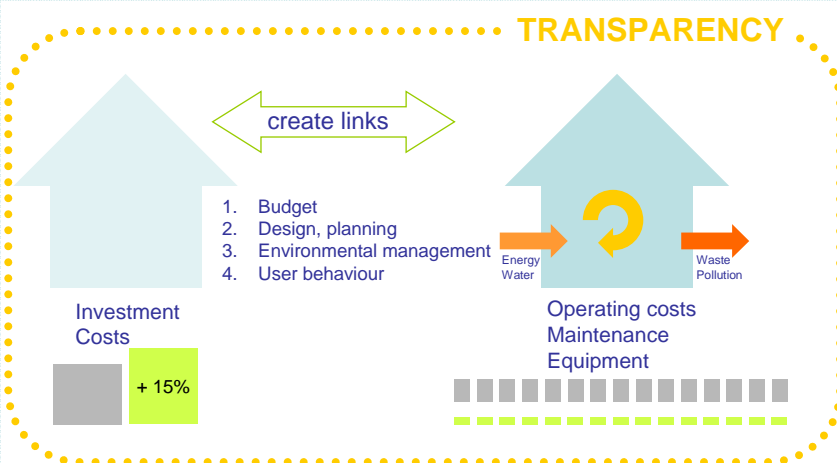
- > Environmental management system
- > Meters, indicators



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## Sustainable building : from planning ... to reality



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## Hot water production by solar energy

### Building F1:

Central building of ULB's major campus in Brussels (Solbosch)

- 220 student rooms
- 2 restaurants
- Snack bars, shops
- Cultural spaces



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## Hot water production by solar energy

### Goals:

- Apply ULB environmental policy
- Improve environmental performance of older building
- Create a demonstration project



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## Hot water production by solar energy

### Strategy

- Starting point:  
students and staff members suggest  
that F1 building could benefit from solar  
energy for hot water production

(2 preliminary studies)



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## Hot water production by solar energy

### Further steps:

- + Feasibility study by external engineering  
agency
- + Internal decision process:  
Presentation of the project by  
environmental coordination  
(representing all departments involved)
- > Agreement by university council ?



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## Hot water production by solar energy

Financial mechanism:

Feasibility study

> financed by Ministry of Environment

(Competition, criteria: motivation to realize the project, feasibility)

Project:

> annual budget for renovation

(investment period seems to be short, needs to be determined precisely)



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