ECBCS

The ECBCS Programme

Activities linked to the Distributed Energy Storage field

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ECBCS Executive Committee Chair, Switzerland

ECES Workshop on distributed Energy Storage Systems,
Paris 18-19 September 2012

The ECBCS Programme

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R&D Projects

Knowledge Deployment and Demonstration

R&D Strategies

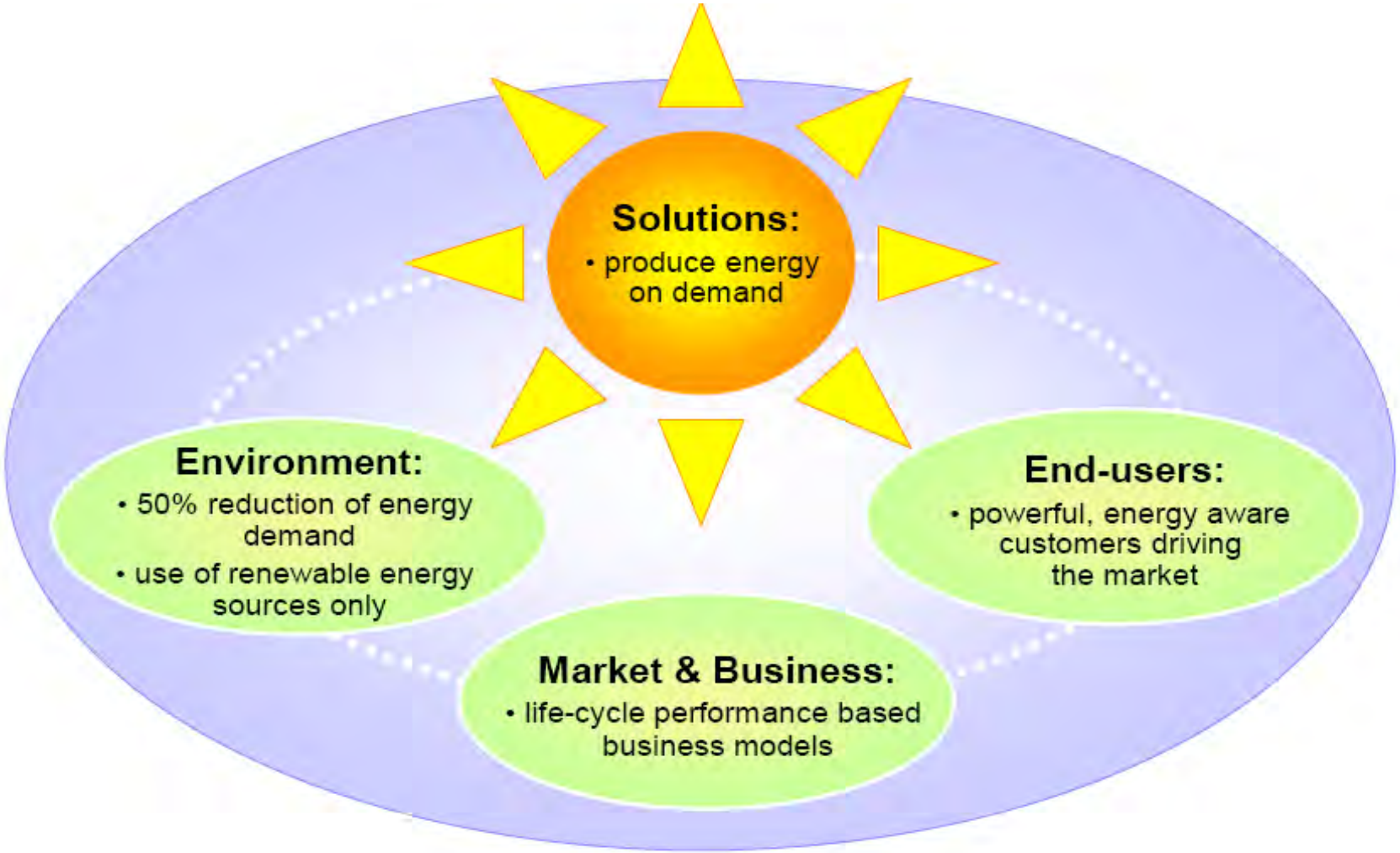
Buildings

Communities

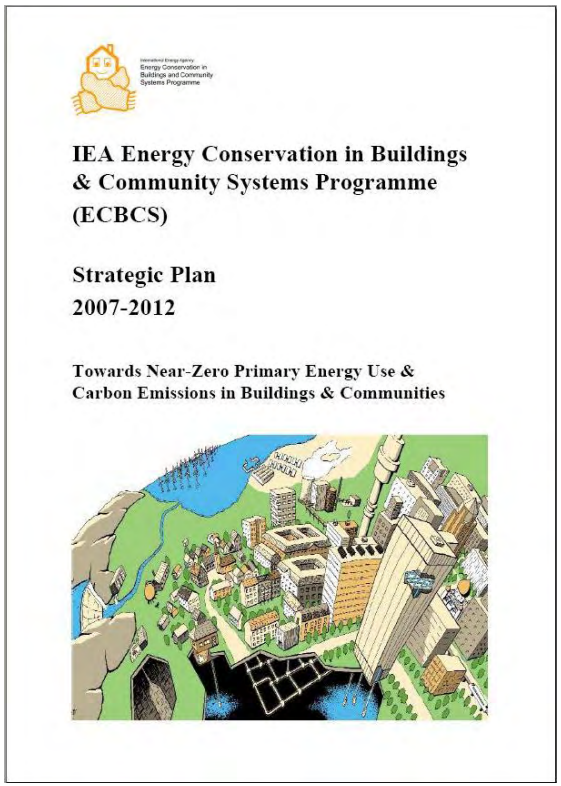
26 Participating Countries

- Australia
- Austria
- Belgium
- Canada
- P.R. China
- Czech Republic
- Denmark
- Finland
- France
- Germany
- Greece
- Ireland
- Italy
- Japan
- Republic of Korea
- Netherlands
- New Zealand
- Norway
- Poland
- Portugal
- Spain
- Sweden
- Switzerland
- Turkey
- UK
- USA

Vision for the Built Environment:
Adoption of nearly-zero primary energy use and CO2 emissions solutions



ECBCS Mission



… to facilitate and accelerate the introduction of energy conservation and environmentally sustainable technologies into healthy buildings and community systems, through innovation and research in decision-making, building products and systems, and commercialization

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The Sector: Buildings & Communities

Energy = 30% – 40%

CO2 emissions = +30%

Solid Waste = 25% – 40%

Primary Resources = +50%

GDP = 10% – 15%

Fragmented sector

Outputs & Outcomes

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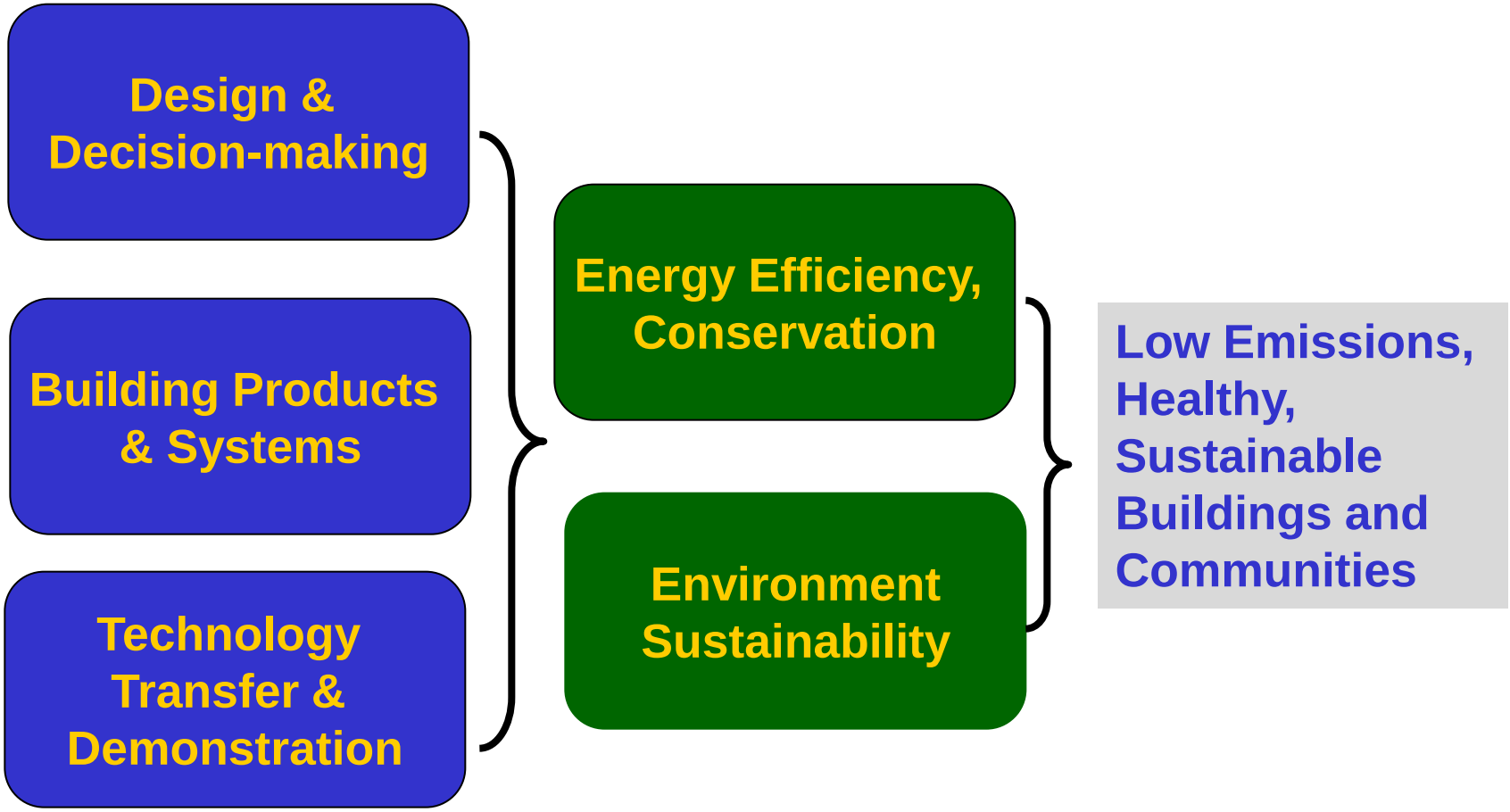

Value Chain in Construction Market

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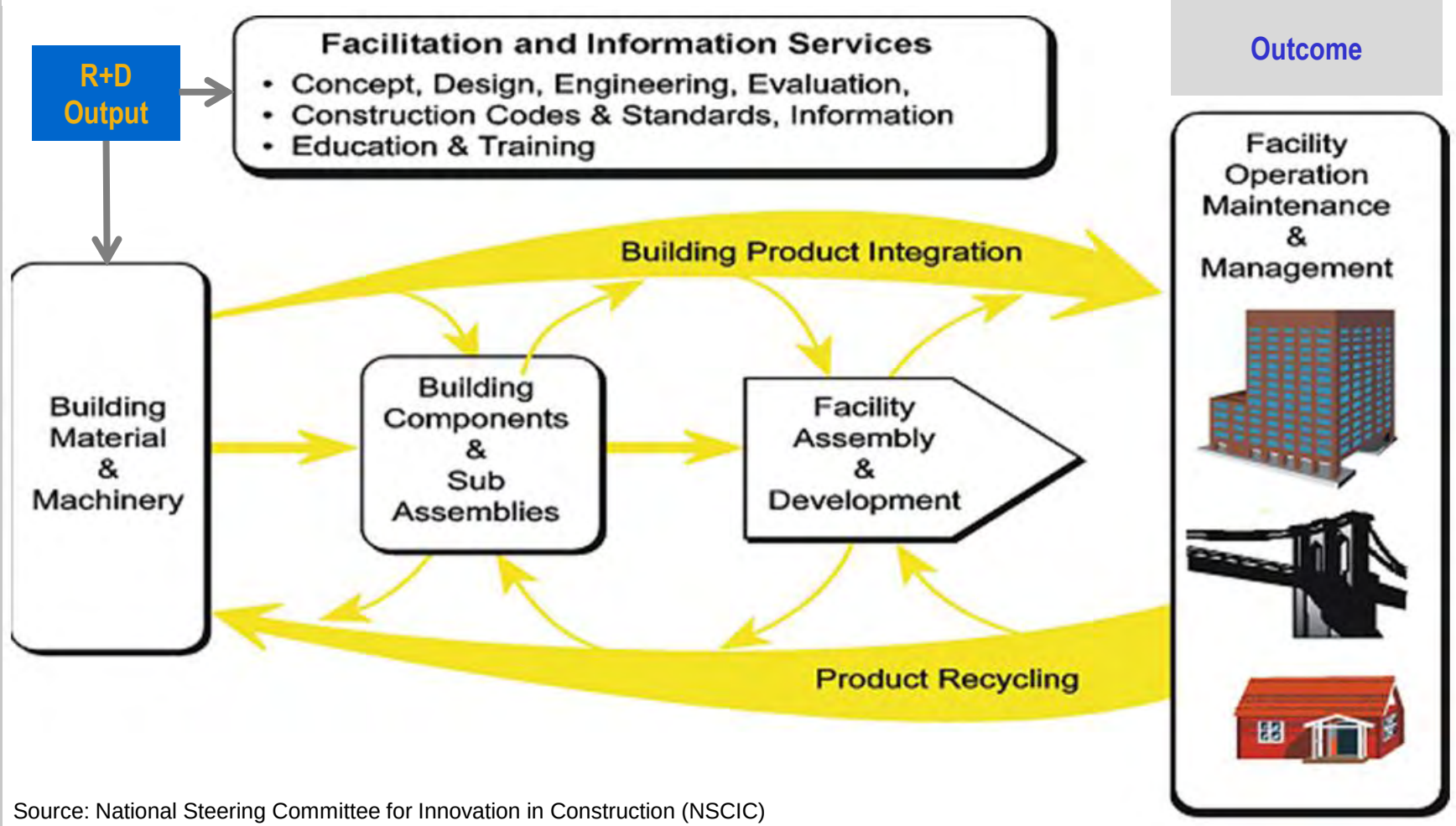

Source: National Steering Committee for Innovation in Construction (NSCIC)

Dissemination & Outreach - Projects

Project Results

- Full Scientific Reports
- Summary Reports
- Factsheets
- Tools

Dissemination & Outreach

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www.ecbcs.org

- ECBCS Bookshop and website
- Conferences / seminars
- Demonstration

Dissemination & Outreach

- 2 Million down-loads per year
- 49 completed projects
- 2 new projects under development
- 10 current projects

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Scope of Innovation in ECBCS: Technology Readiness Levels

Level	Description
1	Transfer of scientific research to applied R&D
2	Identification and/ or evaluation of possible applications of the technology
3	First level of Proof of Concept
4	Bench scale study of the technology as a whole.
5	Bench scale study of integrated system in simulated application.
6	Scale up of technology and testing in simulated application.
7	Demonstration -Full scale demonstration of technology in industry setting.
8	Business- Release for commercial implementation
9	Business- Further improvements implemented

Focus Areas

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1. Building
2. Integ
3. Bu
4. Build
5. Integ

What are the issues related
to Distributed Energy Storage?

1. Building Concepts and Methodologies

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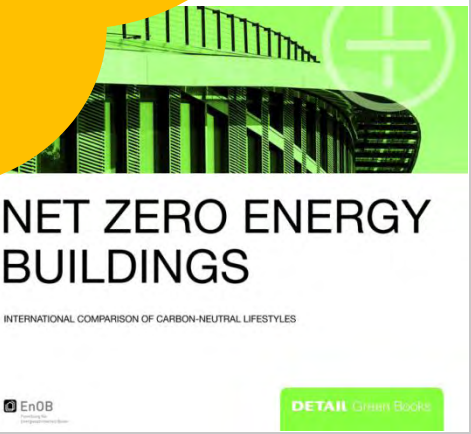
- Developme
  & Technic
  Retrofits
  Clust
- Cost e
  in Build
- Toward
  (Ax 52)

Load matching and grid interaction with on-site RE production: What are the technical and economical possibilities and limits? What indicators are relevant for the building concept?



2. Integrated Building Systems

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- Reliability of
  Building Re
  Probabi
  Perfor
- Prefabric
  system
  building
- Environmenta
  elements for buildings (Ax 4

No issues related to DES

3. Building Services

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- New Gene
  Building &
  on Mod
- High
  Heatin
- Integra
  Techno
- Heat Pumping ioning
  (Ax 48)

System integration of RE and HVAC: What is the future role of DES?

4. Building Benchmarking & Measurements

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- Reliable E
  Perform
  Based
  Me
- Eva
  CO2
  Con
- Total Ener
  Analysis & E
  (Ax 53)

No issues related to storage

5. Integrated Community Systems

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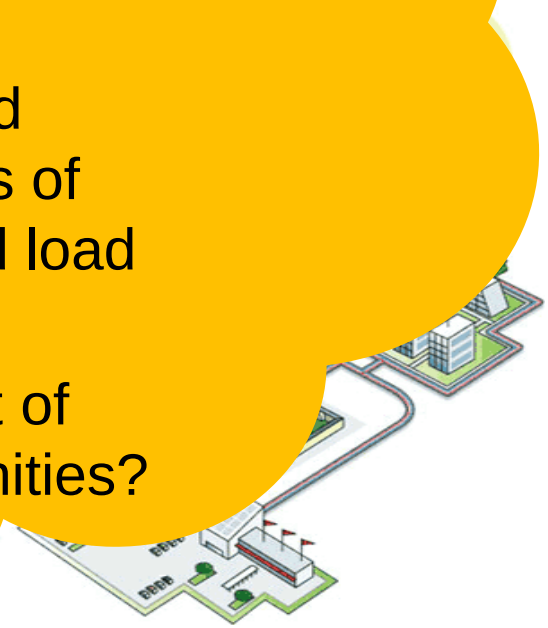
- Guideli
  for E
  Co
- Lo
  Perf
  Co

What is the role of buildings within the discussion on interaction between smart grids and buildings or clusters of buildings?

What are the possibilities and limitations for buildings in terms of energy production, storage and load management?

Implications for development of smart cities and smart communities?



Further Information

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www.ecbcs.org

Thank you