



ECCE Standing Committee
Knowledge and Technology
Report, Antalya, Turkey

Renewed paradigm of ECCE SC K&T:

Collecting and distributing knowledge and technology on actual themes:

- **Nearly Zero Energy Buildings nZEB**
- **Lifetime oriented buildings and civil engineering**

**With the interactive working of ECCE organisations and individuals
Through Social Network
"ECCE BuildLife"**

Objectives of SC K&T

- the follow up of the **European and worldwide research and development** in the field of building and civil engineer, and distribute information on this to the member Societies of Civil Engineers and to their members
- exploring and planning **challenging needs of investigations on new knowledge and technologies** in building and civil engineering in the selected issues:
 - **Development of knowledge and technology** in civil engineering at European level
 - **Energy efficiency of buildings** in Europe
 - **Lifetime engineering** = Lifetime oriented design, construction and management of buildings and civil infrastructures

Challenges for ECCE and European Civil Engineers:

- This decade rise special needs for rapid change into a **new paradigm of the business and technology**
- There is enough **knowledge and technology existing** for this change
- The central challenge is: How to disseminate **new innovations and developments to the members** of National Civil Engineer`s Associations on a broad forum **rapidly, directly and interactively?**
 - to all **organisations, firms and individuals**
- **A solution is on time interactive information and discussion** on new technical, economic and organisational issues and innovations

Social Network “ECCE BuildLife”

as an innovative tool for achieving the objectives

- **Social Network “ECCE BuildLife”** is aimed to serve as a **central tool for solving these challenges** as an interactive **work of all stakeholders**: organisations, firms and individuals
- Information exchange **between research, education and development and practice** of firms and individuals

Social Network “ECCE BuildLife”

- Social media means *communication and interactive building of understanding* with the help of information technology, while *the partners are able to act both as consumer and as producer of the knowledge and technology.*
- This Network will include both *technical, economic, organisational, administrative and commercial issues.*

Working in SC with the Social Network

BuildLife ECCE

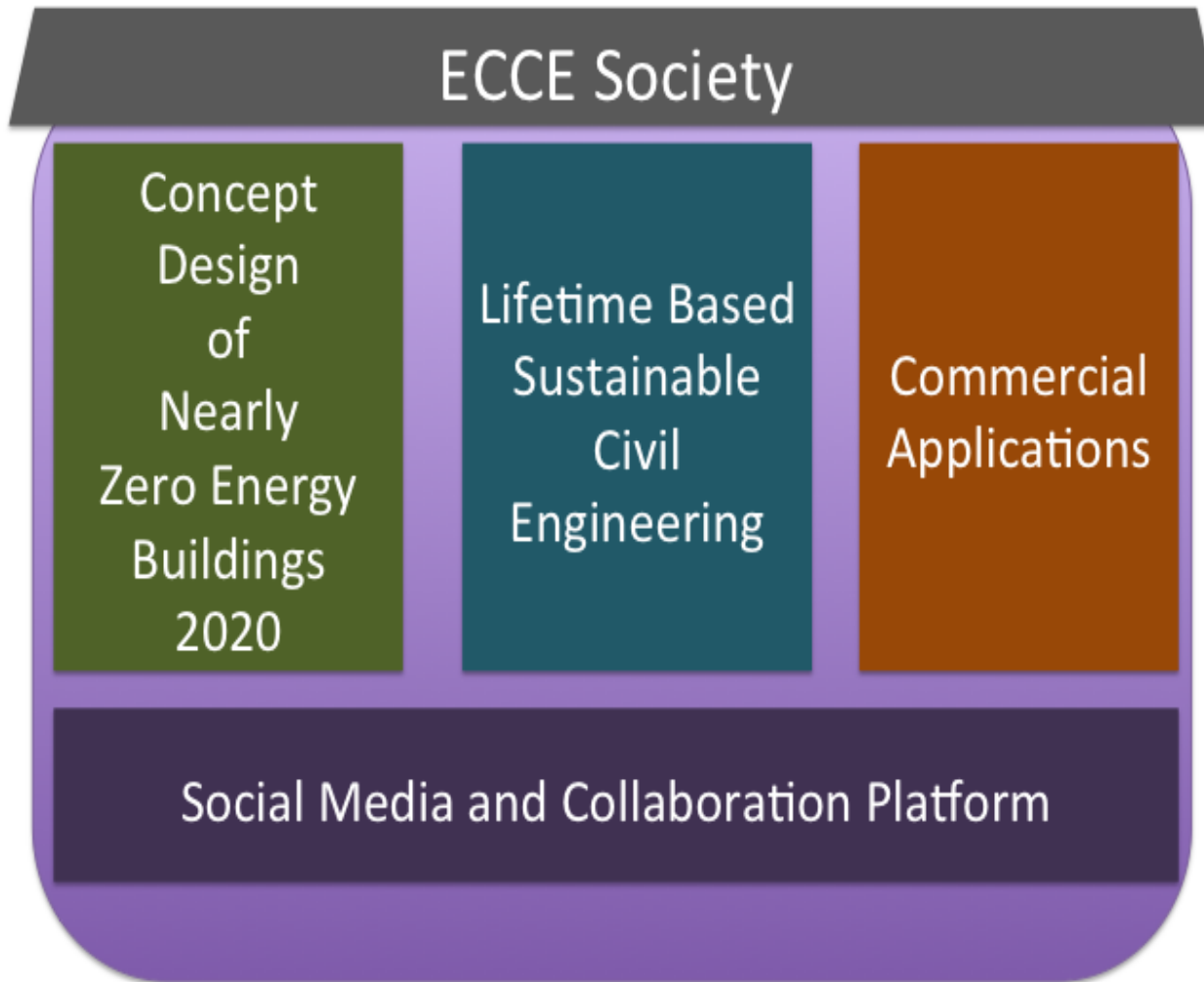
- **In the Social Network BuildLife ECCE members can**
 - **follow the news of individually selected specified expert area or Key Actions**
 - through real time news and
 - getting a collected list of these news periodically (e. g. once a week) into e-mail
 - **exchange and publish information**
 - **share messages and virtual meetings**
 - **join interest groups**
 - **develop business contacts and activities with business partners**

Role of the Social Network

“ECCE BuildLife”

- “ECCE Social Network BuildLife” is a modern tool for **drastic advance of the work of ECCE SC K&T**,
 - transforming the work of **SC K&T from a minor discussion club of a few persons into an active and common platform and audience of all ECCE members** who are interested in actual themes
 - for **supporting the very rapid change** of the paradigm of civil engineering in this decade.
- ECCE Society Network is also a **part of the generic Global BuildLife Network**

Four Key Services at the first phase





BuildLife - Zero Energy Buildings 2020

Professional and Social Network of Building Engineers for implementing the Directive EU31/2010:

- Zero Energy Building concepts
- Optimised Life Cycle Economy
- Building Process
- Integrated Conceptual Design
- Sustainable Building.



**DIRECTIVE 2010/31/EU of the
EUROPEAN PARLIAMENT AND OF THE COUNCIL
of 19 May 2010
on the energy performance of buildings**

SUMMARY

DIRECTIVE 2010/31/EU means three **mandatory requirements:**

- All new buildings after 2020 must be nearly zero energy buildings (in relation to the delivered energy)
- All existing buildings, which undergo a major renovation after 2020 must also fulfil the requirement of nearly zero energy building (in relation to the delivered energy)
- Each country has to prepare a National Plan for implementing the nearly zero energy buildings into common practice until 2020.

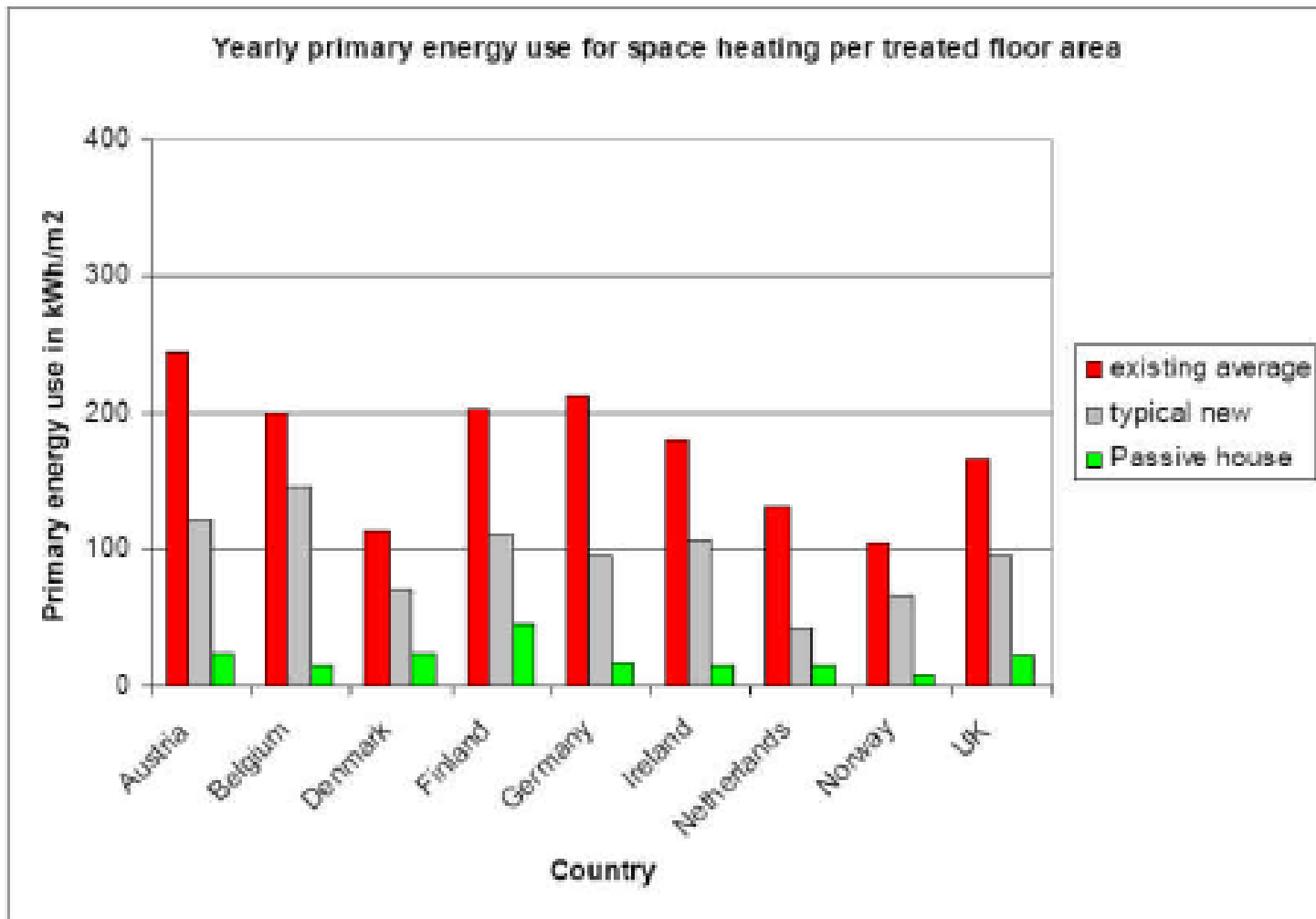


Figure 1 : Yearly primary space heating energy uses per dwelling, per existing, typical new and passive house³

Demands for Actions of ECCE Members

- Primary interest is on the information and publishing of results and experiences of zero energy building
 - Model building concepts (new and renovation)
 - Measurement results of the technical performance
 - Economic analysis
 - Experiences in operation and asset management
- Knowledge transfer between ECCE Members and from sources outside of ECCE

Proposed Action

ECCE SC Knowledge and Technology wants to carry out in 2011 the following action:

Establish a mutual

“ECCE Society of Zero Energy Buildings 2020”

- for interactive working between ECCE professionals , including all partners of the building, renovation and facility management process
- Guiding for optimised life cycle economy of zero energy buildings
- Applying most modern IT technology of social networks in Internet
- Actors will be the professionals of ECCE Member Organisations

Some Features of the BUILDLIFE-ECCE Social Network

Producer challenges



Designer

How do I combine the life-cycle quality and energy efficiency into my design work?



Builder

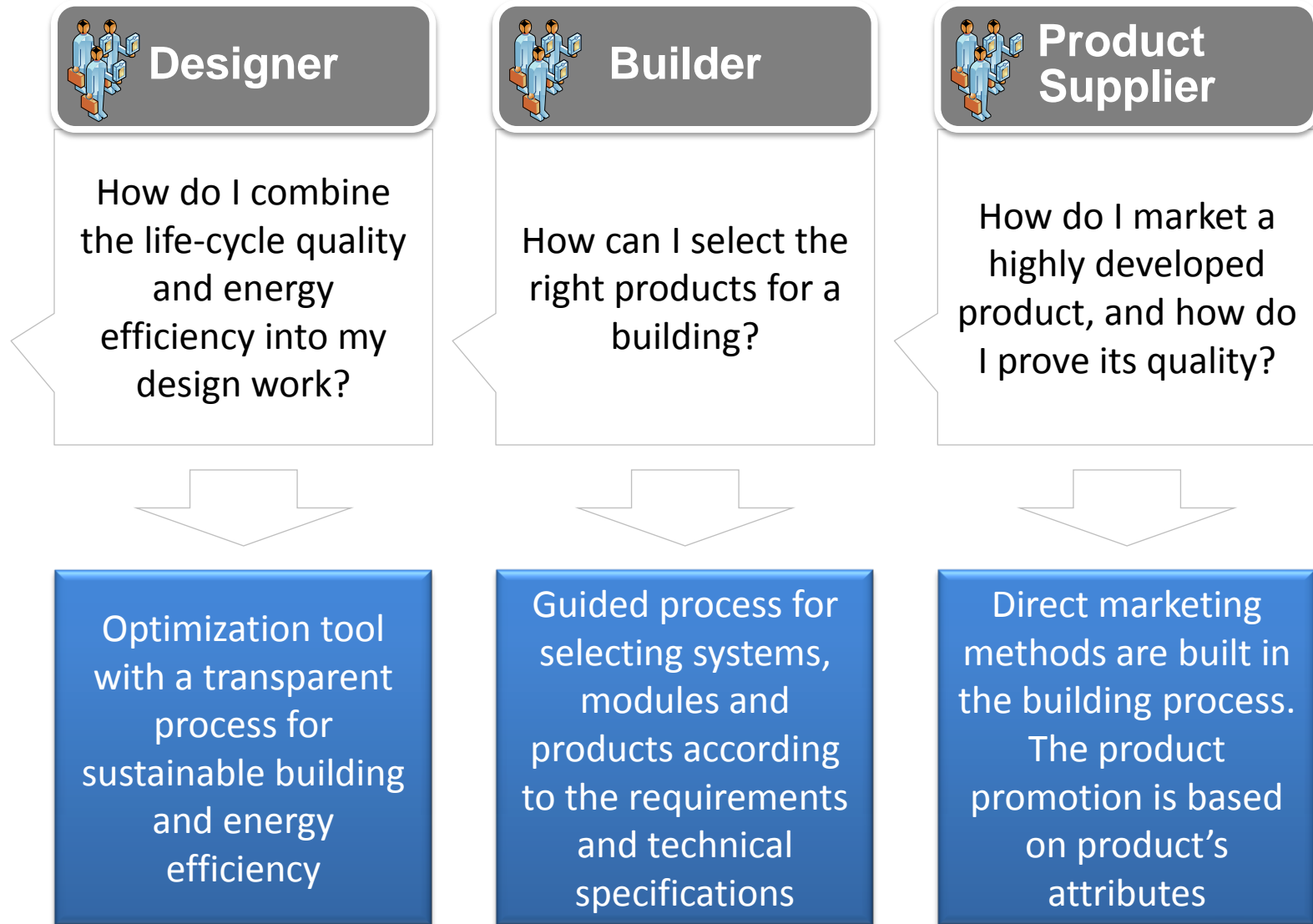
How can I select the right products for a building?



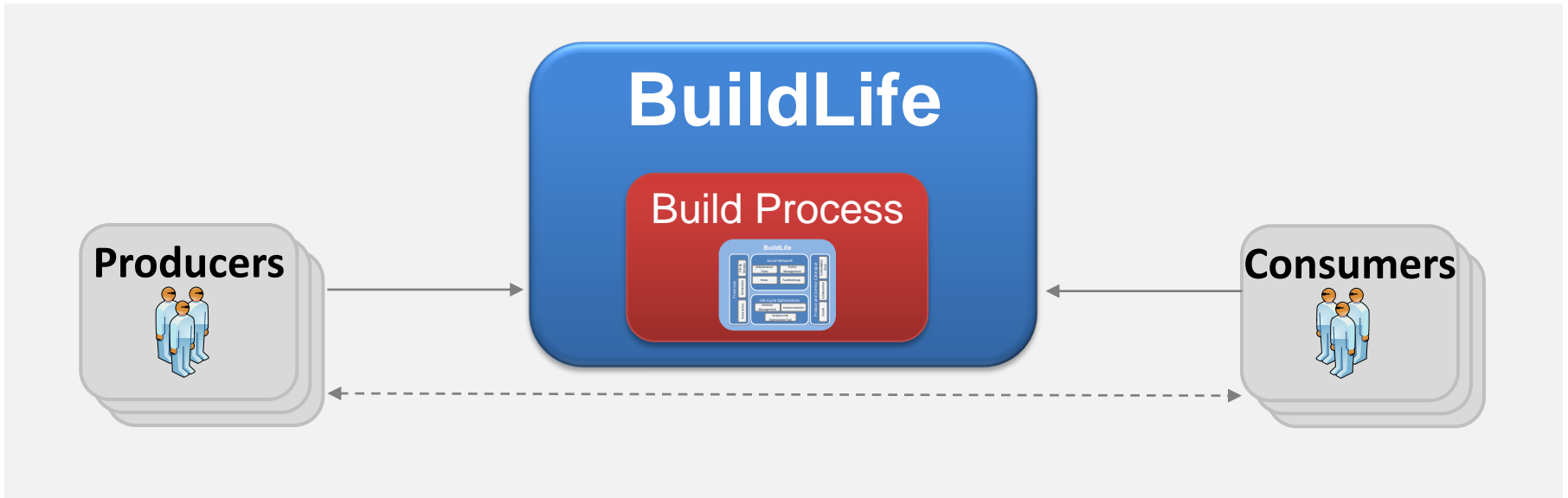
Product Supplier

How do I market a highly developed product, and how do I prove its quality?

BuildLife provides an intelligent design process with collaboration and social media features *for Producers*

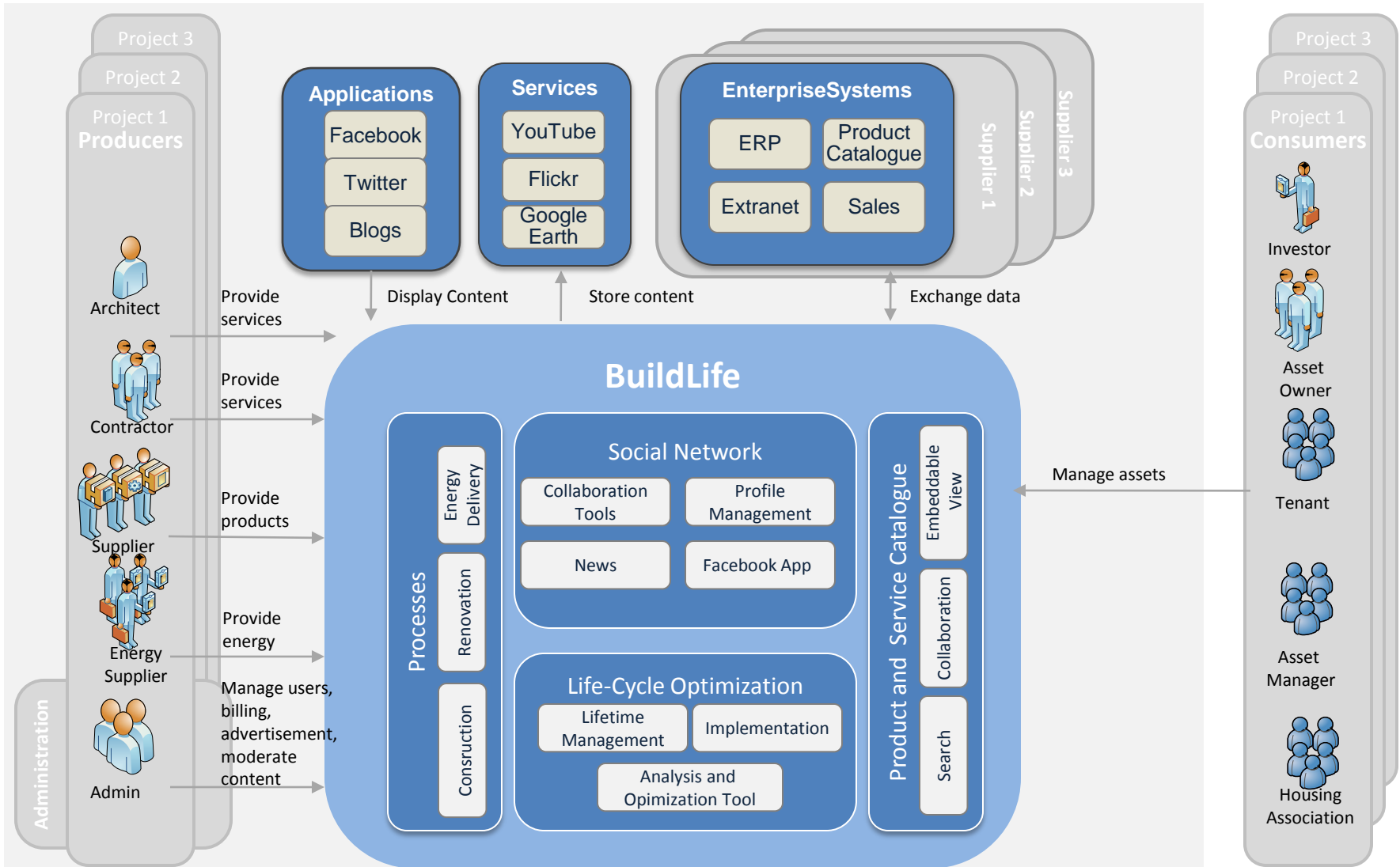


BuildLife connects consumers and producers



- BuildLife combines social media with a state-of-art collaboration tool.
- Collaboration generates collective intelligence around a building project.
- Innovative building process is the heart of BuildLife.

BuildLife creates a service eco-system



Benefits of ECCE BUILDLIFE

BUILDLIFE provides the same benefits for national, European and global markets

Improved asset
value: 10-75%

- Improved value for the owner and user
- Improved sales value
- Drastically improved future value

Energy savings:
75%

- Energy savings
- Change towards the use of renewable and CO₂- free energy

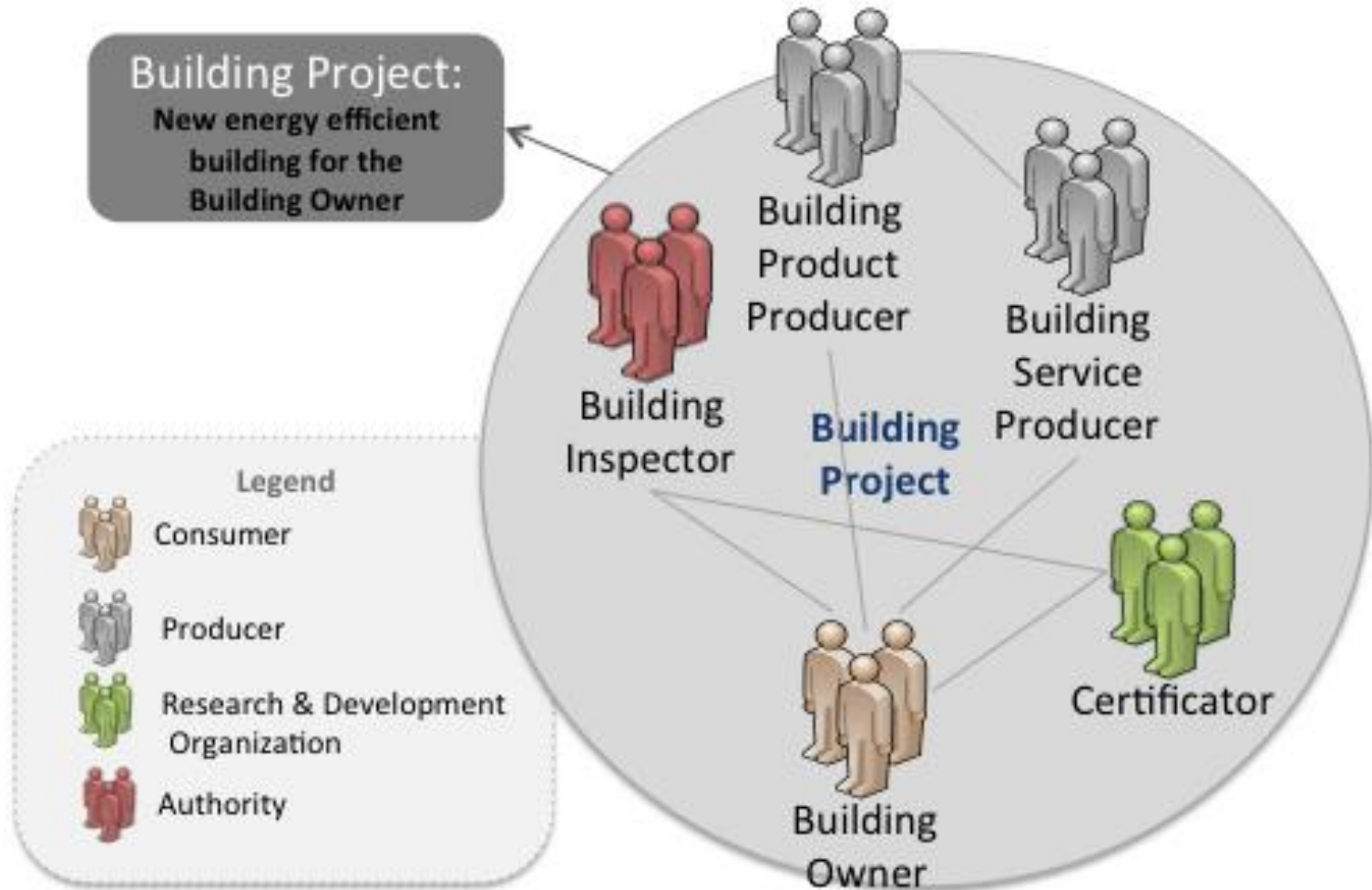
Increased product
and service sales

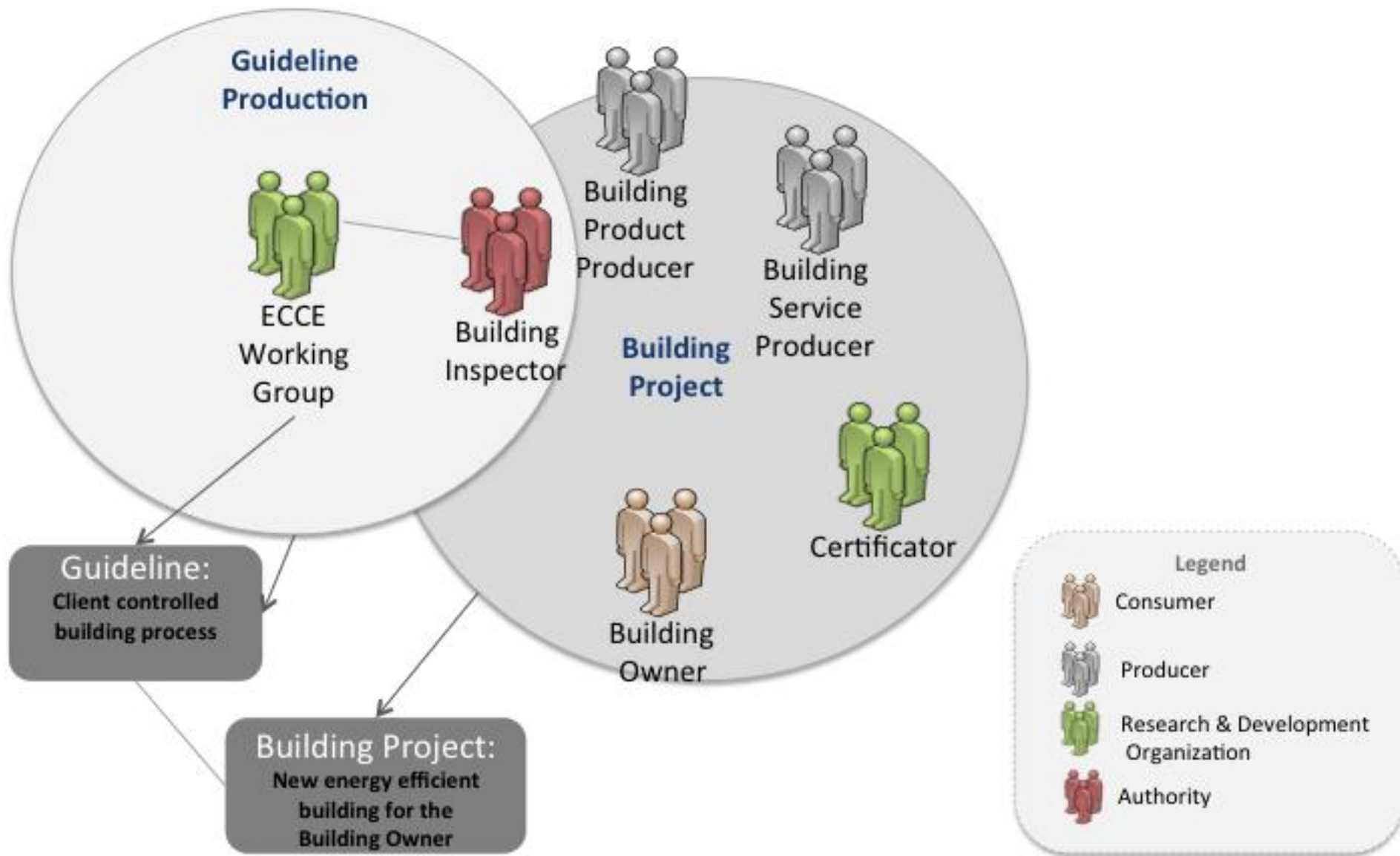
- Enercon Build promotes innovative building materials, components and modules
- Visibility to market and consumer needs

Improved lifetime
quality and
service life

- Optimized design for current and future requirements of owners, users and society
- Avoiding obsolescence of the building

Project level Network





Optional service :

Generic ECCE information service for members

This optional service offer can be specified when there is more knowledge on the requirements

Example features of this new service:

- Easy-to-use publishing system
- Content management system
- Document repository
- Collaboration tools
- Integrated to ECCE BuildLife community.