Towards a low-carbon building sector: Applying a skill ecosystem approach to the building sector in Cornwall.

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Content

- Context/Introduction
- Opportunities and constraints of the building sector
- Skills for low carbon transitions
- The skill ecosystem framework
- Application of a skills ecosystem approach to the building sector in Cornwall
- Preliminary results
- Conclusion
- References
The importance of buildings in the context of climate change – buildings emissions

2012: Emissions from buildings accounted for 37% of total UK greenhouse gas emissions.

Notes: 2012 emission estimates are provisional. Commercial sector and non-CO₂ are based on CCC estimates.
Opportunities and constraints of the low carbon building sector

Opportunities:
• Cost-effective measures to reduce GHG emissions
• Benefits of greater energy efficiency of buildings:
  – Reduction of fuel poverty
  – Increase in productivity
  – Increase in property value
• Stimulation of innovation, economic growth and creation of jobs

Constraints:
• UK housing stock is very old and inefficient
• Slow expansion of the housing stock whilst population is growing ➔ housing shortage
• Impact of recession and weather conditions
• Sub-contracting and SMEs; often low rate of innovation
• SKILLS SHORTAGE
Skills for low carbon transitions

- Why?

- What are skills?

Skills = Through considerable training and education acquired mental and physical abilities and competencies to undertake the required functions.

- What skills are needed:

Core skills + Specific (most technical) skills across the green building value chain.
The low carbon building actors

Source: International Labour Office, 2011
Examining skills and workforce development: The skill ecosystem framework
(Finegold, 1999; Buchanan 2001, Windsor and Alcorso, 2008)

**Skill ecosystem: A skill ecosystem is a self-sustaining network of workforce skills and knowledge in an industry or region.**

- A holistic attempt to integrate skills policy within a broader business and economic development agenda
- Focus on the interdependency of multiple actors and policies in creating and sustaining conditions to develop appropriate skills in a particular region
- The network consists of 4 stakeholder groups: firms, education and training providers, policy makers and individuals
- If no interdependencies → ‘skills landscape’
The project: Towards a low-carbon building sector: Applying a skills ecosystem approach to the building sector in Cornwall.

Objective:

- To identify the skills requirements for the low carbon building sector in Cornwall (PhD).
- To map out and analyse the local skills landscape in the building sector (this study).

Case-study Cornwall:

![Map of Cornwall](image)

Local building facts:

- 50% of existing housing stock is ‘hard to treat’
- 50% of households are off the gas network
- 25% of Cornish households are in fuel poverty
- 33% of private sector homes are energy inefficient
- Slow stock expansion: 75% of 2050 dwellings already exist
- Second homes: 20-40% of the local housing stock
- Deprived area: lower incomes
Who’s involved? Skills stakeholder in Cornwall

Local:
- Companies and staff
- Cornwall Council
- Education and training provider

Local and national:
- Third sector

National:
- Sector Skills bodies
- UK Government

Preliminary results:
- Multiple, diverse stakeholders are involved
- Cornwall shows ‘skills landscape’ rather than skill ecosystem
- The Cornwall Sustainable Building Trust (CSBT) acts as a skills and workforce development agent
Conclusion

Recommendations:
• Form strong alliances between all stakeholder groups in the region.
• Strengthen existing linkages.
• Establish clear overview on skills requirements (demand) and training activities (supply) in Cornwall.

Further work:
• Semi-structured interviews with all stakeholder groups to further map out and analyse the local skills landscape
• Identify interdependencies between the multiple actors.
• Develop holistic, multi-stakeholder, skill strategy to enable transition to low carbon building sector.
Questions?

Thank you!
References

Buchanan, J. (2006). From skill shortages to decent work. The role of better skill ecosystems, NSW Department of Education and Training


Cornwall Council (2010). Cornwall Housing Strategy 2009-2013


Further Information:

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