

Introduction



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Building
Sustainability





FOSTERING ENERGY EFFICIENCY DYNAMICS THROUGH EX-ANTE STRATEGIC NICHE MANAGEMENT: THE UK PERSPECTIVE.

05/07/2017

Renuka Thakore and Jack Goulding

Purpose



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Multi-level Socio-Technical Regime for
Construction/Retrofitting

Analysis of the “Green Deal” dynamics

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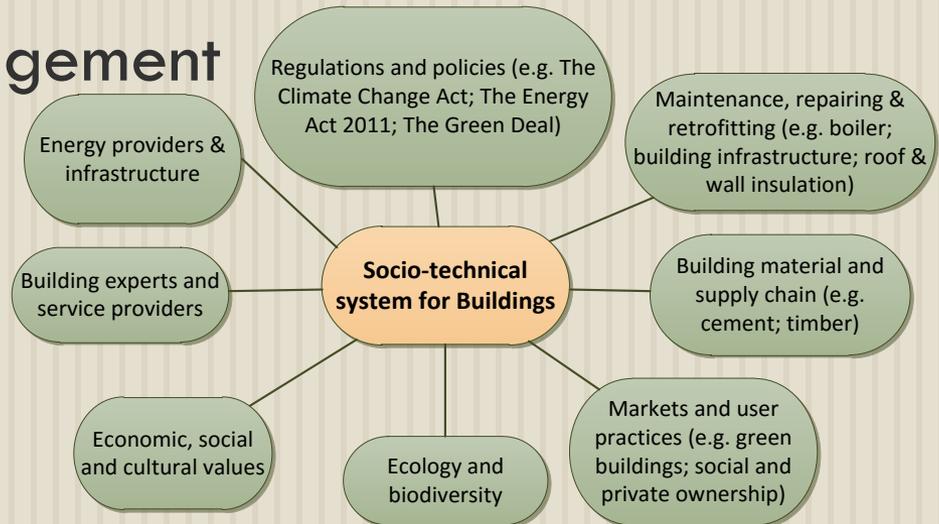
Contribution to the Strategic Niche
Management literature

Section 1

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Multi-level Socio-Technical regime

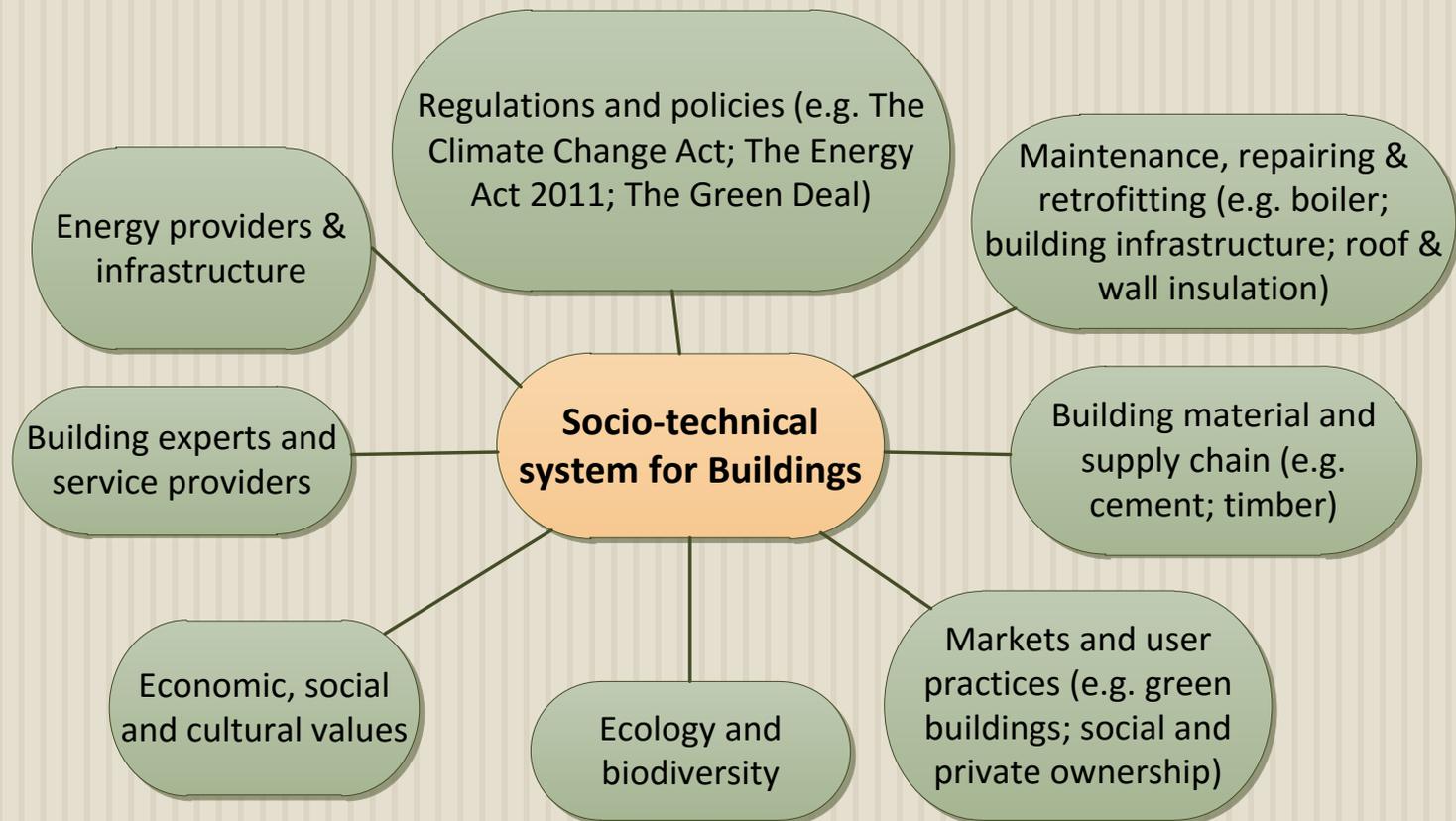
- ❑ Socio-Technical regime for Building/Retrofitting
- ❑ Multi-level perspective
- ❑ Strategic Niche Management



Socio-Technical regime



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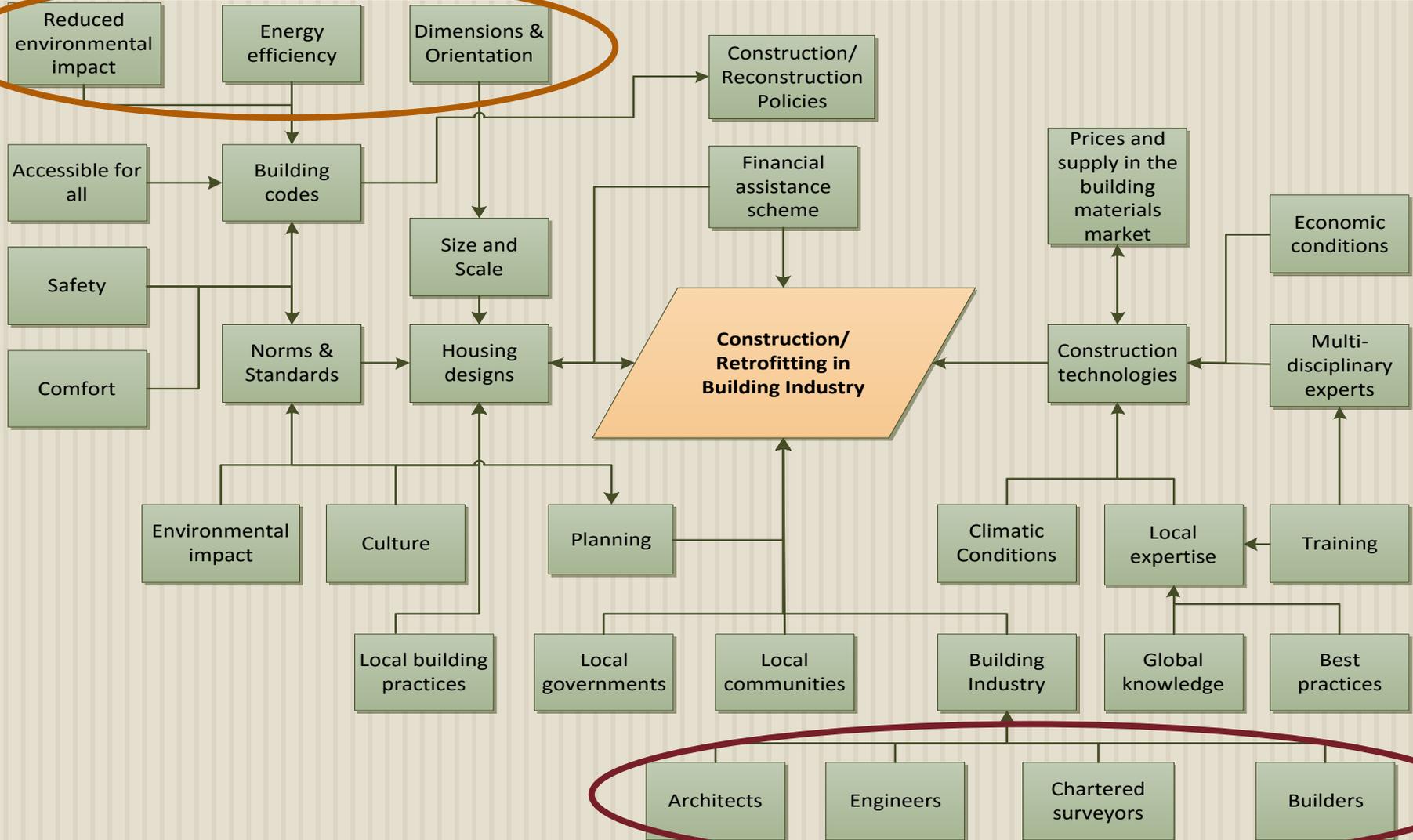


Adapted from Geels (2005b).

Socio-Technical Regime in Building



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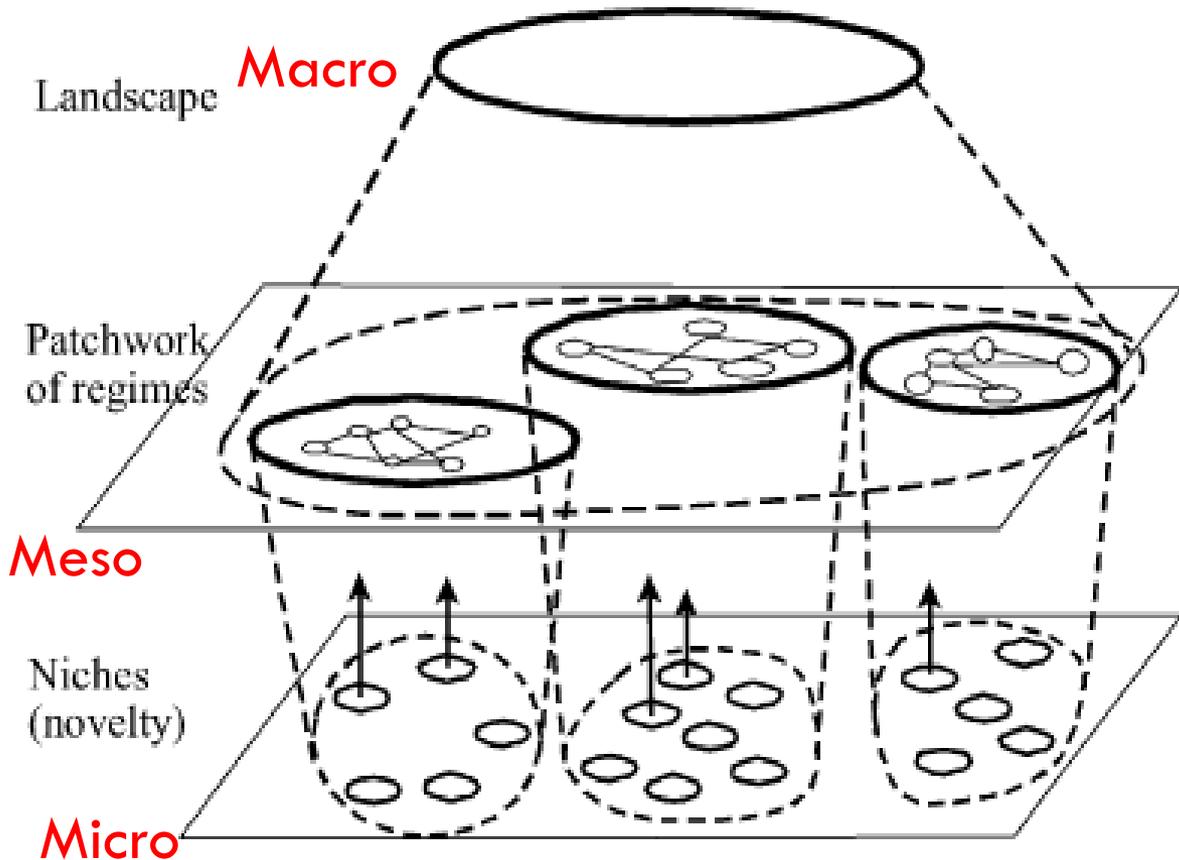


Multiple levels perspective



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Increasing
structuration
of activities
in local practices

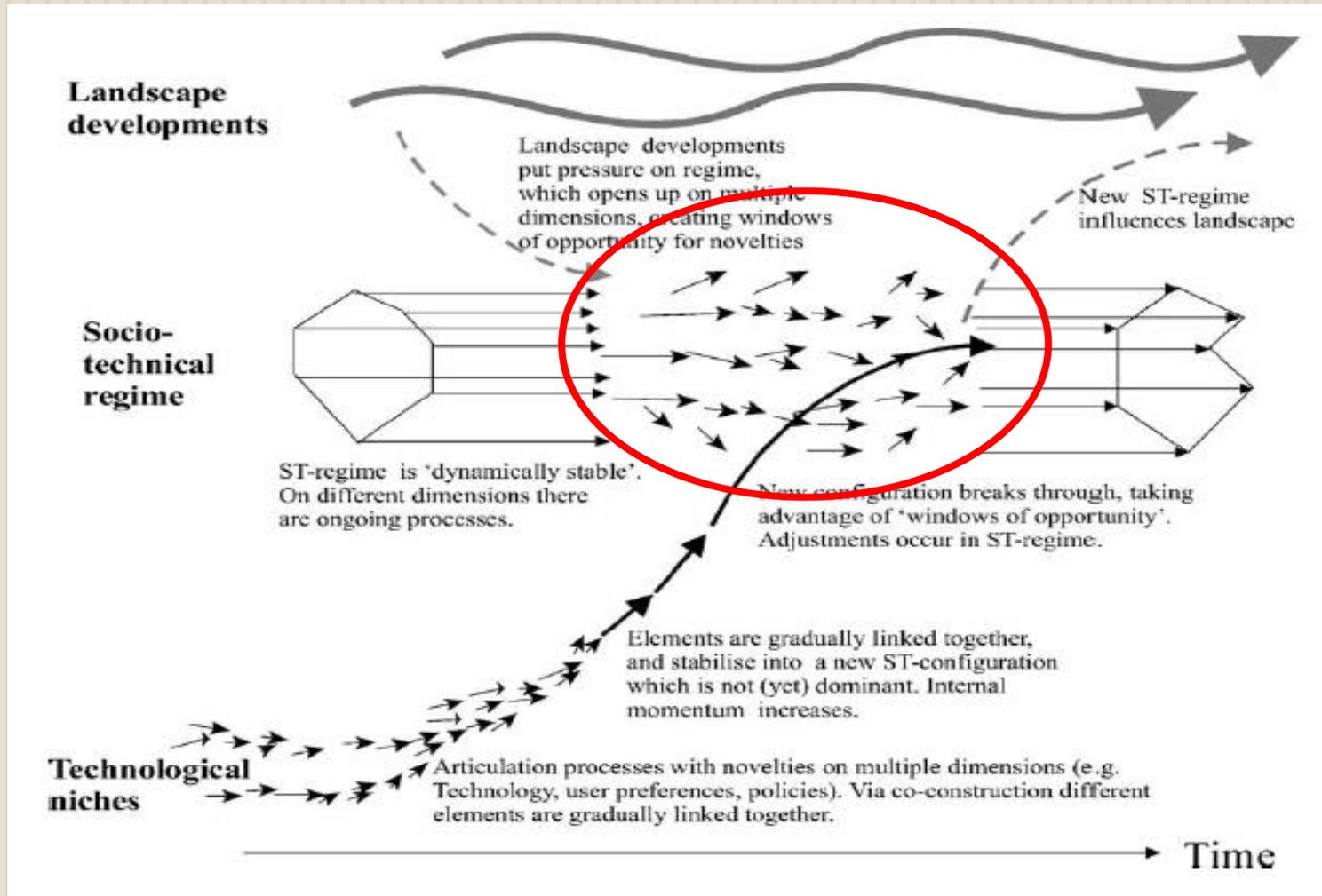


Source: Geels (2002).

A dynamic multi-level perspective



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Source: Geels (2002).

Factors for failure

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- ❑ Lack of technical stability
- ❑ Weak regulatory framework
- ❑ Societal preferences and values
- ❑ Lack of demand
- ❑ Inappropriate infrastructure for maintenance
- ❑ Unknown impacts of new technologies

Voicing and Shaping



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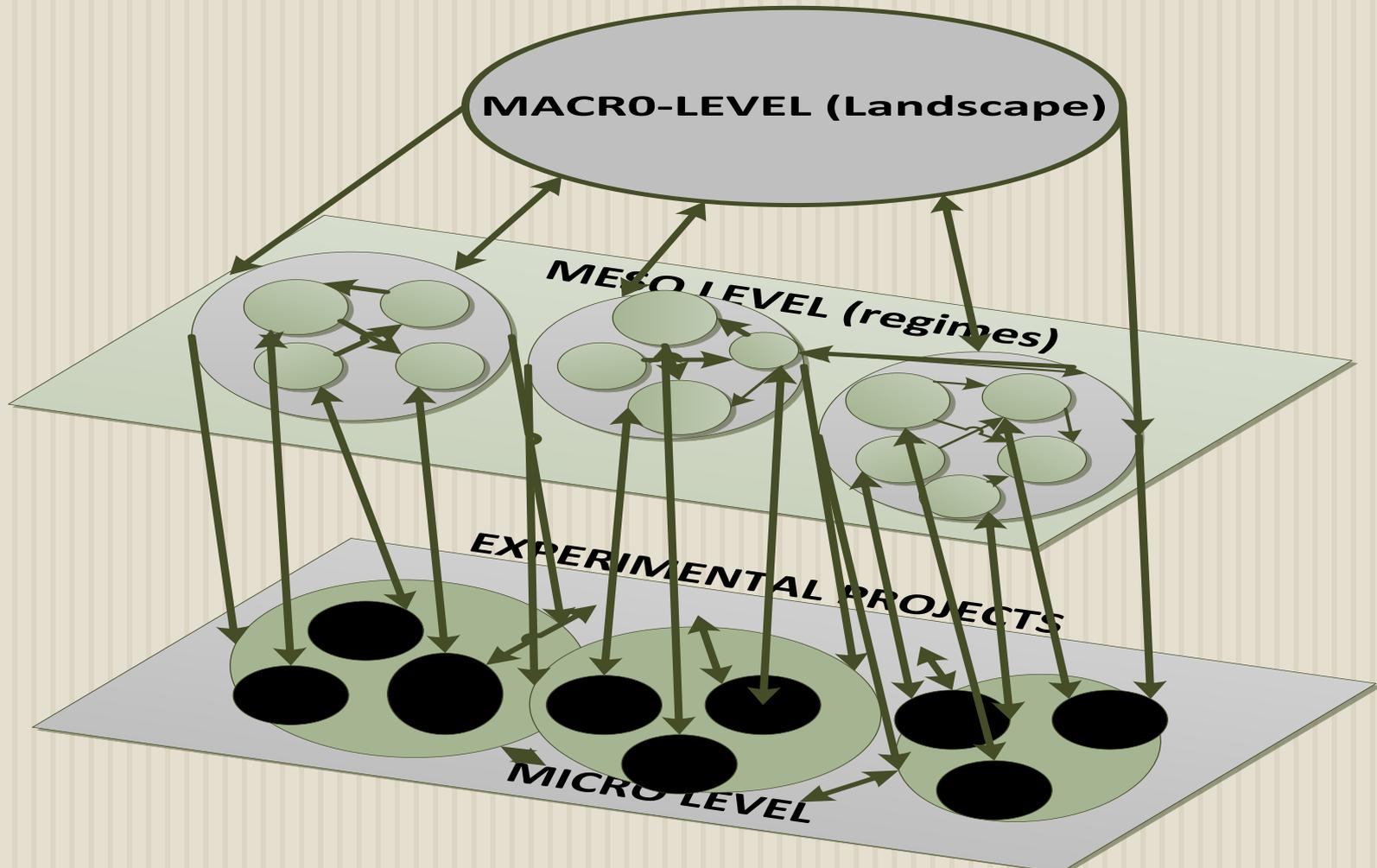


Adapted from Kemp et al. (1998), Kemp and Rotmans (2001), and Geels (2002).

Networking

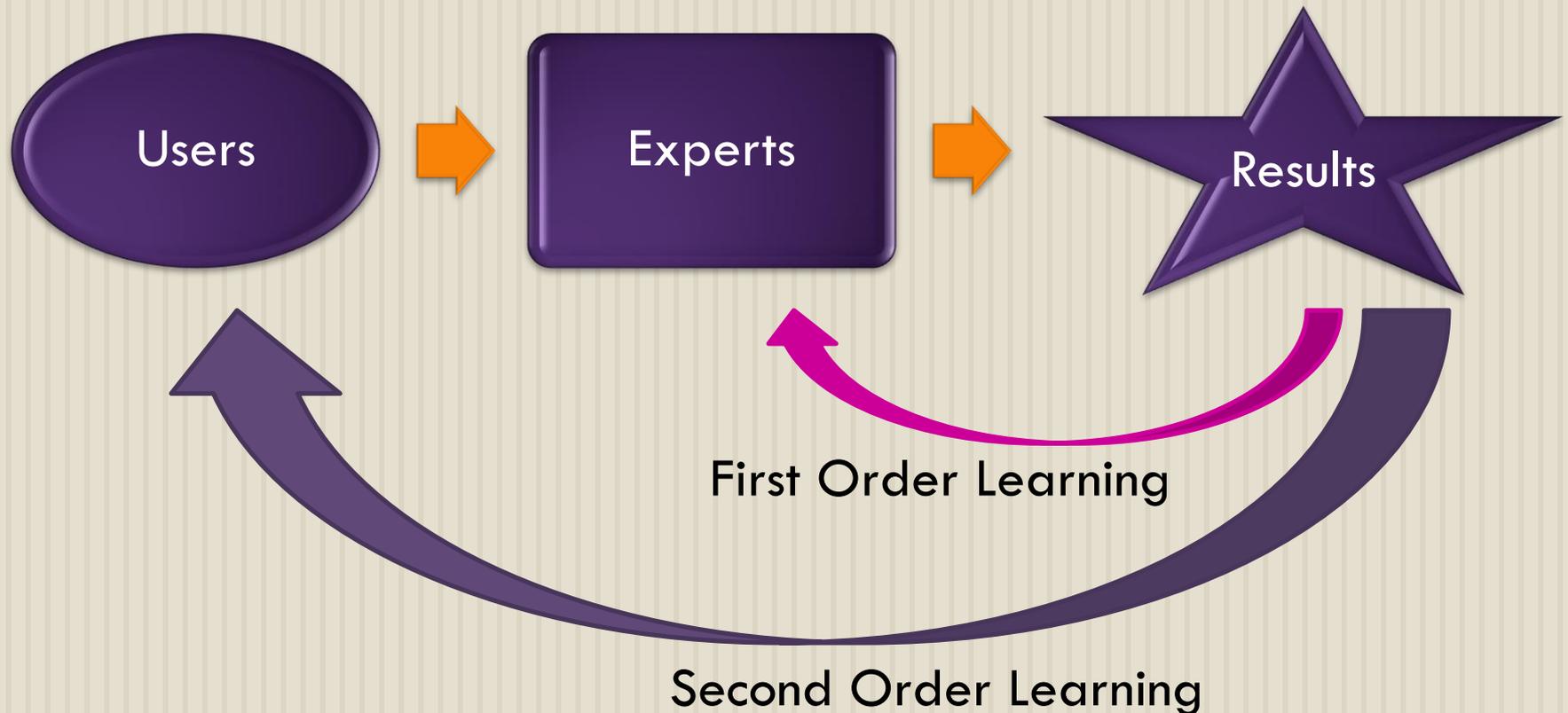


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Adapted from Kemp et al. (1998), Kemp and Rotmans (2001), and Geels (2002).

Learning

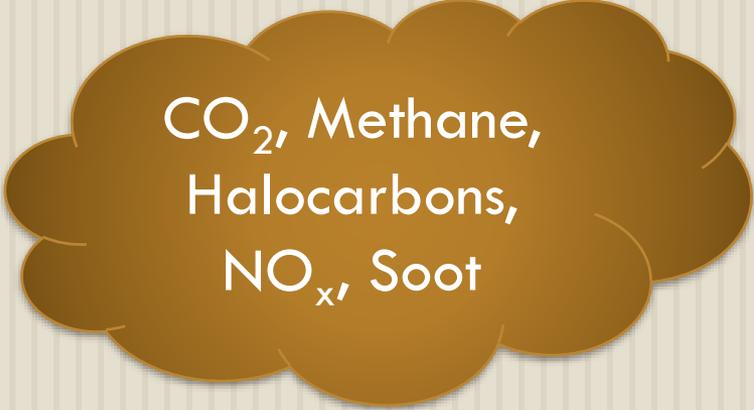


Section 2

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The “Green Deal” dynamics

- ❑ Driver: Climate Change
- ❑ Modus Operandi



CO₂, Methane,
Halocarbons,
NO_x, Soot

Climate Change



CO₂, Methane,
Halocarbons,
NO_x, Soot



Growth in Population,
agriculture & animal
husbandry



Technological and
Medical advances

Source:
Crutzen (2002);
Wilbanks *et al.* (2003);
Bierbaum *et al.* (2007);
IPCC (2007);
Moser (2012).

Measures and Challenges



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- ❑ UK: Climate Change Act – 80% by 2050;
- ❑ Zero emission buildings by 2050;
- ❑ 87% of existing building will require extensive retrofitting
- ❑ Energy Act 2011 (OPSI, 2011)

The “Green Deal”

The “Green Deal”

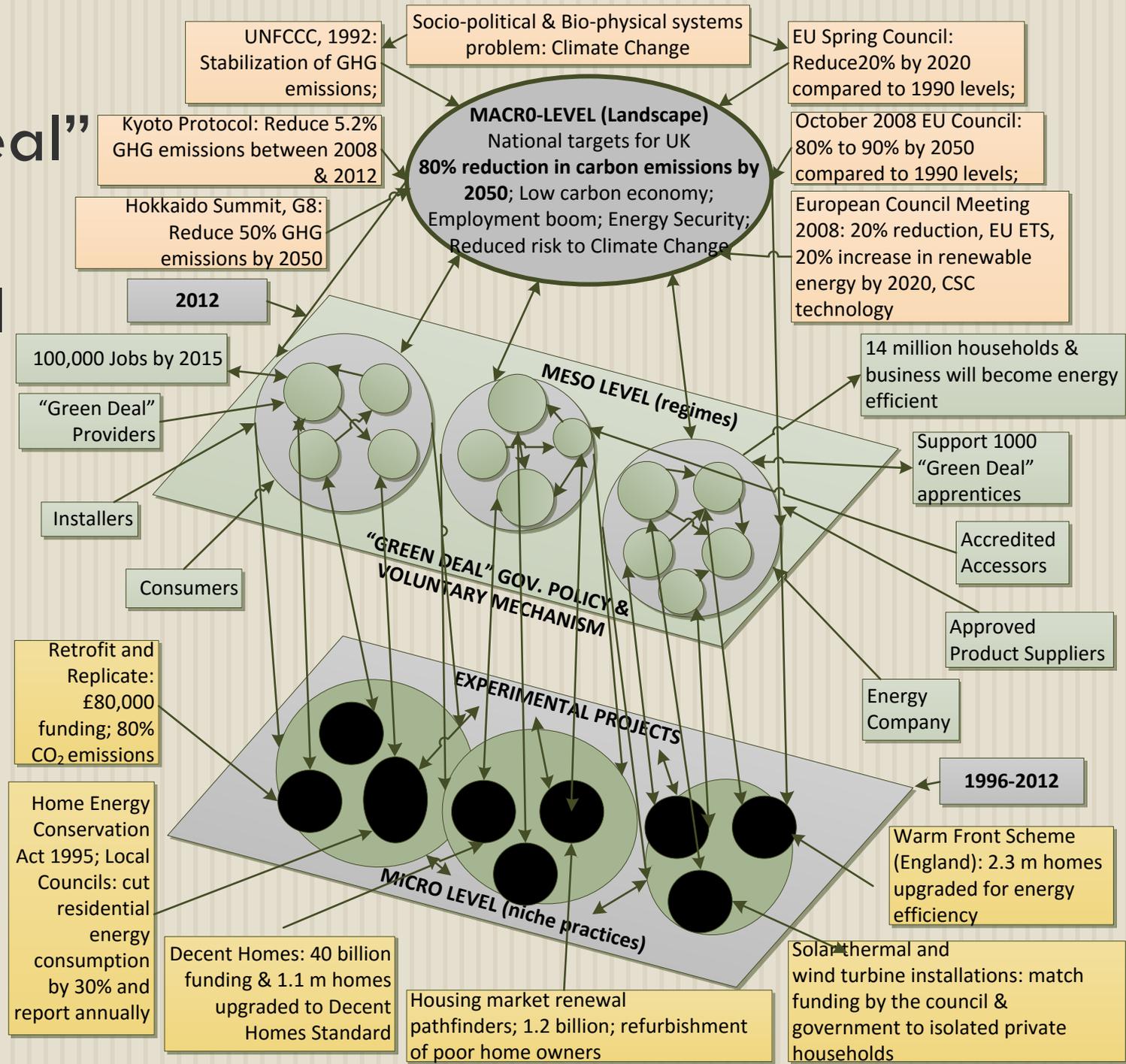


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- ❑ The Building Directive
- ❑ Energy Performance Certificates
- ❑ “Golden Rule”

“The savings in the energy bills resulted from installing energy efficiency measures should equate the cost of implementing those measures”

The "Green Deal" MODUS OPERANDI



The “Green Deal” challenges



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□ The “Green Deal” prerequisite ‘golden rule

- No upfront cost
- No guarantee for actual cash savings
- Actual cash savings subjected to
 - The users’ awareness
 - Practices, and
 - Sense of ownership and responsibility

The “Green Deal” challenges



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- ❑ Implementation subjected to
 - ❑ Preferences
 - ❑ Affordability
- ❑ Technical specifications
- ❑ The local social-technical niche.
- ❑ Not a easy choice
 - ❑ Voluntary

The way forward



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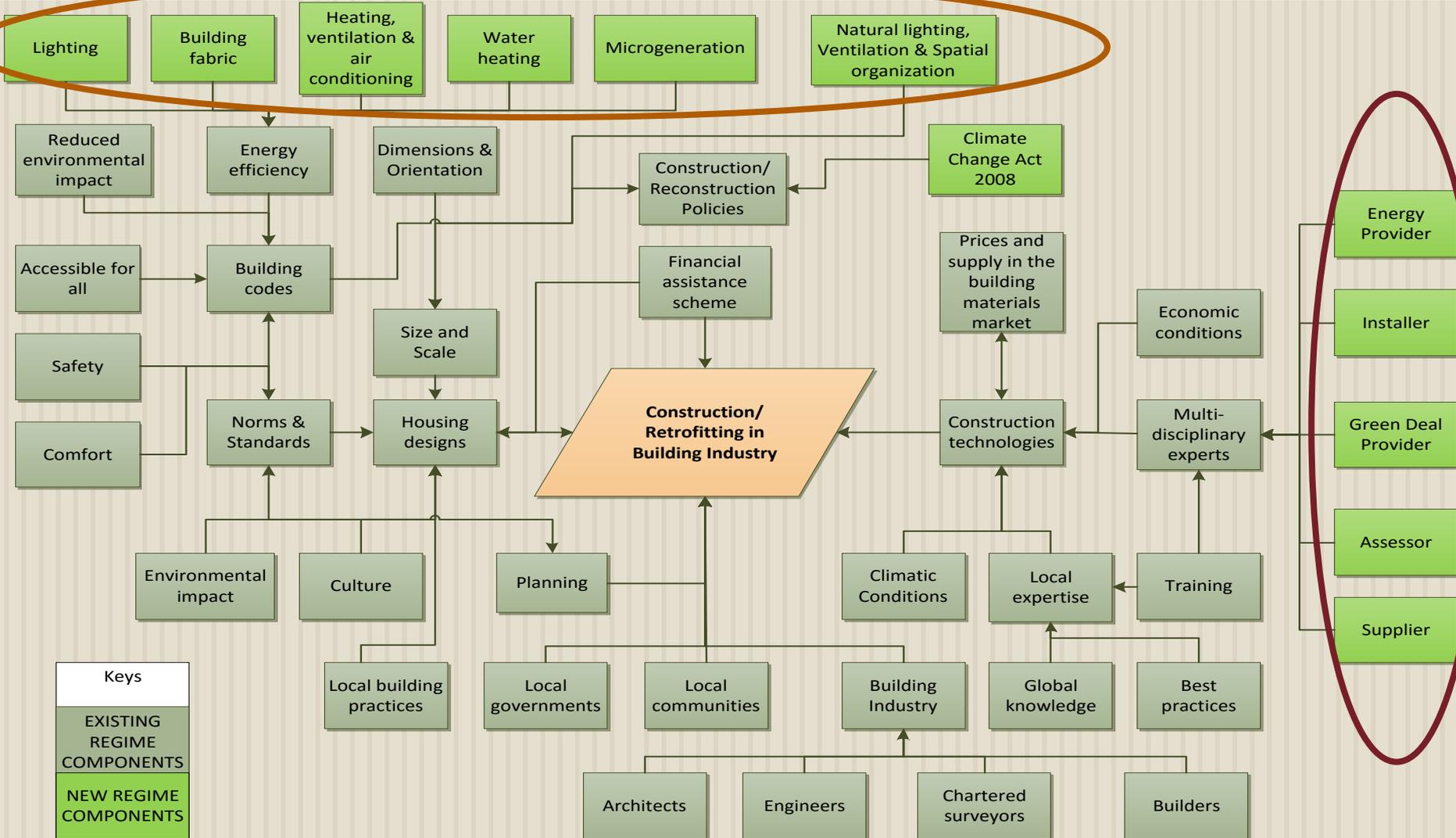
- ❑ Beyond the locked-in characteristic
- ❑ Profound changes
- ❑ New characteristics

Source: Farmer and Guy (2005);
Guy (2006); Lovell *et al.*, (2009);
Rip and Kemp (1998); Geels (2002).

New characteristic Socio-Technical Regime



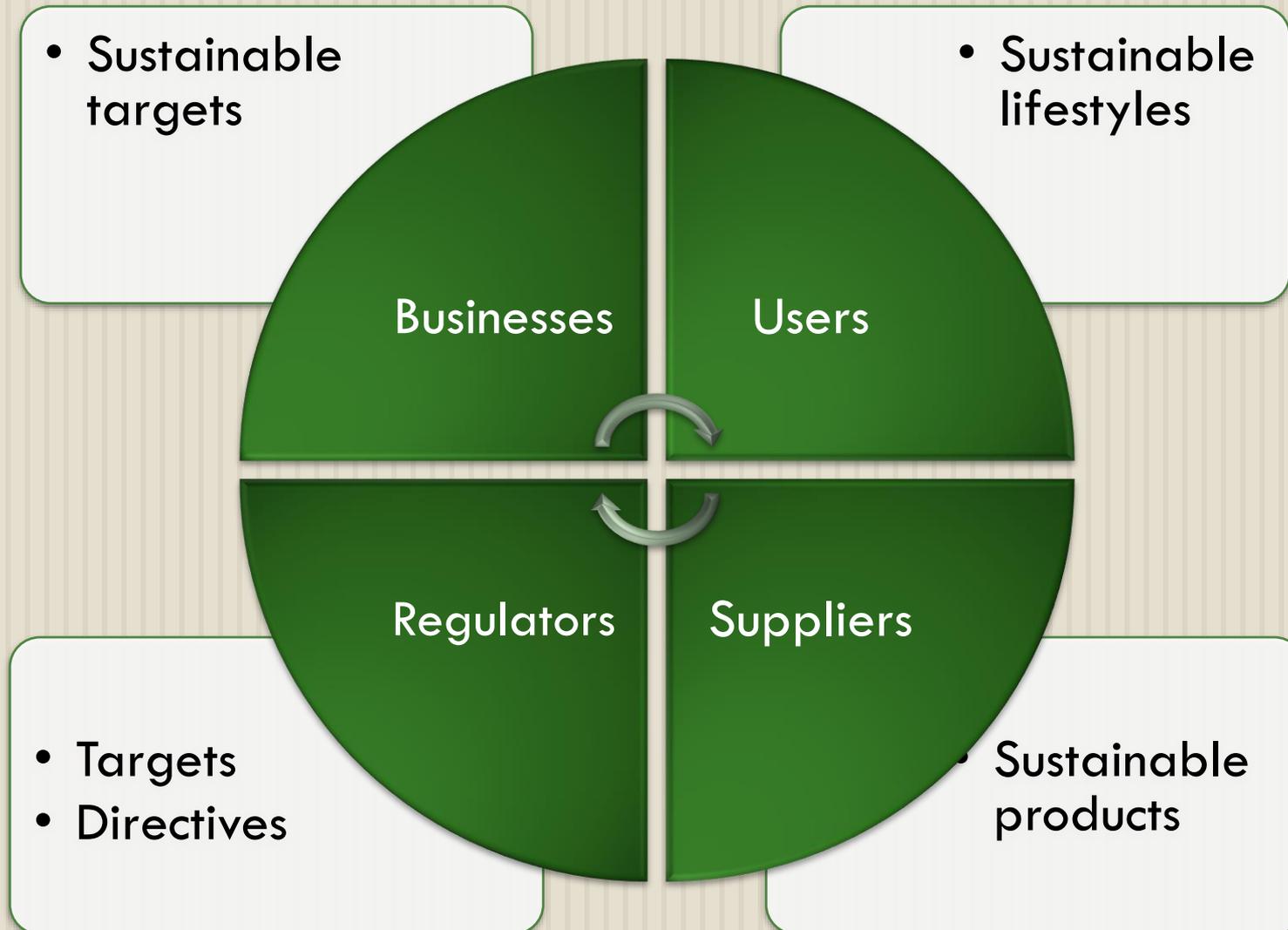
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Stakeholder engagement



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Section 3

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Conclusion

- Summary

Summary



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- ❑ Climate change
- ❑ 80% reduction in carbon emissions by 2050
- ❑ The “Green Deal”
- ❑ Contributes towards SNM literature

Conclusion



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The “Green Deal”

- ❑ Potential to contribute
- ❑ Role of stakeholders
- ❑ Second order learning
- ❑ Full stakeholders engagement
- ❑ Greater granularity

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Questions

THANK YOU