Citation:
Colledge, B (2014) Growing smart, inclusive and sustainable economies: a complex adapative ecosystem approach. In: Regional Studies Association, Winter Conference 2014: Sustainable Recovery? Rebalancing, Growth, and the Space Economy, 27 - 28 November 2014, London, UK.

Link to Leeds Beckett Repository record:
https://eprints.leedsbeckett.ac.uk/id/eprint/2509/

Document Version:
Conference or Workshop Item (Other)

The aim of the Leeds Beckett Repository is to provide open access to our research, as required by funder policies and permitted by publishers and copyright law.

The Leeds Beckett repository holds a wide range of publications, each of which has been checked for copyright and the relevant embargo period has been applied by the Research Services team.

We operate on a standard take-down policy. If you are the author or publisher of an output and you would like it removed from the repository, please contact us and we will investigate on a case-by-case basis.

Each thesis in the repository has been cleared where necessary by the author for third party copyright. If you would like a thesis to be removed from the repository or believe there is an issue with copyright, please contact us on openaccess@leedsbeckett.ac.uk and we will investigate on a case-by-case basis.

Regional Studies Association Winter Conference

Growing smart, inclusive and sustainable economies: a complex adaptive eco-system approach

Barbara Colledge

LEEDS BECKETT UNIVERSITY

Aim

Development of an holistic framework

city region analysis
complex adaptive eco system approach

LEEDS BECKETT UNIVERSITY

Frame of analysis

- exploration of the dimensions of smart, inclusive and sustainable economies
- development of a framework utilising the complex adaptive ecosystem model.
- consideration of the institutions and agents of this complex adaptive ecosystem

LEEDS BECKETT UNIVERSITY

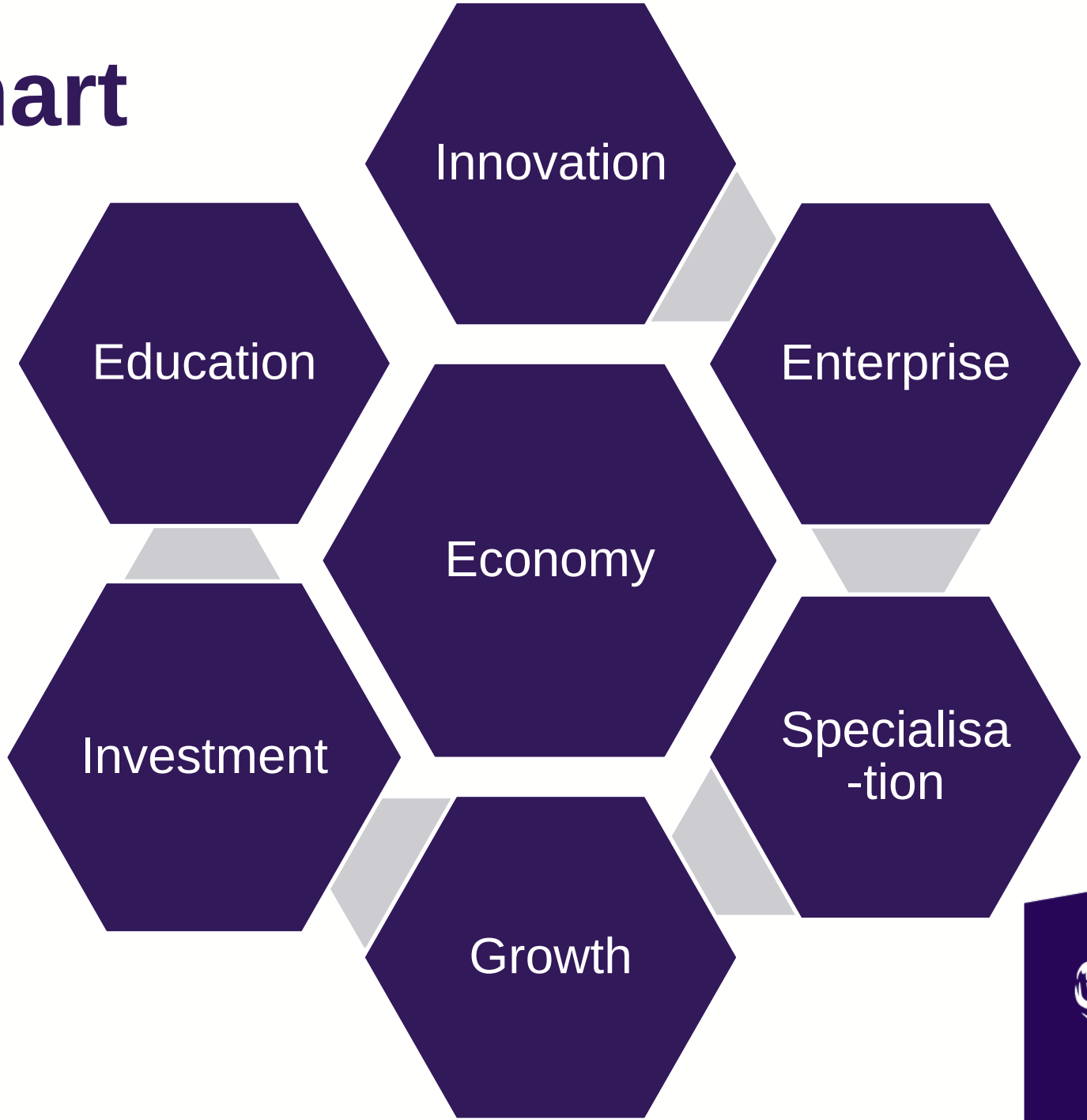
smart, inclusive, sustainable economies – Europe 2020

Economy

Growth

LEEDS BECKETT UNIVERSITY

smart



LEEDS BECKETT UNIVERSITY

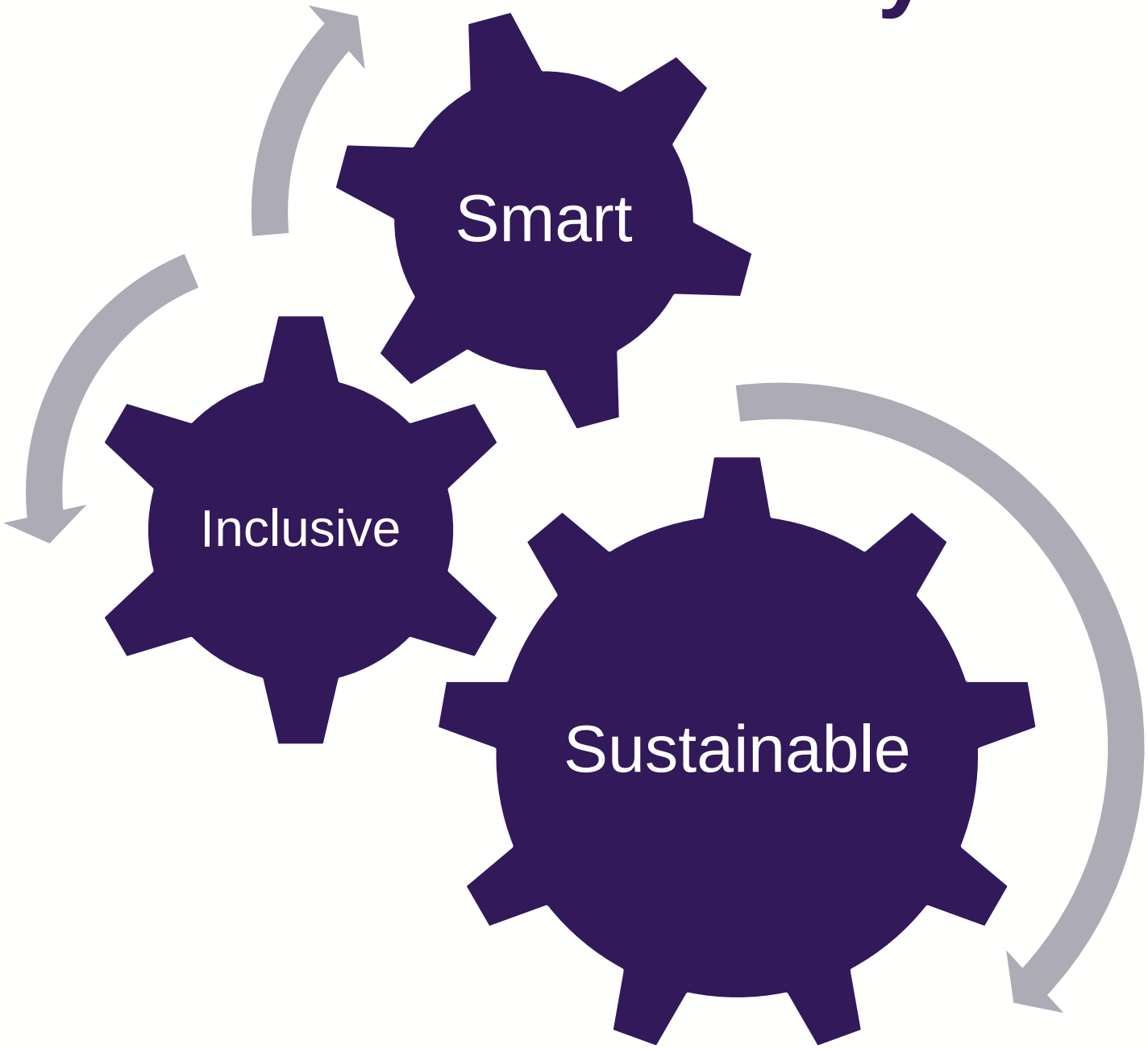
inclusive

LEEDS BECKETT UNIVERSITY

sustainable

LEEDS BECKETT UNIVERSITY

mutually reinforcing



LEEDS BECKETT UNIVERSITY

An integrated framework

Sustainable development – EES and Time

Sustainable communities/societies

Sustainable cities and regions

Complex adaptive eco systems

Integration and Co-ordination

LEEDS BECKETT UNIVERSITY

Influences

- spatial, locational or context factors (Martin 1999)
- socio-institutional contexts and embeddedness of regional economic development (Martin 1998).
- Institutions (Amin & Thrift; Healey)
- Political interests & power hinder or influence action (Storper 2013)
- cultural contexts influence outcomes (Storper 2013)
- Complex adaptive eco systems (Martin & Sunley 2014)

LEEDS BECKETT UNIVERSITY

Dimensions

- Constant evolution (Brenner)
- Integrated system (Martin & Sunley)
- Institutions
- Agents and Networks
- Power and Politics
- People – actions, values, ambitions

- Time and Space
- Place
- Process
- Constant evolution
- System

LEEDS BECKETT UNIVERSITY

Martin and Sunley 2014 Towards a Developmental Turn in Evolutionary Economic Geography

LEEDS BECKETT UNIVERSITY

Development Systems Theory

- ***Developmental system***: organism-environment co–evolve
- ***Deep Contextualisation***: entities and influences
- ***Constructionist interactionism***: Multiple interacting causes
- ***Contingent Developmental History***:spatial, historical, interaction
- ***Extended Inheritance***: reconstruction at each generation
- ***Emergence***: form emerges from interaction of components and environment
- ***Self Organisation***: pattern and order of system

LEEDS BECKETT UNIVERSITY

Evolutionary Development Biology

- ***Robustness***: ability to maintain functionality when disruption occurs
- ***Plasticity***: Ability to adjust to respond to mutations and environment
- ***Niche Construction***: ability to modify, shape or control own environment to ensure evolutionary success
- ***Evolvability***: capacity to evolve, variation to enhance survival or reproduction

LEEDS BECKETT UNIVERSITY

Territorial organisation

- Brenner N. (1998) ‘Between fixity and motion: accumulation, territorial organisation and the historical geography of spatial scales’
- Places (cities and regions) and State
- Lefebvre and Harvey
- “*Each geographical scale is a complex, socially contested territorial scaffolding upon which multiple overlapping forms of territorial organisation converge, coalesce and interpenetrate*” p5

LEEDS BECKETT UNIVERSITY

Dimensions of Framework

- **Economic, Social and Environmental**
- **Place/Context Dimensions**: Location, Infrastructure and Technology, Spatial and Scalar, Connectivity. History
- **Temporal Dimensions**: Time Horizons (short, medium or long term), Life-cycles, Trajectories (Past, Present and Future)
- **People Dimensions**: Skills, Culture, Behaviours, Beliefs and Perceptions, Connectivity
- **Governance Dimensions**: Leadership, Power, Institutions, Territorial State, Connectivity

LEEDS BECKETT UNIVERSITY

Development of Framework

- Holistic framework to integrate these concepts and dimensions
- Applied at city-region level initially
- Proposition – can apply at different scales given territorial organisation and capital - including level of institution or firm

LEEDS BECKETT UNIVERSITY

Contact

Barbara Colledge

Dean of Quality

Leeds Beckett University

b.colledge@leedsbeckett.ac.uk

LEEDS BECKETT UNIVERSITY