



# Network and cluster policy in Europe: lessons from RITTS, and new cluster-based regional innovation strategies

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# What do we mean by clusters and clustering?

- Varied definitions and approaches
- 'Clusters' vs the process of 'clustering'
- Clusters as self-generating groupings
- Processes of facilitating clusters
- Importance of linkages and interdependence
- External economies and un-traded interdependencies
- Real phenomena or heuristic devices?



# Clusters as innovation systems

- OECD Cluster focus group
  - Innovation seldom takes place in isolation but is systemic. The notion of a cluster as a 'reduced scale innovation system'
  - Clusters are networks of production of strongly interdependent firms linked to each other in a value-adding production chain.
  - Clusters mostly also encompass strategic alliances with universities, research institutes, knowledge-intensive business services, bridging institutions (brokers, consultants) and customers.
- Communities of practice and networks of practice
- Knowledge communities



# Scales of policy action

- National cluster policies
  - Foresight, Mega-clusters, Cluster as policy tool
- Regional clusters
  - RDAs, RIS/RITTS initiatives
  - Turning sectoral strategies into clusters?
- Local clusters/micro clusters
  - Local authority initiatives
  - Building on company networking



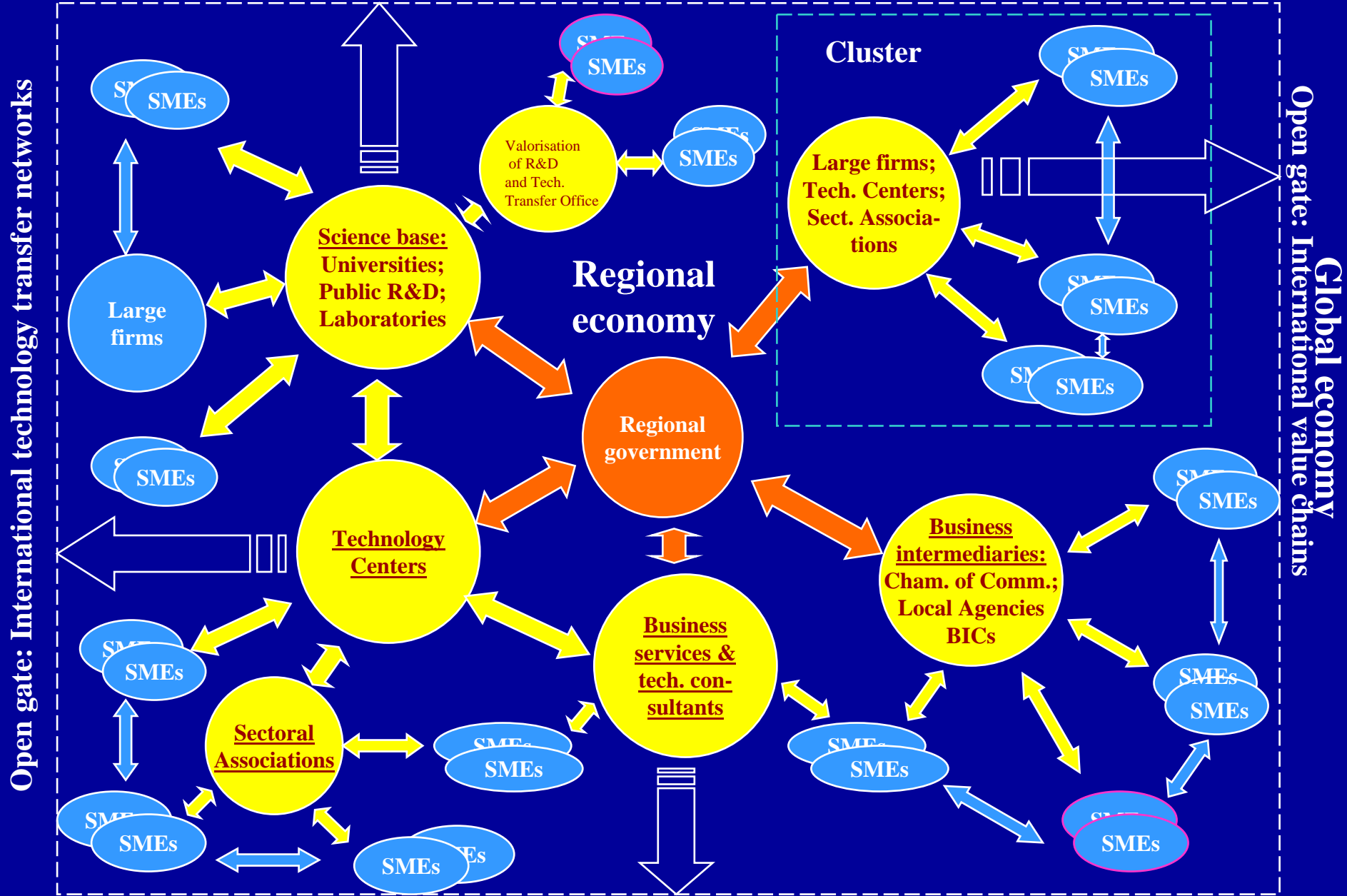


# Key issues in regional innovation

- Agglomeration, externalities, clusters and proximity
- Tacit knowledge and stickiness
- Untraded interdependencies and social capital
- Knowledge spillovers
- Proximity and trust
- Path dependence
- Regional innovation systems as systems of institutions and governance (Cooke)
  - Grassroots – locally based
  - Integrated - multilevel
  - Dirigiste – top down



Open gate: International R&D/academic excellence networks



Open gate: International business consultants & specialized business services

# Shift to a multi-scalar science and innovation policy

- Four key elements
  - New paradigms of regional development
  - Growth of devolution movements in a number of EU countries
  - Rise of international collaboration, notably in the EU Framework Programme
  - New disruptive technologies



# The role of the European Commission as change agent

- 1980s interest in endogenous potential and RTD
- The technology gap
- Synergy between RTD and cohesion
- Avoiding cathedrals in the desert
- Revision of the Structural Funds
- Interest in individual initiatives – science parks
- STRIDE programme as an attempt to take a more strategic view
- Shift to regional innovation strategies





# RIS/RITTS

- Promoting innovation, building on intangibles vs traditional regional policies focusing on physical infrastructures
- Subsidiarity in action – helping regions help themselves
- From top down 'dirigisme' to leadership in partnership with the private sector
- Experiment in partnership between EU, national and regional levels
- Use of international inputs to exchange lessons and techniques
- Matching supply and demand for innovation support



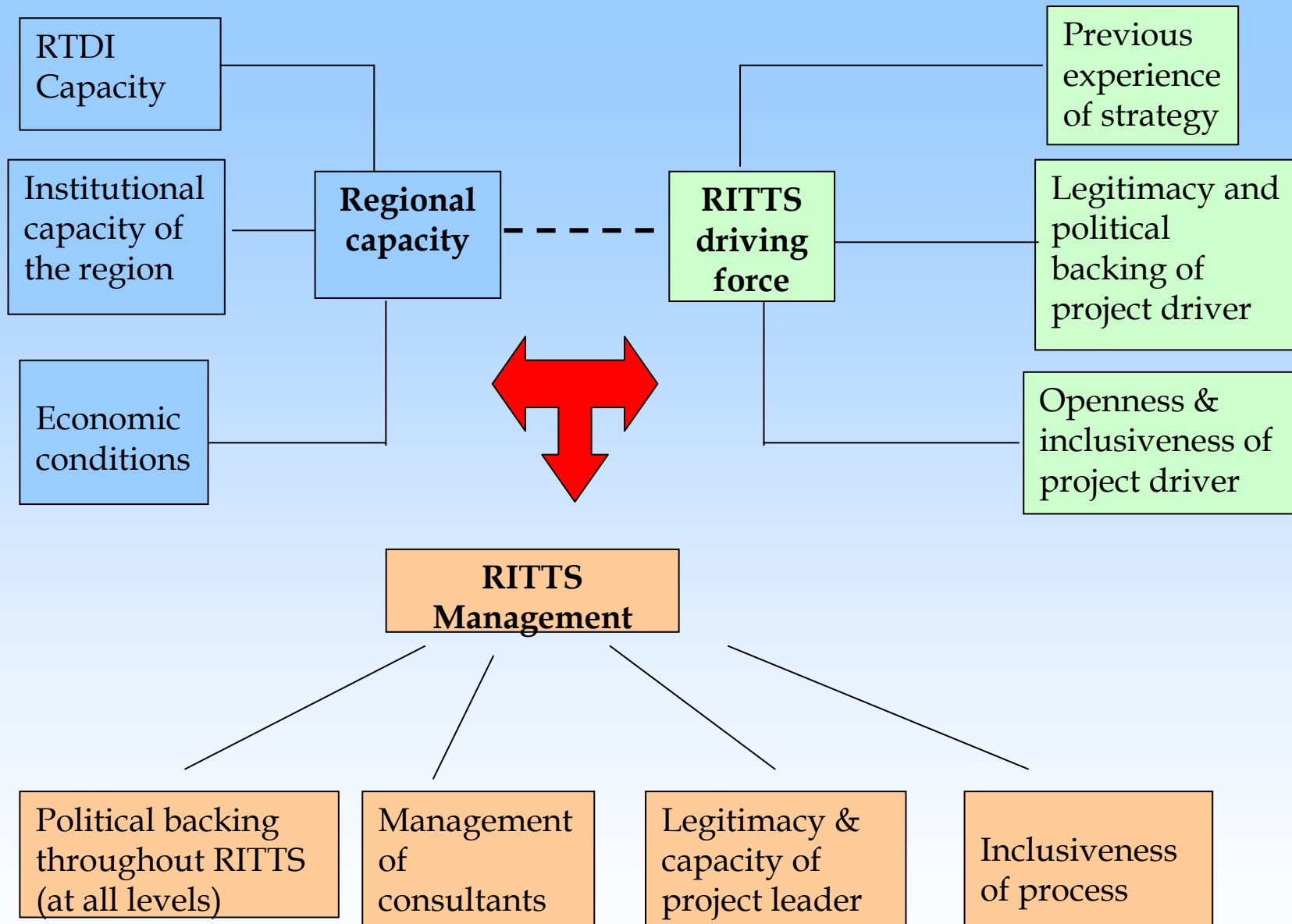
# RIS/RITTS should be:

- Bottom up
- Regional
- Strategic
- Integrated
- International



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# Key conclusions from RITTS

- Achieved objectives in enhancing TT&I
- Unforeseen benefit in improved innovation policy capacity
- Regions were unable to fully implement RITTS in time and resource constraints
- Needs complex iterative process
- Success needs to be judged from starting point
- Long term process



# Lessons from managing RITTS

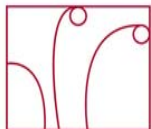
- Matching supply and demand
- Tensions between SME markets and a cluster approach
- Internal/external networks
- Specialisation and generic provision
- Responsiveness and proactive approaches
- Lead sectors and activities





# Moving beyond RITTS

- Development of new regional science and technology policies
- Examples from the UK



# Growing interest in science within the English regions

- RDA developments – Science and Industry Councils and science based strategies
  - North West Science
  - North East Science and Industry Council and Strategy for Success
  - Yorkshire cluster based strategy built on RIS with new centres based in universities



# NE England Strategy for Success



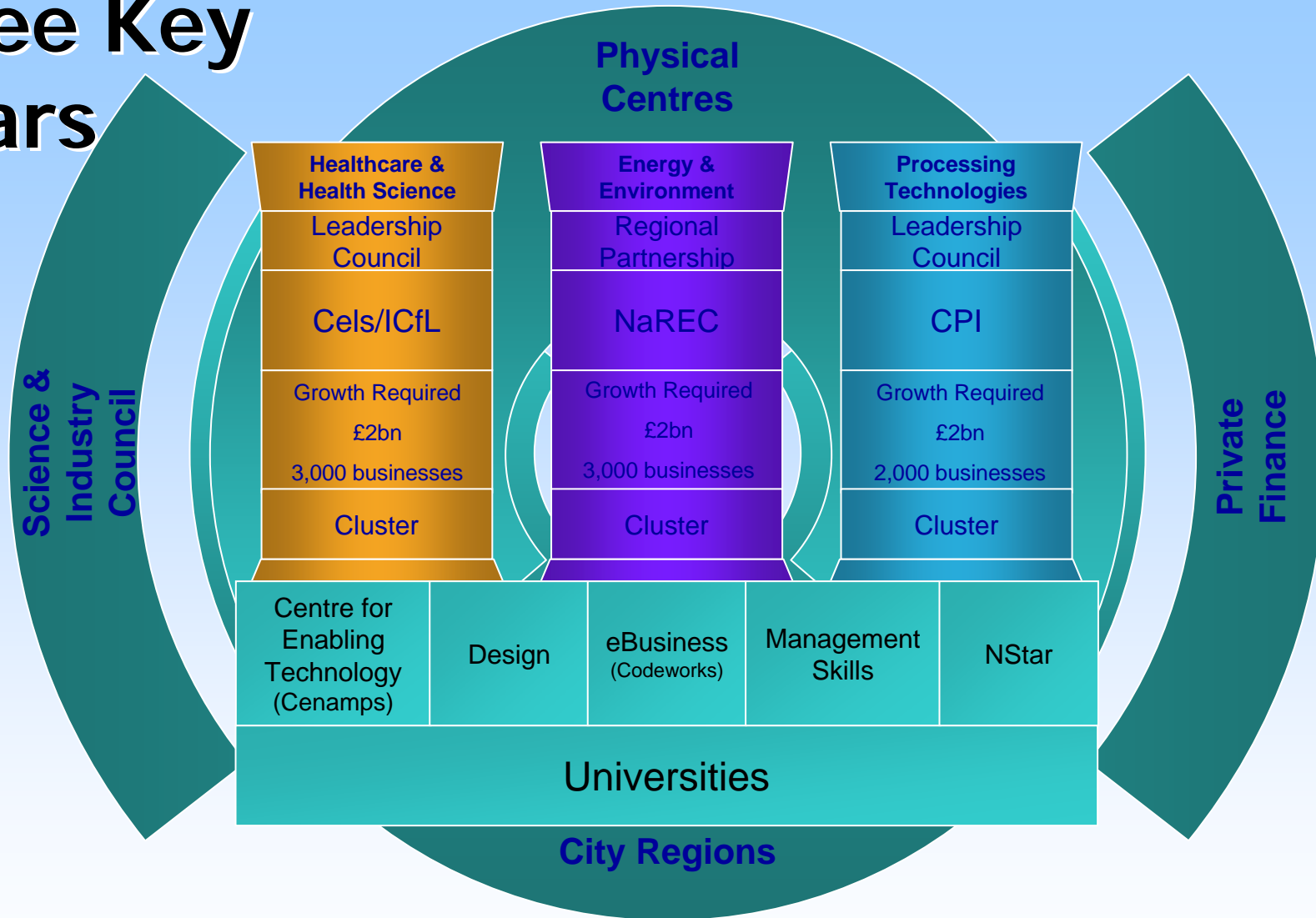
# International Centre for Life



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# Three Key Pillars





# Scale of university engagement with clusters

- National – national research programmes and centres of excellence
- Regional – RDA initiatives with dedicated cluster programmes
- Local/micro-clusters – small scale initiatives with local funding or university-initiated
- Internal to the university – structures for industrial liaison or research organisation

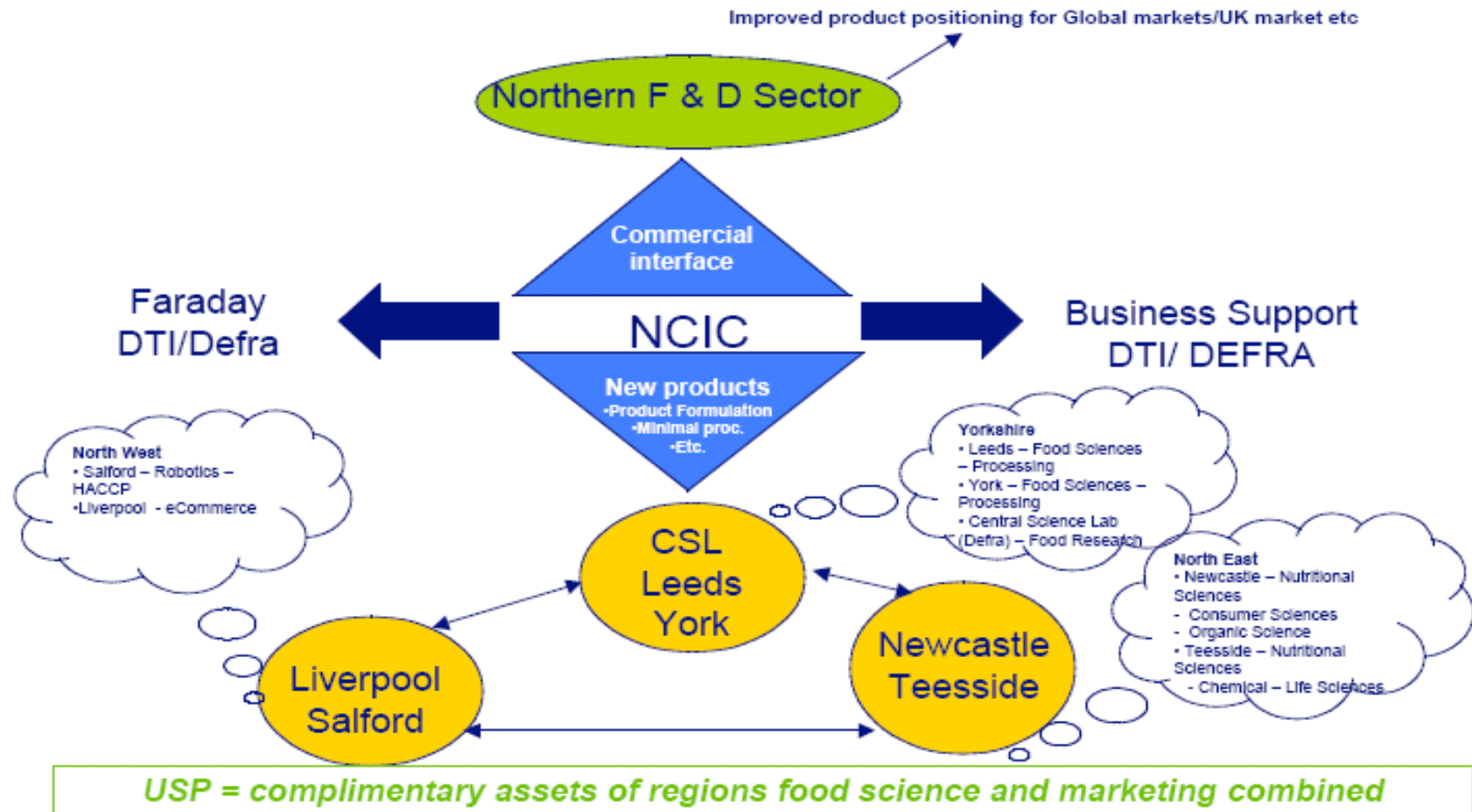


# Northern Way

- Three Northern English regions – NE, NW, Yorks
- Identifying dynamics of growth
- Collaborative approach to innovation policy
- New Northern centres of excellence as networks across the regions linking to cluster initiatives
  - eg The Centre of Excellence in Biocatalysis, Biotransformations and Biocatalytic Manufacture
- 3 science councils identifying S&T priorities
- N8 identifying academic strengths
- 3 HE associations developing centres of professional excellence, plus Design Centre



# F&D Northern CIC model outline



IBrannigan

Northern way Clusters



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# Conclusions

- Overcoming problems of fragmentation of innovation initiatives
- Focus on future opportunities for regions and for universities to play a leading role
- Mechanisms to identify priorities – importance of regional governance structures
- Development of cross regional collaborative structures
- Don't view region as a closed system
- Indiscriminate use of cluster concept erodes confidence
- Insufficient time given to building trust
- Need to understand needs of different actors
- Excessive reliance on universities in UK regions

