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Newcastle Science City: Renewing a Declining Industrial Regional

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“Coals to Newcastle”

- **Newcastle & North East England is a region where boundaries have constantly been pushed back. Through the industrial revolution, the region was a powerhouse of engineering innovation, leading the way through the age of coal, iron, shipbuilding and electricity.**

Goals to Newcastle

- As one of the world's truly great industrial communities, Newcastle has been and continues to be one of the greatest innovators in fields such as energy and medical discovery. Newcastle Science City continues to promote Newcastle across the world as a leader in the city's three strong science areas: ageing & health, stem cell & regenerative medicine and sustainability, supporting the transformation of the regional economy.

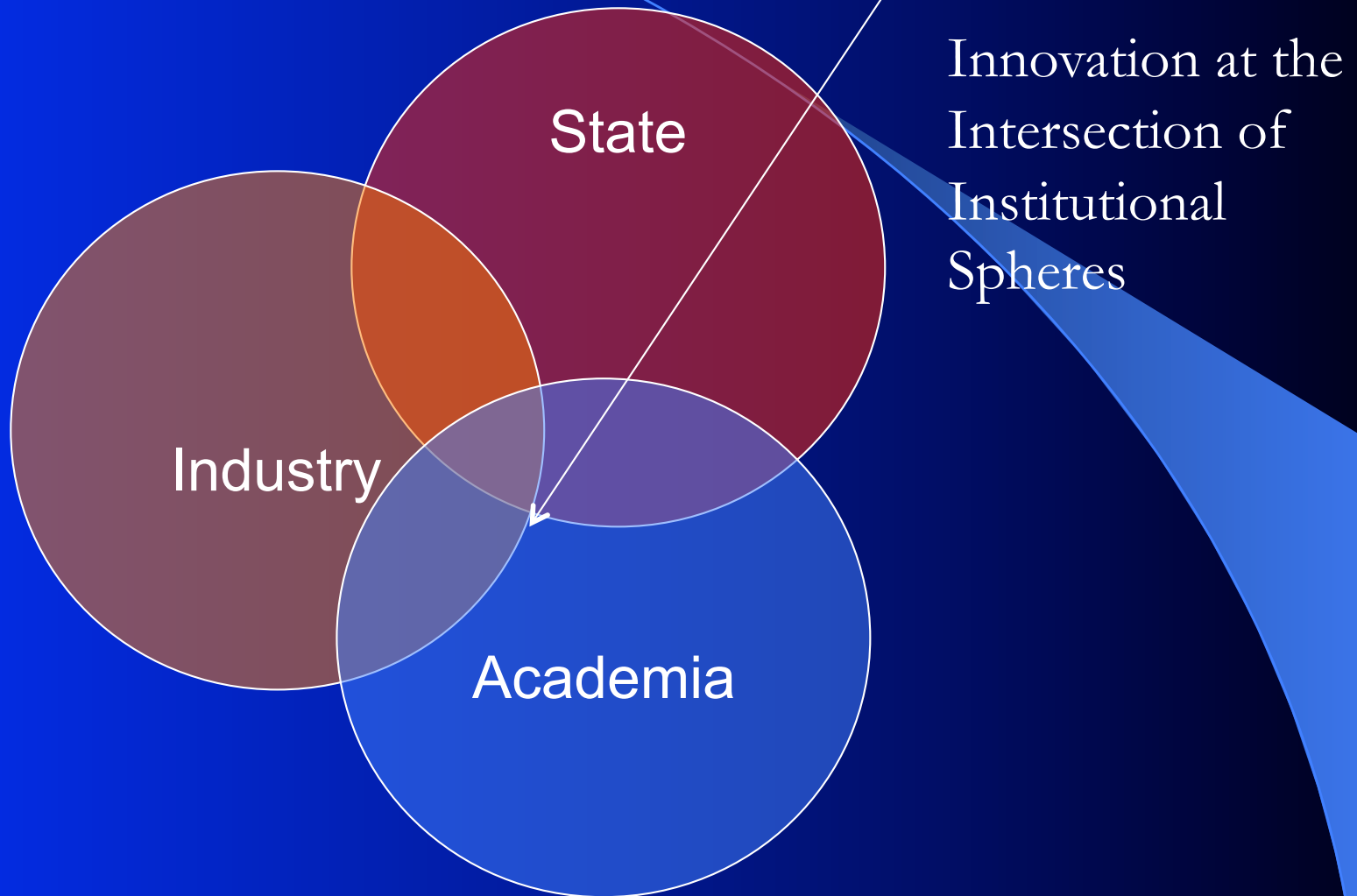
The Partnership

- Newcastle University
- One Northeast
- Newcastle City Council
- European Regional Development Fund

Leadership

- John Goddard: Deputy Vice Chancellor, Newcastle University
- Role Model: 60's Mayor's vision of Newcastle as Brasilia of the North
- University Development Strategy: Uni-Govt partnership- Finnish Science Park Model
- Land and physical infrastructure priority

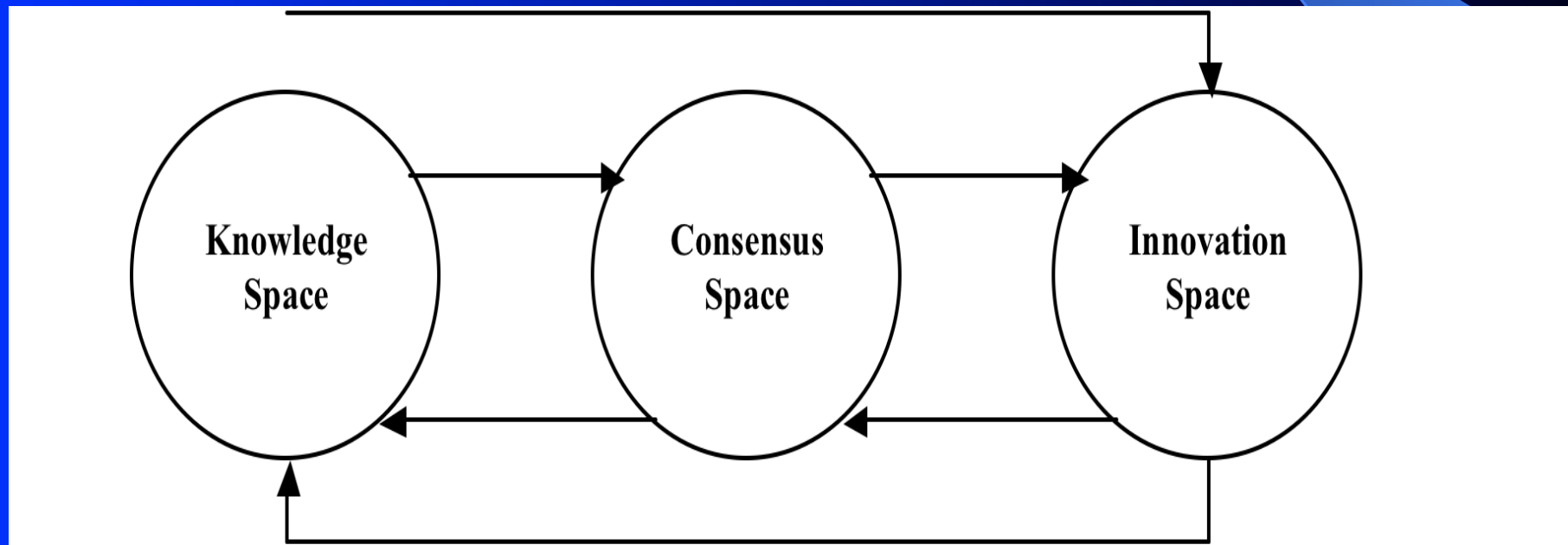
Balanced Triple Helix Model



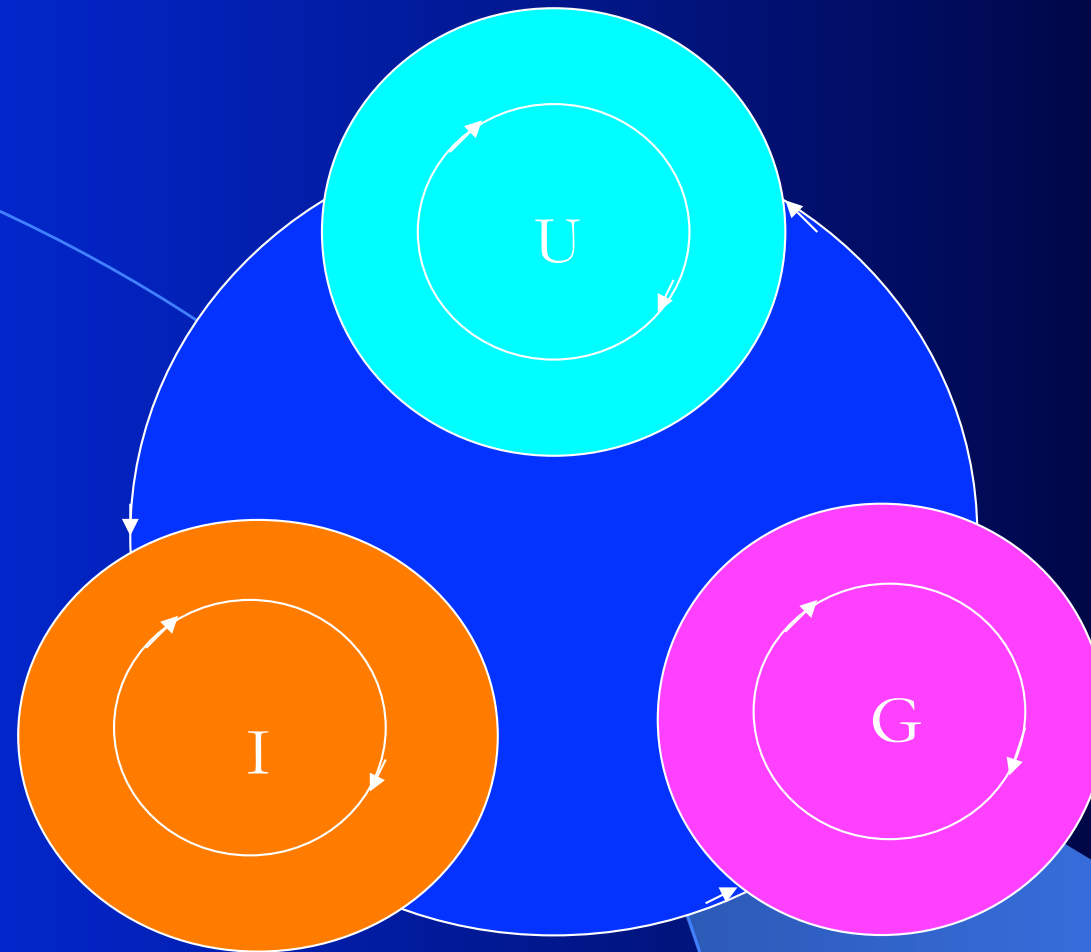
Civil Society: Base of Triple Helix

Triple Helix Spaces

- Linking knowledge, innovation, governance and leadership



Circulation of Individuals in Triple Helix



Professors of Practice (PoPs)

- Turns traditional PoP model “on its head” from teaching to research
- PoP Types:
 - Forward linear: faculty entrepreneurs moving $\frac{1}{2}$ time to Industry
 - Reverse linear: Industry entrepreneurs (PhDs) moving $\frac{1}{2}$ time to University
- Entrepreneurial role models for students and faculty
- Develop large-scale projects, strengthen ties with business, retain faculty entrepreneurs in university



Self-sustaining virtuous circle between University and Industry

Researchers of Practice (RoPs)

- Link academic and business sides of university
- 1/2 time in Academic Unit e.g. Business School, Engineering, Medicine etc
- 1/2 time in Tech transfer office, incubator, science park
- Junior faculty (assistant profs) mentored by PoPs
- Hypothesis: more productive than traditional academics: two sources of inspiration (theory and practice)
- PoPs + RoPs: seamless web from firm to university and from academic to business development

Triple Helix conceptual axes

Institutional Spheres

Hybrid institutions at UIG interfaces:

- U-I interface: TTOs, SPs, BIs, ILOs, JRCs, excellence centres);
- U-G interface: university contracts & grants offices, academics' advisory services to policy-makers;
- I-G interface: chambers of commerce, professional associations, sectoral firm associations

Integrative Spaces

- Knowledge, Consensus and Innovation Spaces
- Dissemination of innovation and best practice from local/regional to national/international level through networks of universities, firms, interface organisations
- Regional Innovation Organizer (leadership)

Individual Dynamics

- Circulation of individuals within and among TH spheres:
 - dual roles of academics in U-I/U-G;
 - student internships in firms, government, training in firms for dissertations
- TH education:
 - Students: Novum Trivium, TH PhD
 - Academics: PoPs, RoPs

Triple Helix 9 International
Conference 11-14 July
Stanford University

Silicon Valley: Global Model or
Unique Anomaly

[http://
th9.triplehelixassociation.org](http://th9.triplehelixassociation.org)