The Triple Helix in The Netherlands and the role of applied research

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Brazil Healthcare Visit 13.6.2016 by Jacky Bax, Taskforce for Applied Research

The Triple Helix

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"A Triple Helix of University-Industry-Government Relations" for knowledge-based economic and social development

Loet Leydesdorff (Ams) and Henry Etzkowitz (NY) 1995



Key questions:

How to strengthen the systems of market/enterprise, science/knowledge production and their interaction in order to achieve a stronger economy and greater welfare?

Which type of (national) governance works best?



The Knowledge Triangle (OECD, Committee for Scientific and Technological Policy) Key questions:

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How to combine science/innovation, enterprise/market, education/human capital on regional strengths? for a stronger economy and higher quality public sector? Which governance is effective (national, regional, institutional)?

The Netherlands national policy relevant for Triple Helix and Knowledge Triangle

- Top Sector Policy (Ministry of Economic Affairs):
- Higher Education Policy and National Research Agenda (Ministry of Education, Culture and Science)



Top Sector Policy

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9 Top Sectors + ICT (horizontal)

- Innovation Contracts (focusing science system, esp. part of NWO-funding agenda on innovation needs of industry/SME)
- Human Capital Agenda's (esp. STEM shortages)



Higher Education Policy

New Strategic Agenda Higher Education and Research "The value(s) of knowledge" (2015-2025), focus on:

- Quality improvement of education (also connecting education-research-practice)
- Talent development, life long learning
- Connecting with society (labour market, private and public sector; also valorisation; entrepreneurship)



Higher Education Performance Agreements between Minister and universities/UAS (2012-2016) – 7% of education funding

- Quality improvement of education
- Profiling on research strengths
- Improving valorisation/entrepreneurship education
 To be evaluated in 2016 (both results and instrument)



The Higher Education system

- 14 research universities (3 technical,1 agricultural): 250.000 students
- 37 universities of applied sciences (UAS): 500.000 students

All legally three tasks: education (UAS: professional), research (UAS: applied), dissemination of knowledge



The National Research Agenda

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Request of the Cabinet, developed by the "Knowledge Coalition" =

Associations of Universities, UAS, University Medical Centres, Employers (industry, SME), Institutes for Applied Research, Royal Academy, National Research Council

The National Research Agenda

11.700 questions from civilians, researchers, ministries, experts, societal groups/organisations, industry, etc.
grouped into 140 clusters
25 examples of knowledge chains combining content and partners
NRA to underpin focus and cooperation in triple helix



Summary of Triple Helix inspired policy

Cabinet policy stimulates

- cooperation between knowledge production and knowledge demand (both industry/SME and society/public sector)
- focus/profiles/strengths

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- linking with education/human capital
- regional knowledge triangle development

The role of UAS/applied research in the Triple Helix Universities of Applied Sciences (UAS)

- educate 2/3 of higher education students (mainly BA level, but also MA and some doctorates)
- provide applied knowledge in close cooperation with private (SME) and public sector
- **OECD** Innovation Review The Netherlands (2014):
- UAS important for innovation skills and bridging gap between non-innovative firms and universities/PRIs



The UAS applied research system

- 37 UAS with 600 professors,3000 researchers, in block funding from Ministry of Education (OCW)
- Taskforce for Applied Research (SIA), *competitive funds,* €30 *per year from OCW*
- Centres of Expertise (around 25): pilots, often initial funding Performance Agreements, goal: PPP funding



The Taskforce for Applied Research

- since 2014 entity at Netherlands Organisation for Scientific Research NWO
- Governing Board: Confederation of Industry and Employers, Royal Association MKB-NL, NWO, TNO (Organisation for Applied Scientific Research), Chamber of Commerce, Association of Universities of Applied Sciences
- 15 staff members



The Taskforce for Applied Research

Mission:

- fund and stimulate demand driven applied research by UAS and its quality
- stimulate application of this research in SMEs and public sector
- stimulate flow of new knowledge into curricula UAS
- stimulate development of knowledge communities and connection with universities/PRIs



Questions?

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