Research Intensive Universities (Networks) : Leading by Example

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Overview

» 1 LERU
» 2 Economic Contributions
» 3 EU Collaboration
» 4 UN Collaboration
» 5 GCRIUN
» 6 Examples
» 7 Conclusions
LERU
Who we are (I)

• An association of European research-intensive universities;
• Committed to the values of high quality teaching;
• Within an environment of internationally competitive research.
Who we are (II)

• Non-profit organisation
• Founded in 2002
• 21 members
Members (I)

- Based in 10 European countries
- Membership only upon invitation
- Research-Intensive, Comprehensive
LERU members:
University of Amsterdam
Universitat de Barcelona
University of Cambridge
University of Edinburgh
University of Freiburg
Université de Genève
Universität Heidelberg
University of Helsinki
Universiteit Leiden
KU Leuven
Imperial College London
University College London
Lund University
University of Milan
Ludwig-Maximilians-Universität München
University of Oxford
Pierre & Marie Curie University
Université Paris-Sud
University of Strasbourg
Utrecht University
University of Zurich
## Members (III)

<table>
<thead>
<tr>
<th>Country</th>
<th>Institution(s)</th>
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<tbody>
<tr>
<td>Belgium</td>
<td>KU Leuven</td>
</tr>
<tr>
<td>Finland</td>
<td>University of Helsinki</td>
</tr>
<tr>
<td>France</td>
<td>Pierre &amp; Marie Curie University (UPMC) Université Paris-Sud University of Strasbourg</td>
</tr>
<tr>
<td>Germany</td>
<td>University of Freiburg Universität Heidelberg LMU München</td>
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<tr>
<td>Italy</td>
<td>University of Milan</td>
</tr>
<tr>
<td>Netherlands</td>
<td>University of Amsterdam Leiden University Utrecht University</td>
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Commitment

- **Encourage education** through an awareness of the frontiers of human understanding;
- **Foster the creation of new knowledge through basic research** as the ultimate source of innovation in society;
- **Promote research across a broad front**, which creates a unique capacity to respond to new opportunities and problems.
Purpose

• **Influence policy at European Union (EU) and Member State (MS) level**
  - EU (EC, EP, ECo, ERC, EIT, JRC, ERAC, ERIAB, etc.)
  - MS (prime ministers, ministers of research, ministers of finance)

• **Develop best practices**
  - Between 21 members
  - Institutional reflection, exchange of experience, collaborative actions

• **Relevance for all Research-Intensive Universities**
  - EU
  - Global
## Facts and Figures

<table>
<thead>
<tr>
<th>+ 550,000 students</th>
<th>+ 50,000 PhD students</th>
<th>55,000 academic staff</th>
<th>55,000 non-academic staff</th>
</tr>
</thead>
<tbody>
<tr>
<td>+ 20% of ERC grants</td>
<td>+ € 5 BN total research budget</td>
<td>+ €300 M EU projects / year</td>
<td>+ 12,000 PhD degrees / year</td>
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<td>+ 55,000 MA degrees / year</td>
<td>+ 230 Nobel Prizes &amp; Field Medals</td>
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Organisation

Rectors’ Assembly

Board of Directors  LERU Office

Policy Committee

Communities  Working Groups  Expert Groups
Economic Contributions
Study Objective

To quantify the economic contribution of each LERU University and the combined group of LERU Universities to the European economy.
Framework

- Universities
  - create intellectual capital
  - provide leadership, knowledge infrastructure & a social environment for regional development
  - create human capital
  - transfer knowledge
  - facilitate technical innovation
  - attract capital investment

- Which leads to a range of economic impacts
Sources of Contribution

- Core contribution
  - direct effect
  - supplier effect
  - staff spending
  - capital spending
- Student contribution
  - student spending
  - student employment
  - student volunteering
  - student placements
- Knowledge transfer
  - licensing
  - consultancy
  - collaborative research
  - start-ups and spin-outs
  - science parks
  - workforce training (CPD)
  - staff volunteering
- Tourism
  - visits to staff and students
  - conferences and events
- Graduate productivity
Research Methods

- Data supplied by the Universities
- Economic assumptions
  - Eurostat Economic Ratios 2013/14 (GVA/turnover and turnover/employment)
  - Input-Output Tables for Economic Multipliers, 2011
  - Multipliers – Leontief Type 1 and Type 2
  - Exchange rates (2014 levels)
- Previous in-house experience
- Visits to the Universities
Measures of Economic Contribution

- Economic contribution measured in terms of:
  - Gross Value Added (GVA) – a measure of the value that an organisation, company or industry adds to the economy through its operations. GVA is equal to the value of production less the value of inputs used.
  - Employment – jobs supported.
Headline Economic Contribution

- Economic contribution
  - €55.7 billion GVA
  - 900,065 jobs
- Economic contribution *including future graduate productivity*
  - €71.2 billion GVA
  - 900,065 jobs
- Wider impact on regional economic growth
Return on Investment

- Every €1 direct GVA in the LERU Universities generate almost €6 GVA in the European economy.

- Every 1 person employed directly in the LERU Universities supports almost 6 jobs across the European economy.
Economic Contribution by Source

- Core
- Student
- Knowledge transfer
- Tourism
- Graduate productivity
LERU members...

- educate 674,500 full time students
- employ 186,600 staff across 21 Universities
- earn €16.3 billion turnover

Have Core Impacts of...

- €23.9 billion GVA
- 375,700 jobs
- from... direct operations, supplier chain expenditure, staff spending
- and... €1.5 billion capital investment

BiGGAR Economics
The students of LERU members generate €9.7 billion GVA and support 220,200 jobs. Outside the University, students spent an average of €7,937, which supported 93,100 jobs throughout Europe and generated €5.2 billion GVA.

43% of full time students worked part time during term time. These students worked an average of 11.5 hours per week, contributing to the local labour markets.

BiGGAR Economics
Research and Knowledge Transfer...

activities supported **298,500** jobs throughout Europe and generated **€21.9 billion GVA**

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Research had supported the creation of **1,065** active spin out companies, which employed **12,700 people**

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LERU members undertook **€1.5 billion** of contract research for private and third sector organisations and won **€334 million** of consultancy contracts

BiGGAR Economics
Graduate Productivity

In 2014, 172,300 students graduated from LERU member institutions.

On average these graduates will go on to earn an additional €89,700 over their working lives as a result of their University degree.

Graduate productivity contribution = £15.4 billion GVA
Extrapolating the Impact

- Based on the study findings, estimate the impact of entire European Research Universities
  - based on ERC data & CWTS Leiden rankings LERU = 23.4% of sector, so
  - European Research Universities sector contributes
    - Over €300 billion GVA
    - supports 3.8 million jobs across Europe
- Equivalent to 1.8% of all employment in the EU and 2.2% of GVA
Wider Benefits

- Wider economic, societal, cultural, environmental, health and civic benefits of Research Universities:
  - stronger social cohesion
  - improved social mobility
  - better health & well-being
  - greater civic engagement
  - wider benefits for society from medical research
  - overall character and vibrancy of the cities the Universities are located in
Wider Benefits

Research Universities are drivers of long term sustainable economic growth:

- By pushing the boundaries of academic discovery they increase the pool of knowledge available to society
- Equally important, they diffuse this knowledge throughout society through their commercialisation activities and high quality graduates
- This diffusion of knowledge provides the basis for productivity improvements and therefore economic growth
- They also create knowledge and innovation ecosystems which form major clusters of economic activity, attract inward investment and create the knowledge sectors of the future
EU Collaboration
European Research Area (I)

- ERA Communication 2012
- ERA MoU (LERU-EC) 2012
- ERA JS (LERU-EC) 2015
- ERA Platform
- ERA SHO (LERU/EARTO/EUA/SE/CESAER)
- 2014 LERU BP “An ERA of Change”
European Research Area (II)

» ERA Priorities 2012:
  » An open labour market for researchers
  » Gender equality and mainstreaming in research
  » Optimal circulation, access to and transfer of scientific knowledge including via digital ERA
  » More effective national research systems
  » Optimal transnational cooperation and competition
European Research Area (III)

» ERA Priorities 2014 (LERU) :
  » Anchoring ERA in a strong international strategy
  » Linking education, research and innovation
  » Including the Humanities and Social Sciences
  » Understanding science 2.0
  » Promoting the enhancement of research integrity
  » Fostering effective science and society interactions
  » Strengthening the development, organisation and coordination of research, innovation and education policy
European Research Area (IV)

» ERA Progress Report 2013
» ERA Progress Report 2014
» 2015 ERAC ERA Roadmap
» 2016 MS ERA Roadmaps
» European Semester
European Research Area (V)

» ERA Realisation :
  » ERA Framework Directive
  » ERA Topical Technical Directives
  » BAU + European Semester
  » BAU
Horizon 2020
Erasmus +
Open Science
Open Innovation
Open to the World

» Commissioner Carlos Moedas
UN Collaboration
UN Academic Impact

» LERU goes global (RA May 2015)
Consultative Status ECOSOC

» LERU goes global (RA May 2015)
Global Council of RIU Networks
GCRIUN (I)

- 2012 Idea: Establishment of a network of networks of research-intensive universities
- 2012 Barcelona Meeting: LERU &
  - Association of American Universities (AAU)
  - Consortium of China 9 Research Universities (C9)
  - Group of Eight Australia (Go8)
2013 Hefei Meeting
» Presidents C9
» Annual Meeting
» LERU, Go8, AAU invited
» Hefei Statement on Characteristics of Research Intensive Universities
» 4 signatories
GCRYIUN (III)

- Other similar networks invited to sign up:
  - Association of East Asian Research Universities (AEARU)
  - Russell Group (RG)
  - U15 Canada
  - German U15
  - RU 11 Japan
  - Hong Kong 3
GCRIUN (IV)

» 2014 Leiden Meeting
   » Hosted by LERU & Leiden University
   » Leiden Statement on Characteristics of Social Sciences & Humanities Research
» 10 signatories
GCRIUN (V)

» 2015 Berlin Meeting
  » Hosted by German U15
  » Deepening of the collaboration between 10 RIU networks
» Follow up Hefei & Leiden Statements
» Concrete actions
GCRIUN (VI)

• Goal: Global Council of Research-Intensive Universities Networks, comparable and complimentary to the Global Research Council
Examples
Open Access Publications

» Green/Gold/Offsetting/Big Deals
Research Data Management

» Storage/Access/Sharing/Security/Use
Research Integrity

» Increased attention; EU/MS action?
Copyright and Text & Data Mining
Personal Data Protection

» EU/MS Level Playing Field
Research Funding

» Efficient & Effective Use of Research Funding
Conclusions
Considerations on:

Research
Education

» Considerations on:
Innovation

» Considerations on: