„Fourth Generation” Universities and Regional Development

Bence Zuti, PhD student
Miklós Lukovics, PhD

University of Szeged, Hungary
The Structure of the Presentation

• Universities and competitiveness
• The potential effects of universities on economic development
• “Fourth Generation” universities
• The components of an internationally successful university
The Main Question

What can the universities do (by representing active or passive behavior) for the purpose of enhancing regional competitiveness?
Universities and Competitiveness

„The ability of companies, industries, regions, nations and supra-national regions to generate, while being exposed to international competition, relatively high income and employment levels"

The Pyramid Model of Competitiveness

The Structure of Regional Economic Development

The Local Economic Effects of Universities

## The Generations of Universities

*(Based on Wissema)*

<table>
<thead>
<tr>
<th>Aspect</th>
<th>First generation universities</th>
<th>Second generation universities</th>
<th>Third generation universities</th>
</tr>
</thead>
<tbody>
<tr>
<td>Goal</td>
<td>Education</td>
<td>Education and research</td>
<td>Education, research and utilization of knowledge</td>
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<tr>
<td>Role</td>
<td>Protection of truth</td>
<td>The cognition of nature</td>
<td>Creation of added value</td>
</tr>
<tr>
<td>Output</td>
<td>Professionals</td>
<td>Professionals and scientists</td>
<td>Professionals, scientists and entrepreneurs</td>
</tr>
<tr>
<td>Language</td>
<td>Latin</td>
<td>National</td>
<td>English</td>
</tr>
<tr>
<td>Management</td>
<td>Chancellor</td>
<td>Part-time scientists</td>
<td>Professional management</td>
</tr>
</tbody>
</table>

**“Fourth Generation” Universities shape their environment proactively**
The Diamond Model of Modern Universities

Source: Own construction based on Porter
The Connections Between Universities, Industry and Government

- Actors of the Triple Helix share some activities with each other
- Universities have a fundamental role in the Triple Helix model
- Universities ought to create collaborations with actors of economy and government
Success Factors of Universities

- **University Rankings**: Education-Research
  - 6 university rankings examined
  - Academic Ranking of World Universities
  - Times Higher Education World University Rankings
  - Quacquarelli Symonds
  - Scimago Institutions Rankings
  - University Ranking by Academic Performance
  - Ranking Web of Universities
Success Factors of Universities

• **Benchmarks**: Third mission
  - 22 University strategies examined
  - University of Aarhus (Denmark)
  - Oregon State University (USA)
  - University of Southampton (UK)
  - Aston University (UK)
  - University of Nottingham (UK)
  - University of Melbourne (Australia)
Success Factors of Universities

University Rankings: Education-Research
6 rankings

Benchmarks: Third mission
22 strategies

System:
All three missions of universities are placed in two separate pillars
Virtual Model of an Internationally Successful University
Source: Own construction
The components of a successful “Fourth Generation” university

**Education-Research Pillar**

- **Mobility**
  - Mobility of Students
  - Mobility of Researchers

- **Programme Portfolio**
  - BA/BSc Programmes
  - MA/MSc Programmes
  - PhD Programmes
  - Vocational Trainings

- **Innovation**
  - Research and Development
  - Improvement of Enterprises

- **Parameters and Performance**
  - Indicators of Rankings
The components of a successful “Fourth Generation” university

Third Mission Pillar

- Transfers
  - Knowledge Transfer
  - Technology Transfer

- Connections
  - Internal Connections
  - External Connections

- Adaptive Structure and System
  - Adaptive Planning
  - Adaptive Organizing
    - Adaptive Management
    - Adaptive Monitoring

- Services
  - Development of Economy
  - Support of Enterprises
Conclusions

• Importance of the framework
• Universities are able to positively contribute to the competitiveness of regions
• Consideration of the needs of local economy and society
Thank you for your attention!

Miklós Lukovics, PhD

Bence Zuti, PhD student / zuti.bence@eco.u-szeged.hu

University of Szeged, Hungary
The detailed list of examined university strategies:

- Aalborg University (DK)
- Aalto University (FI)
- Aarhus University (DK)
- Aston University (UK)
- Cardiff University (UK)
- Charles Sturt University (AU)
- Edinburgh Napier University (UK)
- Leeds University (UK)
- Oregon State University (USA)
- Óbuda University (HUN)
- Stanford University (USA)
- University of the Arts London (UK)
The detailed list of examined university strategies

- University of Debrecen (HUN)
- University of Melbourne (AU)
- University of Miskolc (HUN)
- University of Nottingham (UK)
- University of Oxford (UK)
- University of Southampton (UK)
- University of St. Andrews (UK)
- University of Waikato (NZ)
- University of Warwick (UK)
- University of Western Australia (AUS)
"This research was realized in the frames of TÁMOP 4.2.4. A/2-11-1-2012-0001 „National Excellence Program - Elaborating and operating an inland student and researcher personal support system" The project was subsidized by the European Union and co-financed by the European Social Fund."