KU Leuven Research & Development

Bridge between research and industry
Leuven, centre of innovation

Knowledge institutes

- KU Leuven Association
- Leuven University Hospitals
- imec
- VIB departments
- iMinds Health
- Flanders Make

- Combined R&D budget of € 750 million
- Employ about 22,000 people (7,200 researchers)
- Huge inflow of knowledge and innovative ideas
- Attractive location for high-tech companies
- High-tech ecosystem

At the centre of Belgium
KU Leuven: Mission

• Three core tasks:
  o Academic education
  o Scientific research
  o Service to the community = knowledge and technology transfer
    • to society
    • to industry
KU Leuven: History

• 1425
  o Foundation Katholieke Universiteit Leuven
  o Two core tasks: education and later research

• 1968
  o Split up into:
    • Dutch-speaking KU Leuven in Leuven
    • French-speaking U.C.L in Louvain-la-Neuve

• 1972
  o Foundation KU Leuven Research & Development (LRD)
  o One of the first university technology transfer offices in the EU
  o Third core task: social services / valorisation of research results
KU Leuven: General info

- Research expenses: 466 million euro (2016)
- ‘Complete’ university: 16 faculties
- Humanities, Science & Technology, Biomedical Sciences
Herman Van Rompuy

First permanent President of the European Council

KU Leuven education

Baccalaureus in Philosophy (1968)
Master in Business and Economics (1971)

“I cherish my student years at KU Leuven. They helped to pave the way to my political career.”
Europe’s most innovative university

• Reuters ranks KU Leuven as Europe's most innovative university in its top 100 of innovative European universities (2016 and 2017).

• The Reuters study is based on
  o Number of publications
  o Patent applications (number, granted patents, global coverage, …)
  o Number of citations of patents and publications (in patents and publications)
  o Number of industrial collaborations
  o …

<table>
<thead>
<tr>
<th>Reuters top 100: Europe’s most innovative universities</th>
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<tbody>
<tr>
<td>1. KU Leuven</td>
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<tr>
<td>2. Imperial College London</td>
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<td>3. University of Cambridge</td>
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<td>4. Technical University of Munich</td>
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<td>5. École Polytechnique Fédérale de Lausanne</td>
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<td>6. University of Erlangen Nuremberg</td>
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<td>7. Université Pierre et Marie Curie</td>
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<td>8. Delft University of Technology</td>
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<td>9. University of Zurich</td>
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<td>10. University of Oxford</td>
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KU Leuven Research & Development

• Founded in 1972
• Technology & knowledge transfer office of KU Leuven
• Bridge between university, industry and society
  • Supports researchers
  • Offers technologies to industry
• High level of budgetary and HR autonomy: ‘Business unit’
Mission

“Promoting and supporting knowledge and technology transfer between university and industry”

- Research collaboration
- Spin-offs and regional development
- IP protection and licenses
Organisation

- LRD consists of:
  - Central multidisciplinary staff
    - Supports researchers in knowledge and technology transfer
  - Research divisions
    - 1,799 researchers & 481 supporting
    - Virtual organisations in which researchers (from different faculties or departments) can group their technology transfer activities.
Central multidisciplinary staff

- Close interaction and collaboration between different units
- Regional and international networking

- Research collaboration (25)
  - advice
  - contract R&D
  - projects with government support (AIO, EC, etc.)

- Intellectual property rights (10)
  - intellectual property rights
  - licensing

- Spin-off & innovation (12)
  - spin-off creation & growth
  - networks & regional dev.
  - KU Leuven Association

- Finance, HR & logistics (45)
  - financial administration
  - HRM administration
LRD research divisions & projects

Faculties, departments, research groups: quality in research and educational activities

LRD divisions/projects:
Contract and budgetary autonomy and flexibility incentives
What do we do?

- Manage research collaborations
- Protect and exploit intellectual property
- Set up spin-off companies
- Provide incubation instruments & seed financing
- Create high-tech ecosystem
Examples of technology transfer
Research collaboration

- 139 million euro income from research collaboration
- 2,005 new agreements (2016)
Intellectual property

- 525 active patent families in portfolio*
- 122 million euro license-income*
- A patent (application) is often the basis for setting up a spin-off company

(* numbers 2016)
Spin-offs: key ingredients

- Balanced team
- Validated technology / product / service
- Freedom to operate & IPR strategy
- Validated market & revenue model
- Strong investment consortium
Spin-off companies

- 116 spin-off companies started, 92 still active; together +/- 5,200 employees (numbers 2016)
- 7 successful flotations (IPOs)
Spin-off companies

Investments in spin-offs 2005-2016

- KU Leuven: €10,400,000
- Gemma Frisius Fund: €19,700,000
- Third parties: €874,600,000
High-tech ecosystem

• Partners:
  o City of Leuven
  o Province of Flemish Brabant
  o CREA - European Commission
  o KBC Bank
  o BNP Paribas Fortis Private Equity
  o imec
  o VIB

• ELAt: Eindhoven - Leuven - Aachen triangle
  o Cross-border and interregional network
  o Stimulation of knowledge economy
High-tech ecosystem

- **Horizontal networks:**
  - Leuven.Inc / Leuven Mindgate
  - Flanders Smart Hub

- **Vertical networks: technology clusters**
  - DSP Valley
  - LSEC
  - KU Leuven research centres:
    - CD3
    - LMRC
    - LMTC
    - LICT
    - PharmAbs
    - NERF
    - LFoRCe
LCIE
Leuven Community for Innovation driven Entrepreneurship

- Stimulating Inspiring
- Matchmaking Creating synergies
- Referring
- Centralising information
- Coaching Training
- LCIE Academy
- Incubator Meeting rooms
Multilevel interaction
Leuven, region for young entrepreneurship

• Recently in the Media

Grote opkomst voor #LCIE launch event in Leuven!

Leuvense start-up DataCamp haalt 1 miljoen dollar op

Ooit brons op Olympische Spelen, nu topper in beveiligingssoftware

Layerwise ziet opportuniteiten na overname door 3D Systems

Wikipedia stond ze nog altijd bekend als de Britse juriste die in 1965 brons behaalde op de Olympische Spelen in Tokio.

KU LEUVEN
RESEARCH & DEVELOPMENT
High-tech ecosystem

• Arenberg Science Park
• Haasrode Science Park
• Leuven Noord Science Park
• Leuven Bio-Incubator
• KU Leuven Innovation & Incubation Centre (I&I)
Innovative Entrepreneurship in Leuven

- UZ Gasthuisberg
- Campus Arenberg
- Wetenschapspark
- Vaartkom
- Stadskantoor
- Haasrode

September 19, 2017
Via della Conciliazone, Rome

2005

2013
A changing scene …

- Growing international student population
- Young entrepreneurship
- Converging technologies
- …
leads to new needs

- Multidisciplinary ecosystem
- Joining forces beyond borders
- Student-entrepreneurs
- Housing
- International school
- Welcome attitude
Global branding

September 19, 2017
High-tech entrepreneurship community

- ° 1999 as Leuven.Inc
- > 80 company & 400 individual members
- > 10.000 contacts
- Multidisciplinary technology & entrepreneurship network platform
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