Key Performance Indicators 2020

Solicited under the "Contrat d'Etablissement Pluriannuel entre l'Etat et l'Université du Luxembourg 2018-2021"
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**Progress 2018-2021**

**Publication intensity**
- 101.5% of annual goal
- Annual average: 2.0 publications per researcher

**First quartile publications**
- 86.5% of 4-year goal
- Goal 18/21: 3000

**Top 10% publications**
- 89.6% of 4-year goal
- Goal 18/21: 1800

**Joint publications with other LIs**
- 95.3% of 4-year goal
- Goal 18/21: 300

**New ERC grants**
- 112.5% of 4-year goal
- Goal 18/21: 8

**Ph.D. degrees awarded**
- 93.0% of 4-year goal
- Goal 18/21: 400

**Patents submitted**
- 67.5% of 4-year goal
- Goal 18/21: 40

**PPP-funded doctoral candidates and postdoctoral researchers**
- 94.4% of 4-year goal
- Goal 18/21: 90 positions

**Competitive funding - National**
- 63.7% of 4-year goal
- Goal 18/21: 150 M euros

**Competitive funding - International (H2020 / FP9)**
- 92.0% of 4-year goal
- Goal 18/21: 25 M euros

**Collaborative funding**
- 87.9% of 4-year goal
- Goal 18/21: 68 M euros

**Mobility ECTS**
- 106.2% of annual goal
- Annual average: 25 ECTS

**Accreditation**
- 16.7% of 4-year goal
- Goal 18/21: 6 BA/MA prog. accredited

**Female full professors**
- 73.8% of 4-year goal
- Goal 18/21: 30% ratio increase
## Goals and Performance - Overview

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Goal*</th>
<th>Performance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Publication intensity</td>
<td>2.0</td>
<td>101.5% achieved</td>
</tr>
<tr>
<td>First quartile publications</td>
<td>3000</td>
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</tr>
<tr>
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<td>Competitive funding - national</td>
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<td>63.7% achieved</td>
</tr>
<tr>
<td>Competitive funding – international</td>
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<td>92.0% achieved</td>
</tr>
<tr>
<td>Collaborative funding</td>
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<td>87.9% achieved</td>
</tr>
<tr>
<td>Mobility ECTS</td>
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<td>106.2% achieved</td>
</tr>
<tr>
<td>Accreditation</td>
<td>6</td>
<td>16.7% achieved</td>
</tr>
<tr>
<td>Female full professors</td>
<td>30% ratio increase</td>
<td>73.8% achieved</td>
</tr>
</tbody>
</table>

* All the goals are cumulative (2018/2021) except for publication intensity and mobility ECTS.
Research and Development Indicators
Publication intensity

**Intensité de publication**: nombre de publications scientifiques à comité de lecture scientifique par chercheur par année

101.5% of annual goal

Number of publications and number of publications by researcher versus contractual goal

Goal 18/21 2.0 annually

Number of publications in 2020, by type of publication

- Refereed Conference proceedings
- Refereed journals
- Authored books
- Edited books
- Book chapters
First quartile publications

Premier quartile Q1: *nombre d’articles scientifiques publiés dans des revues de premier quartile, basé sur le facteur d’impact normalisé du champ*

Number of first quartile, Q1, peer-reviewed publications by year versus contractual goal

Goal 18/21: **3000**

86.5% of 4-year goal

Goal in 2021: **3000**

- 2016: 522
- 2017: 593
- 2018: 791
- 2019: 891
- 2020: 913
- 2021: 2595
Top 10% publications

Top 10%: nombre d’articles scientifiques publiés dans des revues classées dans le top 10%, basé sur le facteur d’impact normalisé du champ

Number of top 10% peer-reviewed publications by year versus contractual goal

Goal 18/21 1800

89.6% of 4-year goal

Goal in 2021: 1800

89.6% of 4-year goal

Number of top 10% peer-reviewed publications by year versus contractual goal

Goal in 2021: 1800
Joint publications

Publications conjointes: nombre de publications scientifiques […] conjointes entre au moins un auteur de l’Université et […] un auteur d’une ou plusieurs institutions de recherche luxembourgeoises

Goal 18/21
300

Number of joint peer-reviewed publications by year versus contractual goal

95.3% of 4-year goal

Joint publications observed with:

ERC grants

Bourses ERC: nombre de nouvelles bourses du Conseil européen de la Recherche (ERC)

List of research projects awarded an ERC grant, by researcher and grant type

<table>
<thead>
<tr>
<th>Year</th>
<th>Researcher name</th>
<th>Grant type</th>
<th>Project</th>
</tr>
</thead>
<tbody>
<tr>
<td>2020</td>
<td>Bissyande, Tegawende</td>
<td>Starting</td>
<td>NATURAL - Natural Programme Repair</td>
</tr>
<tr>
<td></td>
<td>Ottersten, Björn</td>
<td>PoC</td>
<td>DREAM - Demonstration of a Radar Enabled weArable platforM</td>
</tr>
<tr>
<td></td>
<td>Podolskij, Mark</td>
<td>Consolidator</td>
<td>STAMFORD - Statistical Methods for High Dimensional Diffusions</td>
</tr>
<tr>
<td></td>
<td>Tkatchenko, Alexandre</td>
<td>PoC</td>
<td>DISCOVERER - A novel chemical discovery platform enabled by machine learning</td>
</tr>
<tr>
<td>2019</td>
<td>Lagerwall, Jan</td>
<td>PoC</td>
<td>Verifying authenticity with liquid crystal-derived anti-theft encoding</td>
</tr>
<tr>
<td></td>
<td>Wilmes, Paul</td>
<td>Consolidator</td>
<td>ExpoBiome: Deciphering the impact of exposures from the gut microbiome-derived molecular complex in human health and disease</td>
</tr>
<tr>
<td>2018</td>
<td>Coron, Jean-Sebastien</td>
<td>Advanced</td>
<td>CLOUDMAP: Cloud Computing via Homomorphic Encryption and Multilinear Maps</td>
</tr>
<tr>
<td></td>
<td>Brida, Daniele</td>
<td>Consolidator</td>
<td>Ultrafast Tunneling Microscopy by Optical Field Control of Quantum Currents – UpTEMPO</td>
</tr>
<tr>
<td></td>
<td>Leist, Anja</td>
<td>Starting</td>
<td>Cognitive Aging: From Educational Opportunities to Individual Risk Profiles - CRISP</td>
</tr>
</tbody>
</table>

Research projects by theme/pillar

- Materials Science (2018)
- Health and Systems Biomedicine (2018)
- Materials Science (2019)
- Health and Systems Biomedicine (2019)
- Computer Science & ICT Security
- Computer Science & ICT Security
- Data Modelling and Simulation
- Materials Science
Ph.D. degrees awarded

Thèses soutenues: nombre de thèses soutenues

93.0% of 4-year goal

923
PhD registrations in winter term 2020/21 (of which 138 contracted with Luxembourgish research institutions)

Goal in 2021: 400

Number of Ph.D. degrees awarded versus contractual goal

Number of Ph.D. degrees awarded by discipline as defined under the Frascati manual*

<table>
<thead>
<tr>
<th>Year</th>
<th>Total</th>
<th>Natural Sciences</th>
<th>Engineering and Technology</th>
<th>Medical and Health Sciences</th>
<th>Social Sciences</th>
<th>Humanities and The Arts</th>
</tr>
</thead>
<tbody>
<tr>
<td>2016/2017</td>
<td>152</td>
<td>13</td>
<td>51</td>
<td>22</td>
<td>53</td>
<td>13</td>
</tr>
<tr>
<td>2017/2018</td>
<td>135</td>
<td>25</td>
<td>42</td>
<td>18</td>
<td>39</td>
<td>11</td>
</tr>
<tr>
<td>2018/2019</td>
<td>108</td>
<td>18</td>
<td>38</td>
<td>18</td>
<td>24</td>
<td>10</td>
</tr>
<tr>
<td>2019/2020</td>
<td>129</td>
<td>12</td>
<td>50</td>
<td>7</td>
<td>41</td>
<td>19</td>
</tr>
</tbody>
</table>

* 0 observations for Agricultural and veterinary sciences and as such left out from the table.
Brevets soumis: Nombre de brevets soumis OLB ou OEB ou OAB

Total number of patents submitted, per year and cumulative, versus contractual goal

Goal 18/21
40

67.5% of 4-year goal

Goal in 2021: 40

Total number of patents submitted, per year and cumulative, versus contractual goal

Patents submitted
PPP-funded doctoral candidates and postdoctoral researchers

Partenariats: nombre de doctorants et post-doctorants en PPP (Industrial Fellowships, BRIDGES) nouvellement acquis

94.4% of 4-year goal

Goal 18/21
90

Total number of PPP positions, per year and type of fellowship, versus contractual goal

Cumulative total goal in 2021: 90

Industrial Fellowship (former AFR Postdoc PPP)
Industrial Fellowship (former AFR PhD PPP)
BRIDGES (former CORE Postdoc PPP)
BRIDGES (former CORE PhD PPP)
Financial Indicators
Financement compétitif national (en millions d’euro)

- 63.7% of 4-year goal

Total revenues (in million euros) from national competitive funding sources by year versus contractual goals

Goal 18/21: 150
Competitive funding – International

Financement compétitif international *(en millions d’euro)*

92.0% of 4-year goal

Total revenues (in million euros) from international competitive funding sources by year versus contractual goals

Goal 18/21 25

- 2018: 6
- 2019: 7
- 2020: 7
- 2021: 7

Revenues  Indicative yearly goal  Cumulative goal
Collaborative funding

Financement collaboratif (en millions d’euro)

87.9% of 4-year goal

Total revenues (in million euros) from collaborative funding sources by year versus contractual goals

Cumulative goal

Goal 18/21 68
Other Indicators
Mobility ECTS

Moyenne de crédits ECTS validés comme crédits obtenus pendant le parcours de mobilité [...] par les étudiants inscrits dans les programmes d'études menant au grade de bachelor pendant leur semestre de mobilité

Goal 18/21
25

Distribution of outgoing students by number of ECTS registered during a mobility semester in academic year 2019/2020

- 36+ ECTS: 0%
- 31-35 ECTS: 10%
- 26-30 ECTS: 40%
- 21-25 ECTS: 15%
- 16-20 ECTS: 15%
- 11-15 ECTS: 0%
- 6-10 ECTS: 0%
- 0-5 ECTS: 0%

Percentage of all outgoing students with registered ECTS. Number of students: 412

106.2% of annual goal

26.56 ECTS
Average number of credits registered for outgoing students in academic year 19/20
Accréditation par une agence inscrite à l’EQAR ou par AACSB, EQUIS, AMBA d’un […] bachelor et d’un […] master par faculté

Goal completion by faculty and degree level

<table>
<thead>
<tr>
<th>Faculty</th>
<th>Study programme</th>
<th>Agency</th>
<th>Status</th>
<th>End year validity</th>
</tr>
</thead>
<tbody>
<tr>
<td>FDEF</td>
<td>MSc in Finance and Economics</td>
<td>FIBAA</td>
<td>Accredited</td>
<td>WS 2025/2026</td>
</tr>
<tr>
<td>FDEF</td>
<td>MSc in Quantitative Economics and Finance</td>
<td>FIBAA</td>
<td>Accredited</td>
<td>WS 2025/2026</td>
</tr>
<tr>
<td>FDEF</td>
<td>Master in Entrepreneurship and Innovation</td>
<td>FIBAA</td>
<td>Accredited</td>
<td>WS 2027/2028</td>
</tr>
<tr>
<td>FDEF</td>
<td>Master in Accounting and Audit</td>
<td>FIBAA</td>
<td>Accredited</td>
<td>WS 2027/2028</td>
</tr>
<tr>
<td>FDEF</td>
<td>Master in Wealth Management</td>
<td>FIBAA</td>
<td>Accredited</td>
<td>WS 2027/2028</td>
</tr>
<tr>
<td>FDEF</td>
<td>MA in European and International Tax Law LLM</td>
<td>FIBAA</td>
<td>Accredited</td>
<td>WS 2024/2025</td>
</tr>
<tr>
<td>FDEF</td>
<td>MA in European and Banking and Financial Law LLM</td>
<td>FIBAA</td>
<td>Accredited</td>
<td>WS 2024/2025</td>
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<td>Accredited</td>
<td>WS 2024/2025</td>
</tr>
<tr>
<td>FDEF</td>
<td>MA in European Economic and Financial Criminal Law LLM</td>
<td>FIBAA</td>
<td>Accredited</td>
<td>WS 2024/2025</td>
</tr>
<tr>
<td>FDEF</td>
<td>MA in European Union Law and Litigation</td>
<td>FIBAA</td>
<td>Accredited</td>
<td>WS 2024/2025</td>
</tr>
<tr>
<td>FDEF</td>
<td>MA in Space, Communication and Media Law LLM</td>
<td>FIBAA</td>
<td>Accredited</td>
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</table>

Total for FDEF: 11 MA programmes
Augmentation de 30% (par rapport à la situation au 31 décembre 2017) de la proportion des femmes professeurs ordinaires [...] au nombre total de professeurs ordinaires

73.8% of 4-year goal

22.1% increase between 31.12.2017 and 31.12.2020

Total arrivals/departures of full professors in 2020 by gender

<table>
<thead>
<tr>
<th></th>
<th>Arrival</th>
<th>Departure</th>
</tr>
</thead>
<tbody>
<tr>
<td>Female</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Male</td>
<td>10</td>
<td>5</td>
</tr>
</tbody>
</table>