Key Performance Indicators 2019

Solicited under the "Contrat d'Etablissement Pluriannuel entre l'Etat et l'Université du Luxembourg 2018-2021"
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</table>
Progress 2018-2021 – Initial goals

Publication intensity
- 126.4% of annual goal
- Annual average: 1.6 publications per researcher
  - Goal 18/21: 2000

First quartile publications
- 84.1% of 4-year goal
  - Goal 18/21: 1000

Top 10% publications
- 103.5% of 4-year goal
  - Goal 18/21: 200

Joint publications with other LIs
- 85.5% of 4-year goal
  - Goal 18/21: 8

New ERC grants
- 62.5% of 4-year goal
  - Goal 18/21: 400

Ph.D. degrees awarded
- 60.8% of 4-year goal
  - Goal 18/21: 20

Patents submitted
- 115.0% of 4-year goal
  - Goal 18/21: 1000

PPP-funded doctoral candidates and postdoctoral researchers
- 122.2% of 4-year goal
  - Goal 18/21: 45 positions

Competitive funding - National
- 44.8% of 4-year goal
  - Goal 18/21: 150 M euros

Competitive funding - International (H2020 / FP9)
- 58.7% of 4-year goal
  - Goal 18/21: 25 M euros

Collaborative funding
- 53.3% of 4-year goal
  - Goal 18/21: 68 M euros

Mobility ECTS
- 103.6% of 4-year goal
  - Annual average: 25 ECTS

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

Female full professors
- 88.0% of 4-year goal
  - Goal 18/21: 30% ratio increase
Progress 2018-2021 – New goals

Publication intensity
- 101.1% of annual goal

First quartile publications
- 56.1% of 4-year goal
- Goal 18/21: 3000

Top 10% publications
- 57.5% of 4-year goal
- Goal 18/21: 1800

Joint publications with other LIs
- 57.0% of 4-year goal
- Goal 18/21: 300

New ERC grants
- 62.5% of 4-year goal
- Goal 18/21: 8

Ph.D. degrees awarded
- 60.8% of 4-year goal
- Goal 18/21: 400

Patents submitted
- 57.5% of 4-year goal
- Goal 18/21: 40

PPP-funded doctoral candidates and postdoctoral researchers
- 61.1% of 4-year goal
- Goal 18/21: 90 positions

Competitive funding - National
- 44.8% of 4-year goal
- Goal 18/21: 150 M euros

Competitive funding - International (H2020 / FP9)
- 58.7% of 4-year goal
- Goal 18/21: 25 M euros

Collaborative funding
- 53.3% of 4-year goal
- Goal 18/21: 68 M euros

Mobility ECTS
- 103.6% of 4-year goal
- Annual average: 25 ECTS

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

Female full professors
- 88.0% of 4-year goal
- Goal 18/21: 30% ratio increase
## Initial vs New Goals - Overview

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Initial goal*</th>
<th>Performance</th>
<th>New goal*</th>
<th>Performance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Publication intensity</td>
<td>1.6</td>
<td>126.4% achieved</td>
<td>2.0</td>
<td>101.0% achieved</td>
</tr>
<tr>
<td>First quartile publications</td>
<td>2000</td>
<td>84.1% achieved</td>
<td>3000</td>
<td>56.1% achieved</td>
</tr>
<tr>
<td>Top 10% publications</td>
<td>1000</td>
<td>103.5% achieved</td>
<td>1800</td>
<td>57.5% achieved</td>
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<td>200</td>
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<td>300</td>
<td>57.0% achieved</td>
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<tr>
<td>New ERC grants</td>
<td>8</td>
<td>62.5% achieved</td>
<td>8</td>
<td>62.5% achieved</td>
</tr>
<tr>
<td>Ph.D. degrees awarded</td>
<td>400</td>
<td>60.8% achieved</td>
<td>400</td>
<td>60.8% achieved</td>
</tr>
<tr>
<td>Patents submitted</td>
<td>20</td>
<td>115.0% achieved</td>
<td>40</td>
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<td>45</td>
<td>122.2% achieved</td>
<td>90</td>
<td>61.1% achieved</td>
</tr>
<tr>
<td>Competitive funding - national</td>
<td>150 M</td>
<td>44.8% achieved</td>
<td>150 M</td>
<td>44.8% achieved</td>
</tr>
<tr>
<td>Competitive funding – international</td>
<td>25 M</td>
<td>58.7% achieved</td>
<td>25 M</td>
<td>58.7% achieved</td>
</tr>
<tr>
<td>Collaborative funding</td>
<td>68 M</td>
<td>53.3% achieved</td>
<td>68 M</td>
<td>53.3% achieved</td>
</tr>
<tr>
<td>Mobility ECTS</td>
<td>25</td>
<td>103.6% achieved</td>
<td>25</td>
<td>103.6% achieved</td>
</tr>
<tr>
<td>Accreditation</td>
<td>6</td>
<td>16.7% achieved</td>
<td>6</td>
<td>16.7% achieved</td>
</tr>
<tr>
<td>Female full professors</td>
<td>30% ratio increase</td>
<td>88.0% achieved</td>
<td>30% ratio increase</td>
<td>88.0% 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 - New goal

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

Goal 18/21
2.0 annually

Number of publications in 2019 and number of publications by researcher versus contractual goal

101.1% of annual goal

Number of publications in 2019, by type of publication

- Refereed Conference proceedings: 439
- Refereed journals: 1249
- Authored books: 30
- Edited books: 39
- Book chapters: 183

Annual goal: 2.0
First quartile publications - New goal

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

Goal 18/21
3000

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

Goal in 2021: 3000

56.1% of 4-year goal

Cumulative first quartile publications for years 2018 and 2019
Top 10% publications - New goal

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

Goal 18/21 1800

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

57.5% of 4-year goal

Goal in 2021: 1800

Cumulative top 10% publications for years 2018 and 2019
Joint publications - New goal

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

57.0% of 4-year goal

Cumulative joint publications with other LIs for years 2018 and 2019

Goal in 2021: 300

Joint publications observed with:

- **Luxembourg Institute of Health (LIH)**
  - 2018: 29
  - 2019: 38

- **LIST**
  - 2018: 36
  - 2019: 49

- **LISER**
  - 2018: 9
  - 2019: 8
Bourses ERC: nombre de nouvelles bourses du Conseil européen de la Recherche (ERC)

List of research projects awarded an ERC grant, by researcher name 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>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
- Health and Systems Biomedicine
- ???
- ???
- ???

62.5% of 4-year goal

Goal 18/21 8
Ph.D. degrees awarded – Goal

Thèses soutenues: nombre de thèses soutenues

Number of Ph.D. degrees awarded versus contractual goal

897
PhD registrations in winter term 2018/19 (of which 131 contracted with Luxembourgish research institutions)

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>
</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

57.5% of 4-year goal

Goal 18/21 40

Cumulative patents submitted for years 2018 and 2019
PPP-funded doctoral candidates and postdoctoral researchers - New goal

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

Goal 18/21
90

61.1% of 4-year goal

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
Competitive funding

Financement compétitif national (en millions d’euro)

Goal 18/21
150

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

44.8% of 4-year goal

Cumulative goal

Revenues in euros
Indicative yearly goal
Cumulative goal

35 Mio  37 Mio  38 Mio  40 Mio

2018  2019  2020  2021
Competitive funding

Financement compétitif international (en millions d’euro)

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

58.7% of 4-year goal

Goal 18/21 25
Total revenues (in euros) from collaborative funding sources by year versus contractual goals

53.3% of 4-year goal

Financement collaboratif (en millions d’euro)

Goal 18/21
68
Other Indicators
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

Distribution of outgoing students by number of ECTS registered during a mobility semester in academic year 2018/2019

- 25.91 ECTS
  Average number of credits registered for outgoing students in academic year 18/19

- Goal 18/21
  25

103.6% of 4-year goal

Percentage of all outgoing students with registered ECTS.
Number of students: 502
**Accreditation**

par une agence inscrite à l’EQAR ou par AACSB, EQUIS, AMBA
d’un […] bachelor et d’un […] master par faculté

### Goal 18/21

<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 2020/2021</td>
</tr>
<tr>
<td>FDEF</td>
<td>MSc in Quantitative Economics and Finance</td>
<td>FIBAA</td>
<td>Accredited</td>
<td>WS 2020/2021</td>
</tr>
<tr>
<td>FDEF</td>
<td>Master in Entrepreneurship and Innovation</td>
<td>FIBAA</td>
<td>Accredited</td>
<td>WS 2020/2021</td>
</tr>
<tr>
<td>FDEF</td>
<td>Master in Accounting and Audit</td>
<td>FIBAA</td>
<td>Accredited</td>
<td>WS 2020/2021</td>
</tr>
<tr>
<td>FDEF</td>
<td>Master in Wealth Management</td>
<td>FIBAA</td>
<td>Accredited</td>
<td>WS 2020/2021</td>
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<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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<tr>
<td>FDEF</td>
<td>MA in European Business Law LLM</td>
<td>FIBAA</td>
<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>
<td>WS 2024/2025</td>
</tr>
</tbody>
</table>

**Total for FDEF: 11 MA programmes**

**Goal completion by faculty and degree level**

<table>
<thead>
<tr>
<th>Faculty</th>
<th>BA</th>
<th>MA</th>
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<tbody>
<tr>
<td>FSTM</td>
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<tr>
<td>FDEF</td>
<td>✓</td>
<td></td>
</tr>
<tr>
<td>FHSE</td>
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</table>

16.7% of 4-year goal

NOTE: In 2019 FSTM signed a contract for accreditation of the following programmes: Bachelor in Applied Information Technology, Bachelor in Applied Information Technology – Continuing Education Programme and Master in Information and Computer Sciences.
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

88.0% of 4-year goal


2017 2018 2019 2020 2021
Female Full Professors Male Full Professors % Female Full Professors

Goal 18/21 30% increase

Share of female full professors among all full professors, as percentage (headcount)

Total arrivals/departures of full professors in 2019 by gender

<table>
<thead>
<tr>
<th></th>
<th>Arrival*</th>
<th>Departure</th>
</tr>
</thead>
<tbody>
<tr>
<td>Female</td>
<td>5</td>
<td>0</td>
</tr>
<tr>
<td>Male</td>
<td>4</td>
<td>5</td>
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</table>
Annex
Publication intensity - Initial goal

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

Goal 18/21
1.6 annually

126.4% of annual goal

Number of publications in 2019 and number of publications by researcher versus contractual goal

Number of publications in 2019, by type of publication

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

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

Goal 18/21
2000

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

84.1% of 4-year goal

Goal in 2021: 2000

Cumulative first quartile publications for years 2018 and 2019

Goal 18/21
2000

84.1% of 4-year goal
Top 10% publications - Initial goal

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

Goal 18/21

1000

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

103.5% of 4-year goal

Goal in 2021: 1000

Cumulative top 10% publications for years 2018 and 2019
Joint publications - Initial goal

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:
200

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

85.5% of 4-year goal

Cumulative joint publications with other LIs for years 2018 and 2019

Goal in 2021: 200

Joint publications observed with:

- Luxembourg Institute of Health
  - 2018: 29
  - 2019: 38

- LIST
  - 2018: 36
  - 2019: 49

- Liser
  - 2018: 9
  - 2019: 8
Patents submitted - Initial goal

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: 20

115.0% of 4-year goal

Goal in 2021: 20
PPP-funded doctoral candidates and postdoctoral researchers - Initial goal

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

Goal 18/21
45

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

122.2% of 4-year goal

Cumulative total goal in 2021: 45