University of Luxembourg

Report on contract fulfilment

Keys Indicators 2011

solicited under the Contrat d’Etablissement Pluriannuel entre l’Etat et l’Université du Luxembourg 2010-2013
Report on Contract fulfilment

Key Indicators 2011

solicited under the ‘Contrat d’Etablissement Pluriannuel entre l’Etat et l’Université du Luxembourg 2010-2013’
Preface

Beyond our contractual obligation to provide this yearly report, this second writing has allowed us to finalise in more detail significant indicators for benchmarking the development of the University of Luxembourg. These are also indicators for which we are able to provide robust figures; others will be available very soon. These indicators will play an increasingly important role in the accountability and strategy of the University, and in preparing her for joining international rankings when her age reaches double-digits. That will also be the time when rankings will have evolved to be fairer to smaller and younger universities. Data are also efficient in pointing out problems, which is a welcome feature, because if the data are significant and robust, they will tell us with little hesitation that something has to be done another way or improved; and we will do so. In a nutshell, screening rather than marketing is the aim of this report.

Vice-President Eric Tschirhart, his assistant Nathalie Klopfenstein and chiefly the statistician Elisa Mazzucato have compiled and organised the data for this work.

Rolf Tarrach
March 31st, 2012
# Table of contents

Introduction ....................................................................................................................................................... 8

1. Chapter: Research ........................................................................................................................................... 9
   1.a. Funding ................................................................................................................................................ 9
   1.b. Publications ....................................................................................................................................... 10
   1.c. Web of Science studies ..................................................................................................................... 10

2. Chapter: Education ....................................................................................................................................... 12
   2.a. Students Enrolments ....................................................................................................................... 12
   2.b. Degrees awarded ............................................................................................................................. 13
   2.c. Student achievements ...................................................................................................................... 14
   2.d. Lifelong learning ............................................................................................................................ 16
   2.e. Teaching volume ............................................................................................................................. 17
   2.f. Interdisciplinarity ............................................................................................................................ 18
   2.g. Employability ................................................................................................................................ 18

3. Chapter: Internationalisation ..................................................................................................................... 19
   3.a. Internationalisation of student body ............................................................................................... 19
   3.b. Internationalisation of Academic staff ............................................................................................ 21
   3.c. Student mobility ............................................................................................................................... 22
   3.d. Multilingualism ............................................................................................................................... 23
   3.e. Joint degrees .................................................................................................................................. 23

4. Chapter: Knowledge transfer .................................................................................................................... 24

5. Chapter: Administration ........................................................................................................................... 25
   5.a. Budget ............................................................................................................................................. 25
   5.b. Equal opportunities .......................................................................................................................... 26
   5.c. University accommodation ............................................................................................................. 26

6. Conclusion .................................................................................................................................................... 27
Table of figures

Figure 1.1 University research revenue per source over year (millions) ............................................................. 9
Figure 1.2 EU research funding (C Art.18(2)) ..................................................................................................... 9
Figure 1.3 Edited and authored books ........................................................................................................ 10
Figure 1.4 Number of citations-Web of Science ............................................................................................... 11
Figure 2.1 Enrolments per program over time: winter semester .................................................................... 12
Figure 2.2 Bologna index (C. Art 6) .................................................................................................................. 13
Figure 2.3 Master recruitment rate ............................................................................................................. 13
Figure 2.4 Master degrees awarded ............................................................................................................. 14
Figure 2.5 PhD degrees awarded ................................................................................................................. 14
Figure 2.6 Expected graduation rate 180 ECTS Bachelor ............................................................................ 15
Figure 2.7 Expected graduation rate 240 ECTS Bachelor ............................................................................ 15
Figure 2.8 Graduation rate in legal time 120 ECTS Master ......................................................................... 15
Figure 2.9 Awarded degree on time 60 ECTS Master .................................................................................. 16
Figure 2.10 Percentage of successful PhD .................................................................................................. 16
Figure 2.11 Teaching units (C.Art.6) .......................................................................................................... 18
Figure 2.12 Total ECTS (C.Art.9) ................................................................................................................. 18
Figure 3.1 Students nationalities .................................................................................................................. 19
Figure 3.2 Students nationalities per programme .......................................................................................... 19
Figure 3.3 Percentage of mobile vs domestic students per programme ......................................................... 20
Figure 3.4 Percentage of students with Portuguese nationality ...................................................................... 21
Figure 3.5 Percentage of students with other nationality than the neighboring countries ......................... 21
Figure 3.6 Staff body nationalities ............................................................................................................... 21
Figure 3.7 Percentage of academic staff with other nationalities than neighbouring countries ................. 21
Figure 3.8 Mobility exchange ratio (C.Art.14) ............................................................................................ 22
Figure 3.9 Mobility rate over great region (C.Art.14) .................................................................................. 22
Figure 3.10 Mobility ECTS (C.Art.14 (1)) .................................................................................................... 23
Figure 4.1 Patent (C.Art.4) ......................................................................................................................... 24
Figure 4.2 Licences (C.Art.4) ....................................................................................................................... 24
Figure 5.1 University revenue sources over years (millions) .................................................................... 25
Figure 5.2 External revenues over time (millions) ....................................................................................... 25
Figure 5.3 Female staff among academic staff ............................................................................................ 26
Figure 5.4 Number of student housing units .............................................................................................. 26
Table of tables

Table 2.1 2008/2009 cohort study duration per programme ................................................................. 14
Table 2.2 Programmes for mid career students in 2011 ...................................................................... 16
Table 2.3 Programmes not fulfilling requirements according to C.Art.6 .............................................. 17
Guide to graphical illustrations

The key indicators for the University's performance we refer to in this report are described with simple graphs pointing out the level of target completion for 2011. Each graph on the left hand column refers to the contractual target as set in the ‘Contrat d’établissement pluriannuel entre l’Etat et l’Université du Luxembourg 2010-2013’, or the target as stated in the University’s four year plan. The depiction of the University performance can take three forms:

- **Figure 1-2**: an example is provided for the representation of the level of performance of the University in 2011, and in relation to the possible increase or decrease of the indicator level since previous year, in form of a green bar that is to be compared to the rose part of the bar that depicts the difference between the actual performance and the target. A deep red part may show decrease of the indicator level since previous year value (Figure 1). A deep green part shows the indicator level as of the previous year, while this indicator increases in value in 2011 (Figure 2).

- **Figure 3**: for University targets that are most relevant for the year 2013, a linear graph is produced based on the rate of change with respect to performance in this area over the last year(s), to depict an extrapolation based on the assumption that the rate of change remains constant over the next two years.

---

**Figure 1. Decreasing indicator level since previous year**

![Decreasing indicator level since previous year](image)

**Figure 2. Increasing indicator level since previous year**

![Increasing indicator level since previous year](image)
Figure 3. Time series representation

Reference to Contract specific article

Indicator level as of 2011

University Target cumulative level to be reached within four years time

Forecast trend based on the assumption that number of awarded degrees remains constant over the next two years [2011:56, 2012:64 awarded degrees]
INTRODUCTION

This second report was developed in response to the contractual requirements of the “Contrat d’établissement pluriannuel entre l’Etat et l’Université du Luxembourg 2010-2013” (henceforth “the Contract”).

Firstly, the report informs the government about the use of public funds the University of Luxembourg (henceforth “the University”) receives. Secondly, engaging in an annual reporting process to the government is an opportunity to systematise the documentation of the performance of the University over time for organisational learning. The development of this systematised approach to performance measurement also represents one element in the development of a quality control system. In addition to last year’s report, we introduced a larger set of indicators that can be considered major in monitoring and benchmarking the development of the University over time. This method is also intended to prepare our University for participation in University ranking schemes in the longer term.

The data were collected from the central administration, from the different vice-rectorates and from the financial and accounting service.

The basic performance indicators mentioned in the last report were used and the process for defining complementary performance indicators resulted from an aspiration to heighten the transparency of the report.

The report provides aggregate performance data for the whole University. This year’s report presents a selected data set including only robust data. For some domains, the University is contractually required to report on; hence the data are presented explicitly to the contract’s requirements. In other areas, and due to the fact that the University is still young, some data are not yet meaningful, due to their absence of stabilisation and, as such, are not completely pertinent compared to other, more mature, universities.

This second writing of the yearly report permitted us to complete, in more detailed, aspects of significant indicators for the benchmarking of the University of Luxembourg. Over the long term, and through the years, these indicators will be a valuable resource for when the University applies for international ranking.
1. CHAPTER: RESEARCH

1.a. FUNDING

In 2011, the University collected nearly 18.87 million Euro in external revenues for research. The “Fonds National de la Recherche” (FNR) contributed 12.81 million Euros in 2011 (+39.7% since 2010), equivalent to 67.9% of all external revenues spent on research. EU funds financed research with 1.97 million Euro (-6.1% since 2010), counting for 10.5%. The remaining 21.6% of external research revenues were obtained from other contractual agreements with a range of private and public partners (Figure 1.1). Note that a modified way of calculating external revenues has been applied, mainly, funds received by ministries not directly allocated to research (service contracts) have been excluded from the calculations.

FIGURE 1.1

University research revenue per sources over year
(millions)

A requisite of Article 18 §2 of the Contract is that 10% of external research funds should be sourced from EU research funding. In 2011, research funds from EU sources remained almost stable; research funds obtained via EU sources counted for 10.5% of total external revenues (see Figure 1.2).

FIGURE 1.2
In 2011, the University held six on-going agreements for research chairs with private partners. These agreements supported research for 1.63 million euros, hence 8.7% of total external funding accounted in 2011 for research.

The Contract specifies that the University should hold six research chairs over the four-year period (2010 to 2013). As of the 31 December 2011, the University already held six chairs, and since the average chair agreement duration is five years, it is reasonable to say that the University is on track.

1.b. PUBLICATIONS

In 2011, 343 University researchers produced 763 works published in refereed publications: 351 papers were published in refereed conference proceedings and 412 in refereed journals. This result meets the target specified in Article 4 of the Contract, that each researcher should on average publish at least two publications in refereed journals or conference proceedings per year.

Other scientific publications realised in 2011 also include 29-authored books, 38 edited volumes and 188 book chapters. The total numbers of books edited and authored in 2010 and 2011 is equal to 148 books and it exceeds the total amount of edited and authored books set as the target in the Contract for the entire four-year time frame (90 volumes) (Figure 1.3).

1.c. WEB OF SCIENCE STUDIES

The library team has conducted the first pilot study on the number of citations of research staff of the University by means of the Web of Science for the period from 2007 to 2011. The results of this pilot study are shown in figure 1.4. The reader should consider these results for informational purposes only.

FIGURE 1.3

In 2006, the Japanese electronics company TDK, that founded the TDK Europe professorship "New materials for solar cells". This chair is filled by Prof. Dr. Susanne Siebentritt, head of the Laboratory for Photovoltaics at the University of Luxembourg. In 2007, the City of Luxembourg funded a professorship in urban development research, located within the "Laboratoire de Recherche en Géographie et Aménagement du Territoire" at the University. Its researchers focus on regional and communal planning in Luxembourg and in the Greater Region, on European regional planning concepts, and on sustainable regional and communal development. Professorship holder is Prof. Dr. Markus Hesse. In 2010, three new chairs agreement have been signed: with global satellite operator SES S.A., for a funded chair in space, telecom and media law, with ArcelorMittal the chair "ArcelorMittal Funded Chair in Façade Engineering", and with Deutsche Bank Luxembourg S.A for the "Deutsche Bank Chair of Finance".

2 This calculation only considers the refereed journals and conference proceedings. Moreover, the yearly average per researcher has been computed on all people at UL that are involved in a research activity. People having a part-time activity of research have been counted as a full-time researcher; no correction for “full-time equivalent” has been applied as the number of part-time researcher is considered to be negligible.

3 This pilot study helped to identify organisational limits in determining the number of citations, largely due to the use of three languages, in particular when describing the affiliations of authors of published works. Software programmes that are commonly used to determine the number of citations, track the author’s name and address. The result is that citation counts based on these software tools remain incomplete and may substantially underestimate the number of citations.

4 This type of analysis is meaningful since, despite the fact that the number of citations may be underestimated, yearly data are comparable as calculated on the base of the application to the Web of Science database of the same research query.
The number of citations has continued to grow since 2007, with an increasing tendency\(^5\) that will allow the University to reach the aggregated amount of 3500 citations in the four-year period 2010-2013, as fixed by the four-year plan.

**FIGURE 1.4**

![Number of citations - Web of Science](image)

\(^5\) A linear trend has been here represented; despite not being the more statistically efficient extrapolation of the series. A prudential approach in forecasting has been preferred, considering the growth rate of the number of citations per year decreasing over time.
2. **CHAPTER: EDUCATION**

2.a. **STUDENTS ENROLMENTS**

In the winter semester of the academic year 2011/2012\(^6\), the University counted a total of 5686\(^7\) students (+9.8% since winter semester, hereinafter WS, 2010/11). The increase in enrolments has been almost the same for all three faculties: 9.4% FSTC, 9.9% FDEF and 10.0% FLSHASE. Among all students:

- 4710 enrolled in Bologna degree programmes and 976 (+18.2%\(^8\) since WS 2010/11) attended other educational programmes.
- 4765 enrolled full-time, (+8.6% since WS 2010/11) and 921 enrolled as part-time student (+16.7% since WS 2010/11).
- 3222 (+4.2% since WS 2010/11) enrolled in Bachelor degree programmes,
- 1098 (+22%\(^9\) since WS 2010/11) attended in Master degree programmes and 390 (+8.9% since WS 2010/11) pursued doctoral degrees.
- The number of new\(^10\) Master first-year students increased by 18.6% and new Bachelor first-year students increased by 5.1%.

**FIGURE 2.1**

![Enrolments per program over time: winter semesters](chart.png)

---

\(^6\) Data here refer to winter semester

\(^7\) Guest students excluded. The enrolled guest students were 136 in winter semester 2011/12

\(^8\) This increase is mostly due to an increase of 45% of Enrolments in "Formation Pédagogique" in 2011/12

\(^9\) Six Master programmes have been recently introduced, two of those in 2011/12

- Master in Mathematics;
- Master en Langues, Cultures et Médias - Lëtzebuergesch Studien,
- Master in European Governance;
- Trinational Master in Literatur-, Kultur- und Sprachgeschichte des deutschsprachigen Raums,
- European Master in small animal veterinary medicine (2011/12)
- Master in Management und Coaching im Bildungs- und Sozialwesen (2011/12)

\(^10\) New first-year student is a student that enrols at University of Luxembourg for the first time in a first semester of a study programme. New freshman student definition does not include for example those students that enrol in a Master programme after bachelor graduation in a University of Luxembourg programme.
The Bologna Index\textsuperscript{11} for the academic year 2011/12 is equal to 31.59%. The Contract sets the target value for the Bologna Index at 37% for the year 2013. Provided the positive growing trend of the Bologna Index over the past three academic years continues over the next two years, the University will reach its objective in 2013 (Figure 2.2).

\textbf{FIGURE 2.2}

\begin{figure}[h!]
\centering
\includegraphics[width=0.8\textwidth]{bologna_index.png}
\caption{Bologna Index}
\end{figure}

All students enrolling in a Master programme are submitted to a selection process, which relied on a \textit{numerus clausus} for 7 of the 15 operating Master programmes. In 2011, the percentage of candidates admitted to Master programmes was 33.8\% of the total number of applications received. The University’s objective is not to exceed the percentage of 40\% of admitted students over the total number of received applications (Figure 2.3).

\textbf{FIGURE 2.3}

\begin{figure}[h!]
\centering
\includegraphics[width=0.8\textwidth]{numerous_clausus.png}
\caption{MA recruitment rate/accessibility to MA}
\end{figure}

\textbf{2.b. DEGREES AWARDED}

In 2011, the University awarded 546 Bachelor degrees, 246 Master degrees and 58 PhD degrees. In the four year plan, the University committed to have awarded, by 2013, a total of 1100 Master degrees and 190 PhD degrees. The total number of successful theses during 2010 and 2011 is 122, so if the number of PhD degrees awarded per year remains constant over the next two years, the University will exceed its commitment of 190 theses by the end of 2013 (Figure 2.5). In contrast, in order to meet the target of Master degrees, the University will have to increase the number of awarded degrees by at least 18\% to reach the required 1100 degrees by the end of 2013. This goal should be reachable since the number of graduates is expected to grow in the next few years as the number of enrolled students has constantly increased (+22\% in 2011/12). Further, six new master programmes have been recently introduced and they ensure an increasing number of graduates per year at the Master level (Figure 2.4).

\textsuperscript{11} Bologna Index = (total PhD and Master enrolled students)/(total Bologna enrolled students)
2.c. STUDENT ACHIEVEMENTS

The University relies on a robust and reliable information system, which allows for the routine collection of a broad array of information on students, such as age, nationality, degrees, academic progress at the University, ECTS points, courses attended, exams, and marks. This information system allows computing an increasing range of indicators such as graduation rate, retention rate, the number of students in each new cohort. Such results can be computed with a high degree of reliability starting from the student cohort who registered in the academic year 2008/2009.

Table 2.1 shows the 2008/2009-cohort study duration according to University Master and Bachelor programmes. Students have a limited number of semesters for completing their studies according to the ECTS that are required for the specific programme.

<table>
<thead>
<tr>
<th>Programme duration</th>
<th>W-08/09</th>
<th>S-08/09</th>
<th>W-09/10</th>
<th>S-09/10</th>
<th>W-10/11</th>
<th>S-10/11</th>
<th>W-11/12</th>
<th>S-11/12</th>
<th>W-12/13</th>
<th>S-12/13</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bachelor 180 ECTS</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>7</td>
<td>8</td>
<td>8</td>
<td>9</td>
</tr>
<tr>
<td>Bachelor 240 ECTS</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>7</td>
<td>8</td>
<td>9</td>
<td>10</td>
</tr>
<tr>
<td>Master 60 ECTS full time</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Master 60 ECTS part time</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Master 120 ECTS</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*extra legal time on time*

The 2008/2009 full time 180 ECTS Bachelor students cohorts have been studied despite that the time-span for obtaining a degree has not elapsed yet.
For that cohort, a forecast\(^1\) of graduation rate can be nevertheless figured out:

- expected graduation rate\(^2\) is foreseen as of 61.4% for 180 ECTS Bachelor programme students (Figure 2.6).

**FIGURE 2.6**

The 2008/2009 240 ECTS bachelor programme student cohort presents a very reduced number of withdrawals: up to the winter semester 2011/12, only 4 students of 126 left the programme. A graduation rate close to 96.6% is then expected at the end of the legal time for graduation for this group of students (Figure 2.7).

**FIGURE 2.7**

Considering globally all of the bachelor programmes, despite the ECTS they required, the expected graduation rate for full-time bachelor students is foreseeable as 67.3%. In the four-year plan, the University committed to reach in 2013 a graduation rate of 80% of bachelor students.

For 60 and 120 ECTS Master programmes, a complete cohort of students can be studied from their enrolment in 2008/2009 throughout their academic career and until the duration for obtaining a degree defined by the law for that cohort have elapsed. Graduation rate for 60 ECTS Master degree students is very satisfactory: 100% of full-time students and 97.1% of part-time students obtained their degree in legal time (Figure 2.9). 75.4% 120 ECTS Master degree students obtained their degree in legal time (Figure 2.8)

**FIGURE 2.8**

\(^1\) It appears meaningful to say that withdrawals are concentrated in the first two semesters of studies, and that from the second year on the number of students stay stable. The majority of students persisting in their study after the first year of study likely obtain their degree.

\(^2\) The graduation rate is defined as the percentage of first-time, degree-seeking enrolled students who graduate after 150 percent of the normal time for completion (legal time). Degree-seeking students have been operationally defined as those students who do not withdraw from the study programme before the second semester of study. Students withdrawing before enrolling in second semester of study are then excluded.
For PhD students, the University has reliable data starting in 2006. Complete graduation rate could be computed for the 2006 student cohorts. For the 2007 student cohort, the legal time for graduation is not yet expired. Nevertheless an estimation of the expected graduation\(^{14}\) rate for this latest cohort can be foreseen as of 71.1% (Figure 2.10).

2.d. **LIFELONG LEARNING**

The University developed a ‘Lifelong Learning Strategy’ to expand the offer of educational programmes for mature students\(^ {15}\) and professionals wishing to study part-time. An overview of all the 13 programmes available for mid-career students in 2011/12 is provided in Table 2.2.

<table>
<thead>
<tr>
<th>Faculty</th>
<th>Programme</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Bologna Programmes</strong></td>
<td></td>
</tr>
<tr>
<td>FSTC</td>
<td>Master en Management de la Sécurité des Systèmes d’Information (P)</td>
</tr>
<tr>
<td>FSTC</td>
<td>European Master in Small Animal Veterinary Medicine (P)</td>
</tr>
<tr>
<td>FDEF</td>
<td>Master in Entrepreneurship and Innovation (P)</td>
</tr>
<tr>
<td>FDEF</td>
<td>Master of Science in Banking and Finance (P)</td>
</tr>
<tr>
<td>FLSHASE</td>
<td>Master en Gérontologie (P)</td>
</tr>
<tr>
<td>FLSHASE</td>
<td>Master in Management und Coaching im Bildungs- und Sozialwesen (P)</td>
</tr>
<tr>
<td>FLSHASE</td>
<td>Master en Médiation (P)</td>
</tr>
<tr>
<td><strong>Other programmes</strong></td>
<td></td>
</tr>
<tr>
<td>FSTC</td>
<td>Certificate - Principles of Biobanking</td>
</tr>
<tr>
<td>FSTC</td>
<td>Certificate in Small Animal Veterinary Medicine</td>
</tr>
<tr>
<td>FDEF</td>
<td>Formation complémentaire des Réviseurs d’Entreprises</td>
</tr>
<tr>
<td>FDEF</td>
<td>Formation complémentaire des Experts Comptables</td>
</tr>
<tr>
<td>FLSHASE</td>
<td>Formation continue en Aménagement du Territoire</td>
</tr>
<tr>
<td>FLSHASE</td>
<td>Formation continue «Lëtzebuerger Sprooch a Kultur»</td>
</tr>
</tbody>
</table>

\(^{14}\)To compute the expected graduation rate we assume that students who obtained 4th year derogation will all get to graduate in 2012

\(^{15}\)Students older than 30 years old
In the academic year 2011/12, mature students and part-time students counted respectively for 15.7% (+17.6% since 2010/11) and 16.2% (+16.7% since 2010/11) of the total student population.

In academic year 2011/12, the University introduced the new status of guest students. This special status allows general public to access to a selection of academic courses. Guest students can follow classes but they cannot participate in evaluations or examinations. In 2011/12, the University counted 136 guest students.

2.e. TEACHING VOLUME

The University continuously monitors the average number of students per year and programme, in order to proactively put in place strategies to stay compliant with all legal and contractual requirements. Article 6 of the Contract specifies a lower threshold relating to the number of students in degree programmes: Bachelor and Master programmes should have a minimum average number of 15 enrolled students over the total number of semesters of the degree, exceptions are allowed during the first three years when the programme is initiated.

TABLE 2.3

<table>
<thead>
<tr>
<th>Programme year</th>
<th>Number of programs below threshold</th>
<th>Programs</th>
</tr>
</thead>
<tbody>
<tr>
<td>1st</td>
<td>3</td>
<td>Master in Integrated Systems Biology</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Master &quot;Erasmus Mundus&quot;</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Master in Spatial Development and Analysis</td>
</tr>
<tr>
<td>2nd</td>
<td>3</td>
<td>Master en Philosophie</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Master &quot;Erasmus Mundus&quot;</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Master in Spatial Development and Analysis</td>
</tr>
</tbody>
</table>

Bachelor programmes

<table>
<thead>
<tr>
<th>Programme year</th>
<th>Number of programs below threshold</th>
<th>Programs</th>
</tr>
</thead>
<tbody>
<tr>
<td>3rd</td>
<td>1</td>
<td>Bachelor en Sciences de la Vie</td>
</tr>
</tbody>
</table>

In the winter semester 2011, 24 Master programmes (21 requiring 120 ECTS to be completed and 3 demanding 60 ECTS), and 13 Bachelor programmes, (12 180 ECTS Bachelor programmes, and one of 240 ECTS requirement) were organised, yielding a total of 81 programme years. 7 programme years did not reach the legally required threshold of 15 students per year, representing 8.6% of the total programme years (Table 2.3).

The stated limits for the teaching volume in Article 9 of the Contract include the two upper thresholds of 22 organised Teaching Units (TU) per student per year (Figure 2.11), and the total sum of 6500 ECTS offered by the entire University per academic year (Figure 2.12). In 2011, none of these ceiling values have been exceeded.

FIGURE 2.11

---

*Guest students excluded*
In line with Article 16 of the Contract, the University implemented a tutoring system that assigns a tutor to each newcomer student. Upon arrival, new students are invited to meetings informing them about the tutorial system and are requested to meet with their respective tutors. The possibility of the evaluation of the students’ experience of the tutor system is currently under consideration.

2.f. INTERDISCIPLINARITY

According to a general strategy of enlarging the students’ possibility to access to a multi- and interdisciplinary education, the University has created a catalogue of Open Courses from a wide range of disciplines that are of general interest. These Open Courses can be chosen by students from any degree programme regardless of the faculty. In academic year 2011/12, students could enrol in 25 Open Courses.

2.g. EMPLOYABILITY

Given the young age of the University, it has not as yet been possible to develop a robust approach for assessing students’ employability. Pilot employability studies have been conducted on graduates from programmes in educational and social studies in collaboration with the ‘Institut Universitaire International du Luxembourg’ and with the support of the European Social Fund. A second, more extensive, pilot survey is on-going and is focussed on the Bachelor en Ingénierie and the Master in Psychology: Evaluation and Assessment.

The ‘Service des Etudes et de la Vie Etudiante’ implemented an Alumni database with the goal to create a network of graduates and provide further opportunities to access career information of the University’s students and graduates. In 2011, the University recruited a student career advisor. The career advisor has started to develop a general strategy for facilitating the access of University graduates into the job market. In 2011, the activity of the career advisor consisted of:

- the organisation of 12 thematic workshops for students
- individual counselling for 64 students
- contact and follow-up with 113 companies that ended in the opening of 74 training positions, 133 student jobs and 57 job positions in favour of University students.

The career advisor activity included the Alumni database content management and development.
3. **CHAPTER: INTERNATIONALISATION**

3.a. **INTERNATIONALISATION OF STUDENT BODY**

In the academic year 2011/2012, foreign students represented 53% of the total student population. Among foreign students, the largest group (27.2% of total students) is represented by individuals having the nationality of one of the neighbouring countries surrounding Luxembourg: Belgium, France and Germany.

**FIGURE 3.1**

![Student body nationalities](image)

Foreign students are not equally distributed according to study level (Figure 3.2):

- Bachelor students are in majority Luxembourg nationals and only 7% of them are not a citizen of the European Union.
- In Master programmes, a large majority of students are foreign. 26% of them come from a country not belonging to the European Union.
- Non-Luxembourg nationals account for 84.1% of total PhD candidates, and 20.3% of total PhD students came from non-EU countries.

**FIGURE 3.2**

17 Guest students excluded
Considering mobile status as defined by the UOE manual rather than nationally, can help to have a more complete idea of the degree of internationalisation of our institution. In fact, the situation appears slightly different if mobile vs domestic students’ statistics are considered (Figure 3.3)

- Bachelor students have, in large majority, obtained the secondary school diploma in Luxembourg or are Luxembourg nationals (77.2%). The remaining 22.8% can be considered mobile students.
- Master programmes enrolled a large majority of mobile students counting for the 67.1% of total students, but the number of domestic students account for 5.9% more than the total percentage of Luxembourg national students (27%).
- PhD domestic students count for 16.9% of total PhD population, +0.9% compared to previous statistics based on nationality.

In the four-year plan, the University foresaw a percentage of students having Portuguese nationality equal to 8% at the end of the four year period. As of the academic year 2011/12, this percentage was equal to 5.5% of total students, 2.5 percentage points less than what was defined.

Other foreign students, that have a nationality other than Belgian, German, French and Portuguese, represent 20.3% of the total students. This percentage is in line with what was foreseen by the four-year plan as shown in figure 3.5.

---

18 Mobile students are defined by UOE (UNESCO, OECD and EUROSTAT manual) as foreign students who have crossed a national border and moved to another country with the objective to studying. In other words, the student has moved from what we in this context call the country of origin to the reporting country of study (also called country of destination). Furthermore the operational definition should try to establish as far as possible the connection between crossing a border and enrolment in education in the country of destination. In practice this connection is difficult to establish, but if countries have a choice between more feasible operational definitions, the one that seems most apt for capturing this connection should be preferred. Two operational definitions are widely used to identify mobile students and their country of origin:

1. Students who are not usual residents of their country of study, i.e. those who have recently moved to the destination (host) country from somewhere else (e.g. not necessarily their country of permanent residence or country of birth but this would most often be the case). 
2. Students who received their secondary school qualifying education in another country, indicating that they have crossed a border.

University of Luxembourg opted for the latest one.

19 It should be noted that the recent development of the Luxembourgish law on double nationality may have an effect on underestimating the number of students with Portuguese origin. It can be hypothesised that a significant number of students with Portuguese origin profited of the new law acquiring also the Luxembourgish nationality and that they have been registered primarily as Luxembourgers.
3.b. INTERNATIONALISATION OF ACADEMIC STAFF

In 2011, the Academic staff was composed of 64.3% (+3.73% since 2010) non-Luxembourg nationals. The principal group of foreign staff, equal to 46.2% of total Academic staff, is composed of persons having the nationality of one of the neighbouring countries surrounding Luxembourg, Belgium, France and Germany.

In the four-year plan, the University foresaw the percentage of foreign Academic staff having another nationality than those of our neighbouring countries equalling 18% at the end of the four year period. As of 2011, this percentage was equal to 17.3% of total Academic staff, which is almost in line with requirements of the four-year plan for 2013.
3.c. STUDENT MOBILITY

The ratio between incoming and outgoing students increased from 1:3.4 in 2010 to 1:4.6 in 2011, i.e. in winter semester 2011, the University received one incoming exchange student for every five of our students leaving on their mandatory mobility semester.

The goal set in the Contract (Article 14 § 3) requiring the University to reach a ratio of 1:2 seems arduous to be achieved (Figure 3.8). The mobility semester is mandatory for each Bachelor student and their number increased constantly in the last year, while the number of incoming students, for which the mobility semester is on a voluntary basis, grew much less.

FIGURE 3.8

<table>
<thead>
<tr>
<th>W-08/09</th>
<th>S-08/09</th>
<th>W-09/10</th>
<th>S-09/10</th>
<th>W-10/11</th>
<th>S-10/11</th>
<th>W-11/12</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ratio</td>
<td>1:3.9</td>
<td>1:3.2</td>
<td>1:4.6</td>
<td>1:3.4</td>
<td>1:3.4</td>
<td>1:4.1</td>
</tr>
</tbody>
</table>

The percentage of students choosing to leave the Greater Region during their mobility semester is essentially stable since 2009/2010, and is equal to 63.4% of all on-going students. This percentage falls slightly short of the target in Article 14 of the Contract (Figure 3.9).

FIGURE 3.9

C Art. 14. (2) Un taux de 70% de mobilité des étudiants au-delà de la Grande-Région est visé.
In the academic year 2010/2011, students gained on average 25.9 ECTS (-2.8 on average since 2009/10) during their mobility semester\textsuperscript{20}. This result exceeds the requested average of 25 mobility ECTS per student (Figure 3.10).

FIGURE 3.10

![Image of a graph showing the average ECTS gained during mobility semesters]

3.d. MULTILINGUALISM

One of the University’s defining characteristics is the offer of a wide range of multi-lingual degree programmes. Degree programmes should offer courses in two or more of the following languages: French, German and English (Art. 15 of the Contract). In nearly 79% of the programmes offered in the academic year 2010/2011, teaching was conducted in at least two of the official languages.

One exception in Art. 15 of the Contract is that in up to 50% of the Master programmes, English can be used as the only teaching language. In the academic year 2010/2011, six Master programmes out of twenty-one were fully taught in English. Among Master programmes, two were exceptions where the teaching language was only French or German, respectively: Master en Médiation, Trinationaler Master in Literatur, Kultur und Sprachgeschichte des deutschsprachigen Raums.

3.e. JOINT DEGREES

The University cooperated with other higher education institutions to implement a total of seven joint degrees: four Bachelor programmes\textsuperscript{21} and four Master programmes\textsuperscript{22}. In 2010, 58 PhD students conducted research projects jointly with another institution, and 23 PhD candidates worked in cooperation with industry. PhD students cooperating with external entities counted for 20.8% of the total PhD candidates in 2011.

---

\textsuperscript{20} Standard error 9.5

\textsuperscript{21} Bachelor en Sciences et Ingénierie /Physique: Université de Lorraine (Metz), Université de la Sarre; Bachelor en Sciences de la Vie / Biologie: Université Louis Pasteur de Strasbourg, Université Paris-Sud (Orsay), Université Catholique de Louvain-la-Neuve, Université de Liège; Bachelor en Cultures Européennes / Philosophie: Université de Lorraine (Metz); Bachelor en Ingénierie / Baumanagement: ISFATES (Metz), Université de la Sarre.

\textsuperscript{22} Master in Modern and Contemporary European Philosophy: Université de Lorraine (Metz); Master "Erasmus Mundus" - Master en Philosophie Allemande et Française dans l'Espace Européen: Université de Toulouse 2 Le Mirail, Ruhr-Universität Bochum, Université Catholique de Louvain-la-Neuve, Ludwig-Maximilians-Universität München, Charles University Prague, Universität Wuppertal; Master en Études Franco-Allemandes: Communication et Coopération Transfrontalières: Université de Lorraine (Metz), Université de la Sarre; Trinationaler Master in Literatur-, Kultur- und Sprachgeschichte des deutschsprachigen Raums: Université de Lorraine (Metz), Université de la Sarre.
4. **CHAPTER: KNOWLEDGE TRANSFER**

One indicator of the quality of research is the capacity of the University to develop patents and licences. In the longer term, it is expected that patents and licences become an income source for the University.

Article 4 of the Contract commits that the University will hold a total of five patents at the end of 2013. On 31 December 2011, the University held two patents (Figure 4.1), two less than in 2010. However, on 31 December 2011, eight patent applications are pending, of which four are new patent applications submitted in 2011, and out of the eight, four are co-owned with TDK. The University also proceeded to the registration of four i-depots: three regarding software development and one concerning a prototype.

**FIGURE 4.1**

Up to the end of 2010, the University had granted a licence to AXOGLIA Therapeutics S.A. for the exploitation of the patent LSRU1_UL1. However, on 31 December 2011, this licence has been dismissed (Figure 4.2). The University does not hold any licences at the moment.

**FIGURE 4.2**

The University holds two trademarks linked to research activities:

1. **tao**, an educational assessment platform, and
2. **generis**, an educational measurement applied to cognitive science.

The University also holds its own registered trademark

Globally speaking, the situation regarding knowledge transfer needs to be completed in the following sense: in many cooperation agreements, in particular with the industry, the intellectual property aspects are natively handled in the contracts. This is for instance the case for many agreements handled by SnT. In addition, knowledge transfer also covers the input to standardisation, and the university (e.g. SnT again) has significantly contributed to these activities as well.
5. CHAPTER: ADMINISTRATION

5.a. BUDGET

The global budget in 2011 amounted to 140.2 million Euro. Revenues of 20.1 million Euro\textsuperscript{23}, equal to 14.3% of the total budget (+0.9% since 2010; Figure 5.1), were sourced from contracts with external partners: that is, funds were not from the State contribution in the framework of the law “Contribution de l’Etat dans l’intérêt de l’Université du Luxembourg”.

FIGURE 5.1

![University revenue sources over year](image1)

FIGURE 5.2

![External revenues over time](image2)

\textsuperscript{23} University self-financing revenues are here excluded. The self-financing University revenues amounted in 2011 to 5.96 million Euro and are sourced principally from student fees and student rentals return.
In the current four-year plan, the University committed to collect a total volume of external revenues of 22.33 million Euros at the end of 2013. Provided that the level of growth of external revenues over these last few years can be upheld over the next two years, the University will meet its target in 2013 (Figure 5.2).

5.b. EQUAL OPPORTUNITIES

The University is proactively developing a strategy for equal opportunities. Particular attention has been paid to equal gender opportunities: the main concern is to increase the number of women among Academic staff to 23% at the end of the four-year planning period. From 2008, the percentage of women among Academic staff went up of 2.3 percentage points reaching a level of 21.9% in 2011. The University, in keeping with its present effort of constantly increasing the number of women among Academic staff, should likely reach the target of 23% of female academics in 2013 (Figure 5.3).

5.c. UNIVERSITY ACCOMMODATION

The offer of accommodation to students at a fair price is a major concern of the University. At the end of 2011, the University made 473 accommodation units available. At the end of 2013, the University’s target according to its four-year plan is to offer at least 600 units. In 2011, a number of agreements securing rentable accommodations for future years are in the process of being finalised; based on these agreements the University will meet its target by 2013 (Figure 5.4).

---

24 The target of 22.33 million of euro to be achieved in 2013 is fixed by the C.Art.18(3) that states that the external revenues in 2013 are expected to be 76% more of the external revenues collected in 2009, equal to 12.69 millions of euro.
6. CONCLUSION

In summary, this second official performance report to the Government is showing substantial areas of success in meeting contractual targets. Other areas still need some attention such as: on-time graduation of PhD students, students with Portuguese nationality, knowledge transfer (patents and licences). All other performance indicators are encouraging and realistically, with simple extrapolations based on the growth of the University, suggest that the targets will be fundamentally met at the end of the 2009-2013 four-year plan.

A range of complementary indicators have been formulated and included with the aim of clarifying and complementing the information provided. They improve the comprehensiveness of the University, the perception of its continued organisational learning and improvement. Robust data are essential and this second report of aggregate data show a significant continuity with the 2010 report. The first external evaluation of the University was most catalytic in ensuring data robustness with a certain maturation of the collecting processes. This helped the organisation not only in submitting a complete report to the Government but also in enhancing quality control implementation.