Erasmus Mundus Master in Nanoscience and Nanotechnology (EMM-Nano+)

Consortium Agreement

This Consortium Agreement is made among

1. **Katholieke Universiteit Leuven (Belgium)**, having its registered office at Oude Markt 13, Bus 5005 3000 Leuven, Belgium, officially represented by its Rector, Professor Luc Sels and hereinafter referred to as the Consortium Coordinator, Consortium partner or KU Leuven,

2. **Chalmers Tekniska Högskola AB (Sweden)**, having its registered office at Kemivägen 9, Göteborg, officially represented by its President and CEO, Professor Stefan Bengtsson and hereinafter referred to as Consortium Partner or Chalmers,

3. **Technische Universität Dresden (Germany)**, having its registered office at Helmholtzstrasse 10, 01069 Dresden, Germany, officially represented by its represented by its Vice-Rector for Academic and International Affairs, Professor Hans Georg Krauthäuser, and hereinafter referred to as Consortium Partner or TU Dresden,

4. **Université Grenoble Alpes (France)**, having its registered office at Avenue Centrale 621, 38401 Saint-Martin D'Hères, France, officially represented by its President, Professor Patrick Levy and hereinafter referred to as Consortium Partner or UGA Grenoble,

5. **Universitat de Barcelona (Spain)**, having its registered office at Gran Via de les Corts Catalanes 585, 08007 Barcelona, Spain, officially represented by its Vice-Rector for Outreach and Internationalization, Professor Alejandro Aguilar Vila and hereinafter referred to as Consortium Partner or U Barcelona.

6. **Interuniversitair Micro-Electronica Centrum vzw, (Belgium)** Register of legal Entities Leuven VAT BE 0425.260.668, with its registered office at Kapeldreef 75, 3001 Leuven, Belgium and represented by Ludo Deferm, Executive Vice-President, referred to as Associated Consortium Partner or IMEC,
7. Commissariat a l' Energie Atomique et aux Energies Alternatives CEA (France), having its registered office at 17, Rue des Martyrs, 38054 Grenoble cedex 9, France, officially represented by its Director, Dr. Emmanuel Sabonnadière and referred to as Associated Consortium Partner or CEA,

8. Leibniz-Institut für Festkörper- und Werkstofforschung Dresden e.V. (Germany), having its registered office at Helmholtzstrasse 20, 01069 Dresden, Germany, officially represented by the Executive Board, Prof. Dr. B. Hillebrands and Dr. D. Kirmse and referred to as Associated Consortium Partner or IFW-Dresden,

All Parties which have so declared their adhesion are hereinafter referred to individually or collectively as the “Party(ies)” or “Partner(s)”

PREAMBLE

WHEREAS, the Parties have decided to put forward a proposal for an Erasmus Mundus Masters Course.


On 27 June 2017 the Consortium Coordinator has been informed by the EDUCATION, AUDIOVISUAL AND CULTURE EXECUTIVE AGENCY (EACEA, hereinafter called “the Agency”) that the proposal has been approved. As a result a Grant Agreement for an action with multiple beneficiaries has been signed between the Consortium Coordinator and the Agency on October 10 2017 (Agreement no. 2017-1921/001-002), hereinafter referred to as “the Contract”. The proposal is part of the Contract. The Contract runs from 28-10-2017 (starting date) until 27-10-2022 (see article I.2 of Grant Agreement EACEA-U.LEUVEN).

A copy of the Contract is included in Annex I and makes integral part of this Consortium Agreement.

WHEREAS, this Contract has been signed by the Consortium Coordinator, KU Leuven, a Consortium Agreement shall specify obligations and rights of the Parties.
In consideration of the foregoing, we agree to bind ourselves according to the terms of this Consortium Agreement.

Art. 1: Main principles of the Consortium Agreement

The Parties have received, read and understood the Contract mentioned above as well as all the documents related to the Erasmus Mundus Masters Course in Nanoscience and Nanotechnology (acronym EMM-Nano+) attached to it. The Parties have also read and understood all documents related to the Erasmus+ Programme, available from the Erasmus+ website of the European Commission, and in particular the Erasmus+ Programme Guide and the 2017 EMJMD Program Handbook.

The Parties engage themselves to the same obligations that are binding KU Leuven and the Agency according to the Contract signed on October 10, 2017 to all applicable extent, with the specifications, exceptions and modifications given in the following articles.

Art. 2: Purpose of the Consortium Agreement

The purpose of this Consortium Agreement is to agree on the further development, implementation, management, quality assurance and sustainability of the EMM-Nano+ programme in the framework of the Contract. The Consortium Agreement specifies the respective rights and obligations of the Parties with regard to the running of the joint program EMM-Nano+ (Erasmus Mundus Master Nanoscience and Nanotechnology) (hereinafter referred to as the "Programme").

Except as otherwise expressly provided in this Consortium Agreement, the Parties are subject to the rules and regulations detailed in the Contract regarding both the responsibilities towards the Commission and towards other Parties to this Consortium Agreement.

Section 1: Joint EMM-Nano+ curriculum

Art. 3: Educational concept

EMM-Nano+ is a student-centred curriculum, based on a strong interaction between research, innovation and education. By the cooperation between the Parties, it delivers a top quality and broad multidisciplinary basis as well as a top-level individual specialization in one of 9 areas: nanomaterials, nanochemistry, organic and molecular electronics, quantum computing, quantum and nanoscale engineering, nanoelectronics, biophysics, bionanotechnology and nanopharmacotherapy.

The Programme aims to provide excellence in education on all locations.

The Programme intends to create a community of teaching staff and students by having intense communication through networking events and modern networking tools.
Art. 4: Duration and organisation
The Programme is a two year (120 ECTS points) course. The Programme is organized by the five Consortium Partners mentioned above and constitutes a highly integrated programme, composed of course modules that are fully recognised by all Consortium Partners. It is supported by three Associated Consortium Partners, which provide access to infrastructure for nanotechnology research and development and opportunities for graduating students to continue their study with a PhD. The Programme is annually modified and updated based on the evolutions in the field of the Programme and the feedback from students and alumni.

Art. 5: Mandatory Mobility tracks
The mobility tracks are designed as shown on Figure 1, where the academic offer from each Consortium Partner is evidenced. All students start their first year at the KU Leuven where they follow a common set of compulsory courses and some electives to prepare for their specialisation option. For their second year, they select a specialization area at one of the Consortium Partners where they follow specialisation and broadening courses and do their master thesis research project.

![Figure 1 - Schematic of the EMM-Nano+ master programme's mobility scheme](image)

Art. 6: ECTS system
The ECTS mechanisms for the distribution of the study load and the recognition of obtained credits are applied in the consortium. Hence, all components of the Programme are assigned ects-credits.

Art. 7: Structure and educational modules
The general structure of the EMM-Nano+ Master is a two-year program of 120 credits: 60 credits per year and per university, 30 credits per semester.
At the start of the Programme the students choose one specialization as their major theme. For this purpose the multidisciplinary field of nanoscience and nanotechnology is subdivided into 3 major themes and 9 specialisation options, as shown on Figure 2.

<table>
<thead>
<tr>
<th>Specialisation group</th>
<th>Specialisation option</th>
<th>Chalmers</th>
<th>TU Dresden</th>
<th>UGA Grenoble</th>
<th>U Barcelona</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nanomaterials and nanochemistry</td>
<td>Nanomaterials</td>
<td></td>
<td></td>
<td></td>
<td>x</td>
</tr>
<tr>
<td></td>
<td>Nanochemistry</td>
<td></td>
<td></td>
<td></td>
<td>x</td>
</tr>
<tr>
<td>Quantum computing and nanoelectronics</td>
<td>Organic and molecular electronics</td>
<td>x</td>
<td>x</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Quantum computing</td>
<td>x</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td></td>
<td>Quantum and nanoscale engineering</td>
<td></td>
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<tr>
<td></td>
<td>Nanoelectronics</td>
<td>x</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bionanotechnology and Nanomedicine</td>
<td>Biophysics</td>
<td></td>
<td></td>
<td>x</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Bionanotechnology</td>
<td></td>
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<td></td>
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<tr>
<td></td>
<td>Nanopharmacotherapy</td>
<td></td>
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</tbody>
</table>

*Figure 2 – Specialisation options and role of the partners for the EMM-Nano+ master program*

The Programme structure is outlined in Figure 3. The curriculum of the students contains the following educational modules:

- Nanoscience and nanotechnology fundamental courses (maximum 12 ECTS, KU Leuven)
- General interest courses (6-9 ECTS, KU Leuven)
- Core courses, including Erasmus Mundus Lecture series on Nanoscience and Nanotechnology (36 ECTS, KU Leuven)
- Specific courses (6-18 ECTS electives KU Leuven, plus 15 ECTS more as compulsory courses in second year Consortium Partner)
- Broadening courses (15 ECTS, second year Consortium Partner)
- Master Thesis research project (30 ECTS, second year Consortium Partner)

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1 At TU Dresden the specific courses are 14 or 16 ECTS for some options, and the Broadening electives are then 16 resp. 14 ECTS.

EMM-Nano+ Agreement
Art 8: Role of the Consortium Partners

KU Leuven is the coordinator, provides the common part of the educational curriculum and is also the main interface with the Associated Consortium Partner IMEC.

The role of the other Consortium Partners in the curriculum is shown in Figure 2.

Chalmers offers the second year specialisation options of “Quantum Computing” and “Organic and molecular electronics”.

TU Dresden offers the options “Biophysics”, “Nanoelectronics” and “Organic and molecular electronics” and is the main interface with the Associated Consortium Partner IFW-Dresden.

UGA Grenoble offers the options “Nanochemistry”, “Quantum and nanoscale engineering” and “Nanobiotechnology” and is the main interface with the Associated Consortium Partner CEA.

U Barcelona offers the options “Nanomaterials” and “Nanopharmacotherapy”.

Art 9: Language policy

The language of instruction is English and all courses, the supporting documentation (e.g. lecture notes, slides) and exams are in English. Beside this, the students are offered courses in the language of their study locations, both as part of the curriculum or outside the curriculum. In the first year, a
course of Dutch Language and Culture of 3 ECTS (40 contact hours) is organised as one of the General Interest courses at KU Leuven, hence as a compulsory part of the curriculum. In the second year courses in German (Dresden), French (Grenoble), Swedish (Göteborg) and Catalan or Spanish (Barcelona) are offered at the Consortium Partners outside the curriculum without acquiring credits within the programme.

The official representatives of the Parties will communicate in English. All the documents sent to the European Commission or the Agency will be written in English with a copy to the official local coordinators of the Consortium.

**Section 2: Practical organisation**

**Art. 10. Organisation of the academic year**

At KU Leuven the academic year starts at the end of September and is divided in 2 semesters (September-January and February-June) of education and study activities, each followed by semester exam periods of 3 weeks. From middle of August till first week of September a third examination period is used for resit exams.

At UGA Grenoble the academic year starts at the beginning of September and is divided in 2 semesters of education and study activities (September-February and February-September), each period includes a first session exam period of 3 weeks. One resit of the first semester exams is proposed to the students for failed exams from March to September.

At TU Dresden the academic year starts at the beginning/middle of October and is divided in two semesters (October-March and April-September) of education and study activities, including the examination period. There are 2 re-sit opportunities for failed exams.

At Chalmers the academic year starts at the end of August and is divided in two semesters (late August– mid January and late January–June). Each semester is divided into two study periods of 8 weeks of education and study activities followed by one week of examinations. There are also two re-sit opportunities during the year.

At U Barcelona the academic year starts at the beginning-middle of September and is divided in 2 semesters (September-January and February-June) of education and study activities, including the examination period.

**Art. 11: Courses and course selection and approval**

All courses of the Programme are implemented in the programme book and the Individual Study Programme (ISP) database of the KU Leuven. Each course receives a separate course code in that database.
At the beginning of each academic year the students select their Individual Study Program (ISP) for that year in the KU Leuven database, including the courses that are followed at the Consortium Partners. The ISP is approved by the Programme Coordinator (see Article 25). The deadline for the ISP submission is the third Wednesday of the academic year at KU Leuven. After that deadline only the Programme Coordinator can still make changes to the ISP until approval by mid-November. At the start of the second semester the ISP is opened again for a few weeks and students can make changes to their ISP for the next semester until the third Wednesday of the semester, after which the ISP is reapproved by the Programme Coordinator by mid-March. The approved ISP of each student in the second year is sent by the Programme Coordinator to the local coordinator at the partner universities.

**Art. 12: Common Master Thesis rules**

Each master thesis will have a promoter at the hosting Consortium Partner and one at the Consortium Coordinator. The promoter at the hosting institute should agree with the choice of the promoter at the Consortium Coordinator.

The role of the KUL promoter is to offer an external help to the Master students in the writing of their Master thesis. As a KUL promoter he is not associated to the intellectual property rights of scientific work done by the student in the hosting Laboratory (scientific articles, conferences, patents).

Students are asked to send their thesis title and the name of the two promoters to the Programme Coordinator by 31st of January of the second year of the master programme.

The thesis is defended and evaluated at the host Consortium Partner where the thesis was carried out and is evaluated by a thesis evaluation commission, composed of the two thesis promoters, the daily supervisor (in case he is different from the promoter), and one referee, who does not belong to the same research group as the promoter.

The thesis evaluation is based on 2 grades which are given as follows:

1. 1 grade is given for the final thesis report to the local coordinator. The obtained score for the thesis is obtained based on a weighted average of the individual scores of the members of the evaluation commission. The score is calculated based on the following weights: 1/3 for the local promoter/daily supervisor, 1/3 for the KU Leuven co-promoter and 1/3 for the external referee. The scoring is based on the content of the work as well as the quality of the manuscript (scientific content, style, language, care, legibility, structure).

2. 1 grade is given for the defense in consensus among the assessors. The scoring is made on the basis of the quality of the presentation (style, language, care, structure, completeness, and timing). The co-promoter of KUL is invited to attend the defense by Skype or phone connection.
The weighting factor of the mark of the final thesis report is two; the weighting factor of the mark of the defence is one. The final scoring of the master thesis is sent by the local university coordinator to KU Leuven in the common scoring system of the master programme, as described in Article 16.

**Art 13: Common Spring workshop and Cleanroom training**

Each year a common Spring workshop and cleanroom training are organized at the end of April or beginning of May. Both events are organized at one of the second year Consortium Partners with help of the Programme Coordinator. The cleanroom training is compulsory for ALL first year students, the Workshop is compulsory for both first and second year students. During the workshop, 2nd year students present their current thesis work. The practical organisation and the agendas of both events are agreed upon at the Executive Board meeting.

**Art. 14: Organisation of the examinations**

The examination of each course is organized by the Consortium Partner hosting the student according to the local examination rules of the Consortium Partner. The local examination rules for each partner university can be consulted at the following websites:

**KULeuven:**

https://www.kuleuven.be/education/regulations/2017/

**TU Dresden:**

For the specialization Biophysics:


for the specialization Nanoelectronics:


for the specialization Organic and Molecular Electronic:


**UGA Grenoble:**

Art. 15: Pass/fail criteria and resit exams for individual courses
The ECTS-credits for an individual course are secured if the student passes the exam, according to
the local rules of the university. A student who does not pass the exam of a course, can get one or
more resits in the same academic year, according to the rules of the Consortium Partner.
At KU Leuven a student can do maximum one resit exam within the same academic year and only
for failed courses. The best score of the two exams is the final score.
At UGA Grenoble a student can do maximum one resit exam within the same academic year and
only for failed courses. The score of the resit exam is the final score.
At TU Dresden, a failed module exam can be retaken once within one year after completion of the
1st exam attempt. A 2nd repetition is only possible at the next exam period. Retaking of passed
courses is not possible.
At Chalmers there are one to two re-sit opportunities during the year, both for failed and passed
courses. In case of resits for passed courses, if the new result is higher the new score will be
registered, otherwise it remains unchanged.
At U Barcelona a student can do maximum one resit exam within the same academic year and only
for failed courses. The best score of the two exams is the final score. In case that a student wants to
take an examination-based assessment, the student must inform the coordinator of the subject and
officially notify the coordinator of the master within the established terms. The mandatory activities
during the course must also be completed in order to be entitled to take the final exam. In this
modality, students are also entitled to a resit exam the same academic year and only for failed
courses. The best score of the two exams is the final score.

Art. 16: Common scoring system
The teaching staff/examiners of any Consortium Partner are responsible for the examination of the
respective courses taught, on the basis of the local scoring system. The local scores are converted
into a common scoring system. This score system contains the obtained scores at the two Consortium
Partners, including the master thesis. For the master thesis the score is determined based on the common master thesis rules, as described in Art. 12.

The academic coordinator of each Consortium Partner is responsible for the delivery of the examination scores to the Programme Coordinator of the KU Leuven using the Consortium’s common grading scale ranging in 6 categories from 8 to 20, using the conversion table in Figure 4.

<table>
<thead>
<tr>
<th></th>
<th>Fail</th>
<th>Sufficient</th>
<th>Good</th>
<th>Very good</th>
<th>Excellent</th>
<th>Exceptional</th>
</tr>
</thead>
<tbody>
<tr>
<td>Common EMNANO+ score</td>
<td>8</td>
<td>11</td>
<td>13</td>
<td>15</td>
<td>17</td>
<td>19</td>
</tr>
<tr>
<td>KU Leuven</td>
<td>&lt; 10</td>
<td>10-11</td>
<td>12-13</td>
<td>14-15</td>
<td>16-17</td>
<td>18-20</td>
</tr>
<tr>
<td>Université Grenoble Alpes</td>
<td>&lt; 10</td>
<td>10.00-11.99</td>
<td>12.00-13.99</td>
<td>14.00-15.99</td>
<td>16.00-17.99</td>
<td>18.00-20</td>
</tr>
<tr>
<td>Chalmers University (raw score)</td>
<td>&lt;40%</td>
<td>40-59%</td>
<td>60-69%</td>
<td>70-79%</td>
<td>80-89%</td>
<td>90-100%</td>
</tr>
<tr>
<td>TU Dresden</td>
<td>5.0</td>
<td>4.0-2.7</td>
<td>2.6-1.8</td>
<td>1.7-1.4</td>
<td>1.3-1.1</td>
<td>1.0</td>
</tr>
<tr>
<td>Universitat Barcelona</td>
<td>&lt;5</td>
<td>5.0-5.9</td>
<td>6.0-6.9</td>
<td>7.0-7.9</td>
<td>8.0-8.9</td>
<td>9.0-10</td>
</tr>
</tbody>
</table>

*Figure 3 Common scoring conversion table of the EMN-Nano+ master program*

The scores and the ECTS credits on each course unit are stored in the ICTS system of KU Leuven which is coupled to the Individual Study Programme (ISP) database where the student has selected his/her courses (see Art.11). The scores are monitored by the Consortium’s Common Examination Commission (see Art. 19) as a part of the quality assurance of the Programme (incl. a statistical analysis a posteriori).

**Art. 17: Grading**

At the end of the Programme, for each student a GPA percentage is calculated by weighing every score with the number of credits for the corresponding course. Based on this GPA the students are assigned a grade of merit, primarily based on this weighted composite examination score and ECTS credits on the different parts of the programme and after judgment of the Examination Commission.

The assignment of the grade of merit is done based on the following criteria:

- Cum fructu (Sufficient) for a GP of less than 68%
- Cum laude (Distinction) for GP of minimum of 68%
- Magna cum laude (Great distinction) for a GPA of minimum of 77%
- Summa cum laude (Greatest distinction) for a GPA of minimum of 85%
- Maxima cum laude (Greatest distinction and congratulations of the examination board) for a GPA of minimum of 90%

**Art. 18: Pass/fail criteria for the program**

The student obtains the master degree if he/she has obtained a minimum of 120 credits in total and a minimum of 54 credits at each of both Consortium Partners where he/she is following the Programme. For this criterion the credits for the Lecture Series, which runs over both academic years
and credits for internships, which run in the summer between year 1 and year 2, are considered KU Leuven credits. If the student did not obtain his/her 60 credits at the first year university, the extra courses that he/she will follow at the second year university can be chosen from the elective broadening courses of the second year university\(^2\). A student can, however, not fail the selected fundamental courses and the compulsory core courses at the KU Leuven nor the compulsory courses and the master thesis at the second year university. In case a student fails a fundamental or a core course in the first year he/she has to re-register for the course and come back to retake the exam during the second year.

**Art. 19: Common Examination Commission**

A Common Examination Commission is formed composed of the academic coordinators of the Consortium Partners, and chaired by a representative of the Consortium Coordinator. The Programme Coordinator acts as the secretary of the Common Examination Commission. The ombudsperson of the Consortium Coordinator is also attending the examination commission. The commission meets three times per year by phone meeting: beginning of July, middle of September and middle of October.

By the end of the first academic year, the Common Examination Commission summarizes the results of all first year students and takes decisions on:
- advice on resit of exams
- the eventual inhibition of grants to students;

At the end of the Programme, all students are evaluated by the Common Examination Commission. Based on the scores and credits obtained by the students this commission will make the final decision on pass/fail and on the obtained grade for each student, according to the rules stipulated in Art. 18 and 16, respectively.

**Art. 20: Appeals related to examinations**

Appeals related to examinations follow the regulations of each Consortium Partner. After the publication of the results the students can make an appeal within a period of 2 months. The examination commission will evaluate its acceptability at earliest convenience.

**Art. 21: The degrees and diplomas awarded**

The Programme leads to a joint degree diploma from the two Consortium Partners where the student has studied. The degree diplomas are recognised by the legal authorities of the country of each Consortium Partner. Each Consortium Partner takes care of the accreditation of the Programme,

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2 Due to Swedish legislation tuition-fees at Chalmers cover payment for courses and final thesis project for a total of 60 credits. All additional courses taken by the student shall be paid separately.
following the legislation of their country (see also Section 7). The consortium aims to apply as soon as possible the European Approach for accreditation of the program (https://www.eagar.eu/fileadmin/documents/bologna/02_European_Approach_QA_of_Joint_Programmes_v1_0.pdf) as soon as it is possible in all countries of the consortium.

The joint diploma is in English, with a translation in Dutch and in the language of the second year university at the backside. The diploma is signed by the rector of the KU Leuven, and by one or more representatives of the second year university: for UGA Grenoble the president of the university, for TU Dresden the rector and the TU Dresden member of the examination commission, for Chalmers the officer of degree on behalf of the president of the university, for U Barcelona the rector of the university.

The students also receive a Joint Diploma Supplement, which is made according to the European guidelines, and which includes the transcripts of courses and the obtained scores for the two years. The Diploma supplement is signed by the Chair of the Common Examination Commission and by the member of the examination commission representing the second year university, except for UGA the diploma supplement will be signed by the president of the University.

The Joint Diploma and the Diploma Supplement are delivered by the Consortium Partners, technically prepared by the Consortium Coordinator (KU Leuven).

The documents are sent by the registrar of the KU Leuven to the partner coordinators who take care that they are signed and sent back to the KU Leuven as quickly as possible. The KU Leuven then contacts the students to know where they have to be delivered and takes care of the delivery.

The second year university also delivers to the students a transcript of the courses followed at their university and the obtained scores in their local score system.

For students doing their 2nd year of this master at the partner university UGA an additional diploma, compliant with the French legislation will be delivered together with the Joint master degree diploma from KULeuven. This additional bilingual diploma will contain a French and Dutch text and will be printed by UGA. This diploma will be signed by the president of UGA, the rector of the academy, chancellor of the University and the rector of the KULeuven.

The diplomas and diploma supplements are delivered maximum 6 months after the official graduation of the students, which is the date when the examination commission took the decision on graduation.

Section 3: Joint student admission, recruitment and selection

Art. 22: Joint admission criteria

The Consortium Partners use common admission criteria for the Programme.
Admitted are top-level Bachelor students in physics, applied physics, chemistry, biochemistry, electrical engineering, material science, pharmacology or a related discipline, with a proven background in advanced mathematics (including differential equations, Fourier series etc.), physics and chemistry., organic and inorganic chemistry, electromagnetism, eventually also notions of electronic circuits, cell biology and biochemistry, molecular architectures and recognition or chemical material science.. Students in their last year of such a bachelor programme are also considered. Nevertheless, it is mandatory that students have finished a bachelor degree in the field mentioned above for being registered. A minimum of 180 credits (equivalent to the ECTS credit system, i.e. corresponding to a minimum of 3 years of bachelor study) and a GPA (Grade Point Average) of at least 75% of the scale maximum is required.

Students should prove a good command of English, applicants enrolling for the first time at KULeuven prove their English language proficiency by means of an IELTS or TOEFL test. The minimum score required for IELTS is 7 (with no subscore under 6.5), for the TOEFL internet-based test it is 94 (with no subscore under 22). Applicants with a university degree or high school degree earned in Australia, English-speaking Canada, Ireland, New Zealand, United Kingdom or the USA are exempted from this requirement: the degree and transcripts suffice, provided they confirm that the entire study was completed in English.

The admission policy is intended to ensure equal opportunity of access to higher education for qualified European and third country students.

The total amount of students admitted to Chalmers during the second year is limited to 10 students from EU/EEA countries or Switzerland and additional 15 students from non-EU/EEA countries (subject to the payment of tuition fees).

**Art. 23: Joint application and selection procedure**

A common application and selection procedure is in place and is announced at the Programme website (www.emm-nano.org).

The application deadline is January 31 for partner country students and May 31 for program country-students, but can be changed by the Executive Board if necessary.

Applications have to be submitted online through the Programme website, supplemented with the required documents to be defined every year by the Consortium (a motivation letter, 2 recommendation letters, a full CV, language skills certificates, legalized copies of diploma’s and transcripts, an Annex with some declarations on residence and other Erasmus mundus scholarship applications as given in Annex II etc.).
All applications are administered by the Admissions Office (AO) of KU Leuven. The AO checks all applications in terms of formal compliance with the admission requirements, and gives advice on the quality or ranking of the university of origin of the applicant.

Those applications that meet the standards are evaluated by the selection committee consisting of the Programme Director and an academic representative of each Consortium Partner. The selection criteria are the applicants background and previous education, the applicants excellence based on the obtained GPA, the English language skills and the completeness of the application file. In case of doubts about the language skills or any other of the selection criteria a phone of Skype meeting with the student can be set-up.

The members of the selection board score every application, the scores are averaged and the applicants are ranked based on the average of the five Consortium Partners. Based on this ranking and after an internal discussion during a meeting of the selection board, the selection is decided. The final list of selected students is drawn up and approved by the selection committee, including a number of ranked candidates for the EU scholarships, and a number of reserve applicants should any selected student be unable to take up a scholarship/place.

The ranking made by the Consortium must comply with the rules applicable to the selection procedure of grantees defined each year by the Agency of the Commission for the main list as well as for the reserve list. The final results have to be ready before the deadline yearly set by the Agency for the applications to an EM scholarship.

Art 23bis Appeal related to application and selection procedure

After the decisions of the selection have been communicated, applicants have the possibility to appeal against the decision made by the Executive Board. An appeal can only be made against the selection procedure, and not to the outcome of the selection status. An appeal should be made by sending an appeal form via registered mail to the EMM-Nano+ secretariat. The form should state the reason of the appeal, including proof of additional supporting documents (if applicable). An EMM-Nano+ Appeal Form will be made available via the website (Annex III). The appeal has to be sent within 8 working days (with the date of postmark as proof) after receipt of the selection results. Once the EMM-Nano+ Secretariat receives the appeal form, the sender will receive an acknowledgement of receipt by email. The appeal will then be investigated by the EMM-Nano+ Coordinator and Secretariat, and if needed extra feedback will be obtained from the EMM-Nano+ Executive Board. Within 15 working days after having received the appeal, the appealee will receive the outcome of the appeal with the reasons for rejecting or accepting it.

Art. 24: Admission letter and student agreement
After selection, each student receives an admission letter and a student agreement, stipulating his/her individual mobility path, an eventual scholarship or tuition waiver granted by the Executive Board and his/her rights and obligations. The student agreement is signed both by the student and the Consortium, represented by the Programme Coordinator. A draft student agreement is added in Annex V.

All Consortium Partners agree to enrol selected students as full-time Master students and to provide appropriate guidance and services to the students.

Section 4: Consortium management and obligations of the Partners

Art. 25: The Consortium management

The Programme is managed by an Executive Board, with appointed representatives of each of the Parties. KU Leuven is Consortium Coordinator.

The KU Leuven appoints a Programme Coordinator who is responsible for the overall management of the Programme. An administrative and operational coordinator is supporting the Programme Director for the logistic and administrative tasks of the Programme and is head of the Programme's secretariat and student's main interface. At the signing of the Consortium Agreement the Programme Coordinator is Prof. B. Soree, and the administrative and operational coordinator is Mrs. E. Delfosse.

At each of the Consortium Partners there is also an academic as well as an administrative local coordinator, who is responsible for the management of the Programme at the local level and for the issues dealing with the interface between their institute and the rest of the Consortium. At the signing of the Consortium Agreement these representatives are:

**KU Leuven**: Prof. B. Soree (academic), E. Delfosse (administrative and operational)

**TU Dresden**: Prof. G. Cuniberti (academic), A. Chesneau (administrative and operational)

**UGA Grenoble**: Prof. David Ferrand (academic), Dounia Moukadem (administrative and operational)

**U Barcelona**: Prof. S. Hernandez (academic), Núria Massons i Solano (administrative and operational)

**Chalmers**: Prof. T. Bauch (academic) and Prof. E. Schröder (academic), E. Ericson (administrative and operational)

Moreover, each Associated Consortium Partner also has a contact person for the Programme. At the start of the Programme these are:

**IMEC**: Prof. G. Groeseneken, Director Doctoral Research and Academic Relations

**CEA-LETI**: C. Tardif, Head of ISTN (Training division)

**IFW-Dresden**: B. Büchner, Director of the Institute for Solid State Research
In case the names of these representatives are changing during the Programme, the Partner where the change takes place will inform the Programme Coordinator about the change. He/she will inform all the Parties.

**Art. 26: Obligation of the Consortium Coordinator**

The Consortium Coordinator manages the administrative, legal and financial matters of the Consortium and the Masters Course towards the Agency. The Consortium Coordinator is responsible for all contacts with the Agency.

The Consortium Coordinator shall

- take all the steps necessary to prepare for, perform and correctly manage the Programme set out in this Consortium Agreement and its annexes, in accordance with the objectives of the Programme as set out by the Agency.
- monitor that the Programme is implemented in accordance with the Contract
- be the intermediary for all communications between the Partners and the Agency, except where provided otherwise in the Contract.
- immediately provide the Agency with the information related to the change in name, address, legal representative as well as in the legal, financial, technical, organizational or ownership situation of any of the partners or to any event likely to affect or delay the implementation of the action, of which the Coordinator is aware;
- bear responsibility for supplying all documents and information to the Agency which may be required under the Contract, except where provided otherwise in the Contract; where information is required from the other Partners, the Coordinator shall bear responsibility for obtaining and verifying this information before passing it on to the Agency.
- make the appropriate arrangements for providing any financial guarantees required under the Contract;
- establish the requests for payment in accordance with the Contract;
- where it is designated as the sole recipient of payments on behalf of all of the Partners, ensure that all the appropriate payments are made to the other Partners without unjustified delay;
- bear responsibility for providing all the necessary documents in the event of checks and audits initiated before the payment of the balance and in the event of evaluation of the contract;
- transfer to the Partners, without delay, any document relating to the Programme or the grant.
- report to the Consortium in such a way that these have full understanding of the administrative, legal and financial matters.

The Consortium Coordinator shall undertake in particular:
- send the Partners copies of the Contract signed with the Agency together with annexes and any other official document concerning the Programme, such as the Project Handbook etc.
- notify and provide the Partners with any amendments made to this Consortium Agreement.
- coordination of the decision taking procedure.
- promote the Programme via the website, brochures, advertisements, articles etc.
- creation of tools shared between the Partners (website, forms, ISP-database, application website, scoring database, guidelines ...).
- collection of student applications and distribution of the applications among the Partners
- coordination of the student selection and admission procedure.
- follow up and guiding students during their preparation to come to the Programme, support with visa application etc.
- central registration of the admitted students.
- sending the student admission letters and managing the student agreements.
- payment of scholarships to students and scholars involved in the Programme.
- filling in, updating and maintaining the EMT database with the information on applicants and registered students, as requested by the Agency.
- managing of the students insurances and informing the students about it.
- organisation of a welcome session for the new students at the start of their programme
- registration, advise and approval of the students Individual Study Program in the Consortium Coordinator's database.
- organisation of a company visit for the first year students.
- collecting of all scores from the Partners and preparing and organizing the 3 sessions of the common examination commission (July, September and October)
- co-organisation of the annual Spring workshop at one of the Partner locations
- identification and hosting of a number of research scholars and lecturers to comply with the requirements of the Contract (min 4 scholars for a minimum of 8 weeks per student intake)
- implementation of Programme changes for the next academic year after approval by the Executive Board
- organisation of two graduation ceremonies (one in July and one in September) for the graduated students.
- payments of invoices resulting from Programme general activities, even if occurring at a (Associated) Consortium Partner, when the Executive Board has agreed on the expenses, when the costs are eligible under the Consortium Coordinator's criteria, reasonable, and fitting with the current budgeting of the Consortium allocation.
- elaboration of reports (administrative and financial) to the Agency.
- organisation and preparation of the Executive Board meetings
- the coordination and approval of the industrial internships
- the printing and delivery of the joint Diploma and Diploma supplements except for the extra diploma provided by UGA Grenoble according to French legislation (cfr. Art. 27)
- the set-up and maintenance of the Programme website and the Alumni policy.
- act at all times in good faith and in a manner that reflects the good name, goodwill and reputation of the other Partners and in accordance with scientific and academic ethics.

**Art. 27: Obligations of the Consortium Partners**

The Consortium Partners shall provide in due time the Consortium Coordinator with the information necessary to prepare the reports required by the Agency. The Consortium Partners shall be aware that the payment of the scholarships and of the funds allocated to each Consortium Partner are subjected to the timely submission of the financial reports by the Consortium Partners to the Consortium Coordinator, then by the Consortium Coordinator to the Agency. Further, the Consortium Partners agree to undertake the following:

- To take all the steps necessary to prepare for, perform and correctly manage the programme set out in this Consortium Agreement and its annexes, in accordance with the objectives of the Programme as set out in the Contract concluded between the Agency and the Consortium Coordinator.
- To comply with all the provisions of the Contract binding the Consortium Coordinator to the Agency.
- To communicate to the Consortium Coordinator any information or document required by the latter that is necessary for the management of the Programme.
- To inform the Programme Coordinator immediately of any change likely to affect or delay the implementation of the Programme, and of any change in its legal, financial, technical, organisational or ownership situation or of its affiliated entities and of any change in its name, address or its legal representatives or of its affiliated entities.
- To submit in due time to the Programme Coordinator the data needed to draw up the reports, financial statements and other documents needed in the events of audits, checks or evaluation, and any other information to be provided to the Agency according to the Contract, except where the Contract requires that such information is submitted directly by the Partner to the Agency.
- Regarding the students and scholars visiting its institution, prior and during their stays:
  - Visa request: each Consortium Partner shall help to obtain the documents required by its national immigration policy, by providing all the explanations and documents helpful for the applicants.
  - Supervision of students' and scholars' status regarding national immigration policy during their stay.
  - Academic admission and registration.
  - Assistance.
- Organisation of a welcome session for the second year students at the start of their second year.
- Organisation of the annual cleanroom training and Spring workshop when organized at the partner location.
- Identification and hosting of a number of research scholars and lecturers to comply with the requirements of the contract (min 4 scholars for a minimum of 8 weeks per student intake)
- Submit proposals of program changes for the next academic year to the Executive Board before the deadline of January 15.
- To accept responsibility for all information communicated to the Consortium Coordinator, including details of costs claimed and, where appropriate, expenses difficult to justify.
- To nominate at least one academic representative to the Executive Board and to the Common Examination Commission.
- Collecting of all scores from the local courses and sending them to the Programme Coordinator after converting into the common scoring system according to Art. 16, and sending all scores to the Programme Coordinator before the communicated deadline for the 3 sessions of the Common Examination Commission (July, September and October).
- To promptly notify any delay in performance or any event that may impact the Programme to the Executive Board.
- To inform the Executive Board of relevant information received from third parties as regards the joint master course.
- To participate in a cooperative manner at the meetings of the different bodies under this Consortium Agreement.
- To help promoting the Programmatic.
- U Barcelona will be responsible for the advertisement and marketing of the Programme and for the interface and advertisement of the Programme for the targeted regions (see Article 37).
- Chalmers will be responsible for the interaction and coordination of the Industrial Advisory Board.
- UGA Grenoble will be responsible for the printing and delivery of the additional bilingual diploma containing the French and Dutch text in compliance with French legislation.
- To act at all times in good faith and in a manner that reflects the good name, goodwill and reputation of the other Partners and in accordance with scientific and academic ethics.

Art. 28: Obligations of the Consortium Associated Partners
The Associated Consortium Partners shall provide support to the consortium in terms of
- providing staff and experts in certain specialisation areas of the Programme
- providing access for the students to a high level and unique scientific and technical infrastructure
- human resources for coordination support, i.e. the administrative coordinator and the Programme coordinator (provided by imec)
- support with the promotion and organization of the Programme
- advice in the definition and development of the curriculum
- hosting of students for internships and thesis research
- providing speakers for the lecture series
- act as interface between students and industry
- ensuring employability opportunities for the graduates of the Programme in terms of PhD positions.
- establishment of a network of companies where students and graduates can find a job after graduation
- offering research training courses (for example at CEA).

**Art. 29: EMM-Nano+ Executive Board**

The EMM-Nano+ Executive Board is chaired by the programme coordinator, and composed of the academic coordinators and/or the operational and administrative coordinators of the Consortium Partners and a representation of the students (maximum 3). The board is meeting minimum 3 times per year: once in November for the evaluation and start-up of the academic year, once in February or March for the non-EEA student selection, once in April or May during the joint Spring workshop. In between the 3 meetings the members of the Executive Board are in frequent and intensive contact by email or phone to follow-up the daily management of the programme.

The EMM-Nano+ Executive Board is responsible for

- the educational concept
- the educational reference framework, including the definition of the learning outcomes
- the academic implementation and the overall management of the Programme
- long term policy of the Programme
- Quality assurance of the Programme.
- adjustments in educational content of the Programme
- evaluation of the educational quality
- follow-up and feedback or complaints by students
- long term decisions on the Programme, in collaboration with the teaching staff.

For important changes to the Programme the approval of the Agency has to be obtained.

The EMM-Nano+ Executive Board takes decisions on coordination issues like

- the exchange of ECTS credits
- scoring, ranking and selection of the students and submit selection to the Agency
- decisions on appeals from applicants
- definition of the mobility paths
- definition or change of common standards for admission, common application procedure and joint student and scholar selection process.
- welcome, supervision and tutoring of the students
- advise of the students study programme
- thesis topic assignment
- score exchange among the Consortium partners
- diploma and diploma supplements
- management of the website
- promotion and public relations
- decision on tuition fees and waivers
- decision on use of the budget
- decisions on scholarships and scholarship conditions
- interface with the Agency
- approval of the progress and financial reports.

It is also responsible to carry out specific tasks, e.g. to monitor the quality of the programme, execute evaluation questionnaires with students, alumni, teaching staff etc.

For specific agenda points other experts, such as the representative of the Consortium Coordinator's Admissions Office, faculty educational support responsible or Consortium Associated Partner representatives can be invited to the meeting.

The tasks of the Executive Board members are equally distributed between the various Consortium Partners. Decisions within the Executive Board are taken by consensus.

Besides the EMM Nano+ Executive Board the Local Teaching Committees at the Consortium Partners are also responsible for the local implementation of the decisions of the EMM-Nano+ Executive Board and for all aspects of the local courses, including quality assurance.

**Art. 30: EMM-Nano+ Industrial Advisory Board**

An Industrial Advisory Board (IAB) has been installed to keep the program aligned with the needs from industry. It is composed of representatives of European and non-European companies that are active in the field of Nanoscience and Nanotechnology. A balance between large companies and SME’s or start-ups, and between companies active in nanoelectronics, nanomaterials, bio-nanotechnology, energy etc. is targeted.

At the signing of the Consortium Agreement the IAB is composed as follows:

A. Goldberg – Solvay, Belgium
M. Heuken – Aixtron, Germany
L. Kwakman – FEI, France
W. Coene – ASML, The Netherlands
P. Fazan – Micron, Belgium
The Industrial Advisory Board meets at least once per year, and is requested to give advice on the content and its orientation towards the need for industry and society at large and to help in establishing the link between Programme on one hand and the needs from industry on the other hand. The Industrial Advisory Board will be asked to present observations on the Programme on an annual basis, with particular relevance to the design of the Programme and its relevance for industry. The IAB is organized and coordinated by Chalmers.

Section 5: Sustainability of the EMM-Nano+ programme

Art. 31: Commitment to continuity

All Parties are committed to the Programme and to the Consortium. They will fulfill all roles as outlined in the Contract and this Consortium Agreement in order to reach the highest quality possible in a European and global context.

Additionally to the support and funding by the European and respective national and regional authorities, all Partners will use reasonable efforts to provide the necessary financial, human and administrative means to successfully run the Programme.

On a regular basis, Parties will analyse the needs for the EMM-Nano+ Course and the European and global position of the Programme. They will take care of the continuity of the Programme and its responsiveness.

Art. 32: Involvement of the industrial sector

The Industrial Advisory Board will do its best efforts to create a network of industrial partners, aiming to involve the professional sector closely to the Programme and the needs analysis mentioned in Art. 31. It will make the Programme better known in the nanotechnology industry. The Associated Consortium Partners will do their reasonable endeavours to create an optimal involvement of the industrial sector through their industrial network.

Art. 33: Educational and financial conditions for students

The Consortium Partners will try to attract top students from Europe and worldwide. It aims to create educational and financial conditions to make the participation in the Programme both attractive and attainable for students with and without an Erasmus+ scholarship. The Programme targets to attract at least 25% students without a scholarship from the EU in order to be compliant with the requirements of the Contract. If possible Consortium scholarships will be offered to top students that do not receive a scholarship from the EU.
Section 6: Financial arrangements and reporting

Art. 34: Budget and account
The Consortium Coordinator prepares a budget and an account for the total duration of the Programme. The budget is checked and adapted after each academic year.

Art. 35: Tuition fee
A common tuition fee of €9000 is charged to partner country students and € 1500 to program country students.

These tuition fees are covering:
- access for the students to the EMM-Nano+ curriculum, including all courses, examination costs, diploma delivery, administration costs, access to student services, like libraries, computer networks and electronic study environments
- subscription to a collective accident insurance policy
- subscription to an insurance for civil liability for study related activities
- subscription to a third party liability insurance policy
- affiliation with a health insurance company.

The students are insured via the Programme Coordinator. Tenant liability is not included in the insurance package and need to be covered either by the host institute or by the students themselves.

The tuition fee also gives the students the right to the following:

a) support from the student services of the Consortium Partners:
   - access to universal social services: student employment office, medical and psychotherapeutic centres, student restaurants, and study advise office;
   - access to selective social services: student housing, in accordance with the criteria stipulated by the services;

b) use of the library in accordance with the library regulations of the institution

c) use of the information technology infrastructure in accordance with the specific regulations of the institution

d) education support through the Toledo electronic learning environment (Toledo.kuleuven.be) and the learning environments at the second year Consortium Partners.

The Consortium Partners can waive part of the tuition fees for students without a scholarship or with limited financial resources in order to enable them to participate to the Programme. Students from partner countries can receive a tuition fee waiver down to 1500€, students from program countries can receive a tuition fee waiver down to 900€, to be adjusted on an annual basis. Because of Swedish
national legislation, however, waiving is not possible for partner country students that study at Chalmers. Moreover, tuition-fees at Chalmers cover payment for courses and final thesis project for a total of 60 credits. All additional credits taken by the student shall be paid separately.

**Art. 36: Contribution from the European Commission**

As specified in Annex III of the Contract the total contribution from the European Commission amount to a maximum of €3.012.000 and is composed as follows:

a) a lump sum contribution from the European Commission of maximum €170000, consisting of €20.000 for the consortium management costs during the preparatory year and €50000 per student intake for a total of 3 intakes, for the management costs of the course, for the mandatory involvement of high-level invited scholars and guest lecturers and costs for the participation of the Partners in events organised by the Agency (EMJMD coordinators meeting, EMJMD cluster meetings etc.. A reduction of €1950 will be applied for each scholar week not carried out.

b) a contribution for a maximum of 53 scholarships for a maximum €49000 per scholarship (or a maximum of €2.597.000) for students from Partner countries, to cover the participation costs (including all tuition fees, full insurance coverage and other mandatory costs related to student participation in the course), travel and installation costs and subsistence costs.

c) a contribution for a maximum of 5 scholarships for a maximum €49000 per scholarship (or a maximum of €245.000) for students from 3 targeted regions (2 from ENI South, 1 from Brazil or Mexico and 2 from Latin America, as specified in Annex III of the Contract) to cover the participation costs (including all tuition fees, full insurance coverage and other mandatory costs related to student participation in the course), travel and installation costs and subsistence costs.

The Agency provides only scholarships for students

- coming from all countries other than the 28 EU Member States, the former Yugoslav Republic of Macedonia, Iceland, Liechtenstein, Norway, Switzerland and Turkey,

- who are not residents of any of the above countries, and who have not carried out their main activities (studies, work, etc.) for more than a total of 12 months over the last five years in any of the above countries. The five-year reference period for this 12-months rule is calculated backwards as from the submission deadline for applying for an EMJMD student scholarship.

The amount of the scholarships of maximum 49000€ is as composed as follows:

- 9000€ per year for contribution to the participation costs.
- 2.000€ per year for travel costs and 1.000€ for installation costs (total of 5000€) for scholarship holders resident of a country whose location is situated at less than 4.000 km from KU Leuven

- 3.000€ per year for travel costs and 1.000€ for installation costs (total of 7000€) for scholarship holders resident of a country whose location is situated at 4.000 km or more from KU Leuven.

- 1000 € per month for the entire duration of the Programme (24 months maximum) for contribution to subsistence costs. This contribution will not be given to scholarship holders for the periods (study /research /placement / thesis preparation) spent in their country of residence nor to scholarship holders for the periods exceeding three months (indicatively the equivalent of 15 ECTS credits) spent in any Partner Country.

**Art. 37 Research scholars**

The Consortium Partners agree to engage a minimum 4 different scholars/guest lecturers per student intake for a minimum of in total 8 weeks per intake. These scholars must demonstrate outstanding academic and/or professional experience and bring concrete added value to the course and students through teaching of specific classes, leading and participating in seminars or workshops, monitoring and tutoring student research/project activities, participating in thesis reviews, preparing new teaching modules, etc. They must also contribute, after their visiting scholar activities, to the promotion and dissemination of the program in their university and country of origin.

The scholars can apply via a form available at the website (see Annex IV), including a short proposal on what they will contribute during their research stay at one of the partner institutions. The applications are sent by the coordinating institutions to the partners, and the decision on giving a scholarship is taken by the Executive Board.

**Art. 38: Payments and Reporting**

The payments of the Agency are as follows:

1) a pre-financing payment of 25% of the maximum amount at the start of the Contract;

2) a second pre-financing payment corresponding to 50% and a third pre-financing payment corresponding to 25% of the grant awarded, will be made subject to having used at least 70% of the previous pre-financing instalment and after the Agency has approved the relevant formal further pre-financing payment request submitted by the Coordinator in the applicable form.

3) Payment of the balance after approval of the final report.
Following reports must be submitted by the following dates:

1) a technical report by 31/10/2018

2) a second pre-financing request by 31/08/2019, covering the reporting period from the start of
   the eligibility period mentioned until the month before submission of the report;

3) a third pre-financing request by 28/02/2021 showing the actual use of the previous pre-
   financing instalments;

4) a final report covering the whole duration of the action, accompanied by a summary financial
   statement no later than 60 calendar days after the end date of the program (27-10-2022).

Art. 39: Expenditures
The income from the tuition fees and the lump sum fee from the EU is used as follows:

The income from the lump sum for the management costs is used to pay costs for the invited research
scholars and lecturers as well as costs for giving consortium scholarships.

-For students from program countries, except for students studying at Chalmers, the full tuition fee
  (1500€) is transferred to the university where the student is studying. For students from partner
countries, except for students studying at Chalmers, 50% of the tuition fee (4500€) is transferred to
the university where the student is studying. These amounts are transferred by the coordinating
university after receiving an invoice from the partner university at the start of the academic year. They
can be used by the university to pay for their own local cost for the Programme. The other 50% of
the tuition fee for the partner country students (4500€) is transferred to a consortium account at the
coordinating institution and controlled by the Executive board, to pay for common costs of the
Programme.

-For students from partner countries studying at Chalmers the full tuition fee of 9000€ is transferred
to Chalmers at the start of the academic year when these students study in Sweden after receiving
an invoice from Chalmers. This amount should cover for all local costs for the Programme. For
students from program countries studying at Chalmers the full tuition fee (1500€) is transferred to the
consortium account mentioned above.

-For students from partner countries who received a tuition fee waiver down to 1500€ the tuition fee
is directly paid by the student to the coordinating institution and transferred to the university where
the student is studying, except for students studying at Chalmers. For students from partner countries
studying at Chalmers the full tuition fee of 9000€ is transferred at the start of the academic year when
these students study in Sweden after receiving an invoice from Chalmers. These amounts are
transferred by the coordinating university after receiving an invoice from the partner university at the start of the academic year.

The expenditures are organized as follows:

Lump sum expenditures:
1. Invited research scholars and lecturers
2. Consortium scholarships

Common expenditures financed by consortium account:
1. Student insurance costs
2. Student travel costs spring workshop
3. Other spring workshop costs (diner, lodging students, reimbursement of eligible costs of the workshop paid directly by the local University, exceptional contribution to the cost of clean room training to complete the budget of the local University etc.)
4. Common website maintenance
5. Common lectures
6. Common advertisement & publicity program, common brochures

Expenditures by the local university financed by income participation costs:
1. Travel board members
2. Local welcome session costs
3. Eventual local registration cost (e.g. the 900 Euro for KUL, 100 Euro for TUD)
4. Cleanroom training costs
5. Local coordination costs (local website, local brochures)
6. Eventually cost of local secretary support or teaching fees (special courses, lab training)

Art. 40: Scholarship Management
All scholarships are paid to the students and scholars by the Admissions Office of the coordinating institution.
The contribution to travel and installation costs are paid in full to the student as follows:

- The amount that covers the installation costs is paid after the registration process at KU Leuven at the start of the first year of the master programme.
- The amounts that cover the travel costs are paid after the registration process at the start of each academic year. The amount paid to the student for year 2 remains unaffected should the student drop-out or be expelled after the third semester and before graduation.

The amount that covers the participation cost (tuition fee) is withheld directly from the scholarship at the beginning of each academic year.

The subsistence contributions are paid on a monthly basis. The payments are interrupted in case of drop out or in the month following the graduation date of the student. The monitoring of the payments is done by the consortium coordinator and reported to the Agency and to the Executive board.

The student’s scholarship can be discontinued if he/she has not obtained 48 credits at the end of the first academic year without a valid reason. The decision on discontinuation is made by the Executive Board, after hearing the student. In this case the admission letter for the second year becomes invalid.

There is a day-to-day follow up on the scholarship holders, starting right after the selection. Drop-outs are replaced where possible, following the regulations described in the 2017 EMJMD Project Handbook. In general students communicate with the administrative coordinator of KU Leuven on their decisions/changes before arrival. If the student drops out when he/she already started the program, his/her scholarship is offered to the next student in the ranking or the best performing student, in accordance with the regulations of the 2017 EMJMD Project Handbook and always after consulting and in agreement with the Agency.

In all cases of interruption of the scholarship the student is obliged to refund any amount that may already have been pre-paid to him/her for future periods.

**Art. 41: Financial manager**

The financial manager for the EMM-Nano+ is Prof. Michiel Steyaert, the Dean of the Faculty of Engineering of the Consortium Coordinator, who is given the mandate to approve all the expenses.

**Section 7: Quality Assurance and accreditation**

**Art.42: Internal quality assurance at three levels**

The Programme is continuously monitored internally. This happens at two levels: the Local Teaching Committees at the local Programme level, and the Executive Board at the Programme level. These levels are interacting with each other in an open communication.
Art. 43: Quality assurance at the local teaching committee level

Local Teaching Commissions are responsible for the quality of the courses at the local level. On a regular basis, questionnaires are administered to the students at each university about the quality of the courses, covering aspects such as the quality of teaching, the quality of exercises and labs, the quality of the study material, the quality of the examination and the study load for each course. Problems are solved and handled at the local level, unless there is an impact on the common program, in which case they need to be reported and discussed at the Executive Board.

Art. 44: Quality assurance at the consortium level

The EMM-Nano+ Executive Board is responsible for the quality assurance at the consortium level. It concerns the continuity of the Programme; the execution of quality related decisions taken by the Parties; the coherence of the Programme and its educational framework; the evaluation and monitoring of the quality of the courses and modules.

The responsibilities of the Executive Board regarding quality assurance are:

- watching over the continuity of the Programme
- ensuring the execution of the quality related decisions taken by the consortium
- watching over the coherence of the Programme
- defining and if needed adapting the educational reference framework an learning outcomes of the education programme and its didactical implementation
- evaluation and monitoring of the quality of the education and its modules.

The members of the Executive Board are the first and permanent interface and antenna for the students in order to detect problems related to the quality of the Programme. Problems at the individual course level that can be solved at the local university level are taken up by the local teaching commissions, in case they are related to cross-university or at the Programme level they are taken up by the Executive board.

In order to improve the Programme and keep it updated with new developments every year Programme changes can be requested by each Partner. In order to do so Programme change requests need to be sent to the Program coordinator before January 15 preceding the academic year in which the Programme change should be implemented. After discussion and approval at the Executive Board the Programme changes are submitted to the KU Leuven Programme Administration who is implementing the change in the Programme book for the next academic year. This will become available only beginning of July preceding the relevant academic year.

Art. 45: External Quality Review and Accreditation
The partners' universities are responsible for the external evaluation and accreditation of their part of the Programme, taking into account their institutional regulations and national legislation. The consortium will follow up the developments in the regulations on the European Approach for accreditation of joint programs, as explained at https://www.egar.eu/topics/joint-programmes.html. The Partners commit to follow this European approach for accreditation as soon as it becomes possible in all countries of the consortium partners.

Section 8: Amendments, length, termination, and settlement of disputes

Art. 46: Validity of the Consortium Agreement
This Consortium Agreement shall come into force on the day when it has been signed by each of the Parties but shall have retroactive validity as of the same date as the Contract (28-10-2017). The Program Country institutions are committed to offer this Master Program, in the terms defined in this Consortium Agreement, for at least three different biannual editions, 2018-2020, 2019-2021 and 2020-2022.

The validity of this Consortium Agreement expires at the end of the Contract (27-10-2022) or when the support from the European Commission is terminated, whichever is earlier.

Art. 47: Amendments
Amendments to this Consortium Agreement shall be made only by a supplementary agreement signed on behalf of each of the Parties by authorized representatives.

If a Party breaches the terms of the present Consortium Agreement or decides to leave the Consortium before the end date of the Contract between the Consortium Coordinator and the European Commission, the terms and conditions are stipulated in the Contract with the European Commission (Annex II General conditions, Art II.16).

Art. 48: Disputes
The settlement of any issue or conflict arising from or in connection with the present Consortium Agreement must be attempted by the Partners. The International Chamber of Commerce in Brussels will be the legal body that will be chosen if disputes remain unresolved.
The official representative of K.U. Leuven

Name: Professor Luc Sels

Function: Rector

Signature: [signature]

Name of the bank: KBC

Bank account number: 734-0193417-08

Address of the bank: KBC Bedrijvenkantoor Leuven, Brusselsesteenweg 100, 3000 Leuven, Belgium

IBAN number: BE63 7340 1934 1708

BIC/SWIFT code: KREDBEBB

Done at: Leuven, on...32/46...2018
The official representative of Chalmers Tekniska Högskola AB

Name: Professor Stefan Bengtsson

Function: President and CEO

Signature: [Signature]

Name of the bank: Nordea Bank Sverige AB, Phone: 004631-7716000

Bank account number: 39687744154

Address of the bank: Östra Hamngatan 16, 405 09 Göteborg

IBAN number: SE89 3000 0000 0396 8774 4154

BIC/SWIFT code: NDEASESS

Done at: Göteborg, on...Nov. 27......., 2018
The official representative of Technische Universität Dresden

Name: Professor Dr. Hans Georg Krauthäuser

Function: Vice Rector for Academic and International Affairs

Signature: ......................................................

Name of the bank: Commerzbank

Bank account number: DE52 8504 0000 0800 4004 00

Address of the bank: Filiale Dresden, Devrientstraße 3, 01067 Dresden, Germany

IBAN number: DE52 8504 0000 0800 4004 00

BIC/SWIFT code: COBADEFF850

Done at: Dresden, on 20/11/2018
The official representative of Université Grenoble Alpes

Name: Professor Patrick Lévy

Function: President

Signature: 

Name of the bank: TRESOR PUBLIC

Bank account number: 10071 38000 00001001600 96

Address of the bank: 8 rue de Belgrade, 38000 Grenoble, FRANCE

IBAN number: FR76 1007 1380 0000 0010 160 096

BIC/SWIFT code: TRPUFRP1

Done at: Grenoble, on 24 October, 2018
The official representative of Universitat de Barcelona

Name: Professor Alejandro Aguilar Vila

Function: Vice-Rector for Projection and Internationalization

Signature: CPISR-1 C ALEJANDRO AGUILAR VILA

Name of the bank: Banco Bilbao Vizcaya Argentaria, S.A..

Bank account number: 02 0160 8081

Address of the bank: Pl. Catalunya, 5, 1ª planta – 08002 Barcelona.

IBAN number: ES19 0182 6035 4102 0160 8081

BIC/SWIFT code BBVAESMMXXX:

Done at: Barcelona, on: 2018
The official representative of INTERUNIVERSITAIR MICRO-ELECTRONICA CENTRUM vzw

Name: Ludo Deferm

Function: Executive Vice-President

Signature: 

Name of the bank: KBC Bank

Bank account number: 432-0080151-21

Address of the bank: Brusselssteenweg 100, B-3000 Leuven, Belgium

IBAN number: BE1432002015121

BIC/SWIFT code: KRED BEBB

Done at: Leuven, on: November 27, 2018
The official representative of Commissariat a l' Energie Atomique et aux Energies Alternatives

Name: Dr. Emmanuel Sabonnadière

Function: Director

Signature: .................................................................

Name of the bank: ...........................................................

Bank account number: ....................................................

Address of the bank: ......................................................

IBAN number: ................................................................

BIC/SWIFT code: ...........................................................

Done at: Grenoble, on November 5th, 2018

Emmanuel SABONNADIÈRE
Directeur de l'Institut Léa

LATI
GEO/GRENoble
17, rue des Martyrs
38054 Grenoble Cedex 9
Annex II – Application annex

ANNEX to the Application Form

1. Students will study the first full year at K.U. Leuven, and the second year at one of the other universities of the master consortium, depending on their choice of major and the specific accent of the universities offering that major. Each year the student takes courses with an equivalent of 60 ECTS credits.

   Please indicate the university you prefer to study at during the second year of the master:
   Chalmers Tekniska Högskola (Sweden) (NO tuition fee w/ EU passport)
   Université Grenoble Alpes (France)
   Technische Universität Dresden (Germany)
   Universitat Barcelona (Spain)

2. Are you applying for a scholarship? YES NO

3. Did you carry out your main activity (studies, training or work) for more than a total of 12 months over the last 5 years before the date of the application deadline, in a programme country (EU member states and Former Yugoslav Republic of Macedonia, Iceland, Liechtenstein, Norway and Turkey)? YES NO

4. Did you obtain any Erasmus Mundus fellowship before? YES NO

5. Student declares his/her official residency is as listed below in “address” and provides proof of this in attachment (this can be a residence certificate issued in accordance with the candidate’s municipality normal registration rules or a certificate from the candidate’s place of work, study or training issued by the employer or institution in question)

   Name:
   Address:
   Country:
   Date and Signature:

EMM-Nano+ Agreement 41/46
Annex III – Selection appeal form

EMM Nano+
Selection – Appeal Form

<table>
<thead>
<tr>
<th>Last name:</th>
<th>Address:</th>
</tr>
</thead>
<tbody>
<tr>
<td>First name:</td>
<td>City:</td>
</tr>
<tr>
<td>EMM Nano+ application no.:</td>
<td>Country:</td>
</tr>
<tr>
<td>E-mail:</td>
<td>Telephone:</td>
</tr>
</tbody>
</table>

Please describe below the reason for the appeal:

If relevant, please provide here an overview of any additional documents used to support your case.

<table>
<thead>
<tr>
<th>Name of applicant:</th>
<th>Signature of applicant:</th>
<th>Date:</th>
</tr>
</thead>
</table>

EMM-Nano+ Agreement
Annex IV – Visiting Scholar Application Form

Application form Visiting Scholar
Erasmus Mundus Master of Nanoscience and Nanotechnology

1. Personal information

Please note: write your name as it appears on your passport and in exactly the same way on this form and throughout the application procedure; otherwise, you may experience difficulties when applying for a visa or plane ticket.

<table>
<thead>
<tr>
<th>Family name (surname)</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Maiden and/or any other names that may have been used on documents</td>
<td></td>
</tr>
<tr>
<td>First name (given names)</td>
<td></td>
</tr>
<tr>
<td>Gender (male/female)</td>
<td></td>
</tr>
<tr>
<td>Place of birth (country, town)</td>
<td></td>
</tr>
<tr>
<td>Date of birth (dd/mm/yyyy)</td>
<td></td>
</tr>
<tr>
<td>Current Nationality</td>
<td></td>
</tr>
</tbody>
</table>

Address (as mentioned in your passport, official residence)

<table>
<thead>
<tr>
<th>Street, number (box)</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Postal code</td>
<td></td>
</tr>
<tr>
<td>City, State</td>
<td></td>
</tr>
<tr>
<td>Country</td>
<td></td>
</tr>
<tr>
<td>Telephone number (country code, area code, phone number)</td>
<td></td>
</tr>
<tr>
<td>Email</td>
<td></td>
</tr>
</tbody>
</table>
2. Academic information

Please add your CV to this document.

3. List of publications

Please add your list of publications to this document.

4. Research plan

Please explain what the focus of your research will be during your stay as visiting scholar.
(max. 1.2 pages)

5. Scholarship

Are you applying for an Erasmus Mundus scholarship?

☐ Yes ☐ No

Only if yes: if you are running following criteria:

- an academic and/or professional of outstanding experience
- willing to carry out teaching or research assignments and scholarly work in the
  institution participating in the Erasmus Mundus Masters Course
Annex

Annex V – Student agreement

A draft student agreement is under preparation and will be signed on a case-by-case by the parties involved