

## ERASMUS PLUS policy

**International opening** constitutes a major strategic axis of the Ecole Nationale Supérieure de Chimie de Montpellier (ENSCM – *National graduate school of chemistry of Montpellier*), which has been a pioneering institution among other “Engineering schools” in this matter thanks to its belonging to the first circle of the creators of the European Chemistry Thematic Network (ECTN) involving 150 institutions. ENSCM curricula rely on 3 specific points: strong connection to research, to industry, and international experience. As a matter of fact, forthcoming generalist engineers in chemistry must have achieved during their 3-year curriculum an **international stay of at least 3 consecutive months**, they must have spent at least 14 weeks in a company and achieve at least 800 points at TOEIC in order to validate their diploma. Moreover, they must achieve a final 6-month internship and study two foreign languages.

Created in 1889 and counting 43 teachers (assistant, associate and full professors), 38 technical and administrative staff employees, ~100 undergraduate and 200 graduate students (including 55 in apprenticeship), 70 PhD students, 140 graduations per year (69% female) and 17 PhD defences, ENSCM pursues a double goal. First, ENSCM students have to strengthen their training abroad, and secondly, ENSCM tries to attract high-level foreign students in its curriculum and its research laboratories to empower them to face the human, societal and industrial challenges in their own country.

**ENSCM has been involved in nearly 80 international partnerships** in Europe, Asia, and America in the framework of the ERASMUS and FITEC programmes, and has started turning to Africa since a few years, namely through connections with South Africa and Ivory Coast. However, intra-European exchanges remain the main part of students and staff mobility for ENSCM and its strategy relies on **the intensification of the interactions inside Europe**.

More than ever, contemporary history shows that the sustainability of the European civilisation requires a high level of federative exchanges inside Europe. The recent CoViD-19 crisis has revealed that European nations could only face severe situations, as pandemics, if they can help each other on the fronts of economic, sanitary, and research cooperation. As an institution devoted to train managers in chemistry and chemistry engineering, researchers and more generally scientific leaders of the upcoming society, it is of fundamental importance to promote and facilitate the sense of belonging to the European civilisation of our students by the solid integration of ENSCM in the Erasmus programme and its Charter for Higher Education.

**ENSCM shares the objectives of sustainable development** described in the Erasmus Charter, and has applied a so-called “Green plan” for more than 10 years in order to save energy in the institution’s everyday life. A large place is given to ecology and sustainable development in the pedagogical content of ENSCM courses, and three 3rd year majors are explicitly devoted to environmental preservation, under the prism of analytical chemistry, bioreactors, and nuclear chemistry.

Since one year, the process of internship agreement (application, validation, issue and signature) is **digitalised** in order to **save time and paper**. Last, the current CoViD crisis accelerated the deployment of online exams and contributed to save a significant amount of paper.

As an institution devoted to the education of students in chemistry in all the aspects of this science, aiming at forming so-called “generalist chemistry engineers”, ENSCM has been involved for long in student exchange programmes being referred to as “KA1” in the ERASMUS nomenclature. For the last 6 years, ENSCM has been in active connection with 13 countries in Europe, regarding education mobility for studies. The main destination for ENSCM students is German Universities of renown for the quality of their research in Chemistry. Some Northern Europe Universities in Sweden, Norway, Ireland, and the Netherlands are also of peculiar interest for ENSCM students, but unlike for German and Belgian universities, the student flow is only oriented towards the outlet direction regarding ENSCM. To a lesser extent, bi-directional exchanges take place with Central Europe countries as Czech Republic, Austria and Poland, and with Southern countries as Italy and Spain.

**ENSCM aims at intensifying the student mobility** for studies toward our partner universities by trying to appear more attractive to foreign students and therefore increasing the number of incoming students. Belonging to the Erasmus programme is of course a fundamental prerequisite to achieve this goal, but **ENSCM intends to undertake strategic actions in order to increase its attractiveness to European students**. These actions involve targeted communication towards our partners to clearly inform foreign students about the possibilities offered to welcome them. This includes programme of available courses, social action and integration programme for welcoming them. ENSCM also gradually increases the fraction of cursus available and taught in English: some majors are already taught in English at the Master 2 level, and an increasing part of courses and practical work are taught in English at the undergraduate level.

Last, ENSCM is launching a new Master 2 level course in its affiliated laboratories, therefore promoting formation by research, which seems to be a promising way of forming high-level chemists seeking a PhD track to access R&D or academic research careers. In all these projects, ENSCM will take advantage of the new pedagogical tools it invested in (tablets, increased virtual reality room, e-learning platforms) to propose updated education in chemistry that should be appealing for foreign students. The CoViD-19 crises further accelerated the use of e-learning to ensure pedagogical continuity, and the new tools developed during the crisis could be proposed in some cases to international students.

Another very important point for ENSCM is the Erasmus support for international internships of its students. As described above, all ENSCM students are required to perform a stay of at least 3 months abroad, under the form of a study mobility or an internship. A mandatory internship is required for each year at ENSCM, and in the second year, the usual yield of international internship reaches 90%. This experience is highly valuable for the students in order to open their mind to other cultures, both from a professional and personal point of view. It is also a trustable indicator of the ability of the student to adapt to new situations for a recruiter, and therefore these internships facilitate the employment of ENSCM students in France and abroad. ENSCM has been managing a consortium of 9 engineering schools in the Gay-Lussac Federation (FGL), allowing the funding of internships of hundreds of students for the past 6 years. The school intends to continue this leadership in the next years, provided that our partners are willing to pursue the partnership.

Finally, **ENSCM aims at gaining efficiency** in the management of its administrative work by promoting good practices exchanges with its European partners. In this aim, ENSCM organises two yearly calls of proposal for staff mobility at the European level. Based on strategic priorities defined by the ENSCM director, and on the individual and collective project of the applicant, 1 to 2 administrative staff members can be granted each year to participate to a training organised by a European partner. In order to take advantage of this experience at the collective level, a report on the training is provided by the returning agent; 6 months after, a second feedback is given, highlighting how information, tools, practices, tips acquired during the training have been implemented at work. ENSCM aims at intensifying this approach to make sure that all staff members involved in ENSCM international relations could benefit of this formation in the next Erasmus contract.

ENSCM participation to the Erasmus+ Programme is of capital importance for this school, which aims at proposing a European-oriented training to Master's level students in chemistry. Regular inquiries towards alumni from ENSCM indicates that the international opening of ENSCM is one of the most quoted criterium that motivated their choice to integrate this school. In addition to provide a number of attractive destinations for the students of ENSCM to perform mobility of studies, the Erasmus+ Programme will allow ENSCM to welcome a higher number of foreign students and therefore enrich the cultural interactions of all registered students (who represent 16 nationalities, for the academic year 2019/20).

In order to quantify the added-value of the participation of ENSCM to the Erasmus+ Programme, we propose to give a peculiar attention to the following items, and to associate to each item an objective as written below:

- Number of outgoing students participating to international mobility for studies (objective: increase from 20% to 50% in 7 years)
- Number of incoming students from European institutions (objective: increase from 3% to 10% in 7 years).
- Number of courses delivered in English (objective: from 1/7 options up to 30% of the formation offer)
- Number of administrative staff involved in international affairs participating to STT (objective: 100% cumulated over the next 7 years)

Regarding KA107, we do hope our application will be successfully assessed: we plan to train yearly 3 students and 2 lecturers from Niger in the next 3 years.

Lecturing there, offering a couple of students a year international environment, facilities, intercultural skills, helping them to complete their training and achieve managerial skills making them able to apply for positions in the international companies settled in Niger, promoting Erasmus+, continuing cooperation with alumni involved in their national HEIs, adapting techniques to their labs are some of the goals defined with our African partners. In the same time, we try help them to stick to timelines regarding processes and, particularly, transferring student records. Regarding ENSCM, lecturers involved in such ICM will increase their intercultural skills and their abilities to adapt handlings while the regular students may learn that some of their peers access laboratory facilities for the first time of their lives.

During this new accreditation ENSCM will address the following items:

- **Paying attention to impact of mobility** on environment
- **Improving services to mobile students.** In fact, those services such as support regarding administrative matters (booking an accommodation, registering for health insurance, opening a bank account, changing telephone chip, buying card for public transportation, applying for housing grant, applying for residence permit...) already exist and all international students benefit from them. We will add those pieces of information, as well as academic and administrative contacts, complaints procedures... on the website.