

Higher education's contribution to the building of Europe

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For: In Jean-Pierre Dardayrol (ed.) *The European digital union* [special issue of *Réalités Industrielles*, August 2016]

Summary:

Now that Europe no longer seems to be taken for granted by its peoples and member states, neither economically, socially nor culturally, what assessment can we make of the two major programs for constructing a European higher education area (EHEA), namely: the Bologna Process (1999) and the Erasmus Program (1987, nearly thirty years ago)? What if these two programs turn out to be the driving force in building Europe?

The Bologna Process launched in 1999

On 19 June 1999, during a meeting of ministers of Higher Education in Bologna, 29 European countries signed a joint declaration for building a European Area of Higher Education (henceforth EHEA).¹ A precursor of this declaration was, in 1997, the Convention of Lisbon on the Recognition of Qualifications concerning Higher Education in the European Region and then, in 1998, the Sorbonne Declaration made by three ministers of Higher Education on the occasion of the 800th anniversary of the University of Paris.²

The Bologna Accords has the objectives of:

- 1) setting up a system of “*easily readable and comparable degrees*” of higher education so as to facilitate the international recognition of diplomas and qualifications.
- 2) adopting a “*system essentially based on two main cycles*” for higher education: the undergraduate (a minimum of three years) and the graduate (subject to successful completion of the undergraduate cycle): “*The degree awarded after the first cycle shall also be relevant to the European labor market as an appropriate level of qualification. The second cycle should lead to the master and/or doctorate degree as in many European countries.*”
- 3) establishing a system of credits for courses that can be transferred between establishments.
- 4) facilitating the mobility of students, teachers and researchers.
- 5) boosting European cooperation in “*quality assurance with a view to developing comparable criteria and methodologies*”.

¹ Bologna Declaration of 19 June 1999 made jointly by European ministers of Higher Education. Available at: http://media.ehea.info/file/Ministerial_conferences/02/8/1999_Bologna_Declaration_English_553028.pdf

² The Convention of Lisbon on the Recognition of Qualifications concerning Higher Education jointly drafted by the Council of Europe and UNESCO in 1997. Available at:

<http://www.coe.int/en/web/conventions/full-list/-/conventions/treaty/165>

The Sorbonne Declaration signed in 1998, by the ministers of Higher Education of France, Germany, the United Kingdom and Italy. Available via:

<http://www.ehea.info/cid100203/sorbonne-declaration-1998.html>

— 6) promoting the “*necessary European dimensions in higher education, particularly with regard to curricular development, interinstitutional co-operation, mobility schemes and integrated programs of study, training and research*”.

Every two years since, press releases, conferences and declarations — from Prague, Berlin, Bergen, London, Louvain, Budapest, Vienna and Bucharest — have followed up on the Bologna Process. They have presented the advances made in building the EHEA and set the plans of action for coming years.

To reach these six objectives, the countries taking part have, as programs have been designed and made operational, come to agreement on:

- organizing higher education around three main degrees: the bachelor’s (three years of post-secondary schooling), the master’s (two more years) and the doctoral (three additional years).
- organizing educational programs in semesters and credit points.
- setting up a European Credit Transfer and Accumulation System (ECTS) with credit points that students accumulate and can transfer between establishments.
- providing for a “supplement” to degrees of higher education, namely a standardized description of the courses taken. This diploma supplement is intended to facilitate international mobility through a better understanding of the knowledge and aptitudes acquired by students.

Signed originally by 29 states, the Bologna Declaration set off this process. At present, 47 states have signed the declaration. Thus has emerged what is called the European Area of Higher Education. The directive serving as the grounds for the EHEA has been transposed into national law in the years since its adoption.³

The consequences of transposing the EU directive into French law

The EU directive on the EHEA was transposed into French law by Decree n°2002-482 of 8 April 2002, which mainly provided for the creation of the bachelor’s, master’s and doctoral degrees.⁴ This has had variable effects on the courses offered by French establishments of higher education and on the diplomas delivered.

- The degrees corresponding to the first two years of higher education and the third year, respectively DEUG and *licence*, simply vanished, yielding to the new bachelor’s degree (also called *licence*), which lasts three years (L1, L2 and L3). This was a minor change in actual practice, since the DEUG had seldom been a final diploma for university students.
- On the contrary, the educational programs leading to a DUT (*diplôme universitaire de technologie*) or a BTS (*brevet de technicien supérieur*) have not vanished. These diplomas obtained at the end of two years of post-secondary studies in vocationally oriented programs still exist, fifteen years after the decree. The labor market does not object to this situation, since firms have no qualms about accepting applicants from these programs. Academia, on the other hand, does not unanimously accept these courses of study since it, in my opinion, overvalues higher education’s scientific dimension to the detriment of student employability.

In some foreign lands, two post-secondary programs also coexist: long programs based on the scientific quality of research (“research universities”) and shorter programs, less academic, that enable students to find jobs after two or three years of study. The best example of this is the United States with its community colleges, which, quite similar to France’s STSs (*sections de techniciens supérieurs* which may deliver the BTS) and IUTs (*instituts universitaires de technologie* which may deliver the DUT), propose two years of vocationally oriented education.

³ This article has been translated from French by Noal Mellott (Omaha Beach, France). References have been updated for the translation.

⁴ Available at:

<https://www.legifrance.gouv.fr/affichTexte.do?cidTexte=JORFTEXT000000771048>

- Nor have the preparatory classes for the Grandes Écoles (CPGE) vanished. They continue providing two years of prep courses for admission at the third year of the undergraduate level in the Grandes Écoles. They do not fit in with the 3/5/8 years of study with degrees worked out as part of the Bologna Process. Although the graduates of the Grandes Écoles admitted via the CPGE do not obtain any other diploma before the fifth year of postsecondary education, they do now accumulate ECTS credits for eventually transferring toward the university system. Mention should be made of a provision in the Fioraso Act of July 2013 that requires students in a CPGE course of study to enroll in a nearby university and pay enrollment fees there. Teachers in the secondary schools (*lycées*) offering the CPGE have a hard time understanding what this provision means... three years after its enactment.
- The *maîtrise* (four years of postsecondary higher education) vanished, as did the DEA and DESS (*diplômes d'études approfondies* and *diplômes d'études supérieures spécialisées*, five years of postsecondary higher education oriented respectively toward research or a profession). They have yielded to the new master's degree (two years after the bachelor's: M1, and M2). There is a mixing of students during M1 and M2. At the time of the transposition, the *maîtrise* corresponded to M1; and the DEA/DESS, to M2. Four years of postsecondary higher education no longer leads to a degree.

On the sensitive question of selection procedures for admission into the graduate cycle, the Ministry of National Education, Higher Education and Research has just accepted, in 2016, such procedures (for certain programs) for passing from M1 to M2. This is a *de facto* recognition of a “rupture” between these two years in stark contrast with the idea of a two-years master's program, which should have led to placing such procedures between the years L3 and M1.

- The diplomas delivered by the Grandes Écoles, engineering schools and schools of management are recognized as a master's on condition that the educational programs be accredited by two *ad hoc* committees: the CTI (*commission des titres d'ingénieur* created in 1934) or the CEFDG (*commission d'évaluation des formations et diplômes de management*, created in 2001 to oversee “equivalences” between master's degrees in schools of management).⁵
- In France, the Bologna Process has had the least impact on the doctor's degree. The level of admission (five years after secondary school) and the number of years of study (three) already matched recommendations. The major change at this level occurred in the early 1980s, when “doctoral schools” were set up. Even though writing a dissertation under a supervisor is still the PhD's keystone, recognition has been given to the educational dimension of the dissertation. Furthermore, a group (and not just the supervisor of the dissertation) now has the duty of overseeing admissions, the education delivered (human and scientific training requirements to prepare students for the world of work) and evaluation (during the program and at the end: defense of the dissertation).

⁵ Decree n° 2001-295 of 4 April 2001 about schools of management and their diplomas. Available at: <https://www.legifrance.gouv.fr/affichTexte.do?cidTexte=JORFTEXT000000589624>

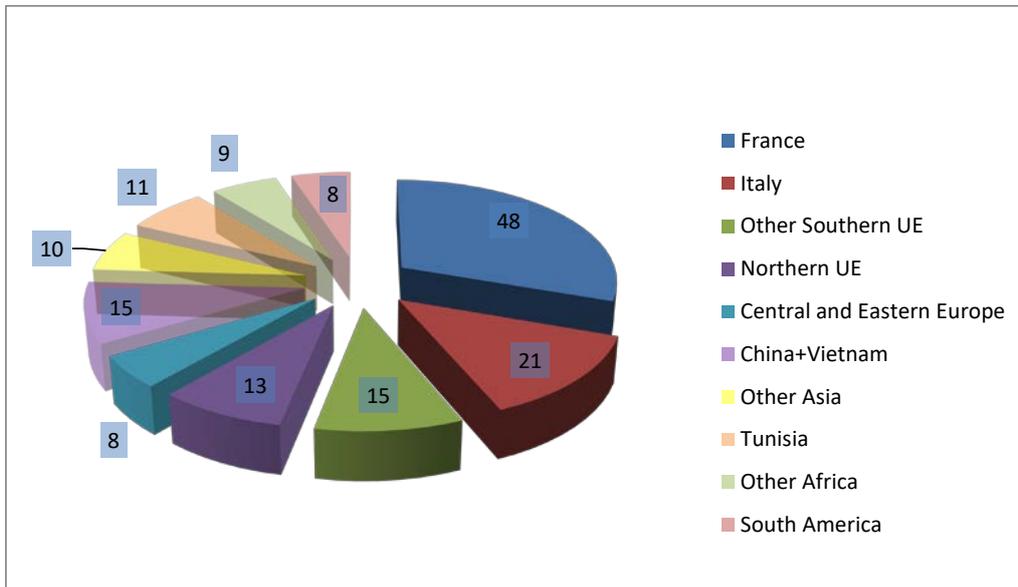


Figure 1: Origin of Eurecom's students for the 2015 academic year

What assessment to make of the Bologna Process? The viewpoint of the dean of an engineering school

When evaluating the Bologna Process in view of its objectives, my assessment of its application is, to say the least, lukewarm.

Eurecom, an original European institution of higher education

On the initiative of François Schoeller (X58, ENST 63, engineer Corps des Mines, who was, at the time, a director of higher education at Télécom), Télécom ParisTech and École Polytechnique Fédérale de Lausanne (EPFL) founded Eurecom Institute in 1992 at Sophia Antipolis, France. Its objective was to become a European platform of research and education. Its originality was its status as a GIE, a consortium of establishments of higher education and firms. Furthermore, teaching was exclusively in English by a teaching staff most of whose members were not French; and the students who enrolled there for part of their education validated courses at their establishment of origin, since Eurecom did not yet deliver its own diplomas.

Nearly 25 years later (the EPFL having withdrawn from the project), Eurecom is still sailing, now enrolling more than 300 students and delivering engineering diplomas. In 2014, it has moved to the STIC campus in Sophia Antipolis. Now a totally European platform, the academic partners are Telecom ParisTech, Institut MinesTélécom (the majority shareholder), Aalto University (Finland), Politecnico di Torino (Italy), Technische Universität München (Germany), the Norwegian University of Science and Technology, Chalmers University (Sweden) and the Czech Technical University in Prague. The corporate partners, in the consortium are: Orange, ST Microelectronics, BMW, Symantec, Monaco Telecom, SAP and IABG.

The more than 300 enrollees per year come from more than thirty nationalities, mostly European (66%), of which French students form a minority (30%). Courses are dispensed in English only. The students, who spend from six months to two years on campus, obtain either a diploma from their establishment of origin (the majority of cases) or else an engineering diploma from Eurecom or a master's from Institut MinesTélécom.

Eurecom's students are probably among the most European in all establishments of higher education in France. This magnificent success in the construction of a Europe of higher education has educated more than two thousand Europeans... European by conviction.

Eurecom Graduate School and Research Center in Communication Systems
<http://www.eurecom.fr/en>

On the positive side, the first and sixth objectives of “easily readable and comparable degrees” and of greater coherence among European systems of higher education have been reached, even though coherence is still far from generalized. I have already pointed out the many subtleties, hitches and snags that keep the French system from corresponding to European standards. Such differences characterize most other countries in Europe too. The most positive point in the Bologna Process is, undoubtedly, to have asserted the existence of the EHEA vis-à-vis countries outside Europe.

It is much less certain whether France will reach the second objective of organizing higher education in two cycles with a view toward the labor market. A major weakness of French higher education is the inadequate “professionalization” of the programs leading to a degree (*licence*) at the end of first cycle. But could we expect the Bologna Process to fix the absence, in France, of orientation or even selection procedures for entry into this cycle? Save for a few exceptions, admissions are not made by taking into account, on the one hand, students’ aptitudes and aspirations and, on the other hand, actual job openings. Year after year, we notice how socially sensitive this question of selective admissions is — a hot potato that neither left- nor right-wing parties have wanted to take in hand. Nonetheless, higher education has been often reformed, the two most recent and significant reforms being the Pécresse Act of 2007 on the “liberties and responsibilities of universities” and the Fioraso Act of 2013 on higher education and research.

Only the preservation of the vocationally oriented programs (DUT and BTS) corresponding to two years of postsecondary education and the introduction of so-called “bachelor” programs have maintained or developed job-oriented programs of higher education in the first cycle. The *licences professionnelles* created in universities have not met with the success expected. At this point, we can but hope that the Ministry of Education will recognize the *bachelors* (of the *Grandes Écoles*) as equivalent to a *licence*, instead of continuing to protect the universities’ quasi monopoly over this degree. Encouraging establishments to work together would help achieve this.

I shall quickly pass over the third objective about a system of transferable credits. This technical issue has been solved, thus facilitating mobility in the EHEA.

As for the fourth objective of increasing student and teacher mobility, I would say, looking through the small window of my position in a major engineering school, that the Bologna Process has not at all improved the mobility of teachers or researchers. But how could it have done so? Nor has it done much for student mobility — unlike the Erasmus program. On the contrary, the mobility between certain establishments has declined for several years since the Bologna Process makes each country modify, sometimes substantially, its system of higher education. Some countries have not yet returned to the previous level of mobility. This has been the case of mobility between major engineering schools in France, Spain and Germany, where the implementation of the Bologna Process led to restructuring programs (master’s/engineering) with, as a consequence, the lapsing, for legal and technical reasons, of previous agreements on mobility. I have even heard that Spain has not yet finished restructuring its programs.

The Erasmus and Erasmus+ programs

Consequent to my previous remarks, we can but make a lukewarm assessment of the Bologna Process, at least in relation to it reaching its stated objectives. In contrast, the Erasmus program (and its successor since 2014, Erasmus+) has been a genuine success in stimulating student mobility in Europe.

Since its creation in 1987 — more than ten years before the Bologna Declaration — this program now has an annual budget of approximately a billion euros for the 28 EU member states as well as six other European countries that do not belong to the Union. The cost of this program accounts for less than 1% of the EU budget. The EU funds a scholarship of approximately €275/month for each exchange student. In some countries, national funding provides an additional stipend.

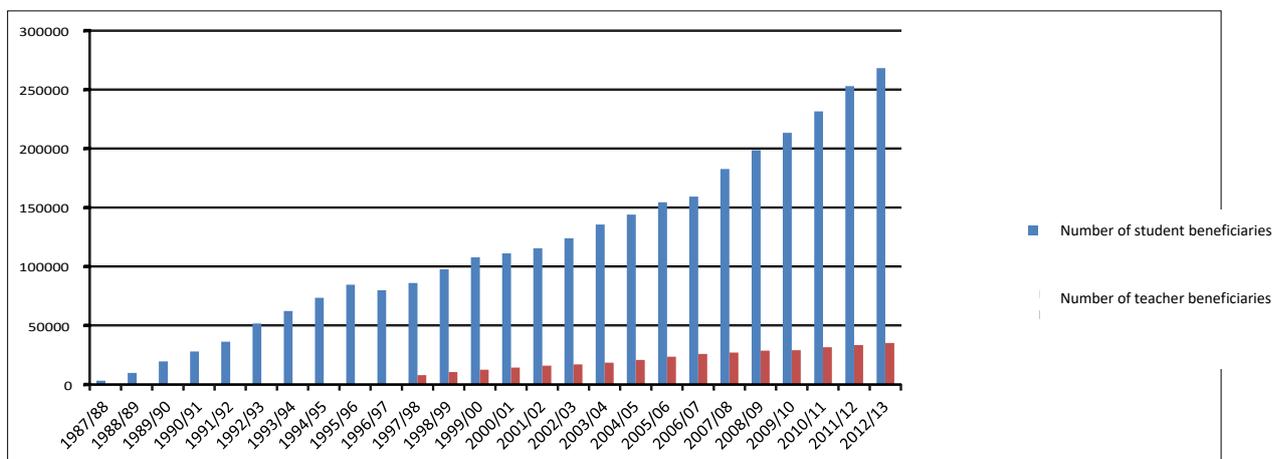


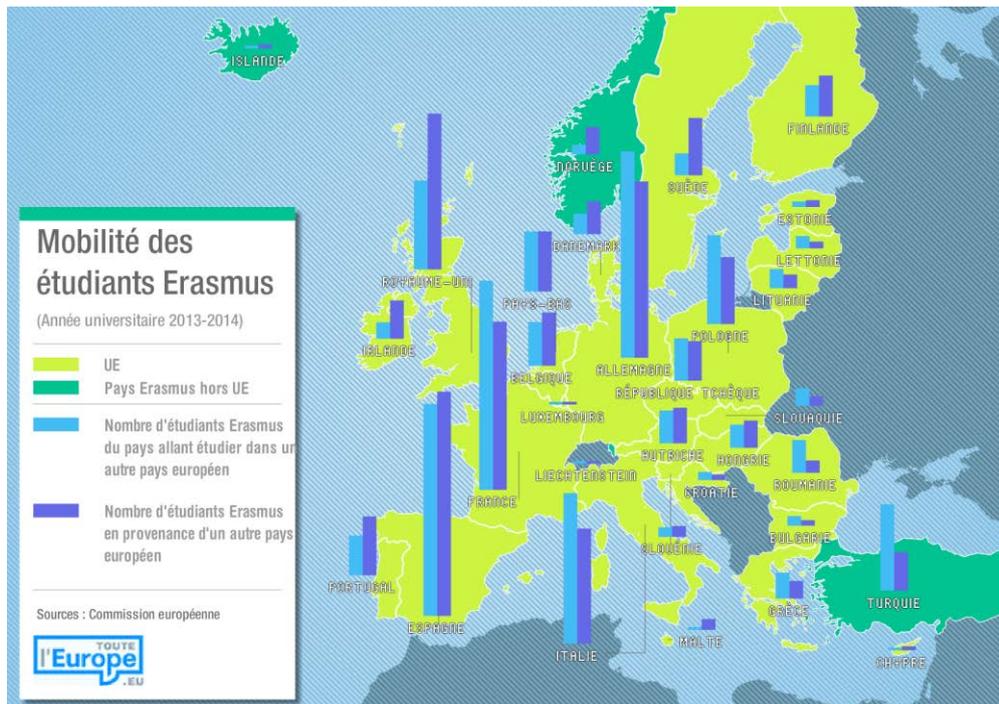
Figure 2: Erasmus: Exchange students and teachers in Europe

Thanks to this program, now nearly thirty years old, 3.3 million European students have studied outside their homeland. The number who do so each year has constantly grown: it took fourteen years to reach the first million, seven years to reach the second, but only four to reach the third.⁶ Every year, nearly 300,000 students now study outside their homeland for a period ranging from one month to a full academic year. See figures 2 & 3.

⁶ The map (in French) of inbound/outbound students under the Erasmus program is available at: <http://www.touteleurope.eu/actualite/la-mobilite-des-etudiants-erasmus.html>

Figure 3: Foreign exchange students under the Erasmus program: Outbound and inbound for each country (academic year 2013-2014)
 EU member states are in yellow-green; countries that are not member states but participate in the Erasmus program are in green.
 The dark blue bar indicates the number of students coming from another land to study in the country; whereas the light blue bar, the number of students from the country studying in another land.

Source: European Commission



This uninterrupted growth in the number of Erasmus exchange students holds, too, for France. In the 2013-2014 academic year, there had never been as many students from the Grandes Écoles who went to study in another European land: 29.000, a 45% increase in comparison with two years earlier.⁷ In turn, there had never been as many students from other European lands who came to study in the French Grandes Écoles: 14.000, a 15% increase during the same period.⁸ This means that, each year, 10% of students in engineering or managerial studies take part in intra-European exchange programs. By extrapolating from the data as a function of the number of years (3-5) of schooling in the Grande Écoles, we assume that a third of the graduates from these institutions have been involved in intra-European exchange programs.

When, in 2014, a French panel was asked about Erasmus,⁹ its members, from 16 to 65 years old, spontaneously mentioned it as the third best known EU achievement after the euro and the Common Agricultural Policy (but nearly on a par with the latter). When those who had benefitted

⁷ The most recent academic year for which data are available. Conférence des Grandes Ecoles, *Les Grandes Ecoles sur la scène internationale: Enquête mobilité 2013*, 122p. Available at: www.cge.asso.fr/document/1488/enquete-mobilite-2013.pdf

⁸ I might mention in passing that, since the Grandes Écoles represent 10% of students in higher education in France (250,000 out of a total of 2.5 million), they are overrepresented in the number of outbound students from France (nearly 30%). This is evidence of the importance of intra-European mobility for these establishments.

⁹ TNS Sofres, "Image d'Erasmus en France pour l'agence Europe Éducation Formation France", March 2014, 21p. Available at: <http://www.tns-sofres.com/sites/default/files/2014.04.09-erasmus.pdf>

from Erasmus were asked whether they would recommend it to friends or acquaintances, 90% answered “yes, definitely so” and 10% “yes”. An overwhelming consensus!

The only criticism of Erasmus was about the relatively low number of beneficiaries — the program’s only weak point. The budget has increased over the years (and never decreased) despite regularly occurring problems, when member states have difficulty reaching an agreement on the EU budget or when one or more of them use the program to exert pressure on the EU for decisions on other issues.

In conclusion: Let the Erasmus students at Télécom ParisTech speak...

In the current period when the EU’s very foundations are being seriously criticized — Brexit, Grexit, the closing of borders (worse yet, inside the Schengen free-travel area), the rise of nationalisms of all stripes in several lands, the lack of a joint position on international crises, and this list could go on and on... — we gladly notice that higher education is a policy field where Europe is still being built.

ATHENS at ParisTech

Invented twenty years ago, in 1996, the “ATHENS week” (Advanced Technology Higher Education Network/Socrates) is a cultural and scientific program offered twice a year to students in the second and third years of training at the ParisTech engineering schools and other European universities. ParisTech (for nine out of the ten schools now in the consortium) manages the network of establishments involved: 14 universities of technology on continental Europe — among the two or three best in each country, for instance: Delft University of Technology, Universidad Politecnica in Madrid, Politecnico di Milano, Technische Universität München, Norwegian University of Science and Technology and the Vienna University of Technology.

Each year, approximately four thousand students take part in this exchange program. Nearly half of them take courses in another country at an institution in the network. This exchange program consists of a week of courses and a program of cultural activities organized by the host institution. At the end of each session, the course work is validated (between 1.5 and 3 ECTS credits) by the student’s establishment of origin.

Since its foundation, this exchange program has involved nearly fifty thousand students. Year after year, it attracts more and more participants. It is a good example of success for ParisTech, but it is also an achievement, namely the europeanization of higher education.

Beyond student mobility, a project, on the initiative of Mines ParisTech, is being designed for a tighter network of half a dozen European establishments (including ParisTech).

I recently organized a meeting with the dozen European students (Greeks, Italians, Spaniards, Germans and Swedes) enrolled at Télécom ParisTech to ask them what Europe meant to them. The size and makeup of this “sample” do not, obviously, enable me to claim that what was said accurately reflects what a majority of young Europeans think. However there was sufficient convergence — despite the cleavage between northern and southern Europe (which also crops up in public opinions in Europe) — that I would like to present the principal responses as a conclusion to this article.

First of all, these students declared they were deeply pro-European, more so than their parents. They were fully aware that building Europe has brought peace to the continent. According to them, the diversity of languages and cultures inside Europe is, of course, a source of complexity; but as a counterpart, it has made us more tolerant.

What stood out the most was their unanimous answer when they were asked which EU decision had best contributed to creating an *affectio societatis europeana*. All of them mentioned the lifting of borders inside Europe and the resulting freedom of circulation. These were the strongest decisions, far before the creation of a single market or even of a single currency (four of the five countries represented in the sample were in the eurozone).

Figure 4: Poster of the movie, *L'auberge espagnole* (*Potluck*)



Our generation did not experience WW II, and during the second half of the 20th century, Europe was not an obvious necessity — unlike for the EU's founding fathers for whom peace in Europe involved reconciling its peoples. Nonetheless, the changes in student mobility and in the mind-set of millions of students who have benefitted from the EU can be seen as a message of hope for the long-term construction of Europe. By keeping company in the same *auberges espagnoles*, in the same *biergarten* or at the same French fry stands, millions of students will end up building a mighty good Europe!