Szenarien-Diskussion

OECD Szenarien

(Quelle: OECD, The Future of Higher Education – Progress Report, 5.10.2006, EDU/CERI/CD(2006)8)

Scenario 1
Open Networking

In this scenario, higher education is very internationalised and involves intensive networking among institutions, scholars, students and with other actors such as industry. It is a model based more on collaboration than on competition.
The increased networking of institutions and the gradual harmonisation of systems allow students to choose their courses from the global post-secondary education network, and to design their own curricula and degrees. Within some restrictions, as set out by the academic profession in international conventions, students have a great deal of autonomy. They often study abroad and take courses offered exclusively online, which can be completed anywhere.
New technologies have brought about changes in approaches to teaching, especially at undergraduate level, with standardised courses often delivered online, and different use of classroom time with more small seminars and interactive discussions, and more time spent with students on their individual projects.
This modularisation of studies is both enabled by and reinforces the development of English as the lingua franca in education. Many courses are indeed delivered in English even in non-Anglophone countries.
Advanced vocational education institutions have created similar international networks and have become more like general higher education institutions.
International collaborative research has been strengthened by the dense networking between and among institutions, driven by the availability of free and open knowledge. There is still a strong hierarchy among higher education institutions: some institutions or research departments attract more funding and have better working conditions and higher prestige. Institutions do still tend to partner and network primarily with institutions of similar prestige.
At the same time, technology-driven networking allows those institutions not focused on research (including institutions in developing countries) to benefit from advances in knowledge. Academics and students in higher education institutions with fewer resources have remote access to research and research tools previously only available in well-resourced institutions. Research data are available on the Internet in real time; new data sets can be re-used by academics and students for new research; simulation, computing
and visualisation tools are accessible to all.

Key drivers of change
The .Open Networking. scenario could be driven by voluntary co-operation between and among countries and institutions leading to the gradual harmonisation of higher education systems. Increased co-operation creates more trust and understanding among higher education institutions over time, and leads to the easy recognition of foreign educational offerings.

International networks are facilitated by lower costs of communication and transportation and by information and communication technology. They could also be strengthened by the ideal of open knowledge, an ideal that civil society and academics have increasingly imposed on the grounds that academic research is largely supported by taxpayers and should thus be freely available.

Related developments

! The Bologna process in Europe has induced some harmonisation of study paths, and has influenced similar developments in other regions of the world.
! International academic partnerships and consortia have developed quickly in the past decades, as well as study abroad periods.
! Rapidly increasing computing power combined with fast and cheap communication allowed by the Internet is opening new avenues for education and research.
! A culture of openness challenging traditional ways to manage intellectual property rights is gaining ground.

Questions

! Would this model be sustainable economically in a knowledge economy?
! What forces could drive differentiation (rather than convergence) in such a system?
! What are the incentives to ensure that the networks do not serve the interests of their members only and do not reproduce the national hierarchies at the global level?
! In what geo-strategic context could such a model thrive?

Scenario 2
Serving Local Communities

In this scenario, higher education institutions are focused (or refocused) on national and local missions.
They are embedded in their local and regional communities, and are dedicated to addressing local economic and community needs in their teaching and research.
As is currently the case, higher education is mainly publicly funded and administered. Academics are treated as trusted professionals and have control over the education and research processes. A small number of .elite. higher education institutions and research departments are linked to international networks (although there are now some barriers to internationalisation), and maintain their position in top national ranks. The average higher education institution, however, focuses teaching and research on the needs of the local community and region.
With reduced international and research ambitions, funding has become less of an issue. Local authorities and businesses are keen to support local institutions; recreational courses also generate some revenue.
Universities and polytechnics are on more or less the same footing, as universities have a less intensive role in research than they used to. Both types of institutions respond to their communities by working more closely with industry to design relevant initial and lifelong training. They also offer more recreational education for elderly people. In regions with ageing and shrinking populations, higher education institutions have not disappeared as was once predicted.
The scope of academic research has diminished somewhat (while research has regained ground in the government sector). Research in strategic areas such as physics or engineering is relocated in the government sector, and international collaborative research continues with a more limited number of .friendly countries. University-based academic research is focused on humanities and social sciences, two fields valued for maintaining national culture. Academics continue to conduct research, but teaching is their primary objective, and research, a welcome by-product.

Key drivers of change
The .Serving Local Communities. scenario could be driven by a backlash against globalisation.
Governments place a strong emphasis on the national missions of higher education. There is growing scepticism in regard to internationalisation in the general population for a variety of reasons including recent terror attacks and wars, concerns about the growth in immigration, frustration about outsourcing and the feeling that national identity is threatened by globalisation and foreign influence. For geo-strategic reasons, governments launch ambitious new military research programmes and give security classification to an increasing number of research topics in natural sciences, life sciences and engineering.

Related developments
! Migration is at the centre of heated political debate in many OECD countries and not always well accepted by populations.
! There is a growing anti-globalisation movement based on cultural and economic grounds, and geo-strategic concerns have come back to the fore in the last decade.

! The regional and national missions of higher education are increasingly highlighted in the policy discourse and higher education is increasingly asked to play a more important role in fostering social cohesion.

Questions

! Would this lead to greater inequalities within countries (with rich regions only being able to afford rich universities)?

! What would this disconnection from international networks imply for the progress of scientific research?

! What would this refocus imply for the most internationalised countries, especially when they face a demographic decline?

Scenario 3
New Public Responsibility

In this scenario, higher education is primarily publicly funded, as is currently the case, but there is a greater focus on the use of .new public management. tools, including market forces and financial incentives.
Higher education institutions are autonomous (or legally private). They still depend on the public purse for a significant share of their budget. However, institutions have taken advantage of foreign education markets, the deregulation of tuition fees, the patenting of their academic research and their growing financial links with industry to diversify their funding sources.
The boundaries between public and private higher education institutions have blurred, as most resources of university are private, coming from student tuition, and support from business and private foundations.
Students and their families pay a significant share of the cost of their studies, with the possibility of financing some or all of their education through income contingent loans.
Institutions are more accountable to the state as well as to other funders. They are also more attentive to the learning needs of students of all ages and with a wide range of learning needs. While reputation in academic research is still institutions prime competitive advantage to attract the best students and set their level of tuition fees, other factors such as quality of teaching and employability are increasingly taken into account by students and their families.
The division of labour between (or within) institutions is more marked, most of them specialising in different missions in teaching and research, a differentiation that does not necessarily prevent all of them from continuing to carry out both research and teaching. Most higher education institutions continue to allocate some research funding internally on their own funds.
But the bulk of the allocation of public funds for academic research is generally from external sources, financing specific research projects and awarded according to competitive peer-reviewed processes. As a result, there is more national competition for research funding among a smaller number of higher education institutions. Only a small amount of research funding crosses national borders, except within the European Union where the recently created European Research Council funds an increasing share of European academic research.

Key drivers of change
In the .New Public Management scenario, the shift in public governance could be based on mounting budget pressures created by the ageing society. First implemented with success by a few countries, this doctrine of public management calls for institutions operating at arm’s length from national government with a mix of public and private resources.
Accountability, transparency, efficiency and effectiveness, responsiveness and forward vision are the golden standards of good public governance. Rising public debt has shifted a significant part of the cost of higher education from government to other education stakeholders, especially students and their families.
In ageing societies, the costs of health and pensions are now the primary government spending priorities.

Related developments

! Cost-sharing is under debate in many OECD countries and some countries have recently introduced or raised tuition fees to increase the financial resources of institutions.

! Higher education institutions have been given more autonomy from national governments and in some cases have been legally privatised (while still highly dependent on governments for their funding).

! Higher education institutions are increasingly being encouraged to be more entrepreneurial in research and education.

! Research funding is increasingly allocated to specific projects through competitive processes rather
than as block grants to higher education and research institutions.

Questions

! Is there a tipping point after which real markets would replace quasi-markets, and governments lose some or most of their control over the system?

! At what point should the concentration of research capacity in a few higher education institutions be encouraged?

! Could this model allow the systems to become more responsive to the diversity of individual, social and economic needs (research, initial education, lifelong learning, elite and special needs education, etc.)?

Scenario 4
Higher Education Inc.

In the scenario, higher education institutions compete globally to provide education services and research services on a commercial basis.
Research and teaching are increasingly disconnected, as they have always been in the General Agreement on Trade in Services (GATS). Higher education institutions concentrate on what they consider to be their core business, either teaching or research. Research universities thus hardly teach (if they teach at all), whereas most vocational and general institutions concentrate almost exclusively on teaching.
Most segments of the market are now demand-driven, with business-like methods (responsiveness to customer needs, attention to effective management and administration of the institution, etc.), while the most prestigious institutions continue to be more supply-driven and managed through peer assessment.
Governments still encourage and subsidise research and teaching in areas where there is little commercial interest, such as archaeology and Sanskrit. But following the principles of free trade, these subsidies should not distort trade in commercial research and education. Vocational education has a significant share of the global market for education.
There is fierce competition for students. Many universities are opening new institutions or branch campuses abroad, franchising educational programmes, etc. Individual institutions and even whole higher education systems specialise according to their competitive advantage. An international division of labour is emerging, with some countries earning reputations for high-quality undergraduate education, while others are competitive in training postgraduate students and conducting research.
Formerly emerging countries are developing competitive advantages in selected/specific research fields (for example, technology in India, agronomics in China, etc.) and outsourcing research has become common practice. India and Singapore are large exporters of education services in the developing world.
In the research segment of the market, there is fierce international competition for super-star academic researchers. Basic research projects are still funded by governments, but following a tender to which all research centres in the world can and increasingly do apply. The research sector is rapidly becoming concentrated. International rankings play an important role in informing students of the comparative quality of different educational offerings.
Finally, English has become the language of research and postgraduate studies, while local languages are still used in vocational and undergraduate teaching. Most cross-border higher education institutions and programmes operate almost exclusively with local staff of the receiving country.

Key drivers of change
The .Higher Education Incorporated scenario could be driven by some form of trade liberalisation in education. Originally pioneered by a few countries, trade in higher education has gained ground and become more pervasive. An increasing number of governments have decided to liberalise the higher education sector and even commit themselves through the GATS negotiations at the World Trade Organisation or bilateral free trade agreements.
An international marketplace for higher education and academic research services thus emerges on a commercial basis. Such a change is facilitated by low transportation and communication costs and the increasing migration of people. It is also facilitated by the rise of private funding and provision of higher education, which

has led to the growing recognition that higher education services were not very different from other types of services. At one point, stakeholders felt that there was no longer any reason not to open these services to worldwide competition, as has happened for other formerly public services.

Related developments

! Education services and research services are already included in the GATS negotiations.

! Countries such as Australia, Malaysia, New Zealand, Singapore, and the United Kingdom have turned or are trying to turn their higher education sector into an export industry. Cross-border higher education now represents an economic stake: student mobility alone was estimated at around 40 billion US dollars of export revenues.

! Programme and institution mobility under commercial arrangements has grown significantly in the past decade and full tuition fees for mobile students are put in place in an increasing number of countries.

! The competition to attract foreign students has grown over the past decade.

! Cross-border funding of research and private research activities has increased in the past decades.

Questions

! Are all systems equally equipped to compete globally in education and research?

! Will all countries be able to retain some national educational and research capacity?

! What would happen to areas of human knowledge that are not commercially viable?

! How would national cultures and languages be kept alive?

CHEPS-Szenarios

(Quelle: **Jürgen Enders, Jon File, Jeroen Huisman, Don Westerheijden (Hrsg.),** The European Higher Education and Research Landscape 2020, Scenarios and Strategic Debates, CHEPS Enschede, 2005

Centralia, the City of the Sun

Don F. Westerheijden, Jasmin Beverwijk, Harry F. de Boer and Marc Kaulisch

The greater part of the city is built upon a high hill, which rises from an extensive plain, but several of its circles extend for some distance beyond the base of the hill, which is of such a size that the diameter of the city is upward of two miles, so that its circumference becomes about seven. On account of the humped shape of the mountain, however, the diameter of the city is really more than if it were built on a plain.
It is divided into seven rings or huge circles named from the seven planets, and the way from one to the other of these is by four streets and through four gates, that look toward the four points of the compass.
Tomasso Campanella, *The City of the Sun* (1623)

Jolly Old World

Europe in 2020 is the Jolly Old World. There is a greying but rich population with much leisure, living in a patchwork of small and large countries with long histories and many different languages and institutions, even though many of the countries (37 since the accession of Moldova and Belarus in 2018) are united in an increasingly strong European Union. Time travellers from 2004 would easily recognise Europe and mostof its higher education and research infrastructure, though perhaps not the names above the entrances. The majority of universities and public research centres have remained as public centres of discovery and knowledge dissemination, but often as sites or campuses that are part of large (national) institutions. The big institutions regularly cooperate in international associations or consortia – often under the friendly but firmguidance of EU civil servants from Brussels.

Students and Structure in a Multi-Level Government Structure

Student numbers have declined in the last years before 2020 due to the demographic shifts already in motion at the end of the 20th century. The reduction only became noticeable in the last couple of years as the participation rate of young people in higher education simultaneously rose to over 60%. The positive trend of the first 15 years of the 21st century was reinforced by the remarkable growth in mature students, since lifelong learning became the actual standard in Europe's dynamic knowledge economy.

Yet that source of growth also proved to have limits, even though with 'life-long' we now mean learning until two to three years before retirement, which is 71 to 73 in most EU countries, except Italy that is still trying to catch up and stands at 68 at the moment. Yet at the same time, the working week is reduced to 32 hours for every employee above 51–56 (depending on the collective agreements in the different industries). It is this fair share of leisure that makes Old Europe so jolly. Universities have jumped in with study programmes not only for career-related teaching (usually in cost-covering contracts with employers), but also as social service to 'third age' citizens seeking to use their leisure time intellectually and creatively. In this way the European linguistic and cultural diversity was promoted in this mostly innocent sphere of life, which acted as an outlet for 'neo-arcadianism' (explained below), while

most EU support went to economically more relevant areas of study. However, in Jolly Old Europe, that means not only technology and the like, but also ‘quality of life’ industry (health, (cultural) entertainment, tourism, etc.).
The reduction in student numbers took place notwithstanding the growing demand from students in Southeast Asia, but in the global risk society (a popular euphemism for the never-abating fear for terrorism) the EU has implemented a restrictive visa policy: only accepting students wanting to migrate to Europe permanently in order to fill in jobs in branches of industry where labour shortages are most pressing and cannot be alleviated by further ‘technologisation’ to increase productivity, but discouraging mobility only for study. Some countries in the North and West (UK, Ireland, Sweden, the Netherlands) are slightly more open, as they have entered Vocational and Higher Education on their EU-list of official state-export products. But that does not show in the aggregate EU statistics. Registration has become necessary in the post-GATS, public, controlled-trade world. Globalisation as such has not ended, of course, but in the global risk society, free movement of persons across ‘world blocs’ has almost come to a standstill at least to the most integrated ‘blocs’, i.e. the USA and the EU.
Movement of goods and especially information is where the bulk of globalisation since 2000 is to be found – those movements that can be strictly controlled without infringement on the *habeas corpus* principle.
Study programmes are organised in Bachelor, Master and Doctorate levels (B, M and D). After some debate in the first decade of the century, 3+2+3 became the standard structure, although officially it is expressed as 180+120+180 ECTS. The Commission of the European Union as the ultimate authority standardised this structure, but in a brilliant dialectic move (or was it a political compromise?) made the whole $x+y+z$ discussion obsolete at the same time: it is the graduate’s competence as shown in the European Graduate Competence Test of the appropriate level (EGCT-B, -M, -D) that determines whether students get the right to be awarded an officially recognised degree. European-wide acceptance by all ministries of education of the EGCT was the main achievement of the Bologna-II process 2010-2015, which was led by the staff of the European Union Commissioner of Knowledge & Innovation Society. The EGCT itself has become another successful ‘export product’ of the Brussels Directorate-General Knowledge & Innovation Society (DG-KIS) to EU-associated countries such as Russia, Kazakhstan, and Northern Africa from Egypt to Morocco. The DG-KIS is an outstanding example of the new type of government organisation that has emerged: a clear and strong role for government and its programming and planning instruments along with the associated budget mechanisms, regulation and coordination among the many levels of government from the EU down to countries, regions/states and municipalities. But the DG-KIS is also apt to work in partnership with the private sector. Of course, in public-private partnerships the DG-KIS tend to take the leading role even when working with global companies, but they adapt easily to the market mores and regularly use well-designed price mechanisms as a governance instrument as well. Moreover, as the EGCT example shows, they are quite confident about the quality of their policies and engage in policy export to parties outside the EU.
Most teaching takes place on-campus and face-to-face, although ‘blended mode learning’ with a strong ICT component is widely used in about half of the EU thanks to the Terabyte Public European Subscription Network that (though not free!) reaches almost every home in the Northern and Western parts of the Union. Students are carefully guided through the programmes. This is not just a consequence of careful module design resulting from prior experience with online course design. With the

ever-smaller age cohorts, the European knowledge economy cannot afford to lose any talent and The EU's Talent Programme has stimulated universities in this respect.
Moreover, in the standard public-private partnership mode ('standard' meaning with a leading role of the public partner), the EU has enlisted the cooperation of the private sector. Companies can and do give (tax deductible) stipends to promising students.
This happens anonymously to ensure fairness. Students are selected for stipends through the national and European Talent banks – online databases of all students' study results, making their study a continuous competition for these generous stipends.
Next to the tax deductibility, acceptance of such stipends means that the graduates promise to work for at least three years after graduation with one of the companies in the Talent Stipend Fund. The EU's civil service is one of the main contributors to this Fund, and one of the most popular destinations for the Talent Programme graduates, because of its high salaries, cooperative work atmosphere, and important role in the European society ('you really make a difference to Europe's society', as respondents in the annual EU Graduate Labour Monitor often say).
In some EU countries, which, persisting in their national traditions have few legal barriers against foreign direct investment and foreign university campuses, there are some campuses of non-EU higher education institutions.**1** In these countries, significant portions of students (ca. 15%) take their higher education degrees in foreign operated institutions. Many of those students, once they have graduated from the more prestigious international higher education institutions, start dazzling careers in international businesses. Graduates from public universities more often enter civil service or tertiary industry (private service industry) for the European market – still not bad for a career; a higher education degree and subsequent life-long learning trajectory remains the best gateway to a good career. A minor observation – it is so selfevident:
– practically all graduates make a career. In the European knowledge economy everyone finds jobs where their competences come to good use (in other words: there are no problems of unemployment or over-schooling. The career situation is less bright only for those who have fallen for the shrewd marketing of less-reputable non-European private higher education institutions,**2** especially active in the South and East of the EU. While diploma mills have been almost weeded out through strict fraud control and accreditation, some prospective students apparently do not read the official online database. After all, not everyone has access to the Terabyte Network, however much the EU has tried to make it affordable for all even in the poorer regions of its area.
The obligatory semester in another EU country aside, more than 85% of students take their B degree and 70% their M degree in their home country. **4** At the D level, the European Research Council clearinghouse ensures that the best candidates get to the best places all over the EU and that they get appropriate grants or stipends.
Which brings us to the matter of fees. The dazzling international careers of private university graduates make up for the tuition fees that are usually much higher in the foreign private universities than in the public ones – on average. In the EU countries, universities are free to set their own fee levels – within governmentally defined limits.
Ranges are rather large in Northern (coming quite a long way since Sweden's 1977 reforms and Network Norway days) and Southern Europe, but narrow remarkably in the Rhinelander democracies of western continental Europe and in the East. Limits to fee ranges are argued on the ground of social justice (no barriers for entry) and to keep the governmental universal student support systems, which were introduced in

all countries to facilitate EU-wide 'portability' within limits (the higher the average fee, the higher the average support per student).**5** In 2006, the European Cartel Agency decided that fee levels in any one study programme within a university must be the same for all students: same product, same price principle. European Court cases against fee differences between universities, built on the argument that uniform accreditation means uniform products, hence uniform prices, have however been rejected as they would support collusion. There seems to be a fragile balance between university autonomy, anti-cartel rules and the different governments' roles in upholding social justice. On the other hand, no means-tested exceptions were allowed by the Cartel Agency; the European Court is expected to decide on that in a test case late in 2020. Chances for the plaintiff, a young student of physiotherapy from new EU member country Albania, are expected to be slim but one never knows with the intricate multi-level European legal system.

Quality Issues

Until now, the uniform degree structure did not mean uniform higher education quality. Generally, there is a gradient with high level (D) teaching and most basic research taking place in the North and West of Europe, while universities in the South and East are more frequently limited to B-level teaching. Some universities in this latter region, however, are in higher education tiers; often those situated in national capitals. This is clear from the data of the EU's Aalto-classification.**6** Many development and innovation laboratories are, however, located in the South and East, because of the cheaper mid-level researchers there; their high-level colleagues in the North and West are daily video-conferencing with their team members through the Terabyte Network and regularly take the (cheap) plane or high-speed train there. Some companies have shifted their R&D capacity to the South and East completely, using the lower costs of living and the pleasant climate to attract even the high-level researchers. For this reason, in recent years the Constantia-Varna Strip on the Black Sea coast of Romania and Bulgaria has become a popular high-tech area.**7**

Formally, the European higher education system has an elite D-university**8** sector with strict academic selection criteria next to an officially equally selective but in practice open higher education sector (B- and M-universities).**9**

The European Accreditation Agency (EAA) tries to impose common standards on its national or regional subsidiaries, focused on employability competences as quality criteria, but with a 20% time for '*Bildung'* requirement in the B-phase (in practice mainly taken up by the training for the obligatory language test for graduates**10**), going down to 12% in M and 8% in D-phases.

But the practice is sometimes harder than the principle. A big group of D-universities from the North and West have petitioned with the Commissioner of Knowledge & Innovation Society – and lobbied in Brussels together with their national governments, which were eager to gain academic prestige for their country in the friendly yet serious intra-European competition – for a separate, higher, status, saying that the EU-quality standards 'were not a challenge' for them. They achieved such status in 2014. On the other hand, regional and national authorities in less-privileged areas of the EU and associated countries keep lobbying for local quality criteria to be accepted rather than the strict application of the immense set of EAA criteria. Luckily, only eight of the new-generation DVDs can store all the qualimetric**11** information, which otherwise would take a truckload of paper reports – or almost a whole night of online sending even through the Terabyte Public European Subscription Network (most universities prefer to use the 4thG-DVDs, as the universities' institutional managements are very strict on economy, while data-

intensive corporate use of the Terabyte Network is expensive.**12** Interestingly, private accreditation agencies have not made much of an inroad in Eastern Europe, but have been able to gain market share in the more profitable up-end of the market in Western Europe, where they can give highly esteemed (and highly-priced) additional accreditations to Europe-wide recruiting D universities, who see the collection of multiple accreditations as a successful strategy in the race for worldwide academic prestige.

Most universities are satisfied with the current state of accrediting all programmes, but only at eight years' intervals. A long cycle proved to be necessary for accreditation agencies to reduce their workload. Originally they advocated an 18-year cycle, but this could be dramatically reduced by the qualimetric revolution and associated semiautomatic renewal of accreditation based on computerised data analysis. Site visits are only added for new programmes and in smartly sampled cases.

After all these years, there still is no clear correlation between accreditation status and student demand for places in individual universities. In the dwindling student market, large sums are therefore spent on marketing universities especially through Personal Communication Aides,**13** the Internet, on Euro-satellite TV and, in some less 'knowledge-economy intensive' regions, even in old-fashioned radio and newspapers.

This may seem contradictory in the public sector, but in most national higher education systems, government funding is connected directly or indirectly to student numbers and/or graduates to keep them teaching-focused (not easy with the prospect of dwindling student numbers and the exciting earning opportunities in knowledge economic research). EU basic grants (not the earmarked project funds, of course) in turn often match national funding algorithms. Marketing is therefore an instrument in governmental budget maximisation games.

A little more needs to be said about student access. Next to the access of young students with secondary education diplomas (which have superseded entrance examinations, as they give higher value to social justice), access based on recognition of previously acquired competences has become very important to all universities throughout Europe; again resulting from the smaller pool of young students but also because life-long learning has become such a standard practice. Brussels has organised recognition of prior competences through its European Universal Qualifications Framework (EUQaF). The EUQaF is in 2020 still experimental, as it proved to be extremely complicated to find a common denominator amongst the more than thirty national frameworks. The EU has been working on the EUQaF since 2005, the moment such qualification frameworks had to be introduced nationally according to the Bologna process.

For exchange of individual modules there is a radical extension of ECTS for the integrated sectors of Vocational and Higher Education (ECTS-VHE).**14** This lies at the basis of the obligatory Semester Abroad, mentioned before, but also helped students to 'mix & match' course modules from different universities all across the EU. This now is a widespread practice, and almost 76% of B-students take one or more modules from universities abroad (1.12 on average), even though, again as mentioned already, most degrees are finally taken in the home country. In total 89% take some modules at other universities, including other universities in the home country. Note that in the dominant blended learning mode, taking a module at a foreign university means only a limited time abroad and much work from behind the PCA at home; local particularist value sets are only slightly influenced in this practice.

Still, the increased mobility of students (and especially graduates!) clearly has helped the social cohesion within the EU (strengthening the 'neo-arcadian' trend).
But let us get back to education. In quite a few cases, B-universities in the South and East have been successful in reaching EAA accreditation standards by using standardised course modules produced by prestigious public D-universities in the North and West, which are distributed by equally prestigious commercial publishing houses from the same countries. Typically, content is made in Germany; language editing takes place in Ireland; design in Italy; software is made in Bangalore, India; then all is printed in Hong Kong, packed in Vietnam and transported back to Europe by the All-Korean merchant fleet). Still, graduates from these universities do not perform well in the European civil service concourses. These biannual concourses are the *de facto* quality standard in most disciplines, on top of the European Graduate Competence Test, as candidates' concourse results are used not only for access to the EU civil service, but also for other semi-independent European agencies, universities, and even by many private companies to determine eligibility for jobs. Recent educational research (Hendriks *et al.*, 2018) suggests that the face-to-face teaching still in use in those parts of Europe cannot transmit the same type of information-age competences that are being tested in these European concourses (which of course take aimed at enhanced cooperation in vocational education and training place online, through the Terabyte connection). TV journalists when interviewing Hendriks maintained that the large unexplained variance in her research was explained very easily by the corruption in entrance processes and examinations. Hendriks riposted that corruption to gain entrance or degrees, if any, must be on the way out now that higher education is becoming a buyers' market in the new demographic conditions. Some politicians nevertheless have picked up on these research results but been unable to gain political support to investigate corruption due to the combined opposition in the European Parliament of the last remaining populists and the 'newarcadian parties' that have been on the rise in recent elections.

Interlude: The Neo-Arcadian Political Context

Jolly Old Europe has seen some important political changes in the years before 2020.
As the Japanese News Network (JNN) recently said in a documentary about Europe, it is an area that is inward looking and friendly, but difficult to access for outsiders. The 'Neo-arcadian parties' is the label given to the collection of parties (comprising many different ones, from right to left) who have a paternalistic (or maternalistic) view on politics for European societies: focusing on common values, solidarity within Europe, an important steering role for the government, and downplaying the role of global competition (while paying lip service to the belief that competition is good to raise quality of service). 'Neo-arcadian' politics are the next step after harsh populism. Sociologically speaking, it depicts Europe as a *Gemeinschaft* rather than as a *Gesellschaft*. Yet only insiders know that this is mainly rhetoric. Behind the gentle public political façade the 2007-2011 technocrat take-over in Brussels led to silent competition with the USA. But as usual, if two dogs fight for a bone, the third runs away with it, and East Asia is really the economic and knowledge world power by its force in numbers, however much progress the EU has made in top-level quality for the knowledge society.
In higher education and research 'neo-arcadian' politics especially means a focus on the public good character**15** of education and basic research, equal access for all income classes and all EU member state citizens, and barriers for foreigners on the European market. The 'neo-arcadian' trend expresses itself in university

management especially in the regular overhaul of universities' mission statements. They all emphasise the critical role of the university in society, but according to the 25th anniversary web site of the EUA Institutional Evaluation Programme (web site accessed in October 2019), its institutional evaluation teams found the phrases were neither connected to the actual EAA quality criteria that define the study programmes, nor to the research programmes in the faculties governing basic research, nor to the University Ethics Committees'**16** control over teaching and research contracts with industry. And behind the scenes strict economy remains the bottom line of institutional management.

The EU has continued its slow but inexorable rise to importance. Around the turn of the century, about 50% of regulations were already influenced by the EU. In 2020 this has risen to more than 75%. The legitimacy in the eyes of the general public of 'Brussels' has risen much after the four-year European Governance Crisis – and rightly so – although quite fitting with the 'neo-arcadian' trend there is simultaneously a strong emotional binding with local values, languages and institutions. This governance crisis was caused by the accession of five Southeastern European countries in 2007 and led to a stalemate in all political forums (the councils of ministers, especially, did not succeed in making a single decision all that time). The crisis ended with the signing of the Dubrovnik Treaty, also called the Croatian European Constitution, because a constitution delineating powers and responsibilities in the EU is what it was, in fact. In the four years of this crisis, the DGs and their civil servants in Brussels actually gained a lot of room to manoeuvre, and they have not given up this power position in or after Dubrovnik. It was all for the benefit of Europe, as the highly-talented civil servants could move much faster when they were not hindered by the political decision-makers who were too busy disagreeing, vetoing, and placating their respective national audiences. Since then, the Bologna and Bologna-II processes picked up speed, the EAA was established, etc.

Organisation of Higher Education and Research Institutions

Most higher education and research organisations have grown much in size since the beginning of the century, such as through mergers – either voluntary or 'stimulated' by national and European governments. Smaller countries now have a single national multi-campus university. In larger countries, regional governments have reached similar solutions (the federal University of Wales became an unexpectedly popular study object, but in most cases the governments preferred more centralised universities). Mergers made economies of scale possible in administration and some in the primary processes of research and teaching, but especially in development of teaching materials, which has become much more elaborate because of the careful blended learning concepts needed for the Talent Programme. The latter move has even gone further, as mentioned before, making some universities specialise in developing materials that are now used all over Europe. Another advantage of merging was that it gave a safer position (larger 'cushion'), which could be useful for global players in the North and West. We mentioned that in some EU countries, higher education and research are official export products. For this reason, the Oxbridge merger finally took place in 2013, making the two oldest British universities a powerhouse in research that could take on any competitor from the USA or Asia.

At the same time, their safe inclusion in the public sphere keeps the universities and research institutions relatively simple: enough so to be centrally managed successfully.

Relations with external stakeholders are important but the border of the organisation is clear: management is on the inside and stakeholders remain on the outside.
Institutional management has developed into a career path, mainly for academics that have taken an additional M degree in higher education management (most from Bath, Kassel or Valencia). Some positions in university management are given to representatives of external stakeholders (industry, but especially governmental agencies from Brussels). The continued emphasis of institutional governance by academics (albeit academics with a management-career outlook) did much to keep academic freedom a major value in the universities. Another development showing the same value orientation was EU subsidies and intellectual freedom regulations (not only education but also knowledge is a public good). The majority of scholarly journals published in Europe have been wrestled out of the control of globalised publishing houses and come back into academic ownership.
Personnel policy has grown in importance for the universities even though civil service status ('tenure') remains the dominant mode of employment. Staff mobility is considerable owing to big salary differences across countries and across universities (D-universities of course pay much more than M-universities, which are still better employers than the poor B-universities in any country), together with the transparent (since 33 of 37 EU member countries use the Euro currency) and barrier-free European labour market.**17**
The bottom-line nevertheless remains the economic viability of the laboratory or university. Public enterprises cannot afford to go bankrupt – Brussels is very strict on that after some hard lessons. Therefore, many institute directors and university presidents are economists, accountants, public administrators, or from similar bottomline minded backgrounds.

Research
There is a clear distinction between the public-good type research ('basic research', a term back in fashion in the post-Mode-2 research era) in the public research facilities including D- and M-universities on the one hand and private R&D on the other.
Private R&D is of an applied nature and focused on the interest of the company. In the last twenty years, patents and other commercial-type indicators have not increased much for university researchers. External stakeholders, the same companies that help set research agendas in public higher education and research institutions, feel somewhat frustrated because EU regulations and (prestigious!) ERC grants, such as those of the 13th Framework Programme-A (Academic; as opposed to Programme-B for Business, in public-private partnership mode) keep higher education and research institutions mostly focused on basic research. The results of this rather strict separation between the public and private spheres have been quite successful in developing some of the most advanced innovations of recent years. Both (merged) universities such as the Technical Universities of Niederdeutschland and the Netherlands (TUNN) and company laboratories such as (in the same countries) the one of Philips-Siemens have made important contributions. 'Every institution its own trade' has proven to be a successful adagio. The example also shows the importance of regional (Niedersachsen and Northrhine-Westphalia, in this case) and national (the Netherlands) governments overcoming state boundaries: cross-national mergers had not been successful before 2011. As in many cases since that time, the direct intervention of Brussels (through reinvigorated Euregios) has been a key factor in this success. The Lisbon agenda, operationalised in the 3%-target of 2002, was partially successful.

The target was reached in the EU-25 in 2012 (the newer members were not counted in the statistics for this process, but they are on a rapid catch-up track well-funded by Brussels). The European economies have become quite knowledge-intensive; the societies caught up soon after by reducing the cohesion gaps between regions and classes. An important instrument in reaching the 3%-target has been the European Research Council (ERC), which disburses large subsidies for international research projects, networks and institutions. The subordinated national research councils provide mid- and small-size subsidies for research at the national level. These national research council subsidies are only open to foreign researchers in consortia with national universities. National and sub-national governments still pay the highest share of public research (in all kinds of public research institutions), some 45% of the total research budget. The total ERC and EU contribution is about 25%. Industry contracts make up for the remainder (30%), which is a constant source of tension as industries claim they pay too much. They also have to contribute to research through the substantial taxes they pay to national and European governments.

The positive picture sketched just now should not hide the fact that much R&D has gone out of Europe to cheap academic labour countries. These countries are in Asia, of course, but Latin America is not to be forgotten. The Southern African Development Council area is said to harbour the 'tigers of the 2020s'. The Lisbon-2000 aim to make Europe the most competitive knowledge economy proved to be too ambitious.

Accordingly, since 2011 attention has been geared more to minimising the information gap within Europe than on remaining competitive in the 'mass innovation' areas. Investing in the 'quality of life' areas proved to be a more successful strategy, especially given the amount of leisure of the most wealthy age cohorts in the European population. After all, we are talking about Jolly Old Europe, here.

1 The term 'higher education institution' is only used for foreign institutions of which the university status may be in some doubt. In Europe, all types of higher education institution have been rebaptized 'universities', but as will be shown below, there are significant differences between the classes of B-, M- and D-universities.

2 The reader may have missed private universities from the EU, but this is such a negligible quantity that it can be ignored here. Their already small number has dropped especially since in the Bologna-II process the principle that higher education is a public good has been taken seriously and national governments, with EU subsidies, have bought out most owners and integrated them in their public systems.

3 Obligatory for EAA accreditation. It is rumoured that the EU Commission required this quality criterion when it agreed to take over 55% of the funding of the EAA (40% being funded by the national governments involved, the remaining 5% coming from industry sources).

4 What should not be forgotten: although it falls short of the EU target of 50% mobility, it is a tremendous advance over figures at the turn of the century, when in most European countries one counted foreign B and M graduates in fractions of a percent.

5 Student support portability facilitated greatly the obligatory Semester Abroad Programme.

6 Aalto stands for Academic Accreditation List & Tertiary education Observatory, but it also is the name of a Finnish designer and (university) architect. His name may not be quite as famous as the American Carnegie, but the name for Europe's university classification signals Europe's pride of its culture.

7 We could have mentioned this example also below, in the paragraph on successful (Eu)regional innovation areas.

8 A 'D-university' is a university actually teaching at the Doctorate level in at least three disciplines. D-universities have preferential access to European Research Council (ERC) funds.

9 Compared with D-universities, they use 'equal but different' criteria of selection, more on practical or professional competences of candidates. But in practice this sector is rather open for access as the younger age cohorts have dwindled and the pool of mature students has been fully used since ca. 2017.

10 Two major European languages (usually English, and German or Spanish – the latter also useful in contacts with the rapidly growing economies of Latin American), next to obligatory introductory courses in Putonghua (Chinese). Only countries with strong foreign language teaching in secondary schools are able to use the '*Bildung*'-compartment for 'general education'.
11 As everyone knows, qualimetry was the great contribution of Professor Tatur & associates when the Russian presidency of the Bologna process finally settled the criteria & measurement conflict in ENQA, in 2009. Since the introduction of these HE-specific datasets and procedures, the discussion about ISO9000-2006 in higher education has petered out.
12 For private use, it is not expensive, through an EU-controlled pricing system. However, the Terabyte Network still is not available in all newer EU countries; works on the dedicated antennae are going on though slowly.
13 PCAs, integrating mobile phones, personal digital assistants, personal TVs, laptop PCs and the like. As one can personalise them to such an extent, the 'e' in 'aide' was added intentionally.
14 A result of the fusion of the Bologna-II and the Copenhagen processes. (The Copenhagen process
15 After all these years, economist Professor Jongbloed still has not managed to make clear to any but fellow-economists that only 'collective good' is a well-defined term; 'public good' remains a – popular – rhetoric mess.
16 University Ethics Committees (EUCs) are a structure recommended by the EUA; most universities follow these guidelines. Hard-liners saw in these UECs another sign of 'neo-arcadian' politics, others attacked them for infringing academic freedom, but the majority of academics, students and politicians see them as defenders of academic freedom and institutional autonomy against commercialisation, just like in the 1970s.
17 The third factor is language: with every university graduate, let alone university teacher/researcher speaking at least two 'major' European languages and the official right to teach in higher education in a 'major' language, a dialectic synthesis has been reached: language diversity is preserved but overcome at the same time.

Octavia, the Spider-Web City

Jürgen Enders, Frans Kaiser, Henno Theisens and Hans Vossensteyn

Now I will tell how Octavia, the spider-web city, is made. There is a precipice between two steep mountains: the city is over the void, bound to the two crests with ropes and chains and catwalks. You walk on the little wooden ties, careful not to set your foot in the open spaces, or you cling to the hempen strands. Below there is nothing for hundreds and hundreds of feet: a few clouds glide past; farther down you can glimpse the chasm's bed. This is the foundation of the city: a net which serves as passage and as support. All the rest, instead of rising up, is hun below: rope ladders, hammocks, houses made like sacks, clothes hangers, terraces like gondolas, skins of water, gas jets, spits, baskets on strings, dumb-waiters, showers, trapezes and rings for children's games, cable cars, chandeliers, pots with trailing plants. Suspended over the abyss, the life of Octavia's inhabitants is less uncertain than in other cities. They know the net will last only so long.

Italo Calvino: *The Invisible Cities* (1972)

In 2020, the idea of the University (with a capital U) as a single concept has diminished in the face of multiple missions and visions of higher education and research that have stimulated further institutional differentiation and diffusion. This unbinding of the university has strengthened the many tangible hands of networks that have become the main modes of coordination within universities as well as between institutions and other providers and consumers. True, the visible hand of the state and the invisible hand of the market have their role to play but 'networking' is now the name of the game. Today's society is not characterised by the triumph of one rationality over others – whether it is the 'market' that has metaphorically diffused everywhere, the 'welfare state' that has lost control while gaining in interconnectedness, scientific rationality or socio-technological relevance that are increasingly interwoven with each other and with society. What typifies society is the blurring of the boundaries between previously functionally differentiated subsystems that now search for new forms of horizontal and vertical integration via the web.
Simply speaking, universities are as much driven by these co-evolutionary processes**1** as they are drivers of them. These processes are themselves interwoven with the globalisation of the economy and the individualisation of the life course. It is this complex social dynamic that pushes universities to seek and create nodes that will link them with each other and with society in manifold 'elasticities'.

The European Policy Landscape

The EC (European Consortium) of 2020 consists of 37 member countries (including new members Belarus, Moldavia, Norway, Switzerland and Turkey) and 10 associate world-wide partners (including Argentina, Brazil, Egypt, Israel, Mozambique and South Africa).**2** Political responsibility for higher education and research is integrated into the overall policy networks for socio-economic development and innovation, and spread over a multi-layered web of local, (inter-)regional and (multi-)national institutions. This integrated approach to open coordination helped enormously in overcoming traditional sectoral departmentalism and the fragmentation of education, research, science and technology policies. Numerous ways of involving experts and stakeholders in a more systematic and participatory manner added to the legitimacy of these policy networks. However, the sheer number and shifting composition of the various networks, task forces and working groups for Strategic Development and Innovation (SDI) and Socio-Technological Inventions (STI)**3** make it difficult for the observer (and the actors involved) to identify where authority and responsibility are actually located.**4**

The Skyline of the Knowledge Economy

On first sight, the skyline of the knowledge economy seems to be more simply structured than in earlier decades with the few big towers of global companies clearly dominant. These companies show little commitment to national or regional affairs in higher education and research. Closer to the ground the nodes and links between SMEs and the local and regional working units of global companies form the back-bone of knowledge-intensive production, service and consumption – and of the labour market for knowledge workers. The globalisation of knowledge formation and transfer and the individualisation of the life course (with shifting and multi-faceted group identities) have had a profound impact on labour markets and on forms of work. 'Standard employment' has eroded to such an extent that yesterday's exception (part-time, temporary and self- employment; movement between sectors, employers, and types of work) is today's rule. Network technologies such as the Internet under-pinned the construction of information and social webs across companies and countries. On this labour market for knowledge workers the 'credentials' of 'graduates' are just the first step in the validation of competencies in the workplace. What really counts (and differentiates members of network elites from the mass of net-workers) is social capital, cognitive mobility, qualifications for network sustainability and symbolic production.**5**

The Institutional Landscape

In such conditions of hyper-complexity, successful universities capitalise on the traditional capacities of academic and scientific networks as well as on inter- and intraorganisational networks that are based on reciprocity, trust, and long-term commitment. 'Small units, thick information and multiple webs' is a popular slogan originally coined by the University of Trullala. This metropolitan comprehensive university has de-departmentalised its structures into a holding-like matrix that comprises public, semi-public and private entities for teaching, research and service.

Some (jealous) observers call it 'the spider in the web'. For example, its undergraduate teaching is integrated into the European Open University (EOU), a non-profit consortium of on-line providers from 12 countries spread all over Europe. EOU is affiliated with on-line providers on other continents with whom it shares on-campus facilities for international students. Trullala offers courseware and tutorials within the dual-mode approach of the EOU. This combines information and communication technology capacities with elements of face-to-face interaction between teachers and their (probably) more than 400,000 students.**6** The three big science & technology research units of Trullala are affiliated with the Ford-Renault Institute of Technology, a private for-profit institution that works with different basic research units to promote knowledge and technology up-take. The Institute for Metropolitan Innovation at Trullala connects a shifting number of its faculty to regional business and other public and private stakeholders interested in socio-technological inventions.

Cooperation can also lead to new institutional forms within bigger but strongly differentiated organisations. Some universities have disappeared from the landscape altogether following mergers with other universities and/or private R&D organisations. The Technical University of the Netherlands and the Bio-Medical Alps University are two examples of the conglomeration of a number of once 'stand-alone' universities with the private laboratories of multi-national companies. In this construction companies were able to outsource their R&D function without loosening their ties to related innovation capacities. In contrast other universities have decided to organise themselves around more selected disciplinary or professional clusters. The Budapest

School of Governance, the Springer-Lingua University and the Institute of Cognitive Science are among the more-well known examples for such multi-disciplinary specialisations in postgraduate training and research. In the teaching industry much attention has been given to the rise of the virtual megauniversities such as the EOU, the Anglo-Asian Academy (AAA) and the Delphi-Phoenix Program (DEPP) that operate on a global level with virtual multi-language programmes.**7** The AAA has major home bases in the UK, Australia, China and India and serves more than 600,000 students while DEPP with some 500,000 students has its largest sites in the US, Greece and Egypt.**8** Recent figures confirm, however, that across Europe most undergraduate students still study in national or regional universities. These too offer mixed-programmes based on face-to-face teaching with some ICT-support based on interactive learning and communication. Their major competitive advantage lies in experience-based learning programmes for contextualised knowledge applications that are strongly linked to the local embeddedness of the global knowledge economy. Inter-university alliances between these universities and the many local low cost providers of tertiary education are a widespread phenomenon. Such agreements regulate the cooperation and division of work between the institutions; student, staff and programme exchange; as well as contractual relationships with companies who recruit staff on the university's turf and send employees for further training on a regular basis.

In 2020, the themes of 'change' and 'diversity' dominate any analysis of the horizontally (division of work) and vertically (reputation) stratified European university landscape with its approximately 3,500 universities. A core of more visible and prestigious institutions that see themselves as European Universities are surrounded by a growing number of usually smaller more localised 'Universities in Europe'. Stratification was inevitable. Driven by quantitative (massification and internationalisation) and qualitative (complexity and interconnectedness) growth, it led to increased levels of volatility and fuzziness in the system. The fuzziness encouraged much finer-grain and flexible differentiation of institutions than those of the age of higher education institutional 'types'. Nowadays universities bundle and un-bundle their tasks in teaching, research and service, their (multi-)disciplinary profile, their geographical outreach and their embeddedness in a web of shifting organisational configurations within and beyond the institution.

Obviously, academic leadership and institutional management mean different things and assume different forms according to specific organisational profiles and context.

The development and dissemination of professional and ethical standards as well as basic principles and tools for university leadership and management are two of the functions of FLUXUS, the global network of university managers.**9** 'Leadership for change' and 'management of flows' (knowledge and capital) are the names of the governance game in higher education and research – the art of sailing a ship under permanent reconstruction. Consequently, leaders and managers find themselves more involved with people than with structures that will change anyway and are perceived more as temporary enablers.**10** In this context strategic leadership (following the principles of 'distance, morality, responsibility and reform'), network management ('bring the right people together') and personnel policy ('I know my people') form the building blocks for universities' advocacy coalitions and linkages.

Learning-Working Pathways: Students and Structures

Student numbers have not changed dramatically over the first two decades of the 21st century but the composition of the student body certainly has. In Europe's greying societies, the number of younger traditional students has declined and is

counterbalanced by a growing number of international students (with the most dramatic increase in postgraduate training**11**), part-timers and life-long learners. Most undergraduate students gather their credits and credentials over the course of a cross-organisational and cross-national learning journey – which makes it no simple task to count student numbers and to ascribe them to an institutional home-base.**12** ICTnetworks between universities and other knowledge providers and every-day physical mobility around the globe allow students to mix face-to-face classes with online courses at universities across regions and countries. These patterns of multi-organisational affiliation characterise large parts of the academic professions as well. Public-private researchers, for example, hold shifting contractual relationships with different organisations within the knowledge cycle and wandering academic gypsies (part-time teachers) are usually affiliated to a number of local and regional low cost (and low salary) institutions.**13**

In 2020, some kind of Bachelor-Master structure has been implemented in all European countries and for all degrees – you cannot live without it. To enable mutual recognition, bi-lateral and multi-lateral agreements have been concluded to provide an overview of the bewildering variety of programmes and degrees that has developed within the Ba-Ma structure (3+2 years, 3+1+1 year, 4+1 year) and beyond. Short cycle programmes in under-graduate and post-graduate studies are widespread. Many of them are designed for graduates with work experience and other knowledge workers with a need for further training. Some serve a growing student body of ‘life-long learners’ whose interest goes beyond the more immediate purposes of the job market.

Others are designed to give an innovative push to the labour market to create jobs and positions that do not yet exist but that are predicted to play an important role in the near future. Information and certification services to assist (potential) students to select their ‘menu à la carte’ and transform it into a readable degree have become a mature business in the learning industry. The recognition of prior learning and (work) experience is also common practice and is coordinated by the International Student Selection and Placement Partner Organisation. Further selection is organised by the universities themselves who adopt different strategies. Some universities have opted to be highly selective to retain their institutions ‘small and prestigious’ status while others have chosen a strategy of attracting as many students as possible – aiming to become ’big and prestigious’.

At first glance the structures for the 2-year professional doctorate and the 4-year research PhD (usually organised in inter-university doctoral schools) look more straightforward. But the growing international and disciplinary mobility of doctoral students, students moving between professional and research tracks and between different research organisations, and the phenomenon of the so-called mid-career doctorate have all combined to create a much more colourful PhD journey.

All in all, the universities of 2020 are diversified structurally and in terms of modes of study and courses provided. Greater attention is devoted to generic competencies, social skills, and the lifelong learning function. Modular programmes designed for better integration into learning-working pathways, and practical learning beyond the class room have tended to blur the distinction between initial and continuing degree studies as well as between young adult, mid-career, and post-working life training.

This trend towards ‘life-span’ training also reflects the enormous immigration of younger knowledge workers from Asia, Latin-America and increasingly Africa and the US, and the growing demand for the validation of competences (rather than credentials) from the flourishing network economy. In general graduates do well on the European labour market – and increasingly in careers beyond Europe. The

growing virtual and physical mobility of students within global university partnerships and networks facilitates not only greater workplace mobility between Europe and the other continents, but also mobility on more equal terms.

Quality Assurance

'Quality' thus stands for supporting a diversified student body to acquire a mixture of skills and knowledge adaptable to new and changing configurations in the workplace and beyond. The European Accreditation Network (that is linked to its counterparts in other regions) works directly with the universities to assure common standards (some call them 'the smallest common denominator'). These are supplemented by international private accreditation agencies (mainly active in business studies, law and medicine where they interact with international professional organisations) some of which employ more selective criteria and promise more prestigious rewards. Many observers believe that the rise of internal quality assessment procedures has had an even stronger influence on the 'culture of quality' within the universities. Periodic reviews by inter-departmental and inter-university bodies together with the widespread use of student assessments and post-graduate labour market surveys provide rich tools for ongoing internal discussions on how to maintain or improve the quality of education.

A number of organisations provide guides with quality rankings based on information provided by the universities themselves or by expert assessors in other institutions. Among these are the bi-annual rankings of undergraduate programmes conducted and published by the magazine *International Higher Education*, and the ranking of doctoral schools every four years by the European Research Council. The most widely used information source is provided by students and academics themselves. The Virtual University Observer is facilitated and fuelled by international student and staff associations. This platform gathers and compares statistical information and university rankings provided by the various higher education and research portals. More importantly, it provides and systematises first hand information on the profile and quality of institutions, services and workplaces in terms of criteria beyond traditional 'academic excellence'.

Funding of Learning

The system of funding for universities has certainly encouraged the various developments in higher education sketched earlier. Government remains the dominant sponsor of higher education institutions but public money now derives from heterogeneous sources for equally heterogeneous purposes. Regional, national and European governmental entities and their arm's length agencies provide some direct subsidies, in many cases designed as matching funds based on contractual relationships. The bulk of public money enters higher education via a European voucher system that covers the right of all citizens to a four- to five-year study period.**14** The vouchers can be used in any EU member state for full cycles of Bachelor- or Master-programmes as well as for certain training modules across the full post-secondary spectrum.**15** The ESB (European Student Bank affiliated with the European Central Bank) organises the money flow and provides further loans to those students who choose more costly study programmes or longer periods of postsecondary training, and to the intake of international students.

Research Funding and Structures

Research is funded separately from teaching via the national research councils, the European Research Council (ERC, established in 2006) and various public-private sponsors and foundations. Most of the research funds are allocated to research programmes. The bargaining about research priorities is a major area of political debate between scientific elites, regional and national governments, research councils, the ERC and the European Commission. These programmes are intended 'to support research projects in designated areas of strategic relevance for innovation and global competitiveness based on peer review for scientific relevance' – a compromise formulated after the establishment of the ERC in order to integrate research money from 'Brussels' into its portfolio. The bulk of research funding for universities derives from national sources based on (another political compromise) 'semi-open' national systems of research funding. Foreign scholars from within the EU are eligible for funding provided a 'home-based' researcher functions as the principal investigator.

Equally importantly, European and National Research Councils assess applications not only on scientific or technical merit but also on their wider social application – thus giving greater prominence to social utility.**16** Another problem concerning research funding arose after the achievement of the so-called 3%-target (3% of GDP on R&D spending in the former EU by 2010). While the target had already been achieved by 2009 it became clear that it was too modest to provide sufficient financial backbone for a 'Europe of Knowledge' to become the world's leading player. Various policies were adopted to increase support from public sources but the key breakthrough was only achieved when major companies changed their practices (and perceptions of investment in R&D as being a 'private loss') and started to invest in international research consortia. As importantly, access to finance became easier for SMEs as increasing numbers of regional public-private innovation networks were established to link the various actors in their clusters. The increase in private investment has been of major benefit to the research-intense universities who had already started opening their doors (and budgets) to joint industry-university activities.

Most have organised their research in inter-faculty and inter-university units that are comprised of flexible and semi-permanent teams in self-organised centres with control over, and responsibility for, costs and revenues. Face-to-face contact with partners interested in knowledge transfer forms the basis for cooperation with business and increasingly with other organisations and interest groups. Strategic alliances, the insourcing of private R&D, and mixed university-company campuses are organisational responses to the new mix of funding opportunities, changing university research missions and novel research technologies. Academics themselves are the major players and drivers of these developments towards a greater overlap between the realms of academia and the commercial world. The major generation change within academe brought more faculty into universities who are able to balance the self-dynamics of scientific discovery with those of academic entrepreneurialism. Significantly, research active academics now gain a considerable part of their personal income from capitalising on their know-how. (The 'money for value' declaration of the 2012 Warsaw conference of European Ministers of Innovation finally opened the door for this policy.)

Nodes and Holes in Network Europe

In this brave new world of network Europe, the struggle for hegemony has certainly not been abandoned – and it has many faces. Regional disparities across Europe are an enduring problem for institutions and policy-makers. Such disparities have only been partly overcome by the EU-subsidies for the further development of a more balanced landscape for European higher education and research. (Resources have been reallocated from the agricultural sector to knowledge-producing industries.) Major concern remains over the gap between the so-called 'teaching intensive' South and East of Europe and the 'research-intensive' North and West. This concern overlaps with the realisation that some small countries (such as Finland and the Netherlands) and some cross-national regional clusters (like the 'golden triangle' on the Belgian/Dutch/German border) still get far higher returns from R&D and knowledge industries than others. By starting earlier and investing in a flexible and cooperative way in infrastructure and networks for education and research these areas of Europe were able to leave some of the 'big tanks' in Europe behind. Finally, the potentials and limits of inter-university alliances are on the agenda as well. The recent decision of the European Cartel Office not to allow a consortium agreement between the Max Planck Institutes, the Centre National de Recherché Scientific, the Ford-Renault Institute of Technology and a consortium of leading research universities (led by Oxbridge) has been widely debated. Some accept the argument of the Office that such a consortium would constitute a 'monopoly of excellence' that would harm competition within Europe. Others argue that such cooperation is a prerequisite for competition with other consortia on a global level.

In this debate, most academics who are not confined to local or national settings consider themselves cosmopolitan rather than European. Their main thrust in transcending the academic's traditional national emphasis is global rather than European. The policies and infrastructures chosen by universities seldom make clear conceptual or pragmatic distinctions between the European on the one hand and the international or global on the other. In the many worlds of academe, happily networking scholars search for partners wherever the knowledge is to be found.

1 The concept of 'co-evolution' precisely refers to a set of simultaneous developments where it is unclear which is the cause and which the effect, or if they are causally linked at all.

2 The end of the Pan-European approach came as a relief to many, especially to those critical of the inward-looking character of inter-European cooperation (establishing cooperation amongst neighbours to counteract pressure from other parts of the world).

3 Socio-technological inventions as used here are not matters of simple probabilities, rationally calculated by experts with the cold arithmetic of cost-benefit analysis. Rather they are woven into the very fabric of innovation within a world society that is inevitably 'at risk'.

4 This concern is found mainly amongst political analysts. Most people are quite satisfied with the recent statement of the European Commissioner for Innovation (who is responsible for education and research): 'We do not know exactly how it works, but it works'.

5 Symbolic knowledge workers manipulate words, numbers, images and sounds in order to broker and analyse information and to provide meaning to information so that it can unfold its symbolic analytical problem-solving capacities.

6 It is now common wisdom that on-line 'stand alone' courses with all their e-learning facilities are best placed to cater for the diversified needs of a diversified international student body. By blending this approach with face-to-face interaction with teachers and (even more important) other students the EOU and others have realised further learning advantages that flow from social exchange.

7 All courses and material are made available in English, Spanish, Chinese and Hindi – the latter language was introduced over the protest of Indian academics who argued that English fitted perfectly well with their goals. Many students make use of the Intelligent Interpretation Generator which provides electronic tools for all the possible translation permutations between over 400 major languages and dialects.

8 The biggest ‘university’ in the world is probably the Boundaryless Institute of Non-Governmental Organisations (BINGO) although its exact size is uncertain. Its virtual campus and several regional knowledge sites around the globe offer no credit courses or degrees but provide an enormous amount of up-to-date knowledge and know-how. (Many academics who argue that BINGO quality control is quite dubious are known to make use of it themselves).
9 FLUXUS is financed mainly via its ‘brain hunting’ activities – recruiting academic leaders and mangers ‘across the board of knowledge networks’.
10 The fight between the two schools of thinking in FLUXUS – the Matthew school (‘To those who have will be given’) and the Robin Hood school (‘Take from the rich and give to the poor’) is more about the use of financial incentives in universities.
11 It is estimated that about one-quarter of Europe’s Masters-graduates and one-half of its PhDgraduates come from a non-European home country. A first tide of Asian students was followed by a wave of Latin-American students and increasingly students from Africa and the US are adding to the flood.
12 The most reliable data and information on student numbers is found in the European Higher Education and Research Observatory founded by Professor Frans Kaiser. His data simulation model is based on the premise that you cannot know at the same time the exact numbers and the exact locations of students, graduates and staff.
13 All organisations, however, are required to follow the basic standards agreed upon between the European Trade Union of Knowledge Workers and the European Association of Knowledge Producers.
14 This funding system came just in time for the (student and teaching intense) social sciences and humanities disciplines that found themselves in a precarious situation during the period when innovation was perceived to be a matter of science & technology only - with all the consequences this had for university funding.
15 Different agreements regulate if and to what extent former students will have to cover the costs of the used vouchers after graduation. Fellowship programmes for the special support of low income groups are fairly common adjuncts to vouchers.
16 Extended peer review involving not only scientists but also stakeholders affected by the use of science is now common practice and is integrated into overall accountability frameworks that extend beyond traditional quality control procedures.

6 Vitis Vinifera, the City of Traders and Micro-Climates

Jon File, Eric Beerkens, Liudvika Leišyt÷ and Carlo Salerno

Vitis Vinifera is renowned for its trading and for the diversity of its products.

Travellers come from miles around to purchase goods and services that are widely believed to enhance future prosperity and the quality of life. It has no central market as its producer-merchants prefer to trade from their homes across the city.

Curiously, while bustling back and forth across Vitis Vinifera in search of the right product at the right price, the first-time visitor is only fleetingly struck by the notion of being in a city at all.

There is little that seems to hold the city together as an entity – the roofs are made of tiles of different hues and textures; the cobbles paving the divergently dimensioned streets seem cut from geological formations from the four ends of the earth – so as one turns each corner it feels as if one has entered another city; gardens display a bewildering array of botanical growth and colour – from arid desert cactus to steamy jungle undergrowth; through open windows can be glimpsed rooms, decoration and furniture that could belong to one hundred different tribes and territories; the dwellings themselves (each with their own stall or shop-front) are built from such dissimilar materials and of such contradictory design – polymer tent, log cabin, stone church, glass house, icy igloo, sand castle, steel tower, thatched hut – and of such varying dimensions – thirty metres high, barely above ground, stretching across a full city 'block', crammed next to each other on a postage stamp plot – that it is clear that Vitis (as it is known colloquially to its residents) has no city planning committee, nor a hegemonic architectural practice.

On reflection, and after the initial disorientation of the first visit, the underlying reality begins to make itself clear. It seems that the diversity of the visual experience initially blunts the other senses – for as one walks through the city one's body alternately freezes and bakes, is drenched in rain, blown off course, enters twilight and emerges steps later with the sun at high noon. Vitis is a city of micro-climates, a triumph of terroir, where each household produces and trades in a niche customised meticulously to its own environment.

With stylistic debt to Italo Calvino's *Invisible Cities* (1972)

Europe 2020

Europe 2020 is not dramatically different to the Europe of 2004 – geographically and politically. The UK has not drifted continentally across the Atlantic,**1** and the ongoing EU accession process has not altered the fundamental political dynamics of Europe: an uneasy cohabitation of national sovereignty and shared supra-national interests and coordination. In terms of economic strategy the optimism of the early years of the century has been tempered by more realism about the limits to what can be achieved by joint pronouncement, about the fact that fundamental socio-economic change requires a long period of gestation, and the recognition that the lead established by Europe's major competitors in the global economy would not be clawed back in a decade. Europe 2020 is not the world's leading knowledge economy – it remains a very serious player but has not caught up with, let alone overtaken, the USA and Japan and the economic growth of China has surprised all three.

The socio-political agenda has however changed significantly – while innovation and the knowledge economy remain important priorities they have lost some of their iconic and 'only show in town' status. The newer shows in the towns of Europe are more focused on the quality of life – longer (working) lives, travel and leisure, the environment, paramedical therapies, media and design, cross-cultural relationships, critical consumerism, urban social cohesion.**2** The economic base (largely service and knowledge based, but with significant primary and secondary production in the far North, East and South) has proved robust enough – Europeans don't wish to be wealthier than everybody else – those that do have moved to the more entrepreneurial shores of San Francisco, Sydney, Shanghai or Sao Paulo.

Higher Education Policy Research 2020

The market, moving like the Lord in mysterious ways, is better understood and its hand is sighted on the occasional clear day. Path breaking social science theory and research in the early years of the century has led to a far more nuanced analytical appreciation of *markets* as well as different economic, social, regional and geographical dimensions to them.

In a similar vein, a series of monographs produced in 2011 by CHEPPS**3** of the Universiteit Eenentwintig**4** helped many move away from some of the blunter analytical concepts in higher education policy analysis: CHEPPS staff and an increasing number of fellow thinkers no longer use terms like *the* university, *the* higher education sector, *the* market, and *the* academic profession let alone try to describe any characteristics these may have. While some may privately mourn the passing of an era when universities were universities, professors professed and students were seen and heard – it is now accepted that higher education in practice (if not always in policy) encompasses all post-school education and training. This is an enormously diverse field and most of what happens is driven by *markets.* Nevertheless educationalists, trainers, programme developers and researchers**5** are seldom driven to market easily and even less frequently via the shortest route.**6** It is not just these complex relationships between markets and the higher education sector that have made higher education policy studies such an interesting, challenging and respected field – for the key third triangular player, national and supranational authority, has in no sense retreated (defeated) from the field.

What did happen however was that national governments and the European Commission became more realistic and more selective about what could be achieved in a highly diverse and complex field of social life where governments have limited steering capacity and a restricted set of steering instruments at their disposal**7**.

Broad Trends in European Higher Education

While there remains considerable variability across different European countries and different national higher education policy histories make fascinating reading, the trends are clear:

• higher education programmes**8** are now being offered more flexibly by a wider set of institutions to a broader range of learners (in terms of age and socio-economic background);

• higher education programmes are more responsive to the needs of learners and different economic sectors;

• institutions have more autonomy than they had 20 years ago particularly in terms of student selection, programme development and curriculum content (most national quality assurance and accreditation systems stepped back from programme level accreditation and licensing in the period 2007 – 2010);**9**

• the share of higher education accounted for by private providers**10** has increased significantly, as has the proportion of private funding within public institutions;

• public (teaching) funding of higher education programmes at public institutions is increasingly based on (targeted and competitive) student enrolment at the undergraduate level – postgraduate programmes are predominantly funded only through tuition fees;

• public research funding (including that for PhDs) is highly competitive and selective – benefiting research groups that are very good and/or strategically relevant. The share of research funding distributed by national research councils has diminished as the role of the European Research Council has expanded;

• in one way or another the great majority of students now pay tuition fees, and most, if not all, institutions have the ability to set their own differential fees (within limits that vary nationally in the amount of discretion they allow);
• student support grants increasingly target the first degree level, are income contingent and only the very talented and the very poor have their full costs covered – student loans are an accepted reality across Europe and are offered by public, private and mixed 'student banks'.

Students and Study Programmes

Student participation has grown remarkably over the past two decades but the effective broadening of 'higher education' to incorporate most of the further education sector and much of the training industry makes it difficult to precisely quantify the change.**11**

In this broader definition most European countries now have participation rates exceeding 70% of the traditional age cohort but the most pronounced growth has been in 'adult', 'mature' or 'life-long' learners.

The age range of students has also increased enormously – major groups include the immediate post-school cohort (for Certificate, Diploma and Bachelor programmes – typically publicly funded but with a high loan component), early and mid-career working people (for second Certificate, Diploma or Bachelor programmes or a Master – typically self or company funded) and increasing numbers of post 45-year-olds for interest or for second career purposes (self funded, but with some government retraining funding and increasingly tax credits). The recognition of prior learning is common place in the majority of HEIs other than the few 'collegiate' institutions that have retained the development of a critical and responsible citizenry (from 18-21 year old young adults) as a core part of their mission.

Higher education institutions, Brussels and EU member states all recognised that a minimum level of shared understanding of qualifications was essential if a diverse higher education market place was to be effective in meeting the diverse higher education and training needs of a diverse Europe and its diverse markets. The Bologna process was expanded to include sub-degree qualifications. The Certificate, Diploma, Bachelor, Postgraduate Diploma, Master and (research and professional) Doctor structure of 1, 2, 3, 1, 2 and minimum 2 years duration, sub-divided into 60 ECTS credits per year is now standard across the EU, and almost standard in other European and neighbouring countries. Training programmes of less than a year, but of at least 10 credits, are also registered by the EU's Higher Education and Training Authority (HETA). Although it is not mandatory for them to do so, it is estimated that 98% of public institutions and 80% of private and non-European providers register their qualifications voluntarily given the extensive use of the HETA database in the market places for 'graduates'.**12**

HETA is neither an accreditation nor a quality assurance agency. Rather it is a datawarehouse for HE programmes with a limited audit capacity to verify the information provided via random checks (mainly on programme duration and entrance requirements). HETA is widely perceived in the HE industry as a body not to be messed with: the sanctions for fraudulent reporting are severe. Beyond this rudimentary system of registration, quality and relevance are widely believed to be matters best left to the markets to assess. A minority of member states have national accreditation procedures for public HE programmes but the dominant model is one of multiple accreditation possibilities that are chosen strategically by HE providers – often on the advice of highly paid marketing professionals.**13**

The diverse markets for Europe's HE 'graduate output' have surprisingly sophisticated methods of assessing the skills and competencies of graduates, and the 'quality' of programmes – these vary enormously by economic sector, 'profession' and region.**14**

There is however increasing public concern about declining and/or differential higher education standards across Europe. Political leaders and higher education executives have been fairly pragmatic about this – conceding that there is more variety in the system by design, arguing that more information is available to prospective students and pointing to comparative international research by the University of Malta that suggests the 'aggregate quality range' within European higher education has increased enormously but still remains less diverse than in the USA.

Student Mobility and Internationalisation

Despite all of the hopes of the Socrates and Erasmus programmes and some of the underlying motivation of the Bologna process, cross-border student mobility at the first degree level within Europe remains limited – some 10% of students complete a Bachelor's degree in another European country and a further 10% take a semester away. Most analysts attribute this to the persistence of mother tongue instruction at the undergraduate level and the unexpected social trend in the 2010s of late adolescents wanting to remain in their parental home. Mobility at the Masters level is far greater both within and across countries (almost half of Masters students take their degrees at a different university – and a third of these in a different country) reflecting the trend of more and more Masters programmes being taught in English and European parents drawing a line under extending hospitality to their offspring. Higher education has become one of Europe's most important trading commodities.

While the pattern varies across different countries, higher education is one of the top ten service sectors in many European economies. The UK, Netherlands, Sweden and (northern) Italy are the most successful, but the levels of flexibility and international responsiveness shown by sectors of the Polish, French and German university systems would have been unimaginable a decade ago. Europe continues to attract more and more international students and is cutting significantly into the market shares of both the USA and Australia.**15** Within countries, internationalisation has become one of the most important dimensions of system diversity – some institutions have embraced it to the point of specialisation while others have deliberately excluded the international dimension from their niche.

Institutional Landscape

Most countries have abandoned institutional differentiation by type (university, college and polytechnic) and only philosophers and historians retain any real interest in the question of what a university is. Politicians, prospective students, the general public and markets are content with the pragmatic position that a university is what it does.

Europe's universities (and alternatively baptised HEIs) do very different things. Europe's 6,000 higher education providers have considerably more than 100,000 programmes registered with HETA. Of these providers fewer than 800 would be recognisable to a 1990s alumnus as traditional comprehensive universities, and fewer than 400 offer PhDs in more than five fields. The modal HEI offers 10 study programmes at the C, D, B and M levels in two or three broad fields of study.

The diversity across Europe's universities is as vast in terms of focus as it is in programme offerings. Most have opted to be (or have accepted a compelling

business case to remain) a combination of national, regional and local institutions with close relationships to proximate stakeholders and their needs. Only a minority aim to be international and trans-European centres of (mainly English language) learning and scholarship. Research is increasingly concentrated in (Western and Northern) Europe's elite universities – claimed to include four of the ten best in the world – but surprisingly these elite institutions seldom have their undergraduate programmes assessed as being the best. The most selective programmes (with the exception of Doctorates) tend to be at small specialised institutions, both public and private. The different niches that higher education institutions have chosen are reflected in their student bodies (age, national origin, full or part time, contact or distance mode), in the accreditation they seek, in their language policies, in the tuition fees they charge, in their mix of funding sources and in their staff profiles and reward systems (see below).

One-third of higher education providers are private but most focus on shorter cycle certificate and Diploma programmes, often at the post-graduate level. Only a minority operate in the first Bachelor degree market. These are mainly in Eastern and Southern Europe. The trend has been for this minority to receive public financial support for Bachelor (and often Certificate and Diploma) students provided that they are nationally accredited. The private university sector has grown significantly particularly in the MBA and ICT fields, many new providers (and more and more traditional ones) offer educational services via broadband interactive web-streaming technologies, while the market share of the European campuses of US and Australian universities has dropped significantly from its 2005 high of 2%.

Funding

The funding mix varies according to institutional profile and (decreasingly) its public or private status. Most public institutions are dependent primarily on government grants linked to student enrolments at the initial Certificate, Diploma and Bachelor levels and on tuition fees. Fewer and fewer governments fund institutions at the same level for all of the students they enrol. The most talented, those in areas perceived to be strategically important and under-represented groups tend to come with higher prices attached thus making targeted student recruitment a very competitive and potentially lucrative business. The average public university now receives 57% of its funding through direct grants from national government but the range is considerable. The entrepreneurial University of Warwick receives 15% from this source whereas many locally orientated non-technological universities continue to receive over 80% of their funding via this channel. In general terms, most governments now see their subsidies to institutions in 'prices for services' terms and not as 'contributions towards actual costs incurred'.

Tuition fees vary from 280 to 28000 Euro per year for a Bachelors degree.**16** Higher education institutions decide for themselves what tuition fee levels to set for each programme but national framework legislation sometimes sets limits on this, as do national student financial aid policies which have maximum tuition fee levels for loan/grant recipients. CHEPPS research indicates that most institutions charge what they think the market will bear but that the popularity of the programme (some receive over 100 applicants for each available place) and the perceived level of competition with other programmes (and the fees charged) are important factors. Tuition fees are paid through a wide variety of sources – students, parents, employers and the government itself for some first degree students (the very talented, students in undersubscribed but important fields, and the very poor) in some countries.

Less than one in ten HEIs receive public (basic) research funding (see below). More than 50% receive contract R&D and/or training and consultancy funding from public and/or private sources, including regional innovation and development agencies and (crucially) service sectors of the economy in which the HEI is active as a player in education and training. (Between 2007 and 2017 there was a significant reduction in the proportion of private and public sector**17** training and R&D resources spent in house – this has been the major new source of income for the HEIs.)
One interesting new development has been the launching of effective alumni associations and professional fund raising campaigns by a number of small prestigious universities. While it is too early to tell what degree of success will be achieved, there is far more talk and far more action in the area of donations and endowments for universities than there has ever been in Europe.

Research
On average Europe's expenditure on research, technological development and innovation comfortably exceeds the 3% of GDP target set two decades ago. This can be partially explained by rising private sector expenditures (often contracted to higher education institutions) and partly because Europe's shifting socio-economic priorities and its changing markets for goods and services have broadened the range of fields where these resources are spent. Innovation in particular is highly valued and is no longer a wholly owned subsidiary of the science and technology disciplines. Many of HE's major research role models are not Nobel prize winners but innovators, and the programmes they contribute to are some of the most selective in Europe.
As was indicated earlier fully half of Europe's higher education institutions receive significant 'third stream' applied R&D funding and the sector is now responsible for much of the R&D activity previously undertaken by government, business and industry themselves. These developments have had a major impact on the 'applied research landscape' and on the mix of activities within the higher education sector.
Research and (research) PhD funding is highly selective at the European level – some 35% of Europe's total public basic and strategic research funds are distributed by the European Research Council and at the national level (where national research councils have developed innovative ways to enhance national capacity and priorities in a context of competitive Europe-wide tendering). While each nation state possesses at least one research 'flagship' there is no doubt that a substantial research function is now the preserve of the few, and that the few are not evenly distributed across Europe – the Western and Northern European universities house most of Europe's leading research centres. 'Big science' is increasingly undertaken by cross-national tailor-made consortia that draw on top university based researchers and their counterparts from the public and private sectors. Despite a number of expensive ERC programmes to encourage European research networks, the self-perception and scientific practice of Europe's leading centres continues to be unashamedly international. Exclusive European networks are seldom those at the cutting edge.
Most national ministries have introduced targeted funding to help train, recruit and secure the next generations of university based researchers – but these are now recognised to constitute only a small proportion of the nation's 'academic profession'.
The modal 'academic' is an expert in a particular field: a skilled teacher, entrepreneurial in outlook, a talented team member in joint projects with external stakeholders, not active in fundamental research and does not wish to be.**18**
In retrospect it is clear that the research agenda of the past two decades has increasingly been developed in consultation with external stakeholders (who fund

most of it). This has meant that research fields not relevant for business and industry are weaker than they were in 2005 although once again Europe's changed socio-economic priorities have meant that business and industry's own interests are far broader than they were.

Higher Education Leadership and Management

European higher education institutions operate in an environment far less stable than that of only a few decades ago. They enjoy more independence from government.

Student selection, determining tuition fee levels, setting staff salary policies and deciding independently which programmes to offer are all now routine aspects of the inner business life of universities. The range of strategic choice and possible activities to focus on has broadened. Levels of competition for students, staff and contracts have increased fairly dramatically. More liberal operating regulations entail greater financial autonomy, wider opportunities and deeper risks. Flexibility and responsiveness are expected by a wider range of stakeholders.

The typical higher education institution is managed in a business-like way, stressing efficiency and productivity. Methods of strategic, financial and human resource management are by and large similar to those encountered in the private sector. Higher education management in general and its 'sub-disciplines' in particular**19** have developed into recognisable professional careers. This professionalisation is evidenced by the fact that it is common practice for institutional executives and managers to move from one institution to another over the course of their careers. There is an extensive range of educational programmes to prepare higher educational mangers and to enhance their skills. Moreover, executives and managers are well paid (at least in higher education terms). As always there are distinct national flavours and differences relating to the nature of the institutional mission. Regional education, training and consultancy-focused institutions are more likely to have a chief executive drawn from outside the HE sector (there is far greater job movement in and out of higher education) while leading research institutions tend to have presidents with a traditional academic background but supported by highly professional management teams.

After a period at the end of the last century when the higher education sector seemed gripped by merger fever some spectacular failures of mega-institutions around 2010 have noticeably dampened enthusiasm for mergers and amalgamations. If big was once beautiful, European higher education in 2020 has real doubts about the manoeuvrability of university super tankers (let alone fleets of them) and many of the most successful institutions are small and specialised.

Postscript: on the Loss of a Sector

Like our imaginary Vitis Vinifera,**20** European higher education 2020 has a coherence problem. It feels less and less like a sector and more and more like a loose collection of institutions with a shared common denominator no more significant than having one or more of the words teaching, learning, research and development in their mission statements. In terms of governance and of the big interrelations of state, market and academia this is more than a feeling. Sector-wide organisations are struggling to deal with higher educational diversity, Rectors Conferences are ridden by factionalism and competing interests, European consortia and clubs of similarly visioned institutions have proliferated, (a) higher education policy is becoming a contradiction in terms and the would-be developers of the European Carnegie classification have gone into early retirement muttering that some things are just unclassifiable. By 2030 historians will have demonstrated that the loss of sectoral

coherence was a trend with origins extending way into the previous century when Europe took its first faltering steps down the road from elite to mass higher education. A seminal work by CHEPPS on the occasion of its 50th anniversary will conclude that the alternative scenario – a harmonised, homogenised higher education system with near universal access – would have been, like wooded chardonnay for all in a Europe rich in terroir, a future too ghastly to contemplate.

1 Although its relationship with the rest of Europe remains intriguing: the BBC still reports that the continent is cut off when thick fog descends over the channel.
2 One illustrative indicator: in 2017 for the first time Bonsai trees outsold Personal Communication Aides (PCAs).
3 The Centre for Higher Education Policy Studies with two Ps - a famous Dutch author like Charles Dikkens with two Ks. (See Monty Python: *The Bookshop Sketch*).
4 The Technological and Social Science legs of the University of Twente split (painfully and irreparably) in 2009 with the social science part taking the next available name: the University of Twenty-One.
5 These are four of the 27 (EUFO) job descriptions introduced across the EU in 2009 to enable a sensible discussion about what had hitherto been described as academic staff.
6 An experienced mid-western cattle farmer advises that the first and crucial stage in any attempt at herding buffalo is to make sure that you have a pretty darn good idea of where the buffalo wish to go.
7 Governments and the EC appear to have accepted CHEPPS first law: Higher education institutions are by definition smarter than Ministries and coordinating agencies so effective steering is always difficult, and its corollary: Where the first law does not apply, the capacity problems in higher education make steering a hopeless cause to begin with.
8 'Programme' is used here in a very neutral way: most programmes are now flexible combinations of courses, modules and often work experience. Purists argue that most are not programmed at all.
9 Apart from buffalo characteristics and the first law of CHEPPS mentioned above, programme level accreditation was defeated by logistics (100,000 programmes) and by strong arguments from the market that it was incompatible with innovation, responsiveness, renewal and mass individualisation.
10 In most countries the line between public and private providers has become more permeable. One third of European governments now finance undergraduate studies in accredited private institutions.
Ten countries have passed 'Chalmers' legislation allowing public institutions to step out of the public sector and become private foundations. On average 8 public universities declare bankruptcy each year with governments declining to bail them out - rather preferring to sell them off to the private sector, in some notable cases via management buy-outs.
11 Professor Kaiser of CHEPPS estimates the full-time equivalent growth in Bachelor registrations in EU member states at 18% over the period 2007 to 2017, and that for Masters candidates at 25%.
12 The nice Anglo-Saxon distinction between *graduates* and holders of lesser qualifications has fallen into such disuse that *diplomate* can no longer be found in the Complete Oxford Dictionary.
13 Governments without their 'own' accreditation agencies decide which agencies they will accept for institutions to qualify for public funding.
14 See the guides published periodically by 'WHICH' – particularly instructive are it's *Where to find the best training in*… Floristry (May 2009), Tourism from China (June 2009), Green Architecture (July 2009), Feng Shui (April 2010) and Polymer Engineering (Sept 2010). Note the emphasis given to inter-personal and life skills in each case. CHEPPS researchers have found that guides of this nature and Lonely Planet's 'Best European student cities' are far more influential among prospective students than HEIs own marketing materials and the various 'university rankings' published annually by major European newspaper groups.
15 Saatchi and Saatchi's celebrated advertising campaign 'We have culture, we have no flies and you can drink the world's best beer and wine at 18!' is seen by many to have been a decisive intervention.
16 The cheapest is a Norwegian Regional University near Tromso while Switzerland's leading hotel school is the most expensive (*The Economist*, March 23, 2019).
17 Government ministries, public service sectors and state research institutes.
18 Many were liberated from the burden of unfulfilled research expectations by the major changes in HRM and salary policies that swept across the European higher education space in 2008 and 2009.
Academic salaries continue to differ vastly across countries, but within countries a wider range of performance areas are rewarded. More and more staff see themselves primarily as members of the teaching profession – long holidays with no associated research requirement are attractive. Part-time studies by HEI staff in androgogics and project acquisition are both growth areas.

19 The European Association of Higher Education Managers has thirty professional tracks at its annual conferences grouped into twelve major fields: academic management, research management, HRM, marketing and corporate communications, scholarships and student recruitment, assets and real estate, law and contracts, governmental relations and lobbying, strategic planning and risk management, student life and Brussels scouts.
20 This is the botanical name for the vine species, native to Europe and Central Asia, from which all of the world's finest wines are made - including those of California and Australia. (Admittedly it had some help from Vitis Labrusca, the American vine, whose resistant rootstocks enabled Europe's vines to recover from the phylloxera epidemic at the end of the 19th century.)