

## 4 Centralia, the City of the Sun

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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.

Tommaso 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 most of 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 firm guidance 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 20<sup>th</sup> 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 21<sup>st</sup> century was reinforced by the remarkable growth in mature students, since life-long 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.<sup>1</sup> 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 self-evident: – 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 problem of unemployment or over-schooling. The career situation is less bright only for those who have fallen for the shrewd marketing of less-reputable

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<sup>1</sup> 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 re-baptized ‘universities’, but as will be shown below, there are significant differences between the classes of B-, M- and D-universities.

non-European private higher education institutions,<sup>2</sup> 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,<sup>3</sup> more than 85% of students take their B degree and 70% their M degree in their home country.<sup>4</sup> 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 Rhineland 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).<sup>5</sup> 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.

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<sup>2</sup> 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.

<sup>3</sup> 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).

<sup>4</sup> 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.

<sup>5</sup> Student support portability facilitated greatly the obligatory Semester Abroad Programme.

## 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.<sup>6</sup>

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.<sup>7</sup>

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

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<sup>10</sup>), 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

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<sup>6</sup> 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.

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

<sup>8</sup> 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.

<sup>9</sup> 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.

<sup>10</sup> 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'.

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<sup>11</sup> 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 4<sup>th</sup>G-DVDs, as the universities’ institutional managements are very strict on economy, while data-intensive corporate use of the Terabyte Network is expensive.<sup>12</sup> 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 semi-automatic 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,<sup>13</sup> 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.

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<sup>11</sup> 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.

<sup>12</sup> 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.

<sup>13</sup> 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.

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).<sup>14</sup> 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’ concours 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

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<sup>14</sup> A result of the fusion of the Bologna-II and the Copenhagen processes. (The Copenhagen process 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 'neo-arcadian 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<sup>15</sup> 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 25<sup>th</sup> 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

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<sup>15</sup> 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.

in the faculties governing basic research, nor to the University Ethics Committees'<sup>16</sup> 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

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<sup>16</sup> 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.

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.<sup>17</sup>

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 bottom-line 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

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<sup>17</sup> 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.

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 13<sup>th</sup> 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 re-invigorated 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.