In this brief chapter, some of the most salient characteristics of each of the three scenarios are highlighted using four main themes: system diversity, governance, funding and quality. These were not necessarily the dimensions across which the scenarios were first designed. On the contrary, we aimed at a critical reflection on what came out of the scenario design exercise from independent points of view. We especially draw attention, therefore, to some inherent tensions and contradictions in each of the scenarios, as a counterbalance to the positive tone of the previous chapters in which the scenarios were presented. Let us remind the reader that the Centralia scenario largely evolved (though systematised and ‘enlarged’) from the majority opinions of our respondents to the Delphi study, whilst the two other scenarios contrasted with this by making use of patterns of opinions (in a few cases majorities) in the Delphi-study response. There was quite a bit of ‘science fiction’ in those chapters and some intentional polishing to make each scenario appear attractive in as many respects as possible. Therefore before turning to external comments, we wish to qualify that rosy picture.

Diversity in the Higher Education Systems

In the Centralia scenario the main emphasis was on organised diversity with regards to degree structures, with the emphasis on organised. The three-stage ‘Bachelor, Master and Doctor’ model was spreading across the continent and a fairly common interpretation of that structure had emerged, so there was a large degree of harmonisation, even uniformity, of higher education degrees across Europe. It was suggested that this uniformity had emerged spontaneously, pointing to the fact that in their desire to be ‘European’, actors at different levels and in different regions may go

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1 These were of course not all the themes addressed in the scenarios (other themes included student composition, internationalisation of study careers, character of education and ‘post-mode-2’ research) but for brevity we will not address all of them in this chapter.
beyond the letter of European agreements – it does not always take the ‘muscles from Brussels’ to (over-)achieve European policy goals. The other two scenarios showed more diversity in this respect. Octavia spoke of organic diversity of degree types and lengths, emerging out of a host of temporary bilateral and multilateral agreements at different levels. Everything remained in flux. This made for a much higher degree of uncertainty than in the Centralia scenario, but on the other hand it added flexibility and adaptability to regional and temporal circumstances. In the Vitis Vinifera scenario the variety and uncertainty was taken to the extreme by stressing that higher education (seamlessly connected with further education and vocational training) was unclassifiable. The values of institutional autonomy and adaptability were given full play, in contrast to Centralia that gave more predictability to life (a condition for investing in long-term behaviour) but was, perhaps much more rigid and resistant to (needed) change.

Regarding institutional diversity, Centralia was characterised by its lack thereof; the typical higher education institution was large and predominantly publicly funded. Education in these institutions was blended mode learning with a strong emphasis on life-long learning. The latter was mostly due to the higher education institutions’ adaptation to the ‘greying’ demographic situation in Europe – an important assumption underlying all three scenarios.

The argument of economies of scale was taken up in a case-by-case approach in Octavia, leading to different networks for different tasks rather than full-scale mergers, although mergers were not ruled out in the event of regular and intense cooperation among higher education institutions. Institutional types were not expected to be harmonised across Europe; the current multitude (‘jungle’) would persist. The multitude of institutional forms would probably even increase rather than just persist, as the role of private partners of different types was expected to grow in the networked economy. The same effect was expected in Vitis Vinifera where the range from small niche players to mega-universities was clearly illustrated. Along with this, in Vitis Vinifera about one-third of higher education institutions were purely private. The assumption of that scenario was certainly not that governments would retreat from higher education and research completely but private market forces, ‘real’ as opposed to government-induced ‘quasi’ markets, were expected to play a much more prominent role than at the turn of the century, thus adding to the diversity of institutions and their motivations (some being profit-driven).

Institutional diversity also extended to the main tasks of the higher education institutions: education and research. In Centralia the large institutions were practically all engaged in both, albeit in different ways. With regards to research and teaching, one noted basic, curiosity-driven variants as well as application-oriented variants. In the other two scenarios there was much more diversity among higher education institutions on this dimension. In Vitis Vinifera the emphasis was on specialised institutions.

2 On the other hand, in Vitis Vinifera the (short-term) incentives for investment behaviour may be larger than in publicly-controlled Centralia. As a further consequence, this might lead to more rent-seeking behaviour in Vitis Vinifera.
interacting with each other in markets, that is on a case by case and rather anonymous basis. In Octavia the interaction mechanism was again the network, with its underscoring of longer-term though still fluctuating relationships.

Another remarkable difference between the three scenarios was institutional diversity on a European scale. Centralia saw higher education across Europe characterised by a clear stratification, with the more prestigious doctoral-level teaching mostly concentrated in the Northern and Western Europe, while institutions in the south and east were mainly limited to teaching at the bachelor-level. In Octavia, the same North-West to South-East gradient of prestige appeared, but then with the South-East concentrating on ‘teaching-only’ higher education institutions and the North-West enjoying ‘research universities’. The Vitis Vinifera scenario emphasised that the diversity on different dimensions within each country was remarkably large, while diversity across Europe was much less striking.

With regards to research, in Centralia it was suggested that the invention of the term ‘post-mode-2’ research was in fact a return to a ‘pre-mode-2’ situation; (public) universities had gone back to basic research while the newly separated R&D function took place in the (public-private or private) company laboratories. In Octavia, on the contrary, mode-2 research had become all-pervasive in its public-private university-industry networks. The political question not addressed was who in those networks really set the research agendas and accordingly who decided on the type of research, research subjects and who reaped the benefits (knowledge or products)? The answer to these questions was also not explicitly provided in the Vitis Vinifera scenario, although the answer was hinted at. The new role models for researchers were innovators, no longer the Nobelists. In this, Vitis Vinifera sketched a mirror image of Centralia and one might wonder if in such a scenario any solid mode-1 research would be left at all?

Governance & Management

When it comes to the governance of higher education systems and institutions, the situations and problems in the three scenarios can be illustrated by the (pseudo-)scientific law invented in Vitis Vinifera:

- **CHEPPS first law**: Higher education institutions are by definition smarter than Ministries and co-ordinating 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.

System governance in Centralia depended heavily on European-level policy-making (colloquially termed strong ‘Brussels’). Europe ensured system coordination, it made the regulations and provided a large proportion of the higher education and research budget. The scenario relied heavily on technology, massive data transfer and decision-support software in order to overcome the second law. The (bureau-)politics of interorganisational relationships, amongst other factors, prevented technology from being fully effective in that respect; under the surface there were span-of-control problems. Moreover the higher education institutions were characterised by
professional institutional management (supported by similar technological advances) thus re-applying the first law, only at a higher level of sophistication than at present. When institutional management is mentioned it should be emphasised that in the Centralia scenario it was forecast that even though more professionalised, control over higher education institutions would remain firmly in the academics’ hands.

In Octavia system governance was more complicated, with full-scale application of multi-level governance ideas. Authority was divided over – and shared by – actors at supra-national, national as well as regional levels. It is doubtful that such a complex governance arrangement could be realised as it would exponentially increase the coordination problems among the different actors, even before the CHEPPS laws come into play. If the multi-level governance system could work, it would alleviate some capacity problems by limiting the range of control mostly to individual networks or regions within Europe (sometimes nations, sometimes federal states, and sometimes sub-state regions). With regard to institutional leadership, Octavia forecasted it would focus on leadership for change in ever-changing networks. The magic words were ‘management of flows’ (knowledge and capital) rather than of facilities or personnel. This would seem to put high demands on institutional leadership.

The demands on institutional leadership would be even higher in the extreme number of fluctuating extra-organisational relationships that characterised the Vitis Vinifera scenario, and in that sense it may be (even) less realistic than Octavia. On the positive side, as far as Vitis Vinifera is concerned, the first CHEPPS law was not much of a danger here, as there was very little large scale system governance.

**Funding, Competition and Markets**

The issue of resources was at the core of many differences between the three scenarios.

The issue in Centralia was that the ‘public’ was put back into higher education, more so than at the turn of the century. This implied mainly public systems under (supra-national) state regulation: the EU regulated competition and ensured protection in the public system. Public funding of higher education institutions (supply funding) was based on student numbers. Public regulation in Centralia also extended to private contributions: tuition fees (which had been introduced across Europe) were kept within government-imposed bounds though they were not uniformly prescribed. In response to the demographic decline in Europe in combination with the fees charged in public higher education institutions, measures were needed to ensure access to higher education for all income groups. Centralia accordingly introduced the EU ‘Talent Stipend Fund’.

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3 Interestingly, in the perhaps over-organised, bureaucratic discourse of the Centralia scenario the term consistently used is ‘management’ of higher education institutions. In the other two scenarios the term ‘leadership’ is used as well.
The core term in Octavia was public-private partnerships: funding sources were both public and private for different purposes (using differently-targeted incentive structures such as formulas). The public part of higher education funding – from different public agencies – focused on the teaching function, using vouchers for students (demand funding) that could be used flexibly by students for different course units at different moments in time and at different (higher) education institutions across Europe. Students in this scenario were ‘protected’ mainly by the multitude of access options they had – a trust in large numbers of market parties rather than in market regulation.

The market as the main coordination mechanism emerged most clearly in the Vitis Vinifera scenario. This model emphasised the private parties and their business-like approach towards higher education. Higher education was seen here as a private good: a marketable commodity. This private character applied more to higher levels; it was accepted that undergraduate higher education still had sufficient externalities to warrant some public intervention. Accordingly, even in this scenario, in order not to depart too far from respondents’ opinions in the Delphi study, the public role was not completely eliminated. Public funding, such as there was, funded teaching on the basis of undergraduate enrolment. The legal status of institutions (public or private) was becoming unimportant for funding purposes. Tuition fees varied enormously across institutions within wide national bounds (if any). Public support for students was basically limited to the first degree level, with scholarships based on both need and merit.

The Lisbon-related 3% target of funding for research and innovation was reached in the Centralia scenario in 2012 thanks to funding from Europe. In Octavia, the target was already reached by 2009, thanks to public-private partnership funding. In the Vitis Vinifera scenario the 3% aim was ‘comfortably’ exceeded by 2020 thanks to private investment in research and innovation.

Another market-related theme included in all three scenarios was an enlargement of the set of providers and programmes in higher education. The offer of education was increasingly transparent thanks to registers and/or accreditation in the Centralia and Octavia scenarios. Only in Vitis Vinifera was a decrease in transparency forecast due to the proliferation of market niches. Consumer sovereignty was increased in all three scenarios thanks to the introduction of (differentiated) fees – there was more to choose from and the market signals for choice were clearer than at the turn of the century. At the same time producer sovereignty was influenced as well; in some respects in the same direction in all scenarios: higher education institutions would acquire more autonomy in financing, programme supply and staffing (‘HRM’) policy and they would be much freer than at present to work in alliances or partnerships with other actors. One of the differences across the scenarios was the issue of market protection: in Centralia there were more barriers to entry for private and foreign providers than in the other two scenarios though not so many as to exclude them completely.
Quality Matters

The topic of higher education and research quality remained high on the agenda in all three scenarios. But which aspects of quality were affected in the different scenarios?

The degree structure, a framing element for quality, has already been mentioned in the discussion on diversity. In the Centralia scenario, a uniform 3+2+3 structure (defined in a more sophisticated manner in ECTS-modules was implemented. On the other hand, it was not the length of study but graduates’ competences that counted. Accordingly one might wonder what was the real determinant of graduating and if the uniform structure was as uniform as the labels seemed to say. In Octavia the theme of complexity and uncertainty regarding quality could be illustrated by the degree structure too, but that was topped by the Vitis Vinifera scenario with its statement that ‘some things are just unclassifiable’ How could European society make sense of such a chaotic ‘jungle’?

In the Centralia scenario, students were carefully guided to minimise talent loss. Taking a different view on this worthy quality principle that drop-out (‘wastage’) is to be avoided, academics might object that in this way students would be pampered too much rather than becoming well-educated adults. Also if you cannot fail students anymore at examinations, what is left of academic freedom? The main problem in the Octavia scenario was different, namely: How could the coherence of students’ learning experiences be checked when their study was best described as a cross-institutional, cross-national journey with diversified, modular programmes? This lack of coherence also surfaced in Octavia in the descriptions given of the concept of quality, namely ‘supporting a diversified student body to acquire a mixture of skills and knowledge…’ Similarly, education was defined in a way that also implied hard times for coherent learning: ‘experience-based learning programmes for contextualised knowledge applications that are strongly linked to the local embeddedness of the global knowledge economy’. No wonder then that social actors could not take higher education degrees at face value and therefore installed their own continuous tests of graduate employees in the workplaces against ever-changing criteria due to changing relationships and needs making the uncertainty even bigger. Already in Centralia it appeared that to design a harmonious system responding to many stakeholders’ needs required a very complex system of quality assurance. Centralia sported accreditation plus Graduate Competence Tests plus EU Civil Service Concourses. The main difference with Octavia were that (public) tests carried value and trust to other actors and they did not have a ‘sell-by’ date.

The coherence issue was relevant to the Vitis Vinifera scenario as well. Here, however, the cause lay mainly in the fragmentation of institutions and especially in the fact that at least the private higher education sector to a large extent relied on web-based education. Web-based education is currently seen as rather complicated for quality control, but maybe that will have been solved by 2020.
Standardised course modules were another feature of the Centralia scenario. Taking the division of academic labour a step further by using well-designed curriculum and study materials even if they were ‘not invented here’ might benefit the equal dispersion of curriculum quality across Europe. Yet a cultural bias was introduced at the same time as teaching modules were mostly designed in the North-Western part of Europe.

Regarding external quality assurance, the range of solutions were numerous throughout the scenarios. At one extreme Centralia described a system with obligatory European accreditation. A technical and conceptual advance foreshadowed at the turn of the century by some countries, the emphasis in accreditation progressed from input and process factors to output, albeit in a utilitarian manner. Employability of graduates became the main accreditation criterion. The focus on competences should mean accreditation was a ‘light’ procedure, not focusing on input and process data. Still, the data demands seemed to be very heavy; it was not a ‘slim audit’. Slimness was more visible in the re-accreditation that took place once every eight years and was semi-automatic, based on monitoring data without heavy evaluation processes. However, in accreditation the cracks in the varnish of harmony appeared too: there were purportedly uniform European Accreditation Agency (EAA) quality standards but universities lobbied for exceptions. The upshot was quality standards were higher in the North-West than in the South-East of Europe. Again an issue of cultural bias surfaced.

The opposite position was taken in the Vitis Vinifera scenario, where most national quality assurance or accreditation schemes had been abandoned. Vitis Vinifera gave up on assessing quality. Nearly all that was left at the supra-institutional level was the European Higher Education and Training Authority (HETA), which only registered study programmes from providers. Apparently this register gave a minimal assurance that programmes offered were ‘genuine’, for it had legitimacy in the marketplace and was therefore popular amongst most private and public higher education institutions. For the rest, the markets were trusted to assess quality. In our minds markets increasingly demand innovation, responsiveness, renewal and mass individualisation. The emphasis is on changing things quickly. This leaves no stability for developing quality or even assessing education effects that need time (often many years) to become visible. That the markets were not completely effective was hinted at in the Vitis Vinifera scenario where there was growing public concern about declining or at least differential quality. It was hardly reassuring to read that by 2020 the diversity of quality was not yet as large as in USA.

It should not be forgotten, however, that in Vitis Vinifera there also existed some collegiate institutions educating for a ‘critical and responsible citizenry’. This scenario left room for almost anything, as long as some people demanded it. Not all was bad there, which could be said of each scenario. The rosy picture provided by the three ‘tales of a city’ in the previous chapters may have been overdone, but the criticisms in the tale of three cities in this chapter are an equally intentional overstatement of the bleak sides of those higher education cityscapes.