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Can national systems of Higher Education and Research learn from each other?

Preliminary observation

My question is a real one and it is exactly meant the way I phrased it: *can* we learn? Not: *should* we learn. But: *are we able* to implement what we see elsewhere and would like to be or have ourselves? I am asking this question because it seems that learning from foreign interventions and experiments in Higher Education and Research systems is much more problematic than you might think. Why is this?

In the *first* place one should not forget that educational and research provisions cannot be compared *in vitro*, under controlled lab conditions. They are *not culturally neutral* but to a large extent defined by their context, reflecting the societal realities they are part of. Higher Education and Research systems share to a high degree the tacit knowledge and characteristics of their national and regional context. In one country universities naturally look towards their national governments for change and innovation, while in other countries a natural sense of self-determination prevails.
Similarly it should not be forgotten that every Higher Education and Research system is intimately interwoven with the *economic* realities, fortunes and misfortunes of the country.
A third crucial factor is *time and timing*. Change and development take time. It is in decades rather than years that the yield of reforms will come. The sequence of change is also quite significant.
Interventions designed to bring about well-defined processes of transition and transformation may fail in one case and succeed in another just because of wrong or good timing, the lack of or the presence of certain external or internal supporting conditions.

In my view many international comparisons of Higher Education and Research systems fail to take these considerations seriously. One of the simplest examples is the advice to follow the example of countries that have strongly promoted enrolment in Higher Education in the interest of economic development. In many cases, however, graduate employment doesn't keep pace with increasing numbers of graduates, leading to societal and economic frictions rather than to the improvement and progress that were expected. One cannot and should not isolate graduate education from the long chain it is part of.

Another issue that should not be forgotten when looking for lessons to be learnt from international experience is how to best define the *categories* for such a description. Illuminating examples for this can be found by observing the misleading simplicity of international *rankings*. Almost all of them concentrate on the category "research intensive university" at the *institutional* level, subsuming the wide variety of schools and departments *within* the institution and entirely disregarding the differences between institutions. Likewise systems with many specialised universities (like in business studies, medicine, STEM, SSH or food & nutrition) are being measured and compared with systems without such specialised institutions. In addition to this most comparisons of national systems simply describe *universities*, although for quite a few systems research institutions *outside* universities represent a substantial part of their national research provisions.
In other words, category definition plays an essential role. One should avoid simply comparing national systems as if they are being organized and can be compared along the same category lines.
A related fallacy risk occurs when comparing factors explaining success or failure in various national systems. Usually "easy" factors like law making, institutional governance and models of funding play a prominent role in such comparisons while factors that are much harder to define and compare (like a culture of hierarchy or of collegial collaboration, an innovative spirit or a conservative attitude, and various degrees of openness to diversity and internationality) are hardly taken into account.[1]

So it is only with many restrictions that I'll refer to the Dutch Higher Education and Research system as a possible benchmark for Austrian colleagues.

What could explain the relative success of Dutch research universities?

A year or so ago the Norwegian secretary of state for higher education came to visit his Dutch colleague. At that occasion he asked a simple and straightforward question: "The Netherlands has a number of universities on the Times Higher Education top 100 list, Norway has zero. What are the main policies and reasons behind this great success in the Netherlands?"
I was invited to provide an answer. The following is basically what I said.

"The superficial answer is: a strong *research performance* and a strong international *reputation*, because this is what these league tables measure.
If you want to dig deeper, statistics do not offer easy explanations for this fine performance and this strong reputation. As a matter of fact The Netherlands show a mixed picture when benchmarked against countries with a comparable record:

- *lower* than average funding levels for research
- *lowest* share of researchers in total population
- *average* share of internationally co-authored publications (controlled for country size)
- *high* research productivity (second only to Switzerland) with above average levels of impact
- *impressive* record of EU research funding (both individual grants and project funding) and collaborations.

Maybe there are some beneficial *structural* factors at play:

- public research money is almost entirely spent *inside* a relatively small group of 13 research intensive universities
- 40% of these research universities have a *focused* profile (technology, food & nutrition, law & economics)
- the remaining 60% show a strong *focus* on health & life sciences
- since the mid 80s *all* research had to be *team* work (rather than individual projects) to qualify for funding and since the mid 90s all research is carried out and managed in intra-university institutes for research and training PhDs
- *little* performance *variance* exists between universities
- *location* advantages (open borders and short distances) facilitate collaborations.

Maybe there are some *social-cultural* factors at play as well:

- a *very long* tradition of international values, mobility and collaborative connections abroad, so literally all researchers are well networked internationally
- foreign recruitment helped by an attractive *mix* of *competitiveness* and *informality* in the workplace and the *absence* of regulations favouring national recruitment
- a tradition of stimulating, innovative and entrepreneurial *leadership* in many research groups and institutes
- a strong inclination to look for inter-university *collaboration* at all levels.

At the end of the day there seem to be no easy, straightforward answers that can explain the present performance of Dutch research universities and their strong reputation abroad. It is probably the combined result of a number of very diverse factors. In any case there is no home recipe that one could simply use elsewhere."

Similar questions about Dutch university performance in *Teaching & Learning* are rarely asked. In my view this is the deplorable result of the common international policy focus on research instead of on the basic processes of teaching and learning.

As a matter of fact universities have a great deal to lose if they do not perform well in this part of their job. And a great deal to gain if they are part of an educational landscape that is doing well. So during my seven years as president of VSNU (the Dutch Association of Universities) our # 1 priority was how to stimulate and improve performance in teaching and learning.

After a period of structural improvement and stimulation of their *research* performance (i.a. introducing teamwork, research group programming and performance measuring in *all* disciplines)

since about 1995 Dutch research universities have gradually re-focused their strategies on improving their *teaching* & *learning* performance in order to re-balance priorities.

To get the picture right it is important to know some key background conditions:

- since 1986 periodic reviewing by external peers *of all teaching programmes* and performance had been the rule
- *35%* of first year students entering Higher Education opt for universities rather than *hogescholen* (polytechnics) resulting in a relatively uniformly qualified and well prepared student population[2]
- yet in almost all cases *open* enrolment of all qualified incoming students is allowed (outside medicine few caps exist)
- and *only one* university (Maastricht) was founded on the basis of an explicit teaching & learning philosophy.

Since the mid-90s quite a few structural innovations in teaching and learning at research universities have taken place:

- *institutes for teaching & learning* were introduced by universities as the collaborative centres to design, operate and evaluate teaching programmes and learning performance (replacing individual professorial or departmental responsibilities)
- next to mono-disciplinary curricula quite a few *multi-disciplinary* curricula were introduced at bachelor level, and a good number of new, stand alone liberal arts & science colleges 2.0 were created
- all medical faculties introduced *integrated* curricula in which pre-clinical, clinical and research-led elements were combined right from the beginning
- more in general, curriculum re-design in view of research innovation and changing labour market demands is the rule; very few curricula remain unaltered for more than a decade
- the Bologna three-cycle model was immediately seen as a positive help in terms of programme re-design and student choice.

Since the early 2000s most universities have continued to improve conditions for teaching and learning by qualitative measures:

- basic teaching *qualifications* were required for incoming junior teachers at all levels (including supervision by colleagues and in some cases to be followed up by a senior teaching qualification)
- *transition* support programmes were set up for incoming students while they are still in schools (and in some cases preparatory junior tutoring)
- *honours* tracks were offered almost everywhere, both at bachelor and at master level
- a national programme was initiated to stimulate bachelor level *research* activities
- *English* language taught programmes were widely introduced (most masters are English language taught, some at bachelor level)
- *dual* mode accreditation remained in place (both at institutional and at programme level)

All of the above occurred while funding of teaching and learning did not get better. The opposite is the case: funding did not keep pace with the steady increase of student enrolment.

Reform in the Dutch Higher Education and Research system (1985-1992)

Almost all of the developments I just referred to, were initiated by the universities themselves, and *not* designed as a consequence of national reforms or government interventions. There is evidently a strong spirit of institutional self-determination in Dutch universities, not just at the level of the rectorate. Historians and sociologists are not surprised. Strong centralized government had never been a popular Dutch phenomenon.

There is a more specific reason for this sense of university autonomy as well.
In the early 1980s it was widely felt that the pace of developments in (the context of) Higher Education and Research and the degree of complexity were such that the administrative system of HE&R could no longer be managed well and steered effectively at a distance, at the level of national government.

Academic autonomy had always been self-evident, now time had come for administrative decentralization.

Government had to step back and refrain from detailed decision making in profiling, funding, staff reductions or increases, human resources, recruitment, salary levels, housing, research facilities et cetera. Within the general framework of national budgets it would be from then on the role and responsibility of individual institutions to set priorities, plan reductions or investments whenever and wherever the need and the opportunities were seen.
Institutions were over time given a relatively high degree of autonomy in all relevant domains. Universities were thought to be big and strong enough to carry the new responsibilities.[3]
Lump sum or block grant funding became the rule. Distribution of funding to individual institutions was based on a set of general funding formulae. Standard auditing rules and practices were applied to the Higher Education sector. Investment schemes for housing and other facilities became a local responsibility, no longer part of government policy. Collective labour agreements and all academic recruitment and appointment decision making became the responsibility of university leadership.
The national *Academic Council* that for many decades had been the platform of national planning and programming university curricula was disbanded. A national association of universities and a national council of polytechnics were created.[4] This expressed and emphasized collective institutional responsibility. Their role would be to negotiate with government on all issues of national policy and law making. They would also replace government in dealing with trade unions on collective labour agreements.

A *threefold* set of controls was implemented to guarantee national system coherence, effective oversight and accountability in terms of quality assurance.

- Every four years since 1988 a comprehensive planning document (issued by the minister of education and research based on a lengthy multi-party process of consultations) would indicate mid-range objectives and conditions for the whole system. Responding to these documents individual universities would develop their own four-year planning document (institutional development plan).
- From 1988 onwards all programmes of teaching & learning and in research at each university would be evaluated periodically (once every 4-5 years) by external peers. The results of such evaluations would be made public. These evaluations would only have funding ramifications in cases where quality was proven to be substandard. The national association of universities was to organize these evaluations.
- From 1997 onwards each university would be overseen by a non-executive supervisory board (consisting of five externals, appointed by the minister), to which the executive board of the university (consisting of president, vice-president and rector/provost) would report in all matters of strategy. All members of the executive board would be (re-)appointed by this supervisory board for limited periods of tenure (usually 4 years at the time).

Since the 1990s these arrangements have been in place, basically without alterations. This stability has enabled individual institutions to develop their individual profile, while at the same time the absence of immediate competition on funding has created good conditions for collaboration between institutions, at all levels.[5]
The transfer of tasks from government level to individual universities has led to a substantial downsizing of the government department for education and research. It has also caused what one might call an identity crisis of the ministry. Its new role required limited number of staff, another attitude and another type of professionalism. The old tradition of integrated responsibility for the whole system and the hierarchies that came with it had to go. And it took a while before a new role concept took root.

To which factors the success of the 1985-1992 reform process is to be attributed? And has it been sustainable?

In its initial phase strong leadership both at the political level (minister and key departmental staff led by a well informed and strong director general) and at the universities (a number of relatively young academics in positions of leadership) created a positive climate for change. With hindsight the combination of sound analysis ("strong growth and new complexities cannot be handled well in top

down hierarchies but require independent institutional players") and the shared experience of inadequacy and insufficiency ("muddling through was no option") was a golden pair. Consecutive coalition governments supported the basic concept of government stepping back and institutions stepping up. This doesn't mean, however, that everything went smoothly. The law making process took much longer than planned and in the process parliament tried to reintroduce some detailed steering elements, sometimes successfully.[6]

Since the 1990s, somewhat depending on political preferences and personal ambitions of individual ministers on the one hand and cultures of leadership at the university level on the other hand, consultations between government and universities in general and over time have been functional, business like and productive.
Good examples are the easy implementation - within a period of 3 years - of the Bologna three-cycle model and the transition from a university-led quality evaluation of teaching and learning to an agency-led accreditation system.
Recurring divisive and controversial issues were the general level of university funding in education and research (in both cases funding levels remained relatively low), the specifics of student scholarship arrangements and the setting of tuition fee levels, and last but not least the setting of caps for student numbers. Here party politics and/or discord among university leadership stood in the way of policy agreement.

The Dutch system of Higher Education and Research has very little to offer in terms of *recent* attempts at *system* change at the national level. Whenever at the national level political attention was drawn to the sector it was because rather minor topics were blown up to political proportions.
There is apparently no real reason for major government interventions. Overall performance is more than satisfactory, especially in research. Major innovations in teaching and learning structures have not been brought about by decree, but by bottom up initiatives at individual universities, often in inter-university collaboration. Objective observers would see in all of this vital and reassuring signs of a grown up system of autonomous universities.

Not all observers come to this conclusion however. The 2008 OECD country report on The Netherlands noted the good performance level but seriously questioned the weakness and/or absence of government interventions in the system. The minister at the time – a former research director – didn't think so and put the report aside. A few years later, however, a new political coalition convinced itself that special interventions by lawmakers would and should make things better. An elaborate scheme of identifying a shortlist of national economic priorities (to be called Top Sectors) and re-prioritizing accordingly part of public research funding was set up and debated endlessly. All of it driven by the assumption that university research wasn't relevant enough. The irony of the process was that after a while business leaders began to emphasize the value of independent university research, research funders found smart ways to satisfy their principals by re-labelling programmes and the minister who had started it all left politics never to be heard of again.
Another example is the 2010 study commissioned by the then minister of Education and Research on the future of Higher Education which underlined the need to further differentiate tertiary education in times of mass enrolment, proposed the introduction of quite a number of short first-cycle programmes at the *universities of applied science* and a system of capped enrolment at universities. Although at its presentation almost all political parties supported the analysis none of it materialized to any substantial degree.

To the surprise of some outside observers this lack of successful government intervention does by no means lead to a lack of dynamics. Universities of applied science and research universities adapt their curricula to the demands of the changing labour market and/or new developments in research. Liberal Arts and Sciences Colleges 2.0 have been invented and realized on the initiative of individual universities. Similarly universities and university hospitals have themselves completely redesigned their internal governance. Intense co-operations between universities (above all in research) are quite common. Et cetera, et cetera.

In short, for those of us who firmly believe in top down interventions and incentives at the national system level the Dutch Higher Education has little to offer.

The funny paradox of the matter is that in political discussion and media coverage an education minister who celebrates proven performance at the institutional level usually is taken to task while ministers who are constantly and visibly working on small scale improvements at the operational level are being cheered at. In both cases life goes on and professionals in schools and research institutions do what they are supposed to do.

The internal organizational arrangements

Before concluding I want to draw attention to a factor that most often is being neglected when comparing universities on an international scale. It is commonplace to state that universities need autonomy to function properly as an independent, open and forward-looking community of scholars (which is why universities exist).
This autonomy or independence, however, is not just a matter of adequate external relations, between government and institution. It requires internal organizational arrangements that are in line with it.[7]

Academic individuals, teams and institutes within a university, need a fair degree of freedom, allowing them to make their own decisions by force of their *professional* qualities and responsibilities. This implies that inside the institution there must be room for a high degree of self-governance.
What is valid concerning the relation between government and institution is also valid in-house. The complexities and dynamics of modern universities, above all in the case of large and multidisciplinary institutions, require individuality and a fair degree of independence at faculty and department level.

This complexity is linked to the *variety of work processes*. Teaching and learning as well as research are the *primary* work processes of any university and as such the prime responsibility of academics in departments and schools. This requires a flat organizational structure, in which operational responsibility is with teachers and researchers and strategic coordination is in the hands of deans and directors at faculty level.

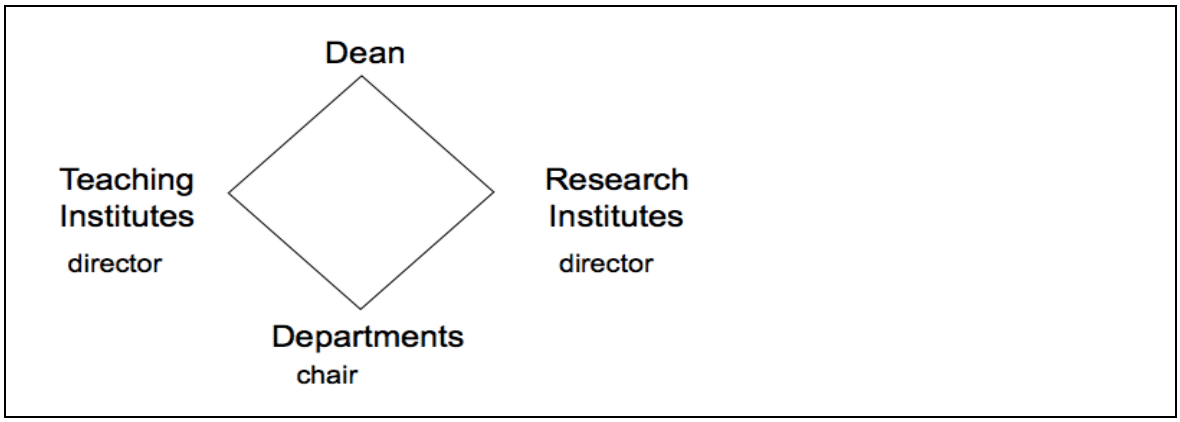
Human resources management is another important task. A university's core academic success and failure factors are closely linked to individual *professional qualities*. Universities are resource-based organizations. They as a rule spend between 75% and 85% on salaries and other staff costs. Both in teaching and learning and in research the volume and quality of human capital are key.
So good recruitment and career maintenance are among the most important success or failure factors for any university. This not only requires the freedom to individually recruit (instead of being dependent on state run competitions), it above all demands the eyes of expert faculty members. It is hard to imagine an even partly political or bureaucratic selection or evaluation process that is equally fit for this.
Similarly short and long-term career planning and counselling of junior and senior staff in teaching and research, and the creation and maintenance of a professional quality culture rank among key responsibilities of university leadership. Here deans, presidents and provosts have a crucial role to play.

So each university needs a fair amount of autonomy, precisely because it is *at the same time a complex and a professional organization*.
Yet autonomy does not make things better automatically. Autonomy by itself is no more than space and opportunity. It demands good quality players and good quality play. This is why academic autonomy should be translated into good self-governance at all levels and in all fields.

After the 1985-1992 reforms of Dutch Higher Education and Research it was soon realized that universities could not handle these new tasks without considerable changes to *their internal organization and governance*. So by 1996 another new law was made that allowed universities to design their own internal structures and to put greater trust in academic leadership rather than in broad representation and decision-making by lengthy meetings of large councils and committees that more often than not lack determination and continuity. By appointing full-time deans and academic directors the degree of professionalism and continuity in schools and faculties was enhanced considerably. Even more importantly, the responsibility for the primary processes of teaching & learning and research was transferred to newly formed units or institutes. These new units or institutes for teaching and learning reflect the shared responsibility of a varied community of scholars

of different departments and sub-disciplines for a cluster of study programs. Similarly, relatively large-scale research institutes within schools or faculties reflect the realities of multi-disciplinary co-operation. At the same time, these new units were much better prepared to professionally organize themselves and respond to the multitude of tasks in terms of funding and operational research management in a modern research university.

The organization chart of the average faculty of a Dutch research university would then look somewhat like this:



In this scheme both teaching and research for the very first time were organized as the joint responsibility of teams of teachers and researchers within the framework of teaching or research institutes, each with an academic director as its head. In this way, the traditional very fragmented professorial or departmental model was being replaced by co-operation in teams and institutes. One of the many benefits of this change was the creation of a clear sense of ownership for processes in teaching and research that had formerly been quite fragmented and hard to address. At the same time faculty departments got a more limited, yet more clearly defined task: staffing policy and development of the department's academic field or discipline. They serve as capacity groups of academics that then are 'hired' by one or more teaching and/or research institutes to contribute to the work programmes of these institutes.

At the end of the day – within the limitations of the system (average level funding, low tuition fees) – Dutch universities have considerable freedom for strategic development as well as day-to-day decision-making. Deans and academic research directors and their teams enjoy quite some 'entrepreneurial' leeway in terms of programming, funding and co-operations.

An instructive illustration of the central role of deans in funding and budgeting has recently been presented by a report of the Rathenau Institute for Science Policy Research.[8] It is in the office of the dean that the very complex realities of research funding (the 'spinning plates' in the title of the report) manifest themselves most clearly and palpably. She of he is the one keeping all plates spinning. And this is – in my view – how it should be. His or hers is the only level of decision making at the right range from the workplace.

In conclusion

As I said at the beginning, I am not presenting these developments as blue prints that might be adopted elsewhere. Taking into account their specific local contexts, conditions and culture, all national systems and all individual universities must find their own way forward. The one lesson to be learnt might be that The Netherlands example shows that it is possible to have a relatively well functioning system although all requirements are not being fulfilled. Waiting for better times and praying for rain doesn't help. With a well-developed sense of self-determination and entrepreneurship a lot can be done.

I want to conclude by stressing the need for and the potential powers of strong leadership in academia. This is about much more than top and central leadership. We need adequate devolved leadership; no

super rector or president can do it all by herself; universities need professional deans, strong research leadership and inspiring educationalists. Academics must be prepared to play their parts in academic leadership. I do not think that outsiders – seasoned business people or experienced politicians – can perform better than or as well as *academic* leaders. Although large investments, business co-operations, joint ventures and in general, the running of a university require strong management, these requirements do not warrant the decision to let non-academic general managers lead universities.

Another reason why I am convinced of this argument in favour of academic leadership is the need for shared values. Showing and telling the shared values of the academic community may be *the* core contribution of any dean or president. Especially in the case of devolved institutions, with a high degree of autonomy at various places and levels of the organization, the promoting and handling of shared values is absolutely key. Academic professionals, included those in leadership positions, have no remarkable talent for obedience. They must be convinced that what they are or should be doing, is the right thing to do. For this deans and presidents must sometimes possess considerable powers of persuasion, but they must always speak and understand the language of academia. Academic leadership therefore ought to be seen, treated and rewarded as a well-established career path for experienced teachers and researchers. It undoubtedly is more than a part-time or temporary assignment. Also this is one of the consequences of more freedoms and more responsibilities for universities.

The university sector in The Netherlands is basically healthy, although not perfect. By far the most important proof of good health is the vitality of the research domain and the innovative spirit in teaching and learning. HEIs have basically been autonomous since the early 1990s. Generally speaking institutions have been using this independence well. We have seen a lot of bottom up initiatives and a strong commitment to high quality performance, resulting in stronger individual profiling and better relations to (regional) stakeholders. It is, however, a never-ending story. New challenges require new sets of responses. A changing political climate, ever more diverse cultural identities, the paradox of societal fragmentation and omnipresent communicative webs, and a future labour market that is very hard to define – they all are very relevant for university strategies. I leave that to maybe another occasion.

Thank you very much for your invitation and your interest.

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[1] One of the last essays by the late David Watson (*Misunderstanding Modern Higher Education: eight "category mistakes"*) offers an interesting example of the importance of category selection, with a clear demonstration of the limitations of international comparison by rankings. "What does not count in international league tables: Teaching quality, Social mobility, Services to business and the community, Rural interests, Other public services, Collaboration and The public interest. What does count is: Research, Media interest, Graduate destinations, Infrastructure and International 'executive' recruitment." [www.hepi.ac.uk]

[2] Higher Education is offered in two types. Only a minority of first cycle students study at research-intensive *universities* (2015: 35% of all first year students in Higher Education). The majority are enrolled at *hogescholen* (polytechnics or universities of applied science). In secondary education there are three parallel tracks, two of them prepare for vocational Higher Education at *hogescholen*, one for a university education. Both university and *hogeschool* graduates are as a rule well received in the labour market. Graduate unemployment is very low. All universities are three-cycle (3+1or2+4 yrs) research-intensive institutions, while *hogescholen* are a mixed group offering two-cycle curricula (4+1 yrs) in a wide variety of professional fields, from teacher training and engineering to nursing and the arts. Compared to universities the volume of their research is limited. Short first-cycle programmes (2 yrs) are a rare phenomenon in Dutch Higher Education. Less than 5% of all first-cycle students enrol in these programmes.

[3] The sector of higher professionals schools or polytechnics (*hogescholen* in Dutch) was subjected to a nationwide process of merging and re-profiling, resulting in a limited number of much larger and more powerful institutions. Traditionally higher professional schools had been small, specialized and local. In the mid 1970s there were about 400 such schools, each of them directly answerable to the department (as far as they were public and funded from public sources). At the end of a grand merging and rescaling operation some 40 much larger and mostly multidisciplinary institutions remained.

[4] VSNU (Association of Dutch Universities, founded in 1985) and HBO-Raad (Council for Higher Professional Education, founded in 1976)
[5] Parallel to developments in the university sector similar changes took place in the polytechnic sector (since 1993 governed by the same legal framework)
[6] At the time trade unions and associations of employers played no key role in the process of system change. Their interventions were restricted to lobbying for their specific interests (academic job protection, labour market innovation)
[7] See for this Sijbolt Noorda *Academic Autonomy as a Lifelong Process for Universities* in: Leadership and Governance in Higher Education, Volume No 4, 2013, 1-15 from which I have utilized some key passages in the following paragraphs
[8] Elizabeth Koier, Barend van der Meulen, Edwin Horlings and Rosalie Belder, Spinning plates - Funding streams and prioritisation in Dutch university research. The Hague, Rathenau Instituut 2016