The limits of universities' strategic capacity for steering research

Today's universities are under pressure from multiple directions. The massive growth in students and staff has led to, amongst others, a high competition between individual academics, and universities for external funding. Studies highlight that the quest for external funding has led to a narrowing down of research topics in terms of breadth and scope, and some call for universities to more actively use their strategic capacity and leadership to create environments that also provide scholars with incentives for scholarly renewal, innovation and research beyond what is in high demand from external funders. However, the definition of strategic capacity, challenges related to it, and how universities and their leadership may use it are not always clearly defined. This policy brief addresses these challenges.

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1. A changing governance scene

After decades of developing steering and accountability relationships between universities and government, we now observe a switch in the rhetoric of governance of universities regarding research. There is on the one hand, a growing recognition that universities have limited internal steering capacity towards their sub-units and academics, as research priorities have been outsourced to external funders. On the other hand, there is a movement towards reforming research assessment where qualitative assessments and evaluations get increasingly more room (Sivertsen & Rushforth 2022). These movements also signal that university leadership could and should get a more prominent and important role in steering research activities.

However, *studies of the research system and the organisational characteristics of universities raise questions regarding the universities' capabilities to actively employ strategic approaches in terms of research priorities*. In the following, we will explain why the strategic capacity of universities and their leaderships to steer the work in their institutions is more limited regarding research work, and what this means for designing successful governance arrangements between the state and the higher education sector.

2. What is strategic capacity?

We may talk about strategic capacity on different levels. Firstly, university governance takes place at the intersection of higher education policies, public sector regulations, and academic norms or traditions (Musslin 2021). In this, *strategic capacity of universities is linked to a having a certain degree of autonomy* regarding both procedural and substantive matters (Berdahl 1990). Today, the level of autonomy of universities in Europe varies between countries as legal frameworks determine the extent to which universities can make their own decisions and pursue own strategic initiatives (Pruvot, Estermann, & Popkhadze 2023). At the same time, several studies highlight that there is a difference between formal autonomy and the lived or "real" autonomy, and that most of the time *the lived autonomy is more limited than the formal one* (Christensen 2011; Maassen, Gornitzka & Fumasoli 2017). The reason for this difference is manyfold, but a part of it is driven by the fact that universities are granted organisational autonomy, while the state employs accountability measures such as competitions for performance-based funding to steer the universities indirectly (Degn & Sørensen 2015).

Second, *for universities, the term strategic capacity describes how an institution lines up its internal sub-units like departments, faculties, centres etc., to achieve common goals* (Thoenig & Paradeise 2016). This presupposes a tighter coupling within the organisation – more 'complete' organisations – which indeed is a challenging task given that different departments and subunits can have diverging missions and interests. While universities' strategies set directions and priorities for the organisation, the effectiveness of these strategies depends on internal relations and interactions between units and levels, and how performance related to the strategies is assessed and valued. Some even argue that strengthened hierarchical governance is driving increased organisational specialisation and professionalisation, and that this results in fragmentation within universities with stronger faculties, which in turn makes it even harder to implement coherent strategic action (Maassen & Stensaker 2019).

3. Steering loosely coupled organisations

One of the main challenges for steering universities is that they are prime examples of *loosely coupled organisations, in which sub-units as well as formal structures and activities often are independent of*

one another and indeterminant, making rational and coherent action less likely (Elken & Vukasovic 2019; Orton & Weick 1990). While this does not mean that sub-units of an organisation are non-responsive to external signals, it underscores that universities are difficult to steer in a rational, top-down manner (Bleiklie, Enders & Lepori 2015). Due to these characteristics, steering in universities, by necessity, must combine top-down control with other steering approaches.

In balancing these aspects, universities must consider on the one hand standardisation, professionalisation and specialisation of organisational management and administrative functions, and on the other hand, safeguard organisational flexibility, adaptability and integrative capacity needed to enhance productivity and effectiveness of teaching and research (Maassen et al. 2017; Leisyte, Enders & de Boer 2009; Maassen & Stensaker 2019).

This trade-off plays out differently in teaching and research. In most universities, education is much more administratively regulated with the aim to ensure a reliable and comparable provision. In addition, national governments use quality assurance systems to influence procedures within universities to assess and control the provision of education. *This gives university leaderships more power to steer their sub-units and control the framework in which academics perform their teaching - a connection that is much looser in research* which depends more on the creativity of individual researchers and where disciplinary differences create fundamentally different ways in which research is conducted.

There is a growing recognition in the literature that universities have limited steering capacity both towards their sub-units and academics but also with regard to their responses to external demands (e.g. Maassen & Stensaker 2019; Maassen, Gorntizka & Fumasoli 2017). While rhetorically many university governance reforms have strengthened the role of the leadership, historically grown democratic elements in university governance remain important leading to specific local mixtures between the two approaches (de Boer & Maassen 2020). This mixture varies between and sometimes even within countries. One example here being hired versus elected university leaderships.

4. External limitations to strategic steering capacity

Another reason for universities limited steering capacity is related to consequences of *national, performance-based evaluation systems.* Notably, such systems have had positive effects. They have among others contributed to information about research activities which have been important in terms of transparency and for steering, and they have incentivized especially very low performing units to increase their output (Aagaard, Bloch & Schneider 2015). However, studies show that they also limit the universities' room to manoeuvre. Some highlight that universities' actions are guided by the desire to fulfil indicators and targets of evaluation systems (Thomas et al. 2020; Musselin 2021). Given that many countries have reduced the block-grant funding of universities and increased competitive funding this further strengthens the impact of performance-based systems (Hicks 2012).

Together this has had several, perhaps unintended, effects on different levels. For universities, this has implied an increased competition over resources and reputation and some universities have even employed strategies of gaming indicators to boost their financial returns (e.g. in the U.K.). This problem also holds for the level of individual academics as researchers are also not passive recipients of indicators but rather actively engaged with them potentially leading to goal displacement (de Rijcke et al. 2016). This might entail pursuing projects that are deemed relevant by the funders instead of following one's own scientific curiosity.

These strategies are an example of the de-coupling between indicator-based steering and resulting quality of research. For example, investigating the Netherlands, Sweden, and the UK, Telkeen (2015) shows how performance management altered individual behaviour of academics. She finds for all three countries an increase in formalisation and more focus on scientific publication output, but also a less explicit relationship with the actual quality and content of research.

Externally funded research grants are also used by universities as signals of both prestige and research quality, and they are therefore important for the external perception and branding of universities. For some universities this is additionally enhanced by a focus on performance in international rankings, while other – especially smaller and more teaching-

oriented institutions – are instead under pressure to fulfil local or regional needs. These diversified missions are not always properly reflected in national funding competitions or indicators used to distribute funding. Thus, the need to respond to such indicators can further decrease the room to manoeuvre for universities and their leaderships.

The increased focus on external competitive research funding further implies that the number of submitted proposals to funding agencies have increased, and for some attractive grants the success rate is now below ten percent (Langfeldt 2021). Studies also show that it is *often the same researchers that are granted external funding from different funding sources, leading to a concentration in selected researchers or research groups and their respective topics* (Aagaard et al. 2020). As external funding usually also comes with additional academic positions, one consequence is that *the choice of what to research and whom to recruit is often outsourced from university leadership or even the leadership of sub-units to external decision-makers and peer-reviewers of grant proposals* (Whitley et al. 2018). This may lead to that national and local needs may not get sufficient attention unless it is specifically prioritised by funding agencies.

Another challenging trend is that *external grants often drive a scaling up in personnel through hiring temporary researchers*. These researchers are recruited based on criteria of the research project and may not match the need of the department or the unit, in terms of competence required for teaching. Which in turn makes it harder for these researchers to find permanent positions once projects end (Borlaug et al. 2019). External funding thus contributes to move the authority to shape the research agenda and hiring policy from leaders of departments or faculties to principal investigators of external grants (Edler et al. 2014; Kondakci and Van den Broeck 2009).

Given the effects that external funding has on university leadership's room to manoeuvre, *several scholars underline universities' strategic capacity and wiggle room as an area that needs more attention* (Musselin 2021; Mignot-Gerard et al 2022; Franssen et al. 2023). This has emerged in particular in light of *challenges to uphold research areas that are not fulfilling standardised criteria of quality or excellence* such as being successful in acquiring external funding and publishing in highly ranked international scientific journals. Even without ticking these boxes, academic work in these contexts can still be relevant and necessary for society. A more diverse set of evaluation criteria would help to protect these environments, for example by using more peer review-based evaluations and including societal interaction assessments.

5. Different conditions for strategic capacity

Not all universities can employ strategies with the same effectiveness. Studies show that *differences in organisational resources and reputation influence the universities' strategic capacities* (Thoenig & Paradeise 2016). Well-off institutions have the capacity to support *internal* strategic initiatives, while those who struggle more financially mainly follow external priorities set by funding agencies or government ministries. Universities with high strategic capacity are often highly commercial universities like Stanford or Oxford which also have income from e.g. donations or endowments. This puts them in another situation than for instance purely public universities which in many cases are more dependent on developments in their respective national higher education system (Whitley 2008). The resource situation varies also between universities within one country. Large (and old) universities have often more strategic capacity compared to small and young universities, as the latter often have less resources and are more dependent upon national or even local / regional developments.

The *strategic capacity also varies within a university*. Pfeffer and Salancik (1974) studying budget negotiations between departments show that in decision-making both objective, bureaucratic criteria, like the number of students, and political criteria, like the internal power of the department, matter for budget allocation. Thus, there is often an interconnection as *wealthy departments with more external funding, have a better reputation and therefore also more power internally to influence strategies***.** Additionally, their relative strong performance may act as a buffer against external pressures from higher up in the organisational hierarchy (Mignot-Gereard et al. 2022) making it harder to enact strategies against their will.

6. What means do universities and their subunits have for enacting strategies?

Despite these challenges and imbalances, universities, subunits, and their leadership are not powerless. They can use different tools to support the implementation of (research) strategies even within their limitations.

Evaluations are one such tool, as they can be used to provide arguments and external validation for change processes. External and internal evaluations of research, study programmes or units may aid leaders and middle managers in setting priorities by providing legitimacy for their interventions, disrupting existing equilibria, or introducing new ideas or ways of seeing things. However, these processes also must strike a balance between disruption and appropriateness as newly introduced ideas and suggestions have to be perceived as legitimate and suitable to a given environment to be fully embraced by it (March & Olsen, 2011).

Lately, there have been national and international initiatives to *move from summative and narrow evaluations reflecting past performance of units to more formative evaluations*, which to a larger extent include a broader set of goals and take a more forward-oriented look at units. For example, several research institutions have signed the CoARRA initiative (see Sivertsen & Rushforth 2022) – the Agreement of Reforming Research Assessment, in which they commit to ensure that their research assessments will recognise and reward the plurality of contributions researchers make, respect epistemic differences, and reward open science, research integrity and societal relevance.

*There are also several examples of different forms of formative evaluations***.** In Norway, development agreements between the ministry and the universities have come to play a central role in the governance of universities. Many universities apply the goals in the agreements to legitimise internal priorities and some even apply them in their own internal steering towards faculties, departments, or centres (Elken & Borlaug 2023).

Another example is the so-called "strategy evaluation protocol" – SEP in the Netherlands. This assessment is explicitly formative and aimed at learning. The evaluation is done by peers and conducted at the level of organisational sub-units (e.g. departments or faculties), rather than the university as a whole (Franssen et al. 2023). An important feature of the SEP is that there is no funding attached to the evaluation. As such it is up to the university and the units to decide how they use the information gained, which gives them flexibility to link it to their respective strategies.

*The emphasis on learning and development seems to be a fruitful way forward for ensuring quality and variety***.** On the sub-unit level peer-reviewed evaluations may provide a leeway for middle-manager to engage in so-called sense-giving and sensemaking processes. Here *evaluations and similar exercises may be a legitimising device for setting research priorities*. Thus, they can be used to strengthen the implementation of strategies even in the absence of hierarchical steering (Degn 2018; Franssen et al. 2023).

Given the ongoing interest in and discussions about universities' internal authority and strategic capacity, these insights are important. They show that, *while being a powerful steering tool, funding is not the only and maybe sometimes even the wrong means to implement strategies and achieve change in research and research practices*. Moreover, the appropriateness of strategic interventions and steering is important to ensure not only support from academics but ultimately also the effectiveness. This in turn highlights that a too strong focus on hierarchical steering will encounter problems in cases where interventions are not perceived as appropriate. Moreover, especially research is an activity that is hard to steer in a hierarchical manner as it depends on inspiration, innovation, and knowledge of those actively working with it.

Having said this, funding remains a key tool for steering especially in situations where governance is more indirect and where setting incentives is the most common practice. This holds true both for the relation between governments and universities but also for the relation between universities and their sub-units.

To increase the strategic capacity of universities and delimit the many challenges following external funding, such as the rise of temporary positions, we observe a tendency in some countries to argue for a switch in funding streams, that is increasing block grant funding while reducing external competitive funding. While such a switch can empower universities it may also create challenges. For instance, external grants have several important

functions in academia: They in part support (if that is their aim) inter- and transdisciplinary research (Lyall et al 2013), they facilitate national and international research collaboration, and they can help to concentrate resources necessary for larger investigations. While the latter, as we have noted above, can also be problematic, it is still an important function especially in those disciplines that depend on large teams or expensive infrastructures.

While strategic capacity is often discussed on the level of university leaderships, it is important to also direct attention to the middle level including faculties, departments, or centres as their lived autonomy and steering capacity vary considerably given that universities are loosely coupled organisations. This creates a diverse ecology of sub-units all with their own interests and priorities, which in turn makes it harder for university leaderships to implement detailed and uniform strategies. A one-size-fits-all approach will not be successful when trying to develop and implement strategies for a diverse set of sub-units. A successful implementation of any strategy depends on the cooperation of the affected sub-units and academics, their perception of and involvement in the strategy, and its process of creation matter.

Policy implications

- Universities are loosely coupled organisations and the strategic capacity of universities and their leaderships with regard to research is in general more limited than in education.
- Given the greater dependence on sub-units and individual academics as well as the diversity among them, leaderships have to find ways to create acceptance for strategies and support for their implementation within the organisation.
- Using funding as incentive is one way of doing that. However, the ability to use this strategically can be limited by the incentive system that the government uses towards the universities. Not all universities will have sufficient resources to use internal incentive structures.
- Formative evaluations are an important tool that can help support the implementation of strategies as peer-review is a well-established procedure in academia and the results of evaluations can be used to create justification and support for the implementation of strategies.

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