Policy Brief Signalling Outside in: April 2024: key trends and advices

L.S. In the autumn of 2023, a group of S&P colleagues started sharing 'outside-in observations' (signals from outside UT that possibly affect UT). These 140-plus observations and developments were analysed for their interrelatedness and trend relevance. In this first policy brief, we have described the most relevant trends, including advices in cases where there is a course of action for UT. Meanwhile, the internal developments did not stand still, with the insights gained already proving useful in the Building Blocks/ restructurings and preparations for the Spring Memorandum. The SP policy brief will come out every six months from now on. The goal of this independent briefing is to provide inspiration for a sustainable and proactive university with key trends & advices. In doing so, we like to expand the team with interested parties from outside S&P. After all, the more info we collect and share, the sharper our advice! Feel free to respond Monique Verwers (m.verwers@utwente.nl).

Here we go! Developments in the outside world create a context for UT that is fraught with increasing insecurity and changes. In this briefing, we will first discuss seven developments in the world and then distil them into advices for UT. In summary:

- Make choices, thereby avoiding a fragmented profile and the perpetuation of an overly vulnerable system.
- Work on the transition to a UT that is sustainable, future-oriented and agile; ensure a clear profile with cost-effective educational programmes and institutes.
- Focus on promising subject areas in both education and research, using existing funding instruments, *and* study new ways of bringing about structural funding and an agile organisation.

Observations and trends: 7 developments in the world

Scanning, clustering and analysing news in the outside world (without claiming to be comprehensive) paints a picture for UT that is fraught with increasing insecurity and changes. We will first discuss seven developments in the world and then distil them into advices for UT.

1/Decreasing influx

- The demographic trends show a decreasing number of young people in the Netherlands. The number of schoolchildren in Dutch secondary education that opt for a science subject cluster (required for engineering and technology programmes) is dropping. Other Dutch universities (in areas with more inhabitants) are also eager to attract young people from our region.[1]
- As national influx is not resulting in enough graduates in engineering and technology, higher education institutions are also providing English-language education to students from Europe and further afield. The current political discourse is ushering in a change in this respect. We're also seeing this in, for example, Australia, Canada and the UK. Conversely, countries such as Ireland, Germany and Denmark are more open to international students.
- Higher education institutions must anticipate a lower influx. In the Netherlands, the scores achieved by young people in mathematics and language have dropped over the past years.[2] The number of hours secondary schools devote to science is also decreasing. The impact of the pandemic on primary and secondary education will continue to be felt in the years

ahead. As more lenient transition standards have been applied, certain basic knowledge is less present. Social (and related) skills are also less developed because young people were confined to their homes at an age critical for this kind of development.

- Although the basic grant has made a comeback, there are still many students who need to borrow money to afford tertiary education.

2/Less money

- All Dutch universities are struggling in terms of finance, which is ushering in an era of financial insecurity.

- The business community in the Netherlands seems hesitant about investing into R&D at universities.[3] For one thing, this has to do with unclear government policy vis-à-vis the business community. The term in which the investment can become profitable is also important in this respect, directly linked to its application in practice.

- In addition to budgets for fundamental research (sector plans) and money geared towards economic impact (Growth Fund), the government focuses on ten 'Key Enabling Technologies'.

- The percentage of R&D funding in the Netherlands is lower than in other countries; government spending on innovation is still going up thanks to the Growth Fund. The current political climate does not provide any certainty about the future of funding instruments and Europe has also announced cutbacks for the new funding period (from 2027).

- Municipalities will have lower budgets as of 2026,[4] which may translate into cutbacks on public services.

3/Demand for lifelong development

- We see that lifelong development (including flexible education and microcredentials) is receiving regional, national and international attention: there is doubt as to whether the supply is growing quickly enough to meet the demand for well-trained personnel.

- Employers struggle to find personnel with the right knowledge and skills. This is clear from labour market prognoses (ROA) and the Eurobarometer survey.[5] What is interesting in this respect, is the recent news that training budgets remain unspent at many institutions.[6]

4/Regional importance

- Regional cooperation and collaborations such as the cross-border Euregio are promoted in various ways. In the Netherlands, attention is paid to the regional aspect and Brussels also encourages regional collaboration (including with neighbouring EU countries). Brussels provides funding opportunities as well.

- In Twente, we're seeing it's difficult to keep both Dutch and international talent in the region. The 'stay rate' (the number of graduates that find a job in the region) is too low to meet demand in the region.

- The European Commission also funds collaboration between European regions and 'new' regions, such as the emerging Global South. For example, European funds for collaboration with Africa were recently announced.[7]

5/Unclear governance and increasing administrative pressure

- Alongside political influence, national reports on the future of higher education were published. These generally revolve around a system overhaul, i.e. changing the way things are organised and funded. Ideas are popping up about new ways of 'distributing' students, for example through capacity funding.

- The government (the Ministry of Education, Culture and Science) and politicians (e.g. the House of Representatives) are exerting a greater influence on decisions that used to be taken autonomously by the higher education institutions. A topical example is the *Internationalisering in Balans* (Internationalisation in Equilibrium) bill, with which the ministry is granting the wish of the House of Representatives to tighten the monitoring of admission policy and language policy with respect to the language of instruction at institutions and individual programmes.

- Politicians are making agreements with both deans (for example through sector plans) and with the umbrella organisation and Executive Boards (for example through the governance agreement). We have found that in the implementation of these agreements, it is unclear who is actually in control and who is merely advising, as well as whose advice the Ministry of Education, Culture and Science and politicians are taking.

- Distrust (both political and otherwise) with regard to the spending of public funds in combination with increasingly low amounts of money − relatively speaking − that are earmarked lead to regulatory pressure and an increasing burden of accountability.

6/Changing role of academia in society

- Research shows that the Netherlands has a low score in the area of autonomy of higher education institutions.[8] For direct government funding, this means a high burden of accountability. When higher education institutions become more dependent on indirect government and commercial funding, this automatically means they become more dependent on the provider of the funding. There is a risk, therefore, that autonomy will decrease even more.

- Academics are more visible in society than before. There is a substantive demand for scientific results in order to find solutions for the major transitions. Scientific results are widely available and accessible for a broad audience and at the same time, some people see science as an 'opinion'. This makes academics vulnerable.

7/Importance of impact accountability

- The world wants to know what happens in higher education and its organisation: in financial terms, but also when it comes to impact. Often, funds are only transferred once it has been demonstrated that the extra money will supply the workers needed by the labour market or the solutions required by great challenges, such as climate change and affordability of healthcare. It is important for the sector, therefore, to be explicit about which higher education institution is working on what, i.e. clarity on profile and impact.

- In practice, this desire to be guided by impact is tricky: the measurability of impact is complex and vague. In a world whose resources are increasingly scarce, it's important to have a clear image of what institutions represent. The use of rankings as an instrument to indicate the value of universities has come under fire.

Advices based on UT's course of action

The extent to which UT can proactively anticipate these developments or turn them to its advantage varies. Below is a list of advices based on the above observations, focusing on our own course of action.

1. **Focus on cost-effective programmes that align with UT's profile**

    a. UT needs a minimum number of students to exist. Phase out programmes and tracks that are no longer cost-efficient and/or no longer align with UT's profile. Our financial and competitive position no longer allows us to retain these.

    b. Communicate the university's mission to society and potential students, including an intrinsically international profile for specific programmes.

    c. Regardless of the exact organisation of our academic education, keep in mind that the impact of developments in primary and secondary education (not just related to COVID) will be more likely to lead to more, rather than less, time and other commitment of teachers. The gap between the knowledge and skills of newly enrolled students and the final attainment targets is widening, after all, and must be bridged using fewer resources.

    d. When discussing student influx, progress and graduation, be mindful of both *quantity* and *quality*. We don't want to take in a lot of students if that means a lot of them will drop out again. At the same time, as a relatively unknown university we can't afford being overly critical by setting too high or extra entry requirements. What it comes down to is making a joint commitment to a offer of education and student population that safeguards the institution's long-term existence. This concerns both Dutch and English-taught programmes.

    e. Use structural means of control (fees, waivers, scholarships, institutional tuition fees, etc.) to recruit talent from within and outside the EEA for programmes that align with our profile and our impact domains (also see 2b and 7a) and that make a favourable contribution to sectors experiencing shortages.

2. **Look at opportunities for alternative funding**

    a. Be as quick as possible to take opportunities in the nationwide business community: the current uncertainty will not drive up the willingness to invest. In so doing, invite companies experiencing a shortage of academically trained talent to not only collaborate on research and innovation, but also to explicitly engage developing students through education projects and graduation assignments.

    b. The foundation of tech strategy in the Netherlands is formed by 44 'Key Enabling Technologies', ten of which were recently prioritised.[9] Compare these to our domains (also see 1e and 7a/b) and ensure a clear infrastructure agenda for the benefit of the Dutch Research Council (NWO). The prioritised technologies are:

        i. Optical systems and integrated photonics
        ii. Quantum technologies
        iii. Process technology, including process intensification
        iv. Biomolecular and cell technologies
        v. Imaging technologies

vi. Mechatronics and optomechatronics
vii. Artificial intelligence and data science
viii. Energy materials
ix. Semiconductor technologies
x. Cybersecurity technologies

c. Explore national and European opportunities to take advantage of investments in AI, quantum, batteries and chip technologies. These may be directly with funding providers, but also relate to investments in industry for the transition to a more sustainable process.

d. Make use of the current European funding instruments now, which are in place until 2027. From 2027, they will change. Probably not for the better.[10] Applications covering both education and research have a higher success rate.

3. Invest in the lifelong learning offer

a. Invest in lifelong development: flesh out the taskforce's advice, cluster and professionalise the existing offer of generic and tailor-made programmes, and make sure we can organise it in such a way that UT actually profits. Expand it based on the profile of UT's distinctive domains (1e, 7a, b) in the region and specialisations in Europe.

4. Select a number of partners and invest in this collaboration

a. UT is too small and competition is too big to do everything on our own. As collaboration takes time, it's important to focus on (a limited number of) relationships. Exploit existing alliances, such as VU-UT and ECIU, and give transnational partners a central role in UT's development and growth strategy.

b. Funding instruments in the region have limited availability and require a contribution from the institution, opportunities to fund regional projects are mostly European. Focus on opportunities for funding cross-border collaboration (EU, public and private), which may eventually lead to the allocation of sizeable development funds for the Euregio.

c. Assist Dutch and international graduates that want to keep working in the region and/or in the Netherlands. Draw attention to the importance of learning Dutch and ensure alignment between the university and the labour market through collaboration and alignment with regional SMEs.

5. Keep each other informed

a. At the central UT level, keep faculties informed of developments at the Ministry of Education, Culture and Science and in Europe (EC, networks) and of insights from national forums, and share lobby and other positions in consultations and developments in higher education. In so doing, it is necessary to pay individual attention to both national and regional politics. It is only by working together that we can be agile and transition from reactive to proactive.

b. Always consider the interests of UT as a whole and optimise the governance structure. Make sure that developments in the university's own environment are

shared in upper management circles. Ensure that communications to the outside world are made with one voice, in the interests of UT as a whole.

c. When applying for new funds, properly weigh up the time needed for the application, the chance of success, the burden of accountability associated with the allocated funds and the time that can therefore not be spent on other activities that may result in funding (such as supervising PhD candidates in finishing their theses in a timely manner).

6. Explicitly discuss UT staff members' rights and duties in the public domain

a. Academics are vulnerable to simplistic responses on social media. At the same time, transparency on such things as ancillary activities and lines of funding is more important than ever. Explicitly discuss UT staff members' rights and duties in the public domain.

b. Ensure inclusive HR policy that takes the strength of individual academics as its point of departure. Reward UT staff members by paying them a salary, but also by giving them the opportunity to develop various career paths, thereby strengthening UT's position and making the institution a more appealing employer.

7. **Pick and operationalise a clear profile**

a. *Stick to the plan*: in case of new initiatives within the faculty, opt for projects that focus on the long-term goals set by UT: energy transition, security, health and chip technology.

b. Ensure impact pathways (and a clear timeline for determining these) to further specify the domains. In so doing, work on a clear and sustainable research portfolio, also by phasing out departments that do not align with this and/or are no longer cost-efficient.

c. Make use of existing rankings where UT does well, experiment with new rankings where UT could do well, work on an exit strategy for using rankings: start building an image based on our real-world impact.

P.S. This briefing was drafted based on observations collected from October 2023 up to and including January 2024. To compile its content, we used reading reality, the 'iceberg model' and system thinking. This briefing is in keeping with S&P's role of providing UT with relevant information from outside the institution that can influence UT's strategy (particularly in the long term) and policy (for the entire organisation or parts thereof).

[1] Report and annexes | Dutch State Committee on Demographic Developments 2050 (staatscommissie2050.nl)
[2] Results – PISA, the Netherlands (pisa-nederland.nl)
[3] https://www.rathenau.nl/en/science-figures/investments/how-much-does-netherlands-spend-rd/funding-and-performance-rd
[4] https://www.volkskrant.nl/cs-bf244eeb4/
[5] ROA_R_2023_3_anob2028.pdf (maastrichtuniversity.nl); SMEs and skills shortages - November 2023 - - Eurobarometer survey (europa.eu)
[6] Miljarden blijven liggen: bijna helft scholingsbudget niet uitgegeven (nos.nl)
[7] https://international-partnerships.ec.europa.eu/policies/global-gateway/initiatives-region/initiatives-sub-saharan-africa/eu-africa-global-gateway-investment-package_en
[8] https://www.eua.eu/resources/publications/1061:university-autonomy-in-europe-iv-the-scorecard-2023.html; https://www.eua.eu/resources/publications/1061:university-autonomy-in-europe-iv-the-scorecard-2023.html
[9] De Nationale Technologiestrategie | Titel uitgave (overheid.nl)
[10] https://www.cesaer.org/content/5-operations/2023/20230222-horizon-consultation-package/20230222-future-proof-horizon-europe-through-balanced-cluster-calls.pdf