Rethinking the Role of Universities in the Future of Work and Learning

FINDINGS FROM THE FUTURE OF UNIVERSITIES ROUNDTABLE AT THE 51ST ST. GALLEN SYMPOSIUM 2022

ST.GALLEN SYMPOSIUM

University of St.Gallen
Institute of Technology Management

Imprint

The **St. Gallen Symposium** is one of the world's leading initiatives for cross-generational dialogue on economic, political and social themes and developments. For more than 50 years, established leaders and visionaries have been brought together with extraordinary young talents in St. Gallen and at global locations, as well as in digital formats. Together, they address the chances and challenges of our time and work on finding solutions.

The St. Gallen Symposium is a student initiative. Under the strategic guidance of the St. Gallen Foundation for International Studies, the International Students' Committee – a team comprised of about 30 students from the University of St. Gallen (HSG) – drives the dialogue between generations. During the symposium, 500 HSG students support the exchange of ideas.

The **Institute of Technology Management (ITEM-HSG)** at the University of St. Gallen was founded in 1989 with the support of the "Foundation for the Promotion of Technology Management, Technology Policy and Technology Transfer".

The institute operates a research program, focusing predominantly on the development of problem and application orientated research concepts. The institute uses the "St. Gallen Management Concept" as a holistic reference framework. The research program has been continuously improved since its establishment.

The institute maintains close links to industry through intense collaboration with Swiss and European organizations by means of major research and consulting projects. Research results from publications and theses flow directly into courses while students can develop real world research through collaboration in the institute's industry projects.

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The Future of Universities Roundtable at the 51st St. Gallen Symposium in the University of St. Gallen's SQUARE

Introduction: Are Universities Ready for a Collaborative Future of Work and Learning?

We are facing manifold challenges in the world today, including a global pandemic, war in Europe, the supply chain crisis, and climate change. It is becoming increasingly clear that we can only master these challenges by working together. In the spirit of the 51st St. Gallen Symposium's theme, generating a "Collaborative Advantage" in the economy, the natural environment, and society is key. **Universities play a crucial role in providing answers to these challenges and enabling individuals to collaborate.**
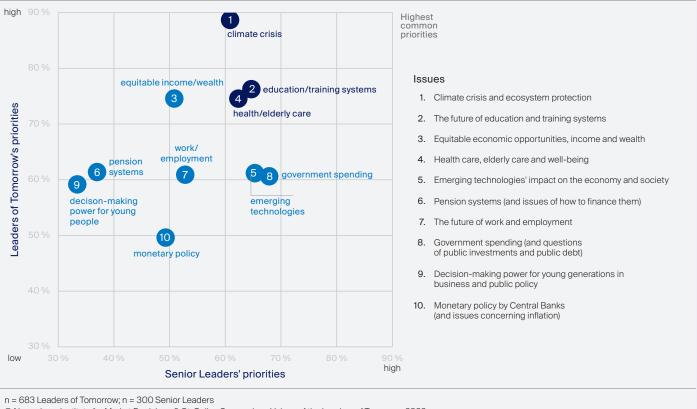
COLLABORATION MATTERS

Historically, drug development has been a cumbersome endeavour with development processes often taking more than 15 years. The COVID-19 pandemic has shown that drug development can be dramatically sped up: The development of mRNA vaccines took less than a year! The entire world including industrial R&D, academia, and regulators collaborated – with amazing results.

Digitisation is driving a remarkable need for collaboration across industries. Thanks to lower transaction costs, ubiquitous computing, high data volumes, and better algorithms, industries

are converging, and companies must collaborate across industry borders to create new and superior value propositions along the customer journey. Collaborating with partners to share complementary assets is becoming the new normal. Open innovation, open science, and global networks are essential for staying competitive.

Universities play a crucial role in preparing the ground for the future. They must prepare their students to be collaborative and, therefore, competitive. This requires new skills and, very importantly, a new mindset. Universities must prepare and educate the next generation for huge global challenges. They must also prepare themselves for a world where not only information but, increasingly, knowledge is becoming a commodity.

The future of learning is equally at the top of mind for all generations: With 75% of Leaders of Tomorrow and nearly 65% of Senior Leaders viewing the future of education and training systems as urgent or very urgent, it's their second highest common priority in the 2022 Voices of the Leaders of Tomorrow Report, developed jointly by the St. Gallen Symposium and the Nuremberg Institute for Market Decisions (see exhibit 1).

How urgently do you think the following intergenerational issues should be addressed?
Prespecified issues; Top2Boxes (extremly urgent + urgent) of 5 answer options (+ n.a.)

Issues

1. Climate crisis and ecosystem protection
2. The future of education and training systems
3. Equitable economic opportunities, income and wealth
4. Health care, elderly care and well-being
5. Emerging technologies' impact on the economy and society
6. Pension systems (and issues of how to finance them)
7. The future of work and employment
8. Government spending (and questions of public investments and public debt)
9. Decision-making power for young generations in business and public policy
10. Monetary policy by Central Banks (and issues concerning inflation)

n = 683 Leaders of Tomorrow; n = 300 Senior Leaders
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Exhibit 1: The future of education is a shared priority across generations

CORE TRENDS DRIVING COLLABORATIVE ADVANTAGE IN EDUCATION

The pandemic accelerated the globalisation of the knowledge industry and revealed knowledge clusters around lighthouses. Aside from other core trends, such as the rising importance of open science, these past years highlighted the bottleneck of public financing in education. The half-life of knowledge continues to shorten, and many businesses are emphasising specific skills instead of certificates and degrees. This is especially true for big tech and data-driven companies in the information technology industry. For instance, Apple and Google both launched innovative programmes to teach students and adults to code and promote other tech-oriented skills. The lack of a four-year degree is by no means a deal-breaker.[1]

Considering these trends, the role universities play in society and the economy will need to change. Many industries including mobility and retail have experienced radical changes due to disruptive innovation. If universities continue not to act, then they too may be disrupted by new entrants in the education sector such as MOOCs (massive open online courses) and EdTech companies like EdX, Udacity, or Coursera. These challenges are profound and reflect broader societal issues. For instance, universities will need to play a vital role in supporting societal and environmental development as envisioned by the UN Sustainable Development Goals.

Undoubtedly, the COVID-19 pandemic accelerated digitisation both in business and in how we work, learn, and interact with each other. After spending nearly two years in front of their computers and rapidly adopting digital solutions such as Zoom in education and teaching, we are now finally welcoming students back on campus to pursue higher education in person.

To fully exploit our collaborative advantage, we must develop innovative models of collaboration within the ecosystem of higher education. How can universities co-create value for students, businesses, and society and educate the next generation of responsible leaders?

CROSS-GENERATIONAL ROUNDTABLE AT THE 51ST ST. GALLEN SYMPOSIUM

This White Paper explores how universities can remain at the forefront of higher education in a fast-changing and interconnected world. It draws on expert recommendations and insights from a cross-generational roundtable at the 51st St. Gallen Symposium on 6 May 2022.

Co-hosted by the St. Gallen Symposium and the University of St. Gallen's Institute of Technology Management, two questions guided the discussion:

- Through which innovative models of collaboration within the ecosystem of research and education can universities co-create value with students, businesses, and society?

- In which key areas will a collaborative approach allow universities to prepare students and employees for the future of work?

To gather diverse viewpoints, discussions drew on expertise from the private sector, academia, next-generation leaders, and the public sector.

Participants of the Future of Universities Roundtable

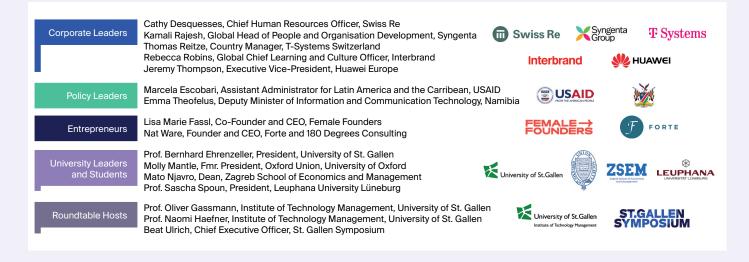|	
Corporate Leaders	Cathy Desquesses, Chief Human Resources Officer, Swiss Re Kamali Rajesh, Global Head of People and Organisation Development, Syngenta Thomas Reitze, Country Manager, T-Systems Switzerland Rebecca Robins, Global Chief Learning and Culture Officer, Interbrand Jeremy Thompson, Executive Vice-President, Huawei Europe
Policy Leaders	Marcela Escobari, Assistant Administrator for Latin America and the Carribean, USAID Emma Theofelus, Deputy Minister of Information and Communication Technology, Namibia
Entrepreneurs	Lisa Marie Fassl, Co-Founder and CEO, Female Founders Nat Ware, Founder and CEO, Forte and 180 Degrees Consulting
University Leaders and Students	Prof. Bernhard Ehrenzeller, President, University of St. Gallen Molly Mantle, Fmr. President, Oxford Union, University of Oxford Mato Njavro, Dean, Zagreb School of Economics and Management Prof. Sascha Spoun, President, Leuphana University Lüneburg
Roundtable Hosts	Prof. Oliver Gassmann, Institute of Technology Management, University of St. Gallen Prof. Naomi Haefner, Institute of Technology Management, University of St. Gallen Beat Ulrich, Chief Executive Officer, St. Gallen Symposium

Exhibit 2: Participants of the Future of Universities Roundtable at the 51st St. Gallen Symposium

Roundtable participants offered their perspective on the future role of universities across three main building blocks:

- **Open Individuals** – Empowering students to become the next generation of responsible leaders
- **Open Organisations** – Co-creating value across disciplines, cultures, and sectors
- **Open Societies** – Serving as independent and trusted knowledge advisor

The roundtable and this paper did not seek to create consensus, but to give a platform to diverse opinions. As such, the summary recommendations put forth may not reflect the views of all participants. One point was clear for all, however:

Without collaboration and open conversation between the education, corporate, and public sector, we are unlikely to derive meaningful solutions - the 51st St. Gallen Symposium's overarching topic of "Collaborative Advantage" advocates precisely that.

Open Individuals: Empowering Students to Become the Next Generation of Responsible Leaders

Up to this day, universities focus largely on teaching domain-specific knowledge and facts. To prepare students for a complex and agile future of work, universities should provide students with more phenomenon-based problem-solving and collaboration competencies, as well as leadership and soft skills necessary to become the next generation of responsible leaders.
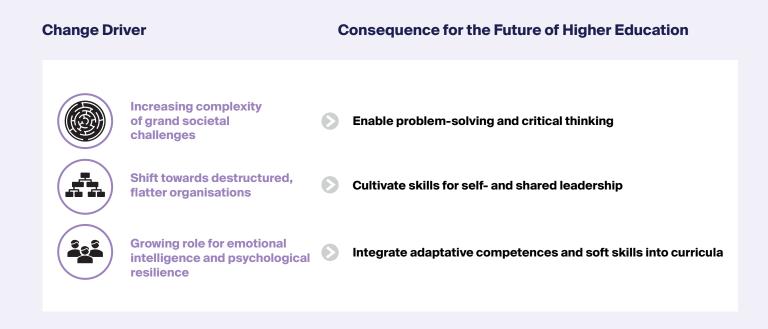
Change Driver		Consequence for the Future of Higher Education
Increasing complexity of grand societal challenges	▸	**Enable problem-solving and critical thinking**
Shift towards destructured, flatter organisations	▸	**Cultivate skills for self- and shared leadership**
Growing role for emotional intelligence and psychological resilience	▸	**Integrate adaptative competences and soft skills into curricula**

Exhibit 3: Open Individuals: Empowering Students to Become the Next Generation of Responsible Leaders

ENABLE PROBLEM-SOLVING AND CRITICAL THINKING

Multiple unforeseen and dramatic crises have disrupted our economic and political systems in recent years – including a global pandemic, the war in Ukraine, and current supply chain disruptions. The climate crisis is accelerating and will require new modes of production, consumption, and mobility. All of this, combined with the rising demand for technology- and data-driven jobs, gives rise to an **ever-increasing need for critical thinking and reflection.** Rather than focusing on fixed skills or hard facts, universities should encourage students to develop an entrepreneurial mindset, and the knowledge acquisition necessary to solve complicated real-world situations.

"Will universities go out of business? I don't think so at all, but their value proposition needs to shift significantly: from giving an education to enabling personal growth and from building capability to expanding learners' capacity. This is a value shift that will not only help the learner but the community as well to evolve and thrive."

KAMALI RAJESH, GLOBAL HEAD OF PEOPLE AND ORGANISATION DEVELOPMENT, SYNGENTA

Problem-solving in an academic setting should aim to help students develop their ability to approach complex problems in a pragmatic, flexible way. "During school, young talent are forced to think in very linear ways. They expect a solution for each problem or that someone tells them what the solution is going to look like," said Lisa Marie Fassl, Co-Founder and CEO of Female Founders. "That is unrealistic because we hire well-educated people to give them freedom and encourage them to come up with the solutions themselves. Otherwise, we can do it ourselves". She added that many graduates lacked capacities to deal with complexity and narrow down big problems into smaller ones – thus making them manageable.

For universities, this means they need to provide more pedagogical instruments like **experimentation in a safe learning environment where individuals can make mistakes,** learn from them, and cultivate pragmatic problem-solving competencies they'll need in the "real world".

"It's not about learning very specific skills and hard facts, but it's actually more about learning how to gain the knowledge to address complex problems in the world."

LISA MARIE FASSL, CO-FOUNDER AND CEO, FEMALE FOUNDERS

CULTIVATE SKILLS FOR SELF- AND SHARED LEADERSHIP

In an increasingly volatile, fast-changing world, **the need for agility is leading to "flatter", de-structured organisations.** The future of work will be based on challenges, tasks, and projects rather than on functional domains like finance, IT, or marketing. This will increasingly require adaptive self- and shared leadership to respond to growing complexity. Due to increased interconnectivity, education needs to adapt to the changing job requirements shifting from technical, domain-specific knowledge to collaborative and soft skills.

"Few graduates leave schools or universities with a very robust idea of what it means to lead others and how to inspire that mini-society – a team. What we need are competencies for strong leadership with authentic care."

CATHY DESQUESSES, CHIEF HUMAN RESOURCES OFFICER, SWISS RE

A potential remedy for the current gap between the need for agile leadership skills and the kinds of competencies university students take away from their studies could be **'phenomenon-based learning'**: Students work on projects, either alone or as a team to address complex challenges as a part of guided learning. By engaging with colleagues from different backgrounds and experiences, individual members of such interdisciplinary teams share their expertise and work collaboratively. Phenomenon-based learning is crucial to developing better problem solvers, critical thinkers, and team players. It enables learners to think outside the box and look at the big picture. The approach stems from Finland's highly successful school system and has been shown to improve students' collaboration skills, academic engagement, motivation to learn, and self-efficacy. In engineering, Stanford and Aalborg are known for their problem-centric learning approaches, while in management, Harvard Business School is famous for its problem-centric case teaching method.[2]

INTEGRATE ADAPTIVE COMPETENCIES AND "SOFT" SKILLS INTO CURRICULA

As the entire definition of the workplace is changing, universities' curricula and core value proposition need to adapt as well. "By the time you leave university, you're not just knowledgeable about what you learned, you also need soft skills that will enable you to think critically, solve problems and lead in the real world," said Emma Theofelus, the Deputy Minister of Information and Communication Technology of

Namibia. Rebecca Robins, Global Chief Learning and Culture Officer of Interbrand, challenges the concept of "soft" skills: "these are the skills that are vital to culture, collaboration, and inclusive leadership within businesses, and we should attach more value to them. What we're really talking about are hard skills, or indeed, the hardwired skills."

"The future of work and learning requires that soft skills are ingrained into the educational curriculum. Ultimately, it was what I learned outside the classroom that allowed me to transition into politics."

EMMA THEOFELUS, DEPUTY MINISTER OF INFORMATION AND COMMUNICATION TECHNOLOGY, NAMIBIA

For instance, employers look for such attributes in candidates as emotional intelligence, resilience, integrity, curiosity, adaptability, and for them to display growth potential. Furthermore, working in teams is already and will become even more important going forward.

"I've often felt that universities' standard processes have been quite opposed to students pursuing the sort of soft skills they want to pursue. I think 'collaborative advantage' is actually the perfect term for overcoming this because if universities listen to students more, we would get much further."

MOLLY MANTLE, FMR. PRESIDENT, OXFORD UNION, UNIVERSITY OF OXFORD

Open Organisations: Co-Creating Value Across Disciplines, Cultures, and Sectors

In an age of ecosystems, collaborating with partners to share complementary assets is becoming the new normal. Like other sectors, universities will flourish most if they leverage their existing and craft new partnerships across the public, private, and non-profit sector to co-create value.
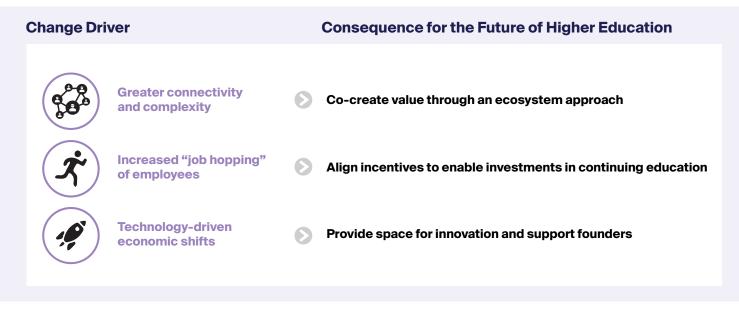
Change Driver		Consequence for the Future of Higher Education
	Greater connectivity and complexity	Co-create value through an ecosystem approach
	Increased "job hopping" of employees	Align incentives to enable investments in continuing education
	Technology-driven economic shifts	Provide space for innovation and support founders

Exhibit 4: Open Organisations: Co-Creating Value Across Disciplines, Cultures, and Sectors

CO-CREATE VALUE THROUGH AN ECOSYSTEM APPROACH

To ensure shared and collective values are beneficially experienced by everyone in the higher education ecosystem, both collaboration and co-creation will become the highest valued attributes among students, business, and society.[3]

Ecosystems as a relatively new concept of value co-creation have gained significant relevance in recent years in research as well as practice. They are so relevant because the collaboration of three or more parties creates added value that one partner alone could not produce, and industry boundaries can be crossed.

"The COVID-19 pandemic and similar complex issues have shown that we need to bring collaboration across the triangle of universities, the private industry, as well as governments and society, to a completely new level."

THOMAS REITZE, COUNTRY MANAGER, T-SYSTEMS SWITZERLAND

This approach is relevant from various perspectives. On the one hand, school leavers are asking whether higher education is the right way to be best prepared for the world of work, and in what form. **Strong university partnerships with practice partners – from the private, public, and non-profit sectors – to introduce students to real-life cases of current challenges** can be a collaborative remedy for a potentially wide gap between academic study and work.

"Industry leaders can help universities inform much more effective educational programmes. Such co-creation and collaboration can accelerate and amplify the adoption of academic knowledge within organisations. Enabling faster impact within business is crucial, in helping to solve the ever more urgent ethical and societal problems we collectively face."

REBECCA ROBINS, GLOBAL CHIEF LEARNING AND CULTURE OFFICER, INTERBRAND

Over the last several decades, university-industry partnerships with the goal of transferring technological knowledge from universities into practice have become quite commonplace. Typically, these relationships and their supporting organisations, such as incubators or purposefully established technology-transfer offices, are focused on the translation of research insights into marketable products.[4] University-industry collaboration with the goal of transferring practitioner insights into the higher education context are a relatively new phenomenon.

An example of such a **reverse collaboration** is the online learning platform Coursera. The online platform now collaborates with leading tech companies such as IBM and Google to teach technical skills to students enrolled in reputable institutions such as HEC Paris, Stanford, or Yale. They partner with over 250 leading university and industry partners to offer a broad catalogue of content and credentials, including courses, specialisations, professional certificates, guided projects, and even bachelor's and master's degrees. Various other initiatives exist to support youth globally in attaining the digital skills necessary to participate in a rapidly changing education ecosystem as well as business environment shaped by digital innovation. University-industry collaborations are not just restricted to the digital realm. Business-oriented institutions, including the University of St. Gallen, offer a wide arrange of courses in collaboration with companies.

ALIGN INCENTIVES TO ENABLE INVESTMENTS IN CONTINUING EDUCATION

Clearly, one of the most important stakeholders of universities' value creation through education and life-long learning are employers – in the private and public sector. **Universities shape the skills, mindsets, and experiences which graduates will ultimately bring to companies and public and non-profit sector organisations.**

Next to the many ways in which universities impact the personal development, knowledge, and skills of graduates, they also serve an **important function of reducing information for potential employers.** As Prof. Sascha Spoun, President of Leuphana University Lüneburg noted, employers depend on universities to certify students' domain-specific expertise and problem-solving competencies.

"Certificates and degrees will continue to have an important role in reducing information for employers – to get from a large number of applications to a reasonable number which businesses can handle in their recruiting."

PROF. SASCHA SPOUN, PRESIDENT, LEUPHANA UNIVERSITY LÜNEBURG

Directly linked to individual education opportunities and outcomes are company investments into their employees' education. According to Nat Ware, Founder of Forte and 180 Degrees Consulting, **current labour market trends of decreasing tenure at a single employer** ("People jump from company to company") **reduce the incentive for corporations to allocate resources to training and education.** Thus, a realignment of incentives is in order. He suggested a model where: "[...] the people who fund the education get back a percentage of the increase in income taxes for a set number of years into the future. So, it could be they get back 20% of the increase in income taxes for 20 years, or 30% for 10 years, or 50% for five years, et cetera."

"We live in a world where people jump from company to company. This reduces the incentives for business to actually invest in training people. To realign incentives, investors that fund the education should get back a percentage of the resulting increase of income taxes."

NAT WARE, FOUNDER AND CEO, FORTE AND 180 DEGREES CONSULTING

In this model, everyone would be incentivised to critically consider the necessity and benefits of proposed training. Compared to the status quo people wouldn't be paid for inputs but are prompted to think as investors and be paid based on actual tangible outcomes. Thus, according to Ware, everyone would be incentivised to ensure that training is effective – allowing for a more efficient allocation of individual and organisational time and resources.

Thereby, adapting to the future of work and learning and sequential allocation of resources of the individual, society and business will bear fruits in the future and yield in positive "collaborative" investment returns.

PROVIDE SPACE FOR INNOVATION AND SUPPORT FOUNDERS

Universities provide the foundations for start-ups along three essential lines: creating networks, shaping an entrepreneurial mindset, and enabling the transfer of research knowledge.

Through group and project work, tight-knit bonds and trusted groups form, eventually leading to friendships. These groups often go on to found new ventures. Perhaps the most famous example is the symbiosis of the ICT sector and Stanford University. There are of course numerous other institutions that feature similar value co-creation. In jocular terms we might describe universities as a business partner dating agency. Jeremy Thompson, Executive Vice President of Huawei Europe, delineated: "There is not a single tech company out there without connection to a university." He also mentions Israeli and London universities as advanced business incubators: "They're turning out business ideas and innovation or even almost fully formed, operating businesses."

"There is not a single tech company out there without connection to a university."

JEREMY THOMPSON, EXECUTIVE VICE PRESIDENT, HUAWEI EUROPE

Even dropouts use the epistemic and entrepreneurial foundation of universities when founding their tech or knowledge ventures (e.g. Meta, Microsoft, Apple). The level of education and the ability to spot opportunities, which leads to higher lifetime earnings, are positively correlated.

Research suggests that across countries university graduates are more likely to start a new business than those without a university education.[5] Similarly, Forbes' profiles of young innovators and

entrepreneurs also show that most individuals are university graduates.[6] Consequently, university degrees can be an essential steppingstone to improved outcomes.

Furthermore, universities represent a profound force for driving start-up creation and support.[7] The research conducted at higher education institutions has proven to be **fertile ground for the establishment of new companies and jobs** due to their unique ability to bring together highly qualified people from varied backgrounds in an area where experimentation and risk-taking are encouraged.[8] Academic research and knowledge spill overs, particularly start-ups and spin-offs of large research universities, empower the diffusion of innovation.[9] In this context Jeremy Thompson, Executive Vice President of Huawei Europe, also noted the reverse effect as highly relevant. Exchanges with practitioners might inform research approaches and inspire new models.

Open Societies: Providing an Inclusive, Independent Space for Expertise and Discourse

Universities' expertise and knowledge arbitration are in high demand, given the complex nature of contemporary challenges such as global pandemics, climate change, and a technology-driven transformation of the world of work. This central role will come with opportunities but equally with unique challenges. For universities to assume their role and contribute actively to open societies, independence, professional communication, and inclusivity will be key.

Change Driver		Consequence for the Future of Higher Education
	Politicisation of expertise and university policies	Safeguard academic independence as the hallmark of universities' societal role
	Societal polarisation	Improve interaction with and communication towards the public
	Economic pressure on university funding	Make universities more inclusive and affordable

Exhibit 5: Open Societies: Providing an Inclusive, Independent Space for Expertise and Discourse

SAFEGUARD ACADEMIC INDEPENDENCE AS THE HALLMARK OF UNIVERSITIES' SOCIETAL ROLE

Next to their role in educating the next generation and advancement of humanity's frontiers of knowledge through foundational research, university researchers have a prominent role as public experts. Academic freedom and independence are at the core of universities' unique societal role as knowledge advisors and arbitrators. For public universities in particular, independence from profit concerns allows for a special role in society.

"The hallmark of universities is their independence - it's their advantage and their obligation. That will not change. In our times marked by a lack of trust, the creation of independent knowledge is and will remain extremely important."

PROF. BERNHARD EHRENZELLER, PRESIDENT, UNIVERSITY OF ST. GALLEN (HSG)

This also means that universities have a **delicate balance to strike between independence and interdependence.** While an orientation towards the skills and competencies needed by employers as well as politically and societally relevant challenges is important for universities' social legitimacy, they need to concurrently reaffirm their position of independence from which they pursue both foundational and applied research. As Prof. Ehrenzeller put it: "Businesses apply critical thinking to make profit, universities enable students to think critically."

"As knowledge-creating institutions, universities are not business consultancies. Universities can't solve today's problems, but they can truly stimulate thinking for the middle and long term."

JEREMY THOMPSON, EXECUTIVE VICE PRESIDENT, HUAWEI EUROPE

IMPROVE INTERACTION WITH AND COMMUNICATION TOWARDS THE PUBLIC

As researchers are requested to review evidence and provide perspectives on massive challenges such as the COVID-19 pandemic and climate change, they also find themselves subject to growing contestations and attacks. In an overall climate of increasing societal polarisation, trust in the scientific method, expertise, and higher education institutions are being challenged.

Given the enormity of current and emerging challenges, it's important for universities to **actively engage in political, societal, and economic developments to help us make sense of the issues at hand.** As Sascha Spoun, President of Leuphana University Lüneburg critically noted, a greater and earlier concern for academic findings and discussions could have helped to prevent the global nature of the COVID-19 outbreak and could

have sensitised European publics and politicians sooner to the looming economic risks of inflation.

"Universities need to be the space for understanding the world, for discourse and open debate and exchange of arguments – beyond our institutional borders."

PROF. SASCHA SPOUN, PRESIDENT, LEUPHANA UNIVERSITY LÜNEBERG

To fulfil this role, universities will need to invest far more in communicating their accumulated knowledge to the rest of society – and to empower researchers to engage in public, at times polarised, debates.

MAKE UNIVERSITIES MORE INCLUSIVE AND AFFORDABLE

To address the coming challenges facing society – from climate change to future pandemics – education must be accessible to all. Such inclusive access to higher education depends on well-funded education and university systems. This is a particularly pressing issue in light of the economic crisis related to the COVID-19 pandemic and the Russian invasion of Ukraine, as public funding for universities in Europe may be under increasing pressure due to future austerity measures.

"Europe will need to rethink its educational policy and redefine its investment priorities."

MATO NJAVRO, DEAN, ZAGREB SCHOOL OF ECONOMICS AND MANAGEMENT

Universities should be able to provide inclusive and attainable access to their institutions. Participants of the symposium roundtable emphasised that in terms of ensuring equity and inclusion, the European model of higher education that emphasises both

public funding for education and dual education systems (with a strong role for practical experience) can serve as a potential role model.

"As European education systems evolve into the future, they should make sure to keep some of their unique elements which allowed the continent to pursue an inclusive and just growth model."

MARCELA ESCOBARI, ASSISTANT ADMINISTRATOR FOR LATIN AMERICA AND THE CARRIBEAN, UNITED STATES AGENCY FOR INTERNATIONAL DEVELOPMENT

At the same time, the technology-driven transformation of the world of work will usher in a highly elevated role for lifelong learning. While professional education does play a growing role, European education systems can do more to accommodate these new demands and use opportunities related to the need for continuing education and re-skilling. Systems which leverage sufficient public funding to ensure equitable access, take into account differing needs of learners to harness their diversity, and constructively support and challenge learners to ensure an inclusive experience will be best equipped to address the challenges of the future.

Conclusion

The higher education sector will undergo a massive transformation in the coming decades. The rapid growth of knowledge, changing work practices in a global economy, new digital technologies, and altered expectations of both employees and employers demonstrate that **where, how, and what we learn and teach will be different from today.**

Overall, the future of work and learning will dramatically shift the role of universities as an independent "Denkplatz". Within a fast-changing and interconnected world, universities will need to **adopt an interconnected mindset of collaborative problem-solving** to actively enable – and not merely react – to such developments.

Universities will need to more proactively connect with diverse economic and societal stakeholders and realise partnerships through new models to create significant and sustainable value going forward: Like other sectors in the age of value creation within ecosystems, the future of higher education is collaborative. By focusing their efforts on the three building blocks of open individuals, open organisations, and open societies, universities will be able to rethink and assert their unique role in a world plenty of challenges and opportunities. Overall universities have to **think big, start small, and learn faster.** They should be the institution where the speed of learning is greater than the speed of change in the environment.

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Acknowledgements

References

1 Eadicicco, L. (2020). Apple and Google are looking for new ways to hire people without college degrees — but experts say college might still be your best bet for landing a high-paying tech job. Business Insider. https://www.businessinsider.com/apple-google-hire-jobs-without-degree-experts-say-college-important-2020-10.

2 Drew, C. (2020). What is Finland's phenomenon-based learning approach? Teacher Magazine. https://www.teachermagazine.com/au_en/articles/what-is-finlands-phenomenon-based-learning-approach

3 Plewa, C., Galán-Muros, V., & Orazbayeva, B. (2018). Co-creating value: The present and future of higher education. In T. Davey, A. Meerman, B. Orazbayeva, M. Riedel, V. Galán-Muros, C. Plewa, & N. Eckert (Eds.), The Future of Universities Thoughtbook (pp. 111–114). Amsterdam University Press. https://next.rmit.edu.au/wp-content/uploads/2020/06/FUT_-Global-Edition.pdf

4 Villani, E.; Rasmussen, E.; Grimaldi, R. (2017). How intermediary organizations facilitate university-industry technology transfer: A proximity approach. Technological Forecasting and Social Change 114 (January 2017): 86-102. doi: 10.1016/j.techfore.2016.06.004

5 Bosma, N., Hill, S., Ionescu-Somers, A., Kelley, D., Guerrero, M., & Schott, T. (2021). Global Entrepreneurship Monitor 2020/2021 Global Report. Global Entrepreneurship Research Association. https://www.gemconsortium.org/report/gem-20202021-global-report

6 Houser, C. (2015, August 7). Why the university is the ideal startup platform. Wired. https://www.wired.com/insights/2014/02/university-ideal-startup-platform/

7 Jahanian, F. (2018, January 17). 4 ways universities are driving innovation. World Economic Forum. https://www.weforum.org/agenda/2018/01/4-ways-universities-are-driving-innovation/

8 Houser, C. (2015, August 7). Why the university is the ideal startup platform. Wired. https://www.wired.com/insights/2014/02/university-ideal-startup-platform/

9 Audretsch D., & Feldman, M. (1996). R&D Spillovers and the Geography of Innovation and Production. American Economic Review 86, no.3: pp. 630-640; Feldman, M. (1999). The New Economics of Innovation, Spillovers, and Agglomeration: Review of Empirical Studies. Economics of Innovation and New Technologies 8. pp. 5-25.