# Creating Solutions.

Jamk University of Applied Sciences Strategy 2035



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# 1 ON A SHARED JOURNEY

The strategy of Jamk University of Applied Sciences is based on previous activities and continuous evaluation. It is in interaction with the objectives of education policy and the operating environment. The strategy is the future-oriented work between the higher education community and partners to manage change and make changes.

Climate change and the ageing of the population are long-term trends of the developments that shape the future, and their impacts are increasingly at hand. Urbanisation and internationalisation are linked to these.

The digital transformation of society and the economy, many disruptive technologies and the energy-related issues will challenge old practices and structures.

The most compelling change is the erosion of rules-based world order. Democracy and the rule of law are becoming less and less self-evident, and the need for security has increased significantly. Higher education institutions are also value-based communities, and their societal task will be emphasised.

Education and competence are our most important capital. Jamk's strategy's title is **Creating Solutions**. This is also Jamk's mission. Jamk is a solution-oriented higher education institution with rapid impact in teaching, applied research and as a service provider – in cooperation with competence partners and working life.

Jamk's vision "Reinventing higher education" illustrates a solution-oriented higher education community for the future.

For Jamk, the strategy involves making choices in proportion to its own strengths and the sensible distribution of work in the field of higher education and standing out favourably in its field.

17 February 2025

Jamk University of Applied Sciences Board

## 2 INTERACTION WITH THE OPERATING ENVIRONMENT

In particular, Jamk influences the development of competence in Jyväskylä and Central Finland in interaction with working life. A prerequisite for the vitality of the region is the ability to operate glocally, i.e. locally and globally. This means the region's capability to utilise international competence and engage international experts.

#### Long-term developments

The impact of **climate change** is undeniable due to its measurability. In addition to combating and mitigating climate change, we must adapt to the changes and strive to manage and resolve the changes.

The population is ageing. The dependency ratio will weaken far into the future, and age-related costs will increase dramatically. Population growth will rely on immigration, of which students make up a significant share. Demographic change will inevitably alter societies and regions, and our attitude to immigration is a political issue. Education plays a key role in managing and utilising change and building social cohesion.

Disruptive technologies are rapidly changing the world. Digital transformation will challenge all old practices and structures comprehensively. Changes in the production, distribution and use of energy can be revolutionary.

#### A changing world order

Worldwide, a general sense of insecurity and propensity to conflict have increased as the rules-based world order has eroded. Finland's relationship with Russia is worse than at any point in time after the Second World War. Finland's NATO membership is one of the cornerstones of the new foreign and security policy. Production of safety has been emphasised, and the world situation is also reflected in the activities of higher education institutions.

Changes in world order are also reflected in economic uncertainty. Security funding will increase in share of public finances. From the perspective of Jamk's resources, the emphasis is on improving the efficiency of its operating processes, co-operation, distribution of work, and funding outside the Ministry of Education and Culture budget.

#### Objectives of higher education policy

The Finnish higher education system follows a dual model with universities of applied sciences and universities. The general profile of the higher education institution emphasises its educational task and vocational-orientated RDI activities and the related service business. Universities of applied sciences are also more focused on regional impact than universities are.

The common objectives of higher education institutions during the 2025–2028 agreement period include increasing the number of higher education students, increasing opportunities for continuous learning, increasing the number and employment of international degree students, sharpening the profiling of higher education institutions and RDI strengths in order to strengthen the national distribution of work and strengthening the RDI ecosystem and increasing RDI funding. Strong emphasis is placed on good

management, well-being, and development of competence. The Ministry of Education and Culture's *Vision* for higher education and research 2040 will compile an outlook for higher education.

#### Committed to partnerships

Jamk is essentially an international higher education institution and work community. Systematic European cooperation will be built in E<sup>3</sup>UDRES<sup>2</sup> (Engaged and Entrepreneurial European University as Driver for European Smart and Sustainable Regions) as part of the development of the European higher education area. Jamk also has important Asian and African partners in its international activities.

**EduJyväskylä** is the cooperation structure between Jamk, the University of Jyväskylä, Jyväskylä Educational Consortium Gradia and the city of Jyväskylä. Cooperation between **Jamk and the University of Jyväskylä** will be increased significantly. Cooperation between higher education institutions is also carried out in the Finnish higher education field through new initiatives that strengthen Jamk's profile and distribution of its work, in areas such as degree programmes.

As a working life-oriented higher education institution, Jamk has strong interaction with work and business life. Jamk's **strategic business partnerships** with companies that are leaders in their sectors enable a joint discussion about the future to map out competences and needs. The wellbeing services county of Central Finland is a key public sector partner.

The outlook and intent of the operating environment are also reflected in the strategies of the Regional Council of Central Finland, the Central Finland Chamber of Commerce and Keski-Suomen Yrittäjät.

#### Responsible ownership

Responsible ownership supports Jamk in its statutory tasks and in maintaining its competitiveness in accordance with its own profile. For its main owner, Jamk is a strategic company and a major player in securing and developing the vitality of the operating environment and its attractiveness and retention power.

#### **Conclusions**

As a higher education community, Jamk has drawn general conclusions from an analysis of the impacts of the rapidly changing operating environment on its task, activities and effective modelling:

- The workload and management related to the change will require investments in the well-being of the community.
- 2. New challenges require a reform of the operating model and culture.
- 3. The challenges posed by the twin transition (digital and green) and other drivers, the ageing of society, and the production of security require fast-acting solutions.
- 4. The framework conditions as well as the opportunities related to **new forms of work and a new economy** must be identified.

These conclusions are reflected in Jamk's strategy towards its vision for 2035. The targets are set by building an effective Reinventing Higher Education 2.0 operating model and investing in Jamk's distinguishing strengths.

# 3 VALUES, MISSION AND VISION

Jamk University of Applied Sciences proactively and sustainably produces up-to-date and future-centred competence in education, in applied research and as services. Jamk's activities are innovative and solution-oriented.

#### **Values**

Jamk's activities and community culture are based on the values of responsibility, trust and creativity.

Responsibility is reflected in the understanding of sustainable development, well-being, ethics and global responsibility as part of one's own activities. Jamk bears special responsibility for the development and vitality of its region – Jyväskylä and Central Finland.

Trust signifies reliability of performance, adherence to commitments and quality awareness. Jamk builds trust through the clarity of its activities and interaction and, ultimately, with useful results.

Creativity stands for an open-minded approach and an inspiring effort to produce more effective solutions. Creativity produces well-being and cultural capital. Jamk sees students, other community members and influences from different backgrounds as a significant source of creativity.

#### Mission

Jamk's mission is to implement high-quality, solution-oriented and fast-acting higher education in a university of applied sciences, applied research, development and innovation activities as well as services consistent with its profile that aim at building a sustainable and competitive future for Jyväskylä and Central Finland. The mission is **Creating Solutions**.

#### **Vision**

Jamk's vision is **Reinventing Higher Education**. It is a revitalised view of the previous period's vision. The vision models a solution-oriented community in middle of the world's and technology's current transition and in a diversifying society and working life as a pioneer in the 2030s. According to the vision, Jamk represents an updated version of UAS in the future and builds a platform for competence and an empowering community for new generations building Finnish society.

#### How will the vision be achieved?

Jamk will achieve its vision and the strategic objectives with the keys to the future.

- 1. Jamk as a community and every member of the community have a good command of **digitalisation** and the necessary technologies in their own tasks.
- 2. The expert community and specialists will verify their effective competence and make it visible.
- 3. The key starting point for Jamk's activities is **innovative pedagogy** that recognises the increased diversity of both students and education providers and the future prospects of technology.
- 4. Jamk and every member of the community have good **internationalisation competence** in their respective roles.

- 5. Jamk and members of its community develop **interaction competence** in management, internal community activities and partnerships, and build a culture of interaction.
- 6. Jamk has strong leadership and management competence to strengthen a positive personnel experience and the well-being of the community.

The keys to the future help structure the development of Jamk's capabilities and systematic personnel training. Ultimately, these keys will affect the quality and currency of education, applied research and services.

# 4 REINVENTING HIGHER EDUCATION 2.0

Jamk's vision Reinventing higher education will be built as a continuum of the previous vision. In the 2021–2024 period, the reinventing higher education was achieved in particular through digitalisation, internationalisation and RDI growth. The updated vision will be pursued and concretised using the Reinventing Higher Education 2.0 operating model (RHE2.0).

RHE2.0 will model an updated version of the UAS, a platform for competence development and an empowering community for new higher education students, partners and stakeholders. The operating model will link the higher education community and its profile and strengths (see Chapter 5) to the regional, national and international operating environment. Strong commitments to competence ecosystems, such as E<sup>3</sup>UDRES<sup>2</sup>, EduJyväskylä and Digivisio 2030, are part of the model.

Reinventing Higher Education 2.0 envisions starting with a clean slate to transform the UAS' physical campus into an entirely new concept by the mid-2030s. Jamk's new concept will be built to also support a sense of community and well-being as well as the attractiveness and retention of the UAS and the operating environment. It structures glocal interaction and identifies the preconditions for new pedagogy and leadership as well as the full potential of new technologies and digitalisation in activities and infrastructure.

RHE2.0 is the core of the UAS that produces solutions in teaching, RDI activities and services for the rapidly changing needs of the operating environment. It is a community that creates solutions. The UAS is also itself a showroom for learning, application, development and innovation and an interactive interface to work and business life.

The everyday adoption of artificial intelligence and the breakthrough in quantum computing open up technological possibilities that will change the organisation of societies and the traditional idea of work. The traditional interface between higher education institutions and society is eroding. This will set new demands for UAS's to organise and manage their activities in new ways.

In RHE2.0, pedagogy, technology, leadership and organisation are examined as factors that impact one another and in relation to Jamk's future capabilities in education, RDI activities and service business.

EduJyväskylä, formed by Jamk, the University of Jyväskylä and Gradia, and the increasingly in-depth cooperation between Jamk and the University of Jyväskylä will structure the RHE2.0 operating model's regional dimension.

The RHE2.0 operating model's **national dimension** is built on partnerships with higher education institutions (e.g. the implementation of degree programmes and projects) and on higher education policy and national cooperation structures (e.g. in digitalisation).

The European University E³UDRES² is a key structural element of the international dimension. It disseminates the resources, infrastructures and good practices of nine European higher education institutions and engages in cooperation with both regional and European stakeholders. The specific content areas of E³UDRES²'s activities are: Health, Wellbeing and Social Inclusion for Regions, Digital Solutions & (Applied) Deep Tech for Regions, Resilient Economy & Innovation for Regions and Creative Industries for Regions' Identity. As a result of the European University, the RHE2.0 model's international cooperation will step up to a new level, to deeper structural, long-term European cooperation.

Jamk's education exports, projects and the related cooperation require commitment to international collaboration from European higher education institutions, as well as those in Asia, Africa, and North America.

# 5 PROFILE AND STRENGTHS

#### Jamk's profile

Education, an emphasis on applied research, development and innovation, working life orientation, and the promotion of entrepreneurship serve as profiling factors for Jamk and are particularly focused on the operating environment of Central Finland.

The School of Professional Teacher Education is an important resource for **pedagogical development**. Jamk is **one of the largest provider of Master's Degrees** and identifies working life-orientated postgraduate degrees potentially also in doctoral studies. In the field of universities of applied sciences, Jamk stands out favourably as an **effective RDI actor**. Jamk is a **goal-oriented international actor** in degree studies, partnerships and networks, such as the E<sup>3</sup>UDRES<sup>2</sup> European University Alliance, RDI projects and education export.

Jamk's profile includes **promoting entrepreneurship and entrepreneurship education**, and elements and models supporting these, such as Jamk Future Factory®, Jamk's subsidiary *Jamk Turbine Fund Ltd Oy* and the *BioBoosters by Jamk* business accelerator, as well as *Jyväskylä Startup Factory* which Jamk owns jointly with the University of Jyväskylä and the city of Jyväskylä. Jamk is a solution-oriented actor in **service business**.

Jamk is highly involved in the **digital transformation** of society and working life, especially in the area of cyber security. Because of this focus, Jamk is also a major **provider of security**.

Jamk embodies a recognised **quality culture**, as evidenced by its numerous internationally accredited degree programmes

Jamk's profile is sharpest in its focus areas—cyber security, physical activity and well-being, as well as multidisciplinary rehabilitation—and emerging strengths, such as sustainable bioeconomy and energy

**solutions** and, **industry renewal**. Focus areas of development in Jamk's Reinventing Higher Education 2.0 operating model also include **innovative learning** and **regenerative leadership and management**.

#### Focus areas include excellence in cyber security, physical activity and rehabilitation

Cyber Security. Producing security is an increasingly important task in a world affected by conflict and accelerating digitalization. Jamk is an important instructor and a recognised top expert in cyber security. Annual national cyber security exercises for authorities, wellbeing services counties and municipalities and the development of cyber security competence in companies and sectors critical to security of supply are proof of the effectiveness of the activities. The Ministry of Transport and Communications has been a strong partner in the exercises. JYVSECTEC (Jyväskylä Security Technology) is Jamk's cyber security research, development and training centre, which acts as a hub for the development of excellence. The Centre maintains the RGCE (Realistic Global Cyber Environment) environment for cyber security exercises, which contains a digitally modelled society and its activities. The exercise environment also offers significant opportunities for applied cyber security research and competence-intensive international business.

Jamk and University of Jyväskylä, Faculty of Information Technology together form the *Finnish Center of Expertise for Cybersecurity* (FICEC), which works to strengthen Finnish cyber security competence.

Physical Activity and Well-being. There is a great need to increase physically active lifestyles and functional capacity. Inactivity has been identified as a challenge in all age groups. The physical activity and well-being focus area is linked to national priorities and choices. The focus area, which in practice refers to Likes, coordinates and implements national On the Move programmes, produces strategic information and research on physical activity, and carries out RDI work on physical activity and health. Municipalities, organisations and ethics play a key role in Jamk's research projects on sports administration, management and sports policy. Key public partners include the Ministry of Education and Culture's Department for Youth and Sport Policy, the Finnish National Agency for Education, and Regional State Administrative Agencies together with an extensive network.

The focus area's competence is more effectively linked to promoting the well-being of the Jamk community (also with the showroom concept) and education. Focus on physical activity and well-being is used to profile Jamk's possible degree responsibility in the field of physical activity or cooperation in providing education in the field.

Multidisciplinary Rehabilitation. The importance of rehabilitation has been emphasised when supporting people's maximum participation in society and their ability to cope independently. This is a matter of both a valuable and equal life and resource-wise activities by society.

Jamk's multidisciplinary rehabilitation focus area is an internationally recognised and valued reformer of rehabilitation and builder of solutions for the changing societal needs. The focus area's points of emphasis include the digitalisation of rehabilitation and service system renewal, effective evidence-based rehabilitation and lifelong sustainable work ability and functional capacity. The focus area is a key player in the Centre of Excellence for Rehabilitation and works to develop the entire national education sector. The objective of the impact of the activities is to seamlessly integrate multidisciplinary and digital rehabilitation into social and health care services, thus increasing the availability and efficiency of the services.

The objective of internationalisation is to launch *WHO Collaborating Centre* activities based on extensive international rehabilitation project work and partnerships.

#### Emerging strengths in bioeconomy and industry renewal

Sustainable bioeconomy and energy solutions. The development of solutions that meet climate objectives and putting them into practice through education will require strong competence in both carbon sequestration, food and biomass production as well as measurement, data analytics, modelling, simulation and knowledge-based management. These have been the starting point's for Jamk's reform of education in the field.

Thanks to its intensive RDI activities, Jamk has become profiled in the university of applied sciences field as a leading actor in data and bio-energy in the natural resources sector and has built a distinctive profile (e.g. Smart Bioeconomy Testbed and Finnish Future Farm). Jamk is the first university of applied sciences in Finland to systematically develop the bioeconomy's business accelerator activities (BioBoosters by Jamk) and has established an applied research group on smart agriculture. As a result of these actions, its business-oriented RDI activities have increased significantly.

In the evolving energy system, Jamk demonstrates strong competence in the development of industrial processes, industrial engineering and management, maintenance and life cycle management.

**Industry Renewal.** Jamk contributes to the implementation of the agreement between Jyväskylä and the Ministry of Economic Affairs and Employment (2021–2027) in the industry renewal ecosystem focus area. This promotes Jamk's industry renewal focus area, which in turn supports the twin transition of companies in Central Finland.

The capabilities of Jamk's industry renewal focus comprise long-term investments in automation and robotics as well as up-to-date technology measurement, testing and service infrastructure. RDI activities, training and services for companies have been built based on these capabilities.

In building the focus area, the emphasis is shifted to the systematic introduction of new digital tools, such as artificial intelligence. Competence in coating and material testing will be applied to the needs of the growing hydrogen economy. The objective is to build a digital platform that can be used to simulate and verify the carbon neutrality, resource efficiency and sustainability of product manufacturing and procurement processes in value chains. Jamk's objective is to achieve leading international expertise in materials and manufacturing technology, smart processes, and the digital solutions that support these, thereby promoting sustainable industry renewal.

Jamk's Master's degree programme in technology ranks among the most attractive nationally. The level of global competence is guaranteed with EUR-ACE accredited degree programmes.



Image: Creating Solutions, a vision for Reinventing Higher Education

### 6 IMPLEMENTATION AND FOLLOW-UP OF THE STRATEGY

The strategy is a future-oriented process whose objectives will be implemented in phases. The target year for the **Creating Solutions strategy** is 2035 The working paper on strategy follow-up is **a review and action plan**.

The roadmaps of the schools and Higher Education Services, which steer activities, cover the agreement period 2025–2028.

The **budget** is the annual instrument for the implementation of the strategy, to which the annual operational objectives of the schools are derived from each school's roadmap. The personnel training and needs discussions structured by Jamk's future keys support the personnel's strategy awareness.

The implementation of the strategy is assessed both with the continuous monitoring of indicators and quality-wise in audits, strategy seminars, board and management team work, personnel development days, the financial statement process and in more extensive intermediate reviews involving the Jamk community, partners and networks in a sufficiently in-depth manner. The strategy will be updated on the basis of reviews.

#### Table: Implementation of the strategy

Element of the strategy	Time horizon	Resbonsible
CREATING SOLUTIONS Jamk strategy 2035 Review and Action Plan	2035	Jamk Board Rector Rector Management Team
ROADMAPS Jamk's shared and school- specific objectives for the Ministry of Education and Culture's	2025–2028 period	KOPA, AOKK, HYVI, LIKE and TEKNO* (Management Teams, Vice Rectors and Directors, Heads of Departments)
Budget process Operational objectives and performance indicators	Annually	Actors in the process
Personnel training and demand discussions	Annually	Supervisors, personnel
Assessment: audits, interim assessments, reporting, strategy seminars, development days, financial		

**Assessment:** audits, interim assessments, reporting, strategy seminars, development days, financial statements process > Necessary updates

<sup>\*)</sup> Jamk's operating units are the School of Professional Teacher Education (AOKK), the School of Health and Social Studies (HYVI), the School of Business (LIKE) and the School of Technology (TEKNO).

# jamk University of Applied Sciences

