

### AUDIT OF VAASA UNIVERSITY OF APPLIED SCIENCES

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# 2.2 Research, development and innovation activities as well as artistic activities with impact

- HEI's self-assessment

#### Openly and Responsibly

Our president and CEO has stated the outlines, commitments and procedures for open science and organisational culture at VAMK, University of Applied Sciences. An expert group on open science and research is operating at our UAS. Openness as a value has been recorded into our strategy and it is part of our organisational culture. Our staff have received training on various sectors of open science and research. We have made significant advancement on part of open science and research and organisational culture during the past year. The work has based on the feedback on the assessment of the maturity level of open organisational culture.

We are committed to comply with the guidelines of <u>Finnish National Board on Research</u> <u>Integrity TENK</u> on <u>Responsible conduct of research and procedures for handling allegations of misconduct in <u>Finland</u></u>. A principal lecturer has been appointed at VAMK to support and help the staff in questions regarding responsible conduct of research. The students are introduced with the guidelines in the thesis instructions. Our web site on <u>open science and research</u>, open to all, guides the visitor to material on this subject.

#### Continuously Renewing Innovation Platform

The project planning is preceded by the examination of funding programs and the financier's needs, the follow-up of the situation of the surrounding society and global megatrends and a dialogue with the regional working life. The strengths, emphases and emerging research platforms are considered in project proposals. In projects utilising applied research, new insight and knowledge is created and the organisations are renewed. This competence is utilised in development and training projects in which methods and operating models are enhanced further. These new methods are introduced into business services and thus innovative competence is put into practice in working life. Continuous interaction with businesses helps to recognise development and research needs that arise from companies and organisations. This is utilised in project planning, and project proposals meet the future challenges of businesses.

# **OPERATING MODEL:**Continuously renewing innovation platform

#### Research

Creating new knowledge and insight

Renewal of businesses and organization through design: research of methods and operating models

(Research of design in new applications)

## Development and education

Development of design competence, methods and operating models

Application, utilisation and implementation of research data and competence

### Services

Implementation of design and innovation competence (commercialisation)

Research, development and innovation services

Application of new data, competence and methods in businesses

Research and development needs arising from businesses

### Creating new business:

Design+ technology (digitality, ecologicality)
+ business administration

Figure 4. Continuously renewing innovation platform

#### The Objectives of RDI Activities Base on Strategy and Regional Needs

VAMK's vision is to be the main partner in expertise. The vision challenges VAMK to raise the level of competence in applied research and development of creative solutions and to follow up the changes in the surrounding society. Two most important development projects in our strategy focus on developing RDI activities. We will deepen our cooperation with regional working life. The indicator in this is the number of high-quality and strategically significant key partner agreements and development of various functions in continuous learning. Naturally, we follow up the development of workforce and future competence needs, together with the regional Centre for Economic Development, Transport and the Environment. Secondly, we want to increase the volume of our RDI and service activities and through that the level of competence in the region. The indicator for us in this is the increase in external funding, number of business involved in the RDI projects, number of publications and volume of sold business services. We will monitor the development of the situation in Ostrobothnia in close collaboration with the Regional Council of Ostrobothnia, the Centre for Economic Development, Transport and the Environment, TE office and local operators and businesses.

VAMK's RDI activities support the renewal of the society and the economic life in the region. VAMK has a long-term collaboration, both nationally and internationally, with HEIs and research institutes. The objective in applied research and development projects is to enhance and renew regional working and economic life but also the entire society. The themes of the projects come from significant trends in the society, which have an impact on businesses, and society on a large scale: intelligent and energy-efficient electrical engineering, robotics, digitality, sustainable development, reform in healthcare and social services and design of sustainable products and services. VAMK is involved in resolving global challenges in the chosen fields. The themes of our RDI activities support VAMK's strategic objectives. In addition, Design Centre MUOVA provides versatile solutions for enterprises to enhance their operations.

#### **Developing Communications**

VAMK is in an ongoing dialogue with operators in the region: our staff is represented in development and strategy teams and networks that plan the future strategy and vision of the region. VAMK follows up its operating environment regionally, nationally and internationally, for example, in context of projects. In context of business services VAMK receives information on future challenges of businesses. Businesses also are involved in research and development projects.

In the autumn of 2020, we have launched an online magazine <u>Energy</u> which serves as a low-threshold platform for our staff to publish. Design Centre MUOVA also publishes its own publication <u>MUOVAAJA</u>, which is available for everyone. We are developing our video and podcast production. The ongoing projects have their social media channels and web sites.

#### **Strengths**

Systematic follow-up of indicators

Open online publication platform

Strong collaboration with stakeholders, especially with businesses and in design, testing and dissemination phases

#### **Enhancement areas**

Open science part of everyday work

Activation of RDI-work in educational units

More systematic survey of future and megatrends

# 2.2 Research, development, and innovation activities and artistic activities with impact

#### - Assessment of the audit team

#### A new RDI development programme gives structure to development work

VAMK is committed to an ambitious increase in RDI volume and the impact of its RDI on the region. VAMK's financial situation has improved, and after a few tough years, it is now possible to allocate more human resources to RDI. In the interviews, the biggest opportunities were seen in connecting VAMK's RDI work and especially the new interdisciplinary platforms even more steadfastly to the RDI programmes of the big RDI intensive companies of the region. In addition, opportunities related to stronger multidisciplinary RDI were brought up, such as a combination of health and technology to support the implementation of the national social and health care reform in the bilingual region together with VAMK's partner organisations.

VAMK is aware of the challenges it must overcome to reach its goals regarding RDI. Its brand new RDI development programme includes a comprehensive analysis of the current situation and clear actions for development. One of the challenges brought up in the interviews is how to free up permanent staff's time for RDI when finding qualified part-time staff is difficult. VAMK could seek alternative solutions to this, such as agreeing to have part-time teachers from its working-life partners or doing joint planning and implementation of teaching with other higher education institutions that teach the same fields.

In the interviews it became obvious that there are great expectations for the new interdisciplinary interworking platforms. The Design Centre MUOVA has long-term experience of a systematic approach to RDI & services, and it also serves small companies and the development of entrepreneurship. MUOVA's experience can be utilised when building up the new RDI platforms. On the individual project level, VAMK also has systematic practices that ensure, for example, that projects have clear links to regional development and that they are conducted responsibly.

#### VAMK has potential to be a stronger player in RDI ecosystems

The operating environment and VAMK's connections to selected companies in the region offer VAMK great potential to increase its RDI activities. However, given its vision to be the main partner in expertise, it could take a more proactive role in emerging ecosystems, and also in engaging smaller companies. A proactive role could include actions such as creating shared purpose, aligning objectives of ecosystem partners, or identifying potential impacts and the expected value of taking part in an ecosystem.

In order to magnify the societal impact of its RDI work, VAMK could benefit from connecting its RDI projects to build long-term joint research programmes and platforms with its partners and with the local higher education consortium. These programmes could be designed to offer opportunities for student projects, for continuous learning, for staff exchange between VAMK and its partners, and also for new business generation and startup incubation. These are all activities that VAMK already does, but bringing them together more steadfastly together can open up new, previously unseen links between them. The programmes could also help to obtain more funding from national and European funding sources.

VAMK has a good set of quantitative indicators for RDI that it uses for improvement but these could be complemented with assessment of more qualitative information that describes the nature of the impact the RDI is having to reform society. Qualitative indicators can bring a stronger frame for the development of RDI.

#### Commitment to open science is turning into action

VAMK is committed to advancing open science, as is evidenced through its declaration of open science and research. The interviews confirmed that commitment to open science is starting to turn into action: training workshops for staff are organised and new online publications have been generated for the dissemination of RDI outcomes. VAMK is also committed to following The Finnish National Board on Research Integrity (TENK) guidelines on Responsible conduct of research and procedures for handling allegations of misconduct in Finland. In practice, these are taken into account by project-level guidelines that steer the conduct of RDI projects at VAMK.

When increasing publishing activity through the online magazines Energy and Muovaaja, VAMK should pay more attention to defining the target groups for them and steering the development of the magazines more to the needs of these target groups. Overall, it would be beneficial for VAMK to differentiate between the communication of the results and the impact of the RDI projects according to the target group to be addressed, for instance, working life partners and/or the public.