Final Report Peer-review:

Foster the trustworthy use of artificial intelligence (AI) in companies.

Peer Review hosted by

Austria Wirtschaftsservice Gesellschaft mbH (aws)

Date: 29-30 January 2020

Venue:
Austria Wirtschaftsservice
Walcherstraße 11A
1020 Vienna

1st floor

Room: Innovation Center (IC)

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1. Background

The host - Austria Wirtschaftsservice Gesellschaft mbH (aws)

Austria Wirtschaftsservice Gesellschaft mbH (aws) is the promotional bank of the Austrian federal government. It supports companies in implementing their innovative projects by offering loans, grants and guarantees, particularly in cases where the funds required cannot be obtained sufficiently through alternative funding. Specific information, coaching and services are also offered to prospective, existing and expanding companies. The support provided through the aws can help to:

- to set up an enterprise more easily
- access loans from EUR 10,000 up to EUR 30 Mio.
- access finance by providing guarantees
- develop and implement innovations
- check strategies thoroughly.

National Foundation for Research, Technology & Development

aws is legally mandated to operate the office of the National Foundation for Research, Technology & Development (RTD Foundation). Endowed with funds from the Austrian federal government, the Austrian National Bank and the ERP Fund, the RTD Foundation offers grants to federal funding agencies.

As the new program is still under construction, aws was happy to receive feedback from European experts through the peer-review.

Policy addressed – current situation and challenges

aws received funds from the National Foundation for Research, Technology & Development to operate a new program to foster the trustworthy use of artificial intelligence (AI) in companies ("KIplus").

While guidelines for a safe, responsible use of AI are getting available (e.g. https://ec.europa.eu/digital-single-market/en/news/ethics-guidelines-trustworthy-ai) the practical use is still in its early days. Many questions arise, like will this help or hinder the use of AI technologies, how will they work in different sectors or will this lead to a trustworthy use of AI? To bring those guidelines to practical use, aws plans to invest up to 80.000 EUR per undertaking in 35 innovative AI projects which will use such guidelines. Part of the capacity building process will be to provide the 35 projects with Know-how on trustworthy AI, initiate a Know-how exchange process between the

companies and gain actionable knowledge on how to – if so necessary – further develop trustworthy AI guidelines and how to promote the use on a countrywide scale in the best way.

The updated preliminary timeframe for the planned funding of the project is therefore as follows:

aws AI⁺ Programm	2020				2021				2022			
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
Modul "AI⁺ Exploration"	Programm-vorbereitung	Projektförderungen, 1 Entscheidungssitzungen p.a., Projektlaufzeit (Jahr 1 & 2: 12 Monate, Jahr 3: 6 Monate)										Programm-abschluss
Modul "AI⁺ Trust"	Detailkonzeption via Open Innovation Ansatz		Know-how Modul								Dissemination	
Monitoring & Evaluierung	Wirkungs-konzept						Monitoring					Evaluierung

The company projects will run from Q2 2020 until Q3 2022 with an average project duration of 1 year (AI+ Exploration). The policy module "AI+ Trust" will start with Q1 2020 and will proceed until Q3 2022.

Expected impact from the programme

As a public agency aws does implement strategic policies set out by the government, in this case the Artificial Intelligence Mission Austria 2030 (https://www.bmvit.gv.at/innovation/publikationen/ikt/aimat.html) . In cooperation with https://www.acrai.at/, the governmental advisory board on AI aws can, thanks to the aws AI+ program, build the necessary bridge between (European and) national high-level policies and the practical implementation of those on a company level in real-world projects. The program can thus be considered as a new policy approach, as it combines the support of innovative AI projects with the practical application of AI guidelines.

The federal process to define a national AI strategy (imitated by the Ministry of Transport, Innovation and Technology) has, as of October 2019, resulted in a final report - rather than originally intended - a national AI strategy and action plan. The report provides proposals for the upcoming government without making concrete proposals. It is then up to the next government to decide upon the next steps towards an Austrian AI strategy.

In the meantime, with the implementation of the AI program, aws takes concrete action. It can provide bottom up feedback from companies and therefore provide valuable inputs for the policy makers for their next steps towards creating a national AI strategy.

Based on the results of the program there are two main areas of expected impact:

-         First on a company level, where the projects involved will learn how to best use ethical guidelines and disseminate those learnings within their sectors.

- Secondly, policy makers will gain knowledge on the practicality of the current strategies and will be provided with a set of real-world projects to further develop their policies. These may lead to further funding programs for AI projects, influence requirements for public procurement, deliver essential inputs for future regulatory frameworks and provide therefore the necessary input for the development of AI policies in Austria and Europe.

Expected impact from the peer review

Within the Interreg Europe RCIA Project aws experts repeatedly shared their knowledge with other regions. That lead in the case of the Policy Peer Review meeting in South Tyrol to the establishment of the Creative Industries in the working program for the local government – an essential requirement for the development of the sector in this region. This was only possible, because experts from all over Europe shared their experiences and ideas and opened a completely new "space" of thoughts. Therefore, aws believes that a peer review can be of significant value for the establishment of trustworthy AI in Austria.

2. Participants Peer-review

After approval of the project call and drafting a background paper, Interreg Europe made a selection of peers from Ireland, Finland, Spain, Poland and Switzerland with relevant experience in Artificial Intelligence, Innovation or the governing role. Luc Schmerber also invited the members of the steering group who followed his lead to participate in the Peer Review and deliver inputs for the upcoming program of trustworthy AI.
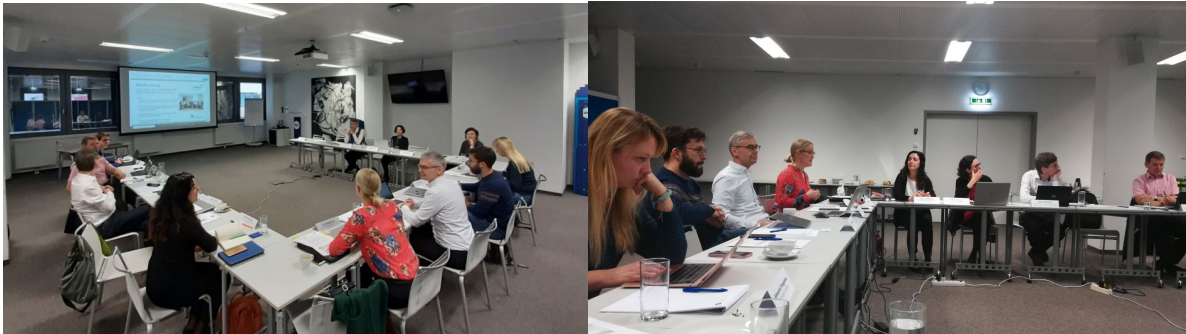
List of participants:

Name	Organisation	Role
Hannes A. Schwetz	Austria Wirtschaftsservice, Austria	Host
Petra Huber	Austria Wirtschaftsservice, Austria	Host
Christina Koch	Austria Wirtschaftsservice, Austria	Host
Florian Schäfer	Austria Wirtschaftsservice, Austria	Host
Dave Lewis	School of Computer Science and Statistics, Trinity College Dublin, Ireland	Peer (invited but not attending)
Tiina Ramstedt-Sen	Council of Tampere Region, Finland	Peer
Aurelio Jimenez	Zapiens Technologies, Asturias, Spain	Peer
Aleksandra Przegalinska	Kozminski University, Poland	Peer
Raniero Pittini	Switzerland Innovation Park Biel/Bienne, Swiss	Peer
Alexander Banfield-Mumb-Mühlhaim	Department of Digital Strategy and Innovation, Federal Ministry for Digital and Economic Affairs, Austria	External Stakeholder

Bernd Zimmer	Department of Innovation strategies & -cooperations, Federal Ministry for Digital and Economic Affairs, Austria	External Stakeholder
Daniela Murhammer-Sas	Department of Innovation, Federal Ministry for Climate Action, Environment, Energy, Mobility, Innovation & Technology	External Stakeholder
Ilaria Ramaglioni	Interreg Europe Programme	Policy Officer
Elena Ferrario	Interreg Europe Policy Learning Platform	Thematic Manager
Rene Tonnisson	Interreg Europe Policy Learning Platform	Thematic Expert, SME Competitiveness
Luc Schmerber	Interreg Europe Policy Learning Platform	Thematic Expert, SME Competitiveness
Mart Veliste	Interreg Europe Policy Learning Platform	Thematic Expert, SME Competitiveness

After the first conversations with the peers it became clear very fast, that setting the boundaries for AI-technology is a very common topic with a lot of potential for discussion. This helped during the peer review since there was a wide understanding for the issues aws tries to tackle. The peers themselves could also gain some interesting insights in the way of the aws approach to set up a funding for companies applying trustworthy AI.

Due to the involvement of so many experts from all over Europe, aws tried to get some insight in the challenges of policy making on AI from their point of view. Their input had an important contribution to our draft of the KIplus program. At the same time, aws was pleased to receive the following conclusions and recommendations from the team of thematic experts and our European group of peers:

3. Main conclusions and recommendations

The four main questions addressed were:

1. Rolling out of national AI business promotion programs
2. "KIplus" program details
3. Introduction of ethical guidelines for businesses – most usable guidelines for AI
4. Open-minded, constructive reflected discussion on AI use within the a) business community and b) policymakers?

First of all, the roundtable discussed the topic of rolling out national AI business promotion programs. As for aws, it is the first time rolling out a trustworthy AI business promotion program it was quite useful to hear what already had been accomplished by the Peers in this regard.

After this rather general starting point, focus was given to the particular program details of KIplus. The group discussed the overall settings, especially objectives, the funding scheme, evaluation criteria and trustworthy AI (+capacity building). aws received particular valuable feedback regarding the focus (customer-centric in the application process), the evaluation criteria with regard to teams (there were extensive discussions), the trustworthy AI guidelines / the trustworthy AI terms used and a lot of suggestions for the planned capacity building activities, set out to support the overall development of trustworthiness in AI in Austria.

At the end all the inputs were reflected during an open discussion with the present policymakers.

Recommendations

To put it in a nutshell these are the most important recommendations aws received:

Topic	Recommendation
Regarding the overall setting of the program	✓ Not all aspects can be realistically addressed -> focus is important
	✓ Think of the client perspective in the application process not to overload them
	✓ Focus of program could be used for mapping/evaluating outcomes of events/workshops… (clustering own activities on focus-topics)
Funding scheme	✓ Lump sums - Different lump sums for different type of projects, depending on how close to market they are
	✓ Necessary balance between flexibility and compliance with process/plan, strong screening of projects
	✓ Flexibility in results and process is needed for the KIplus pilot approach
	✓ If result/process is not achieved ask the money back (Switzerland example) as an incentive to implementation efforts. Such hard criteria are meant to avoid "too opportunistic" application from groups not 100% committed
Evaluation criteria	✓ Have less criteria - Remember that every new layer (criteria) adds more restrictions (limits innovativeness) and makes projects potentially less efficient
	✓ Societal impact, e.g. „negative and positive effects on the labour market" very difficult to assess (open question), even more for AI projects
	✓ Consider raising the full-time criterion from one person to two – to ensure that there is stronger commitment from the team on the project | Consider removing the full-time criterion as you might limit innovative projects

	✓ Indicate the importance of your criteria by playing around with the %s. For example, if innovation or teams is central to your aims, indicate it accordingly by increasing the weight.
Trustworthy AI	✓ What kind of impact will the project have on the society; currently identified only through technology (responsibility towards AI), but not Responsible Research and Innovation (RRI) / Corporate Social Responsibility (CSR)
	✓ Consider alternative names such as „Beneficial AI" or „Responsible AI" – German translation to be checked, e.g. "wohltuende KI"
	✓ Explanation are needed – put the most important aspects first
Capacity building for Trust & Safety in AI	✓ Need to go through different steps – Generate processes within the company
	✓ Open innovation approach
	✓ Data strategy as part of trainings, e.g. how to tackle biased data, be clear about what you do when handling data, data security
	✓ Collaborate with industry 4.0 / Digitization events
	✓ Support bottom up events based on projects problems or needs. They propose the topic of interest, you take full control of organizing the event
	✓ CEO AI training is important (changing the mindset of managers)
	✓ Create a forum for beneficiaries to share good practices and facilitate dialogue on following ethic principals – define what it means to be a part of the funded club and how do beneficiaries give back.

	✓ Suggestion: Develop your own cloud services in the region to save resources in the long run.
Ethical standards	✓ Still a lot to do on government level, many approaches (observation)

4. Follow up

- Next Steps for the program
    - Setup of the legal and technical framework for the aid program is currently ongoing. The initial timeframe to launch the program has been in the 2nd quarter of 2020. Due to the Corona circumstances the schedule has been updated such that the call is supposed to be opened with the 3rd quarter of 2020. The timeline for the selection of projects is planned for the 4th quarter of 2020. Projects will therefore be starting with the 4th quarter of 2020.
    - Design of the capacity building measurements is currently ongoing. The cornerstones of the 2,5-year plan will be created until the end of the 2nd quarter of 2020. Based on that, the search for cooperation partners has already started, leading to cooperation agreements within 2020. Due to the Corona situation, activities like meetups etc. will not start before the 3rd quarter of 2020.
- Register KIplus program in good practice database
- Inform peers and Interreg Europe Policy Learning Platform about lessons learned from implementation of program, e.g. customer feedback, feedback from trainings.

5. Conclusion

The Peer Review on the topic of "Foster the trustworthy use of artificial intelligence (AI) in companies" was a highly valuable opportunity to gain insights from EU experts for the upcoming aws funding program KIplus, fostering trustworthy AI in Austria. aws honors the feedback and insights received and will be happy to continue the dialogue with the peers. aws is open to share its know-how concerning the development and implementation of the KIplus program. aws highly recommends the Peer Review in the development process of future funding programs to fellow funding agencies. aws thanks all experts for sharing their expertise and ideas. Special thanks also for the Interreg Europe Program and the wonderful team for making this workshop possible!

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