FACTSHEET

AI – "kratt" strategy

In Estonian mythology, a Kratt is a magical creature. Essentially, Kratt was a servant built from hay or old household items. Therefore, the Estonian government uses this character as a metaphor for AI and its complexities.

"The goal of the action plan for 'kratts' in Estonia's public sector is to bring the e-state to the next level – take more 'kratts' into use, make practical tools for 'kratt'-creation available and start using more flexible means for financing the creation of kratts,"

Siim Sikkut, former Estonian Government CIO

Artificial intelligence is described as systems that exhibit intelligent behaviour, analyse their surrounding environments and make autonomous decisions to a certain extent with the aim to achieve goals.

In May 2019, an expert group led by Ministry of Economic Affairs and Communications (MKM) and Government Office presented proposals on advancing the take-up of artificial intelligence (AI) in Estonia aka for Estonia's national AI strategy.

The strategy is a sum of actions that Estonian government will take to advance the take-up of AI in both private and public sector, to increase the relevant skills and research and development (R&D) base as well as to develop the legal environment. According to the earlier strategy, the country invested around 10M euros into governmental AI solutions and today more than 80 AI projects have been performed.

Current Kratt Strategy for 2022-2022 aims to increase the use of AI in Estonia and thereby increase the user-friendliness and accessibility of e-services and the efficiency of the state by contributing at least 20M throughout 2022-2023.

National AI strategy

The national AI strategy relies on four pillars: boosting AI in the government, AI in economy, skills along with research and development, and the legal environment. As part of national AI plan, Estonia is bringing a government-as-platform approach to boost uptake of AI in both public sector and wider economy. Planned activities include, for example, a public e-course to raise awareness about AI, along with creating sandboxes for testing public sector AI applications. The private sector will have the opportunity to use designated innovation and development grants for developing machine learning based solutions.

AI uses-cases in Estonia

As mentioned before, the government has launched an expert task force led by Government Office and the Government CIO. The general objective is to have at least 50 use-cases of artificial intelligence in the public sector in Estonia by 2020. There are already some existing AI use-cases working in public sector:

- → The Information System Authority of Estonia is using machine learning for detecting anomalies and incidents on the traffic of the Estonian data exchange layer — X-Road.
- → Predictive analytics is used to decide where to send the police for traffic regula-tion. The system is well used in cities.
- → The Estonian Unemployment Insurance Fund matches job seekers with open positions using AI. It helps job seekers get matched with the right j ob. The current job matching algorithm is devel-oped further with job seeker profiling algorithm.
- → Estonian Agricultural Registers and Information Board is using machine learning to detect land mowing. Satellite images are analyzed to detect whether agricultural land has been mowed. This is necessary as mowing land is one of the requirements for receiving government grants.

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Bürokratt

→ **A vision –** how public services should digitally work in the age of artifical intelligence (AI).
→ **AI-based interface –** opportunity for people to use public direct and informational srvces by voice-based interaction with AI-based virtual assistants.
→ **Interoperable network of AI applications** - (agents, bots, assistants), which would work from the user perspective as a single, united channel for accessing public direct and informational services.

Questions & answers

What Is #KrattAI?

#KrattAI is the vision of how digital public services should work in the age of Artificial Intelligence. It would entail an opportunity for people to use public direct and informational services by text- and voice-based interaction with AI-based virtual assistant.

What are the benefits of implementation of AI?

Implementation of artificial intelligence could have various benefits for Estonia. In the public sector, it would allow us to increase the user-centeredness of services, improve the process of data analysis, and make the country work more efficiently by achieving the goals of developing the e-government. Artificial intelligence can also play an important role in the digital revolution of the industry and attract new investments and innovation activity to Estonia — developers of technology are searching for a development and test environment that favours artificial intelligence solutions. updated, however, the frequency depends on each individual dataset. For some it could be a real-time copy, for others a periodical back-up. In terms of functionality, the infrastructure should support all these options.

Facts and figures

→ Estonia has implemented more than 80 AI use-cases in government by August 2022.
→ The country approved its second national AI strategy aka Kratt strategy for 2022-2023 with the aim to invest 20M euros.
→ In Estonian mythology, a Kratt is a magical creature. Essentially, Kratt was a servant built from hay or old household items. Therefore, the Estonian government uses this character as a metaphor for AI and its complexities.

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