

National strategies on Artificial Intelligence A European perspective in 2019

Country report – Netherlands



In October 2019, the Dutch government has released its [strategic action for artificial intelligence](#) (Netherlands, 2019a); a less extensive version is also available in [English](#) (Netherlands, 2019b). The policy report presents a range of policy initiatives and action plans to strengthen Netherlands' competitiveness in AI on the global market. The vision of the Dutch AI strategy relies on three strategic pillars, aiming at:

- Capitalising on societal and economic opportunities: policies encouraging the adoption, use and development of AI in the private and public sector and promoting the use of AI to tackle societal challenges;
- Creating the right conditions: policies supporting education and skills development in AI; fostering research and innovation in AI, facilitating the access to qualitative data and improving the digital infrastructure;
- Strengthening the foundations: including policy actions related to ethical issues, such as trust, human rights, consumer protection, and safety of citizens.

The strategy contains an extensive list of initiatives aiming at fostering AI in the economy through policies related to education, research and innovation developments from the lab to the market, networking, regulation and infrastructure.

As per funding, the Dutch version of the strategy mentions in annex that the yearly governmental budget to AI innovation and research is estimated at €45 million. The supercomputer developed at SURF and financed by the Ministry of Education, Culture and Science has a cost of €18 million.

1 Human capital

Formal education and training reforms are foreseen through policies targeting increased digital literacy in primary and secondary education and providing more opportunities to develop skills and competences in data science in higher education ([National Data Science Trainee program](#)). A national [online course on AI](#) is also available for civil servants in the Netherlands. Vocational training initiatives funded by the [Regional Investment Fund](#) will target more closely the future (digital) needs of the labour market. Further training and lifelong learning are fostered with the [STAP-scheme](#) – a €200 million investment to create training opportunities in AI and digital skills for individuals – and with a multi-annual programme for the improvement of [Lifelong Development](#), with particular focus on digital skills.

2 From the lab to the market

In order to stimulate basic and applied research in AI, the [Dutch Research Council](#) is supporting a new research programme on artificial intelligence. To complement this initiative, the Dutch AI-coalition proposes the establishment of an AI Competence Centre. In order to create favourable conditions for companies to invest in AI, the Dutch government improves access to innovation funding and venture capital through [Innovation Credits](#), the [Seed Capital Scheme](#) and the [Dutch Venture Initiative](#). In addition, the Chamber of Commerce offers hands-on information on AI, which could support companies in their innovation efforts.

3 Networking

The Dutch government highly values collaborations and partnerships in AI. To this purpose, the Dutch AI-coalition is currently drafting a plan to enhance synergies between research, education and organisations. Examples of public-private partnerships (PPPs) in the Netherlands are [Commit2Data](#) and [VWData](#) with a focus on big data. The importance of PPPs

is further emphasized in the [Knowledge & Innovation Agenda 2020-2023](#) mentioning the need for collaboration on key technologies as machine learning and artificial intelligence. Furthermore, the strategy highlights examples of national collaborations in using AI applications in the legal environment (e.g. document automation and due diligence based on AI) and the public domain (e.g. chatbots). Finally, collaborations across the national borders are encouraged by strengthening Netherlands' partnership in European AI consortia (e.g. [BVDA/EURobotics](#), [AI4EU](#), [CLAIRE](#) and [ELLIS](#)) and international AI collaborations such as [Holland Innovation Network](#).

4 Regulation

Regarding regulation, the Dutch government advocates an ethical, trustworthy and responsible use of AI with respect for human rights and consumer protection, and based on a well-developed legal framework. Policy actions relate to various research activities on ethical, legal and transparency aspects, and responsible use of AI. The Dutch government also highlights its active participation into High Level Experts Groups and European Directives on these issues.

5 Infrastructure

The Dutch strategy includes policy initiatives to foster the data infrastructure and to provide foundations for data usage and sharing. It includes the promotion of FAIR principles for private data sharing, the participation into the [Common European Data Space](#) and the creation of an inventory of data sharing solutions. In terms of digital and telecommunication infrastructure, the Dutch strategy mentions among others the [Digital Connectivity Action Plan](#) (aiming at setting up a high-quality connectivity) and the government investments in supercomputing power (e.g. supercomputer at [SURF](#) and Netherlands' commitment in the [Digital Europe Program](#)).

6 Update

The outlined strategy will be annually reviewed and updated by the Dutch government.

References

Netherlands (2019a). Strategisch Actieplan voor Artificiële Intelligentie. Ministerie van Economische Zaken en Klimaat. <https://www.rijksoverheid.nl/binaries/rijksoverheid/documenten/beleidsnotas/2019/10/08/strategisch-actieplan-voor-artificiele-intelligentie/Rapport+SAPAI.pdf>

Netherlands (2019b). Strategic Action Plan for Artificial Intelligence. Ministry of Economic Affairs and Climate Policy. https://www.government.nl/binaries/government/documents/reports/2019/10/09/strategic-action-plan-for-artificial-intelligence/RapportSAPAI_Summary.pdf

Background information

This country report has been prepared in the context of [AI Watch](#) and the [OECD AI Policy Observatory](#).

AI Watch is the European Commission knowledge service to monitor the development, uptake and impact of Artificial Intelligence (AI) for Europe, launched in December 2018.

The OECD AI Policy Observatory (OECD.AI) is an inclusive hub for public policy on AI. It aims to help countries encourage, nurture and monitor the responsible development of trustworthy AI systems for the benefit of society.

This country report has been created on the 25th of February 2020. Please visit <https://ec.europa.eu/knowledge4policy/ai-watch/netherlands-ai-strategy-report> for regular updates.

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