Algorithm Audit

Analysis Dutch Algorithm Register

Transparency in practice

Dutch Algorithm Register: from pinnacle of transparency to puzzle of paperwork

The aim is to foster trust...

Transparency: it should provide insight in algorithmic systems used by governments

💬 **Explainability**: it aims to clarify how algorithms influence decision-making and what personal data are used

🔍 **Verifiablility:** enabling internal and external actors to check logic of algorithm

...but the execution falls short

👎 **Missing records:** Many organisations have not yet published in the Registry, or their submissions are incomplete

❌ **Uninformative:** The information in the Registry is often poor and provides little meaningful insight

❓ **Incomplete:** Key information is often missing. **53%** of high-impact algorithms lack a registered impact assessment

😊 **1.245** registered algorithms and AI systems by **289** organisations

Reference date: 05-12-2025

How to find the algorithms that matter?

The 1.245 registered algorithms are categorized on type and impact

	High-risk AI	High-impact algorithms	Other
Municipalities (777x)	2%	44%	54%
Executive branches and others (379x)	3%	58%	39%
Provinces (53x)	12%	28%	60%
Ministries (36x)	0%	28%	72%
Total (1.245x)	**3%**	**47%**	**50%**

Definition of different types of algorithms

High-risk AI system: AI systems under the AI Act which pose a significant risk of harm to health, safety or fundamental rights, according to i.a. Annex III risk categories

High-impact algorithm: Algorithms which have a legal or otherwise significant impact

Other algorithms: Algorithms published for other reasons, such as demystification

Some Dutch municipalities perform well, others need to catch up

Top 5 vs bottom 5 performers out of 20 largest Dutch municipalities

	Municipality	High-risk	High-impact	Other	**Total**
1.	Amsterdam	0	34	29	**63**
2.	Rotterdam	1	8	19	**28**
3.	The Hague	2	19	22	**43**
4.	Utrecht	0	45	0	**45**
5.	Eindhoven	0	3	0	**3**
6.	Groningen	0	6	9	**15**
9.	Breda	0	0	0	**0**
11.	Apeldoorn	0	0	2	**2**
18.	Den Bosch	1	0	0	**1**
19.	Zwolle	0	0	0	**0**

↓ Sorted by population

Reference date: 05-12-2025

Quality over quantity; numbers don't capture it all

Having many records does not mean that they are well-completed

	Impact assessment	Lawful basis	Methods and models	Proportionality
Amsterdam (63x)	54%	27%	63%	75%
Rotterdam (28x)	82%	79%	100%	89%
Utrecht (45x)	100%	16%	7%	100%
Almere (12x)	8%	58%	83%	83%

100% complete

0% complete

Only a quarter of Amsterdam's registrations contain a legal basis 😮

🤔 **Quality vs quantity:** Algorithm Audit recommends to publish fewer high-quality registries rather than a larger number of low-quality registries

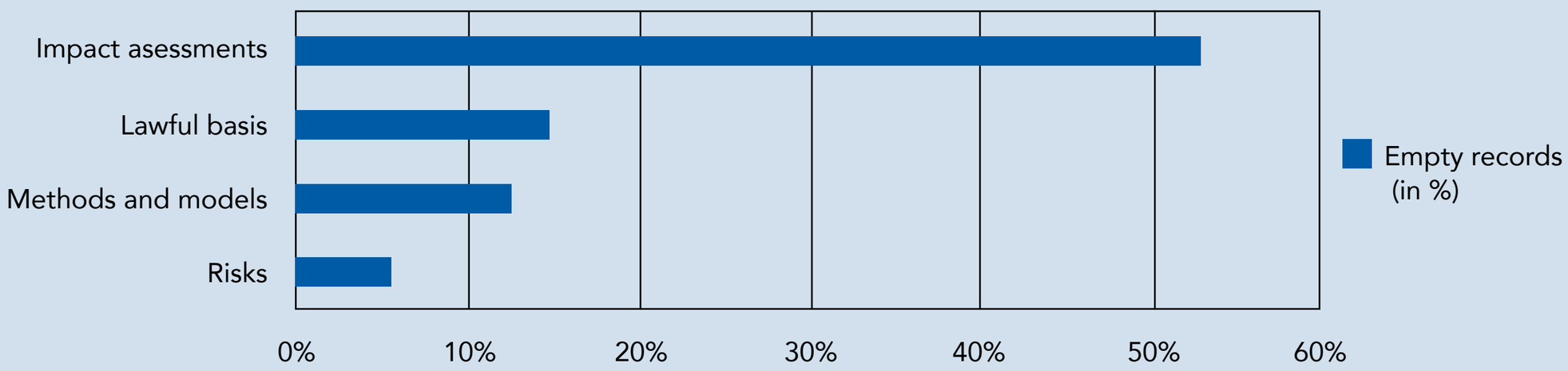
The Register reveals lack of governance for high-impact algorithms

Key information is missing for many high-impact algorithms

53% of registered high-impact algorithms (n=583) lack an impact assessment

14% of all registered high-impact algorithms have no lawful basis provided for their use

Missing records for registered high-impact algorithms (N=583)



Reference date: 05-12-2025

The same AI systems receive different risk classifications across organizations

Same AI system, different risk category

AI system	Assigned risk category	Correct risk category
Facial recognition (Oribi) (21x)	Other (9x) High-risk (2x)	High-impact (10x)
Intelligent Traffic Lights (8x)	High-risk (3x)	Other (5x)
MONOcam (1x)	High-impact (1x)	High-risk (0x)

Inconsistency: The same facial recognition AI system from the same provider is identified differently by different organizations

Risk classification: In general, organizations often face challenges in accurately categorizing risk, frequently under- or overestimating the risk associated with algorithmic systems

Room for improvement: we're here to help

Three ways to improve the Algorithm Register

i. **Vertical standards:** Develop technology-specific requirements – such as accuracy specifications for facial recognition software – that can be requested during procurement and can be published in the Algorithm Register

ii. **Mandatory publication requirements:** Require high-risk AI systems and high-impact algorithms to publish, at least, their legal basis and an identification of risks

iii. **Guidelines for complete and consistent classification:** National guidelines are needed to ensure accurate and consistent identification and risk classification across organisations

Algorithm Audit is maintaining a free to use and open source tool that is helping organisations to comply with regulations for algorithms and AI

Building *public knowledge*

for *responsible AI*

Join the discussion!

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