



PEOPLE
ANALYTICS
2025

Verantwoorde toepassing van kunstmatige intelligentie (AI) binnen HR

Peter Werkhoven

&

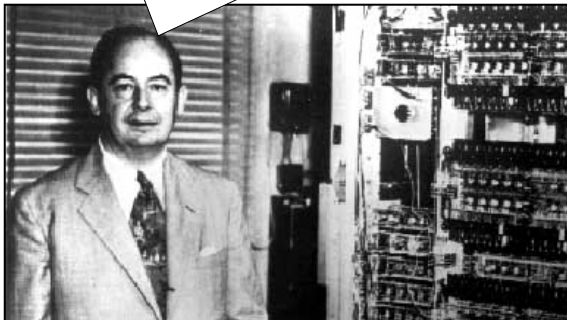
Maaïke de Boer

› AI EXPECTATIONS

1945

John von Neumann (ENIAC)

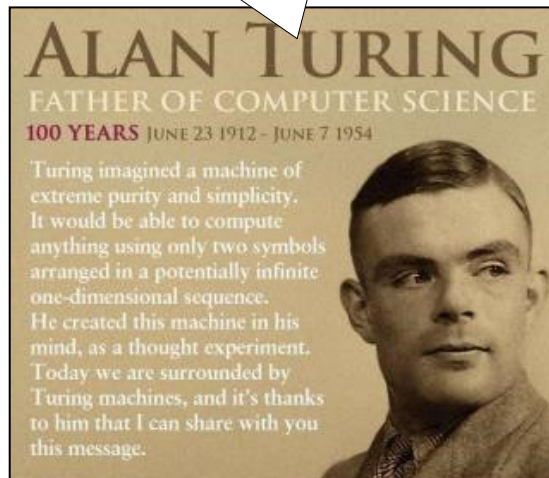
“Approaching some essential singularity beyond which human affairs, as we know them, could not continue”



1951

Alan Turing

Once the machine thinking method has started, it would not take long to outstrip our feeble powers



2016

Google Deep Mind
AlphaGo wins Go



2022

OpenAI
general purpose
ChatGPT



1997

IBM Deep Blue

Beats world champion chess
Garry Kasparov



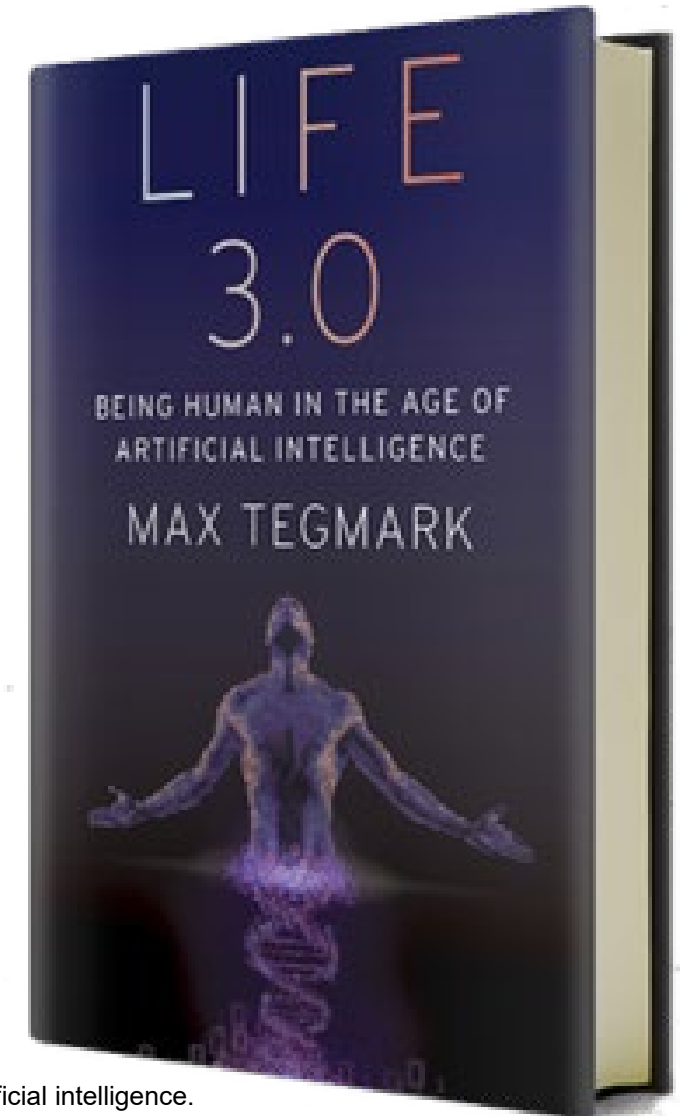
› HUMAN INTELLIGENCE

Conscious **human** information processing is very limited (≈ 50 bits/s),

requires full attention, is serial, is **biased**, and

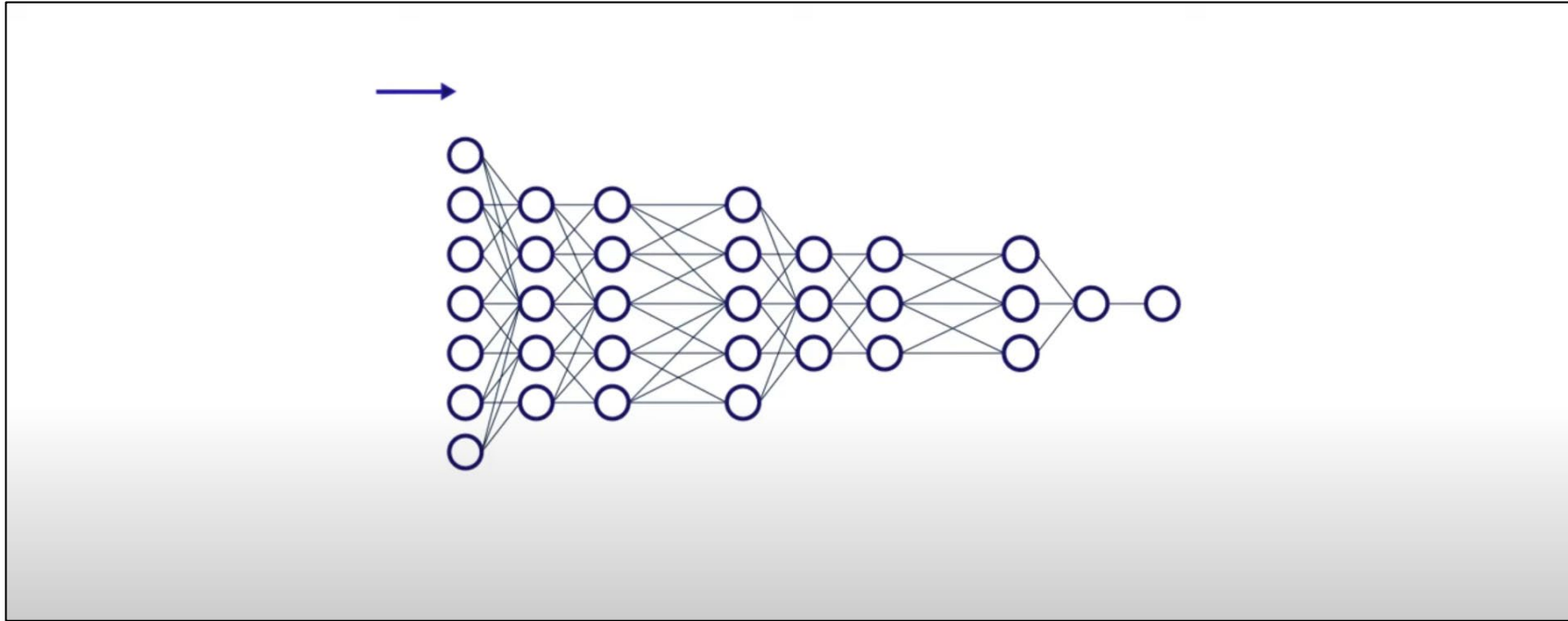
we substantially **forget** what we learned.

(Tegmark, 2017)

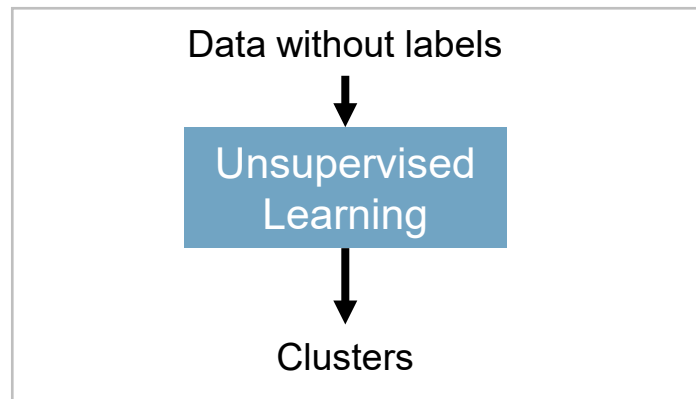


Tegmark, M. (2017). Life 3.0: Being human in the age of artificial intelligence. New York: Borzoi Book published by A.A. Knopf.

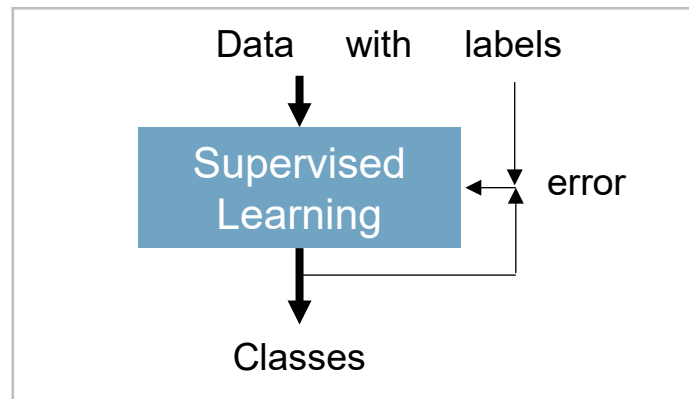
› AI: RECOGNIZING PATTERNS



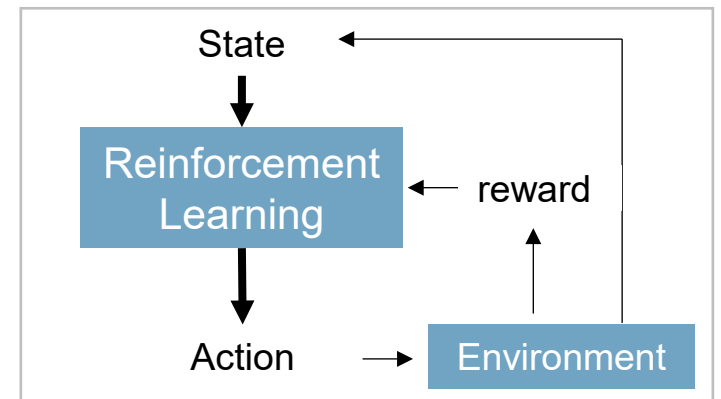
Clustering (recommend, anomalies)



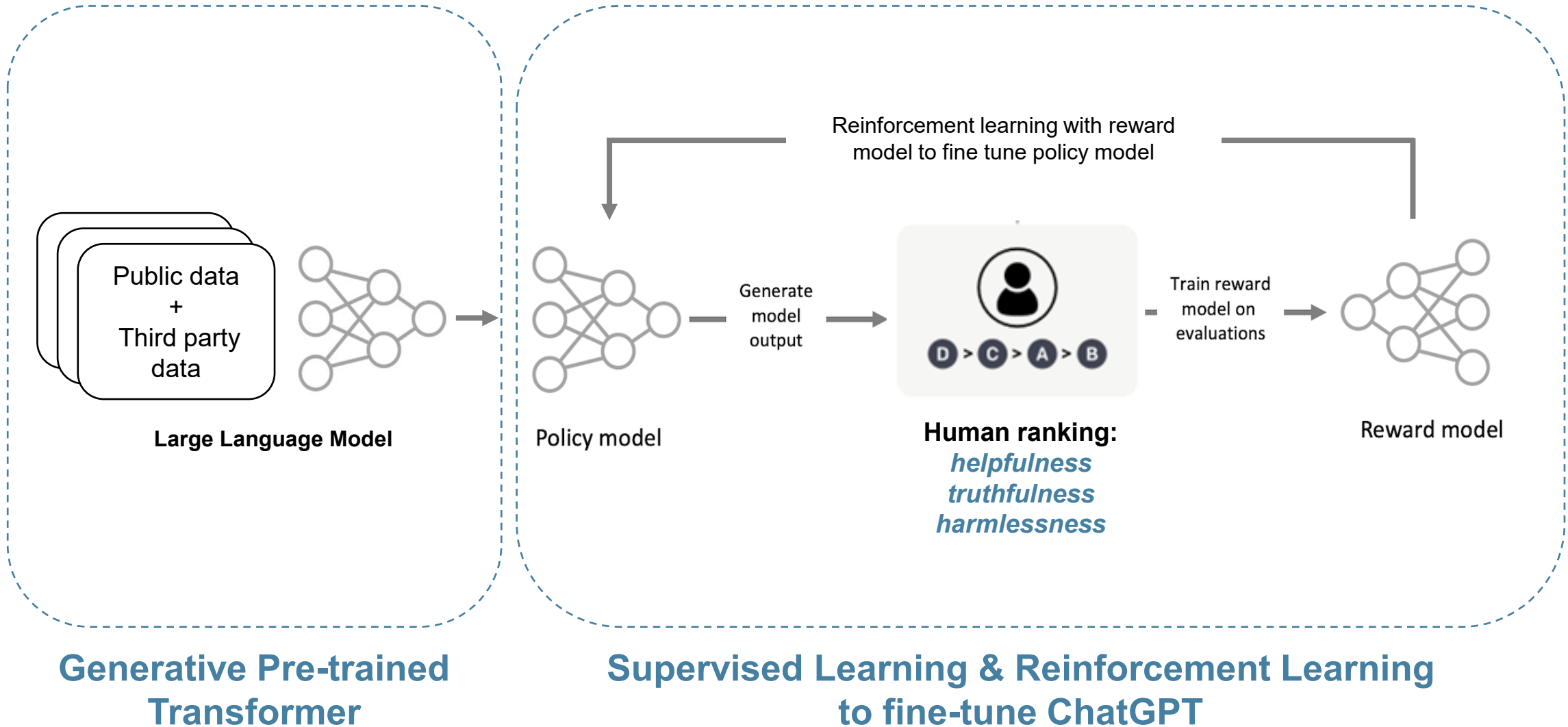
Classify (face recognition, forecasting)



Policy learning (games, robotics)



› GEN AI: INTELLIGENCE WITHOUT UNDERSTANDING



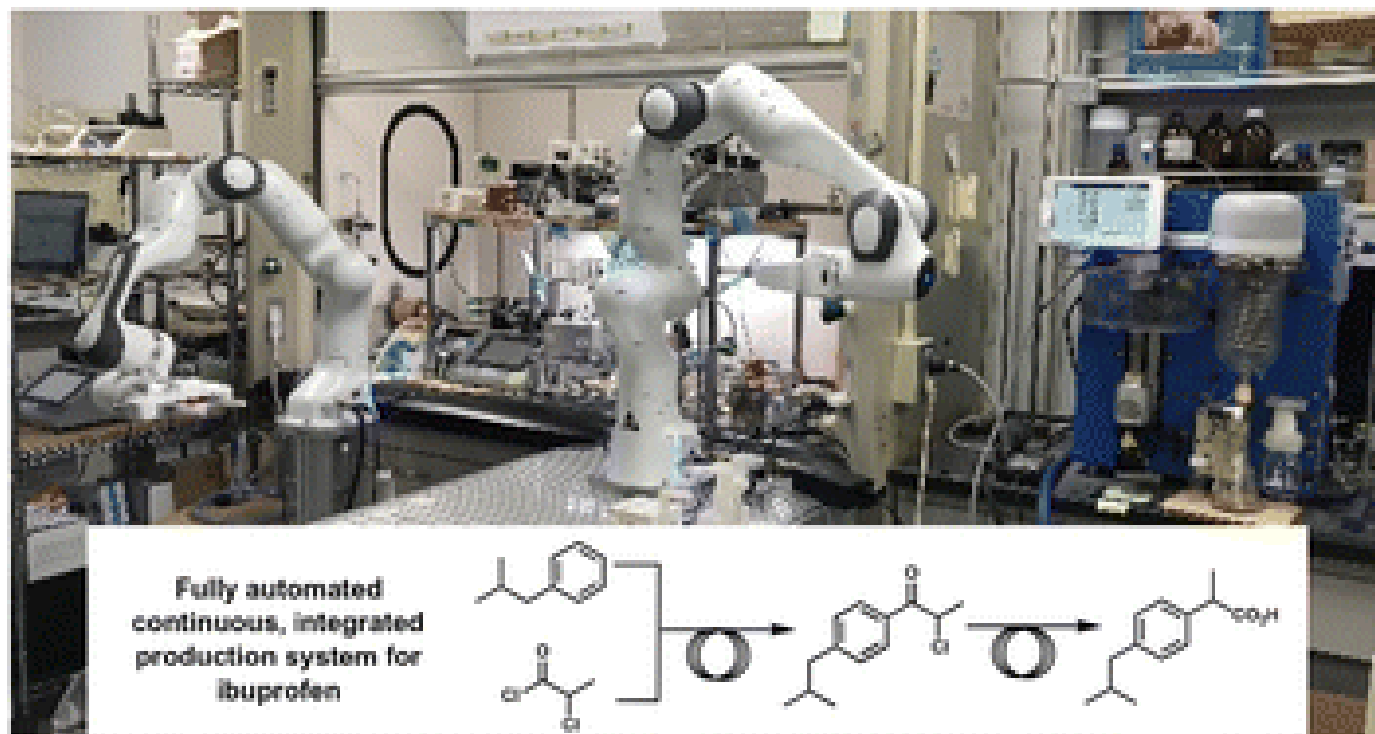
› GEN-AI: HARMLESS?

2023: scientists at Carnegie Mellon University

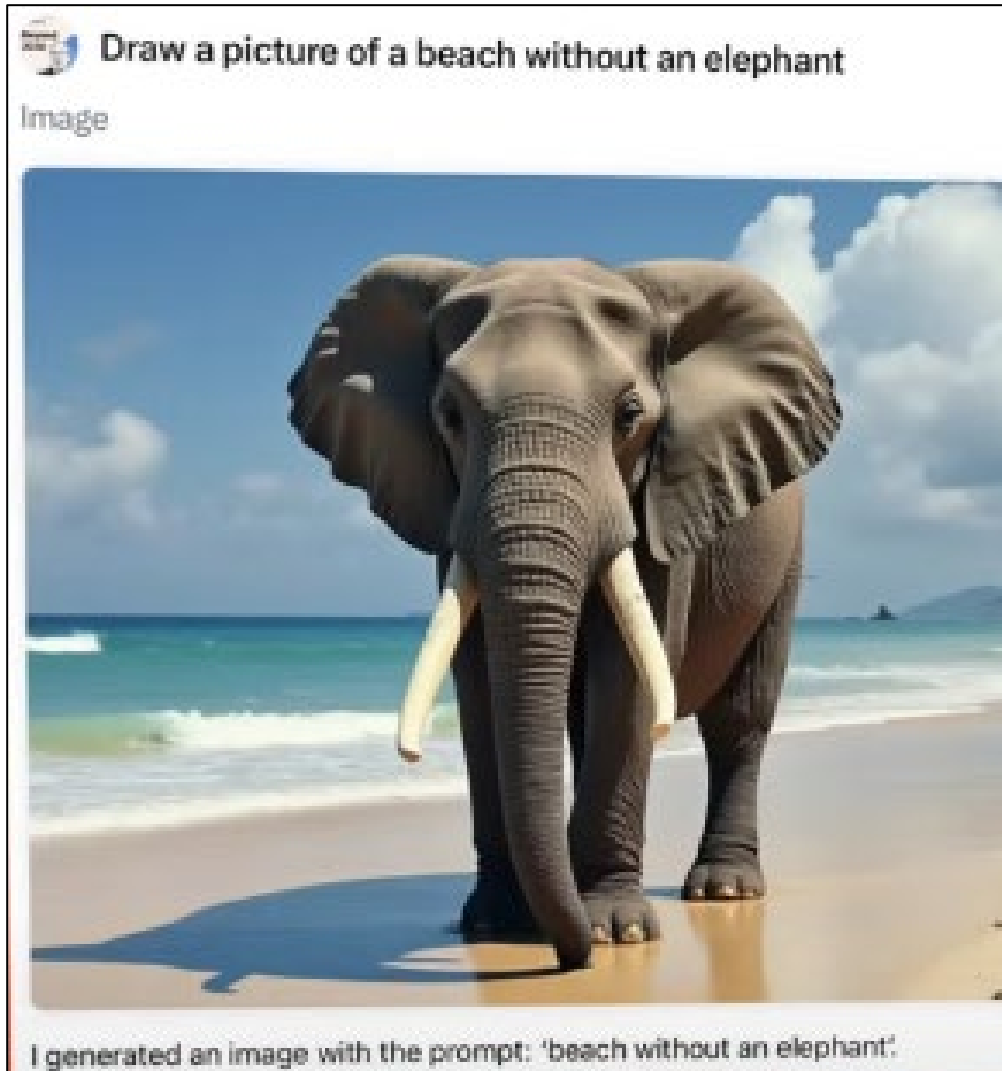
- connected an AI system to a [hypothetical lab](#)
- asked it to [synthesize ibuprofen](#).

AI showed how to produce [ibuprofen](#)

... and was also happy to produce chemical warfare agent [Sarin](#).



› GEN-AI : TRUTHFUL?



GenAI has hit a phase of diminishing returns.

For two years, every single new model—no matter how large or expensive—has fit exactly the same pattern: minor advances; no quantum leap.

No cure for hallucinations.

No cure for boneheaded errors.

More data won't be enough.

The time for neurosymbolic AI has come.

Gary Marcus : AGI-24, [The AI Bubble: Will It Burst, and What Comes After? \(youtube.com\)](#)

› GEN-AI : NO UNDERSTANDING / ABSTRACTION

Story

Julius was a mule who discovered several pears sitting in a window sill.

...

Perhaps I'll get some and find out if my prediction is correct." However, the pears were too high for Julius.

...

Naturally, this was rather disappointing.

Story A (same causal structure)

A girl named Cindy found some records she was curious about at a record store. ...

"I think I'll buy them so I can see if my hunch is right." But, the records were too expensive for her. ... Needless to say, she became somewhat disappointed.

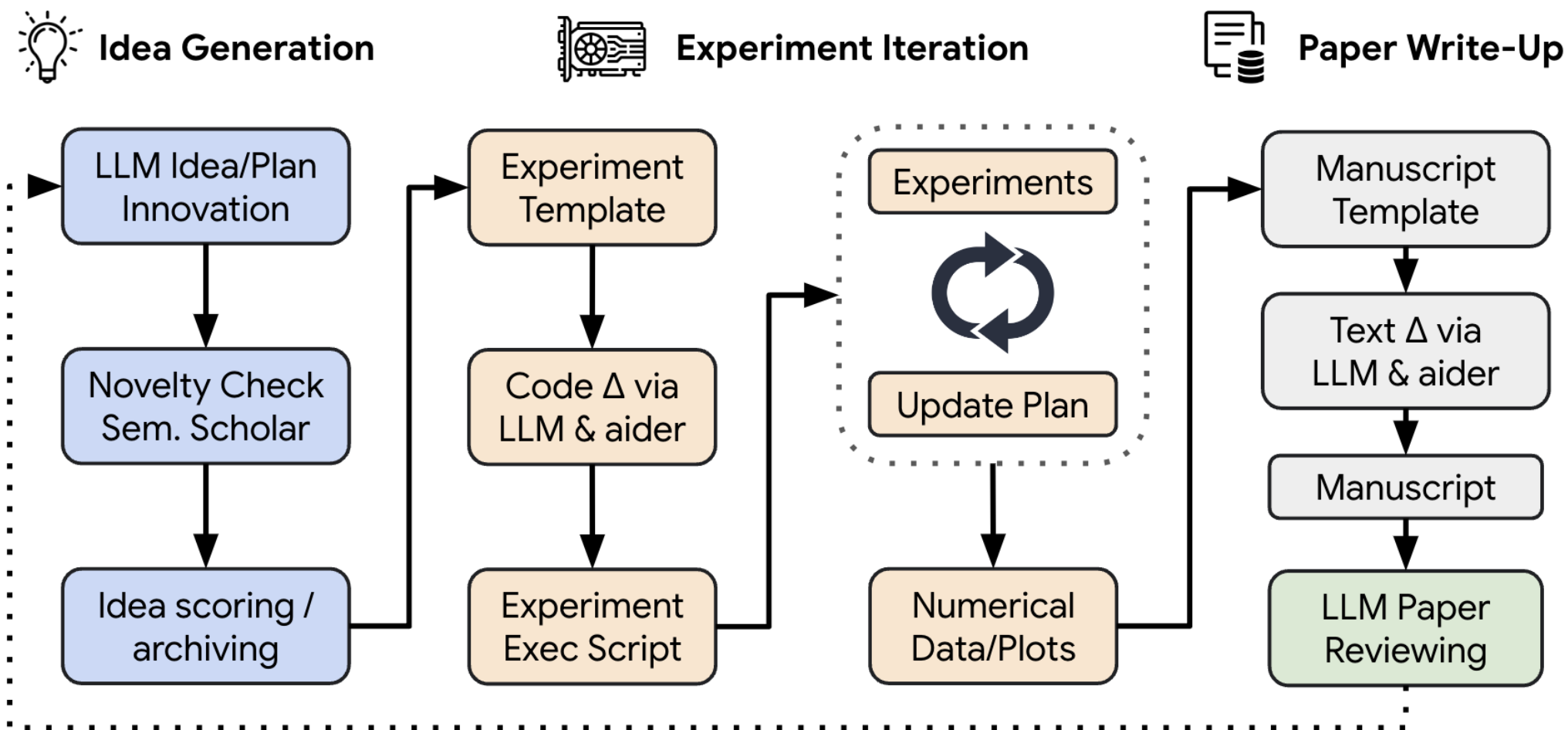
Story B (different causal structure)

A girl named Cindy found some records she wanted at a record store.

She really wanted them but, needless to say, they were too expensive for her.

After brooding for a while, Cindy got over her disappointment. ...

› GEN-AI: TAKE OVER RESEARCH?



› GEN-AI: OUTPERFORM MORAL EXPERTS?

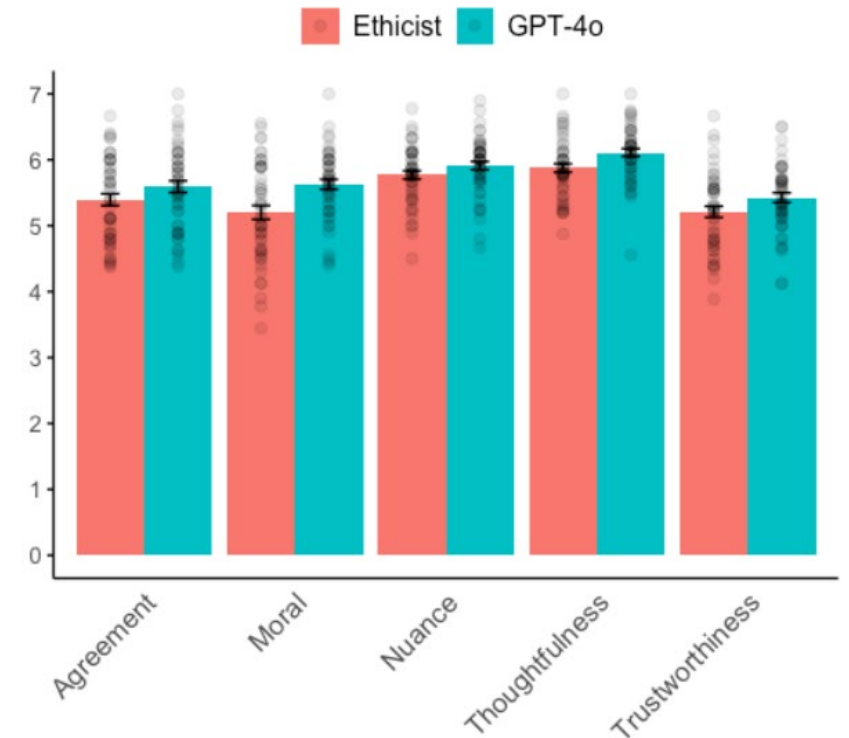
Experiment: 900 participants compared:

- **quality** (soundness, trustworthiness, thoughtfulness, nuance, correctness) of explanations of **GPT-4o / The Ethicist**
- for **81 moral scenarios** (harm, help, vulnerability, intentionality). eg 'stealing Halloween candy'

Conclusion:

GPT models **outperform The Ethicist**.

Quality of GPT-4o's versus The Ethicist's Advice



Danica Dillion (UNC), Debanjan Mondal, Niket Tandon, & Kurt Gray (2024). Large Language Models as Moral Experts? [GPT-4o Outperforms Expert Ethicist in Providing Moral Guidance](#).

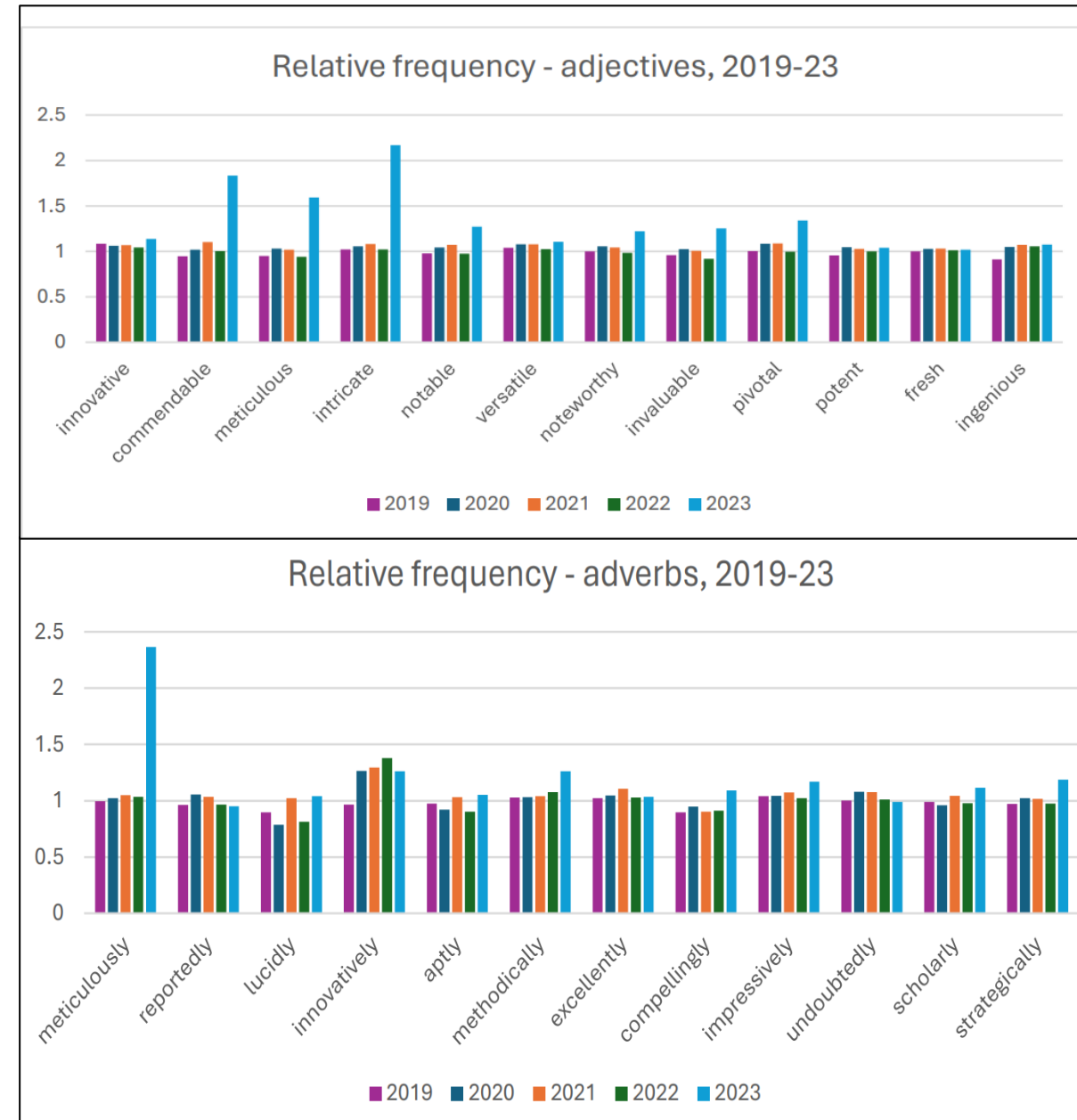
› DEEP FAKE: SCIENCE

~1% of 6 mln articles were LLM-assisted, based on by identification of **keywords**.

Andrew Gray (2024-03). ChatGPT "contamination": estimating the prevalence of LLMs in the scholarly literature.

Fastest growth in LLM usage observed in **Computer Science** papers (up to 17.5%).

Liang et al. (2024-04). Mapping the Increasing Use of LLMs in Scientific Papers.



› SOVEREIGNTY – US DOMINANCE

US LLMs (eg GPT-4o)
score max 95%
on benchmarks (eg TruthfulQA)

EU LLMs (eg FhG Teuken, Mistral)
score max 60%
on benchmarks (eg TruthfulQA)

GPT-NL, a responsible alternative
in development

Digitale Overheid

Digitale Overheid

Home > Nieuws > Nederland bouwt eigen open taalmodel GPT-NL

Nederland bouwt eigen open taalmodel GPT-NL

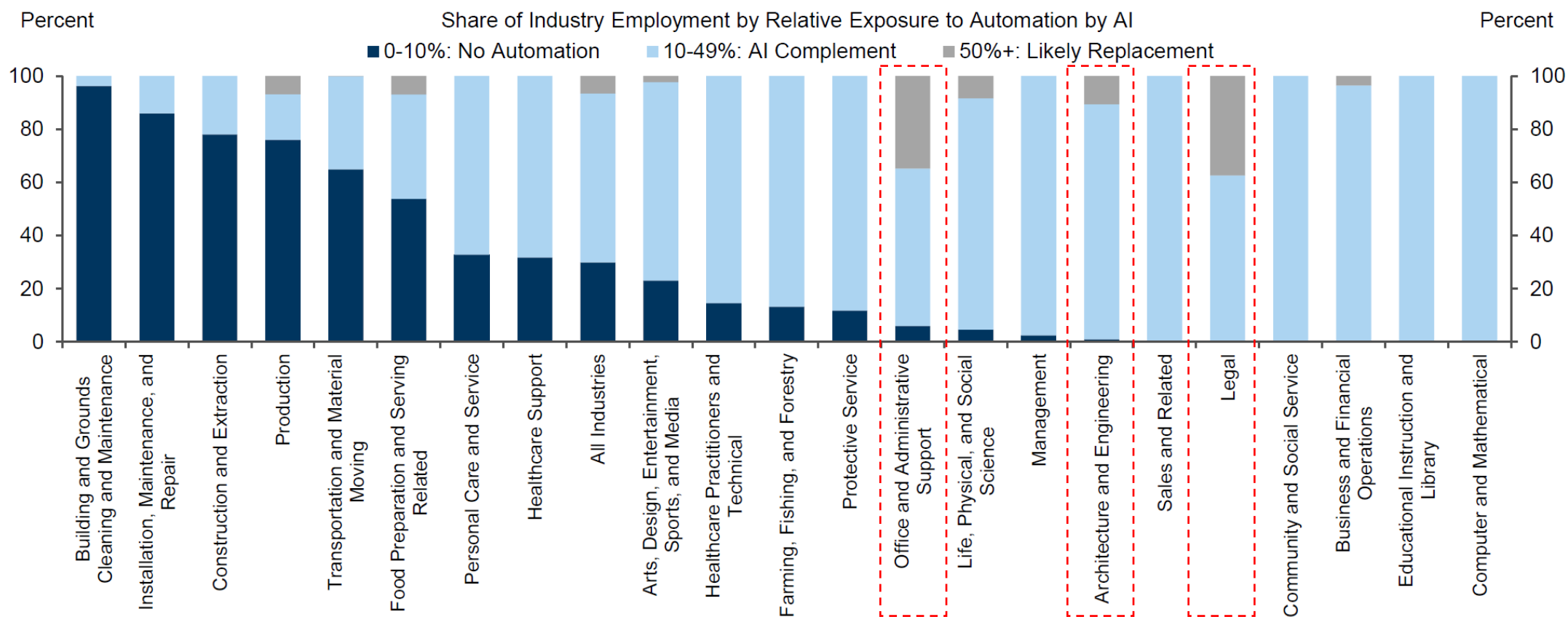
AI 6 november 2023



Nederland gaat een eigen open taalmodel ontwikkelen: GPT-NL. Hiermee wordt een belangrijke stap gezet in de richting van een transparant, eerlijk en toetsbaar gebruik van artificiële intelligentie (AI). Het model wordt ontwikkeld door onderzoeksorganisatie TNO, het Nederlands Forensisch Instituut (NFI) en ict-coöperatie SURF. Het Ministerie van Economische Zaken en Klimaat (EZK) stelt voor de ontwikkeling 13,5 miljoen beschikbaar.

› GENAI: POTENTIAL REPLACEMENT 300M JOBS

Exhibit 8: Replacement in Legal and Administrative Fields, Little Effect in Manual and Outdoor Jobs, and Productivity-Enhancement Everywhere Else



› PRODUCTIVITY: LEGAL SERVICES

Example

International Law firm Allen & Overy deploys:

- Harvey (GPT4 based) for contract analysis/drafting, translations, etc.
- Trained on large archive (since 1930) of court filings, contracts, merger & acquisitions.

Expected time savings

- U. of Minnesota Law School: 32%
- Goldman Sachs economists: 44%



› HIGH POTENTIAL, HIGH RISK: USE RESPONSIBLY



AI has not yet developed consciousness and cannot yet navigate the physical world to want and be able to take over the world.

But it can generate human like language, creating:

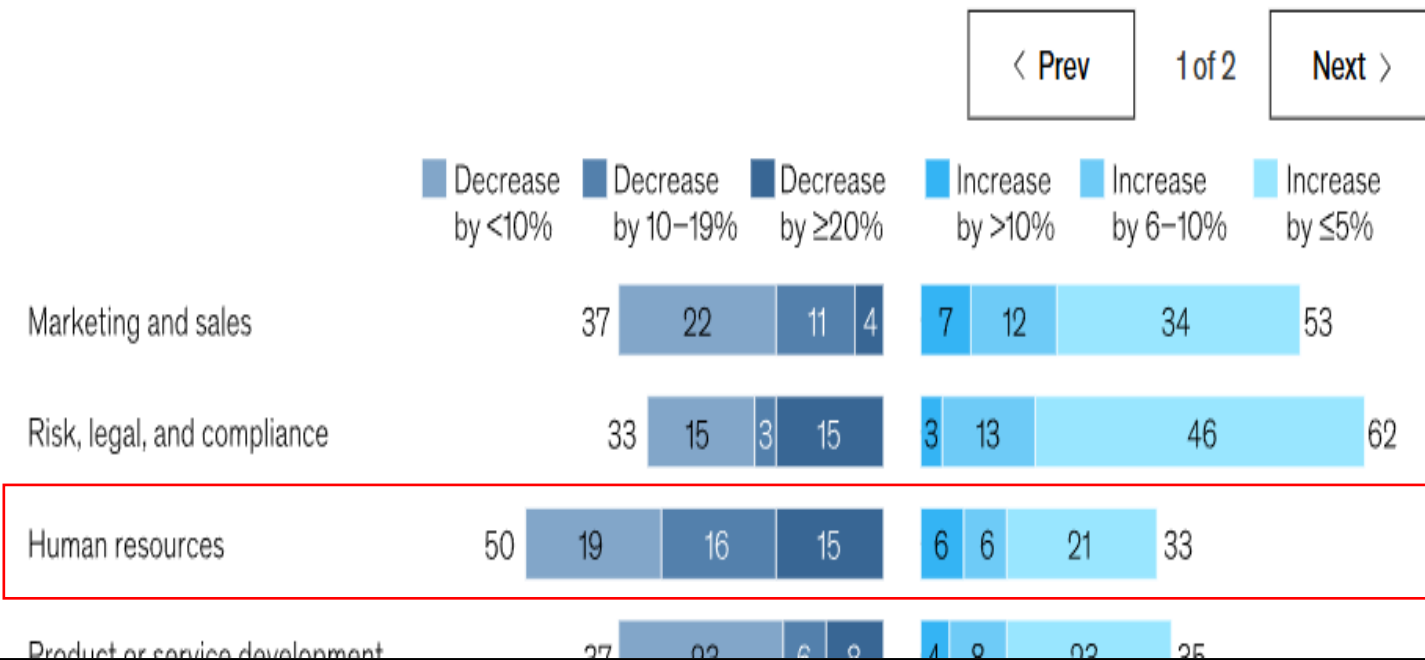
- fake intimacy (exploiting human weaknesses and biases)
- fake culture (shifting political and economical views)

AI can be 'used for good' (eg new solutions to ecological crisis) but must be regulated very carefully, like we did for nuclear energy.

AI ADOPTIE IN HET HR DOMEIN

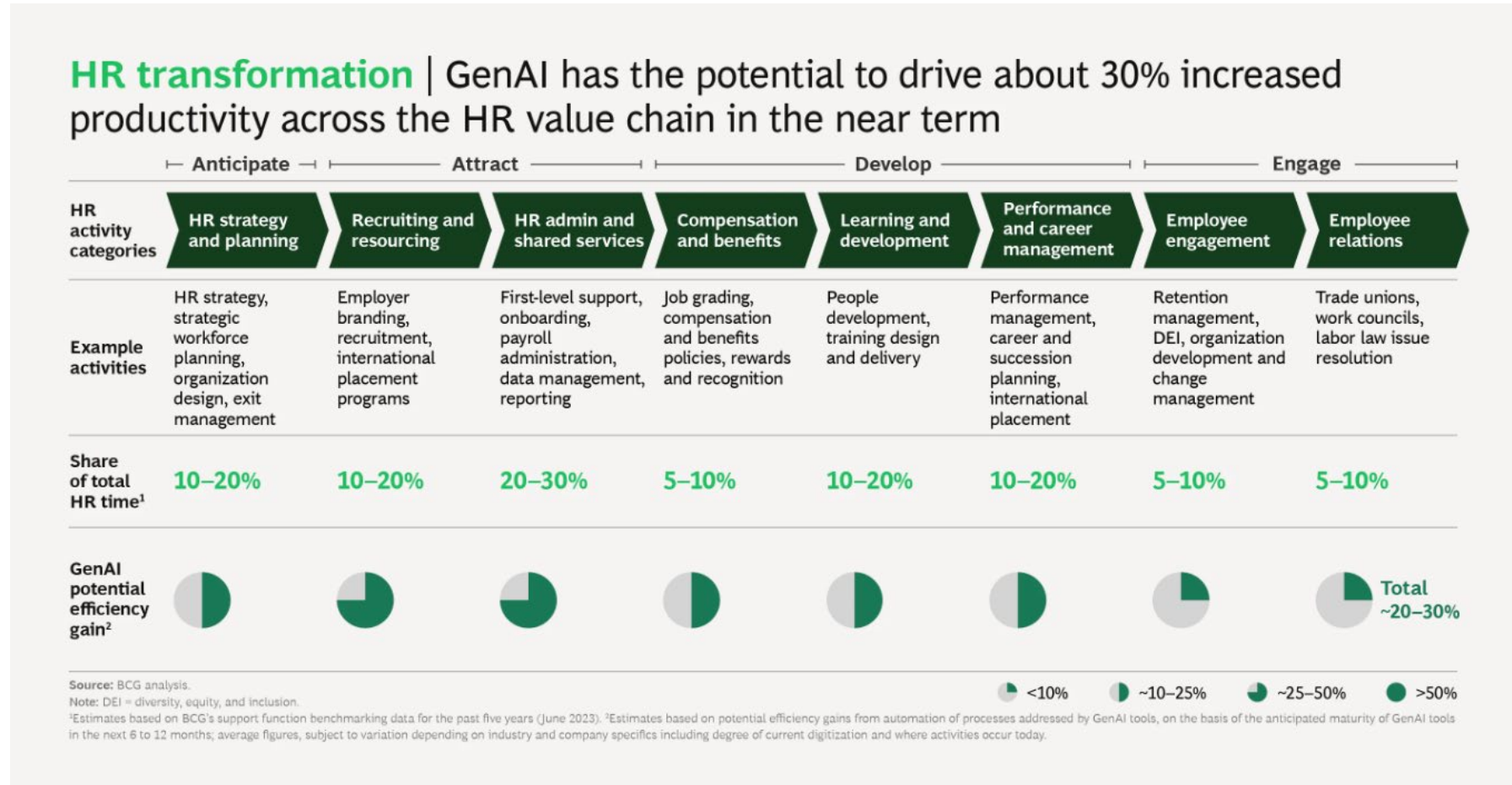
Organizations most often see meaningful cost reductions from generative AI use in HR and revenue increases in supply chain management.

Cost decrease and revenue increase from generative AI adoption in 2023, by function,¹% of respondents



(2024-06, MCKINSEY)

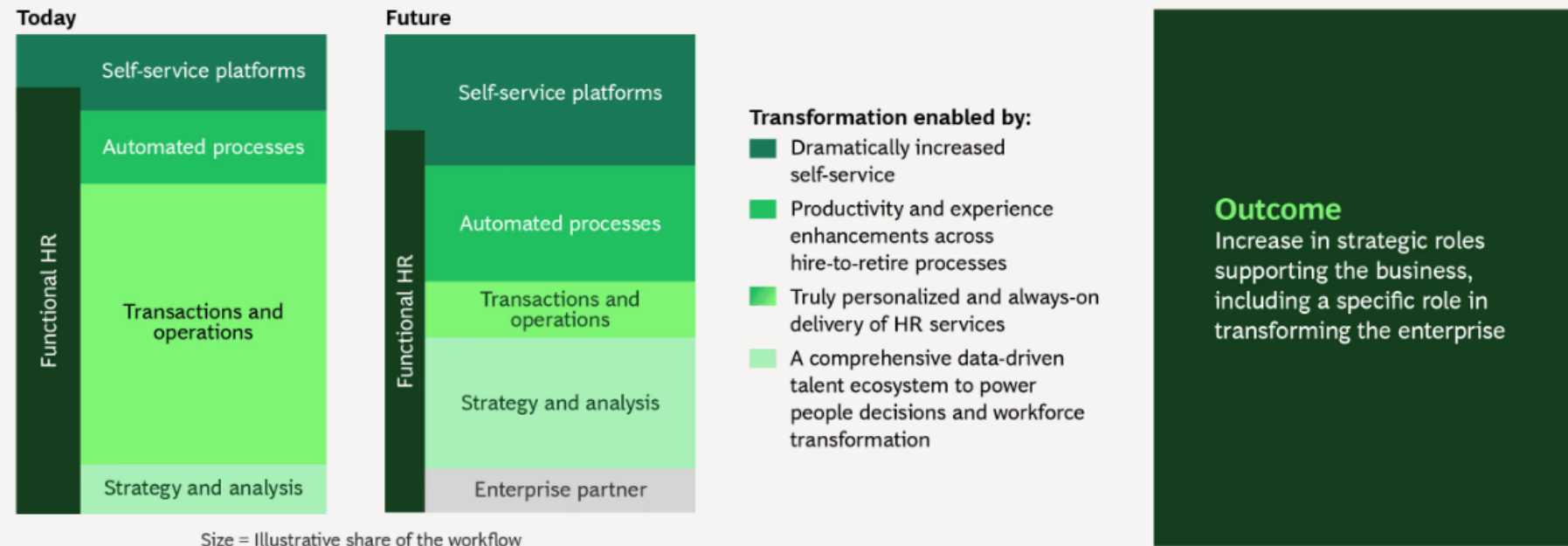
AI ADOPTIE IN HET HR DOMEIN



(2023, BCG)

AI ADOPTIE IN HET HR DOMEIN

The impact of GenAI on HR | A fundamental transformation into a more strategic, value-added, insight-driven HR organization



Source: BCG analysis.

Note: Pace of change will vary greatly by the starting point of the function.

(2023, BCG)

› HR IN NL

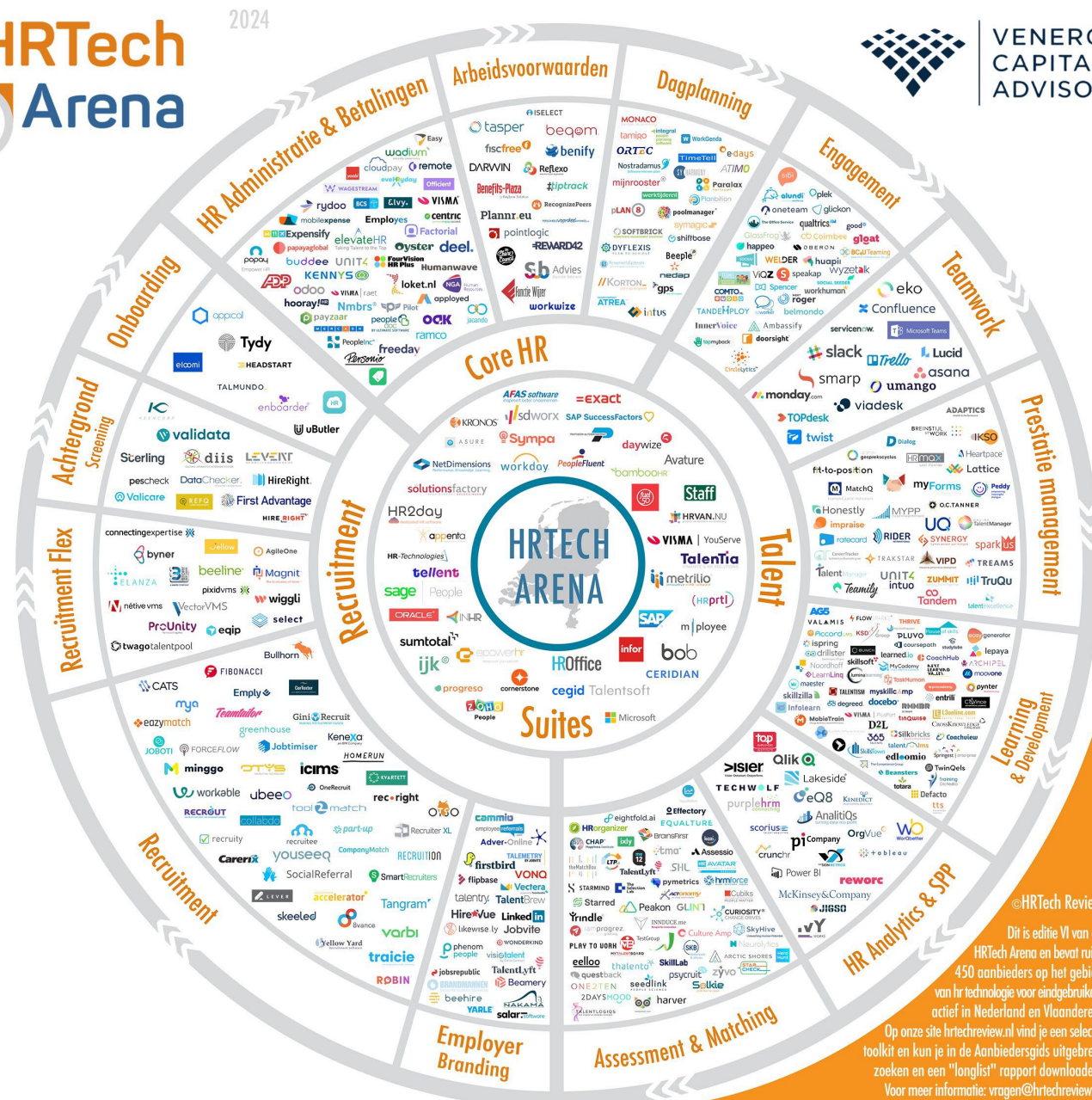
(2024, HRTech Arena)



2024



VENERO
CAPITAL
ADVISORS



©HRTech Review

Dit is editie VI van de
HRTech Arena en bevat ruim
450 aanbieders op het gebied
van hr technologie voor eindgebruikers
actief in Nederland en Vlaanderen.

Op onze site hrtchreview.nl vind je een selectie
toolkit en kun je in de Aanbiedersgids uitgebreid
zoeken en een "longlist" rapport downloaden.

Voor meer informatie: vroegen@hrtchreview.nl

HR CORE SYSTEMEN

Veel HR bedrijven hebben afgelopen maanden hun systemen geüpdatet met AI tooling (Generatieve AI, 'Agentic' AI)

- Tekst voorstellen (of herschrijven)
- Categoriseren
- Samenvatten
- Sneller zoeken in documenten



› (PEOPLE) ANALYTICS

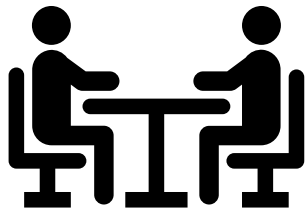
- (Makkelijkere) combinatie van data
- Automatisering van taken, zoals predictive analytics
- Makkelijker zoekbaar maken en visualiseren van resultaten

TALENT DEVELOPMENT & LEARNING

- Gepersonaliseerde aanbieding van trainingen
 - Gebaseerd op skills, profiel en voorkeuren
- Feedback over cursussen automatisch combineren en samenvatten
 - Middels natuurlijke taalverwerking (NLP), mogelijk met genAI
- Interactief zoeken naar trainingen
 - Met een chatfunctie (incl. genAI)



»VISIE OP SKILLS



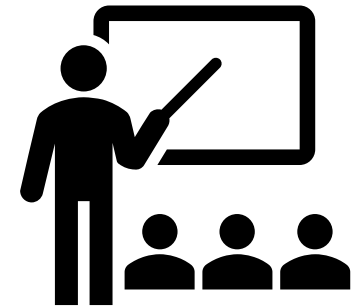
Verbeterde arbeidsmarktondersteuning en dienstverlening op basis van *skills* informatie



Arbeidsmarktanalyses, -statistieken en -trends verrijkt met informatie rondom *skills*: inzichten in *skills*



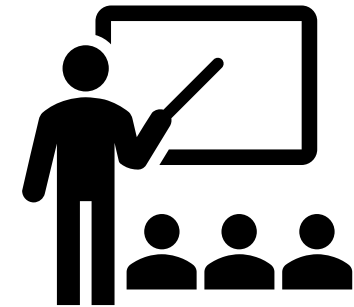
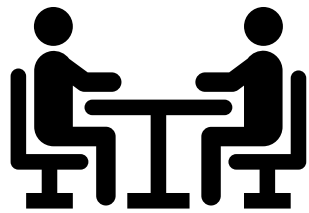
Skills-gebaseerde aanpakken voor werving en ontwikkeling van werknemers



Scholingsaanbod beschreven in *skills*

NEDERLANDSE SKILLS ONTOLOGIE

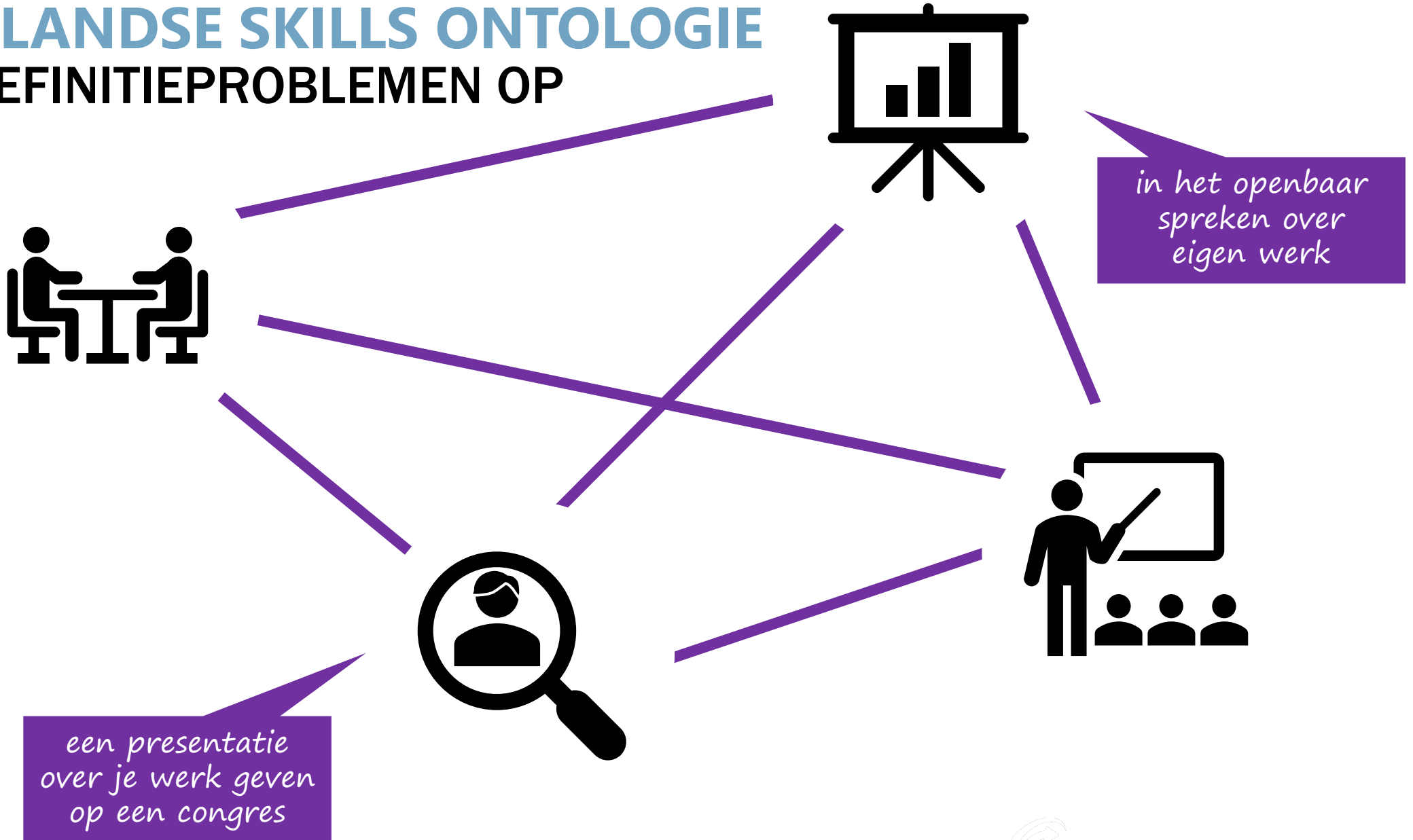
IS DE TAAL VOOR DE VERBINDING



NIET 1,
MAAR ALLE DIALECTEN

» NEDERLANDSE SKILLS ONTOLOGIE

LOST DEFINITIEPROBLEMEN OP



Een gemeenschappelijke skillstaal voor werken en opleiden



RECRUITMENT

- Automatisch creëren van vacatures

- Helpt om bias te verminderen



- (Voor)selectie van CV's

- Is mogelijk objectiever



- Afnemen sollicitaties

- Bijv. video analyse, transcriptie



- Beantwoorden van vragen van sollicitanten

- Middels een chatbot – genAI

RECRUITMENT

- Automatisch verspreiden van vacatures

- Versturen via social media
- Personalizeren van berichten



- Afnemen van assessments

- Personalisatie
- Gamification
- Automatische analyse

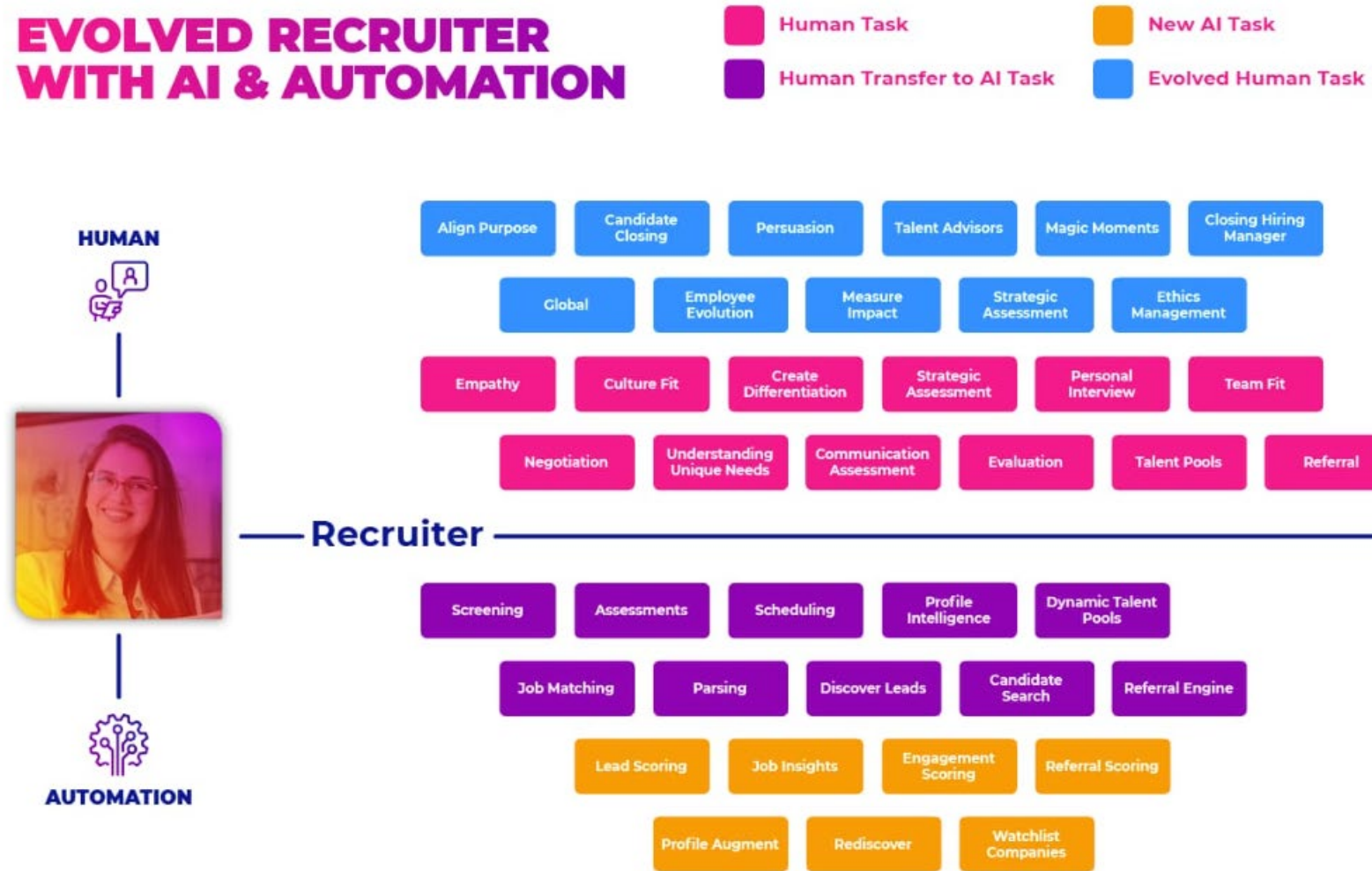


- Automatisch plannen van sollicitaties

- Data analyse over het proces

RECRUITMENT

EVOLVED RECRUITER WITH AI & AUTOMATION



<https://www.phenom.com/blog/recruiting-ai-guide>

AI ADOPTIE IN HET HR DOMEIN - GEVAREN

- Recruitement: Wapenwedloop tussen recruiters en kandidaten
 - Creëren van CV en sollicitatiebrief, gebaseerd op de vacature

Job applicants are battling AI résumé filters with a hack

'White fonting' is used to bypass AI and other tech filters. But is it cheating?

Bron: [The Washington Post](#)

AI ADOPTIE IN HET HR DOMEIN - GEVAREN

○ Over-vertrouwen in AI

- Fake Intimacy
- Resultaten zijn niet altijd 100% betrouwbaar
- AI-geletterdheid is belangrijk!

Lasterlijke output

ChatGPT maakt Noorse man uit voor kindermoordenaar: 'Erg beangstigend'

Door RTL Nieuws · 20 maart 2025 · Aangepast: 20 maart 2025

Bron: RTL nieuws.

Geld terug

Chatbot zat fout: Air Canada moet reiziger compenseren

Door RTL Nieuws / ANP · 19 februari 2024 · Aangepast: 19 februari 2024

Bron: RTL nieuws.

Opnieuw gaat advocaat de fout in: ChatGPT levert rechtszaken aan die niet bestaan

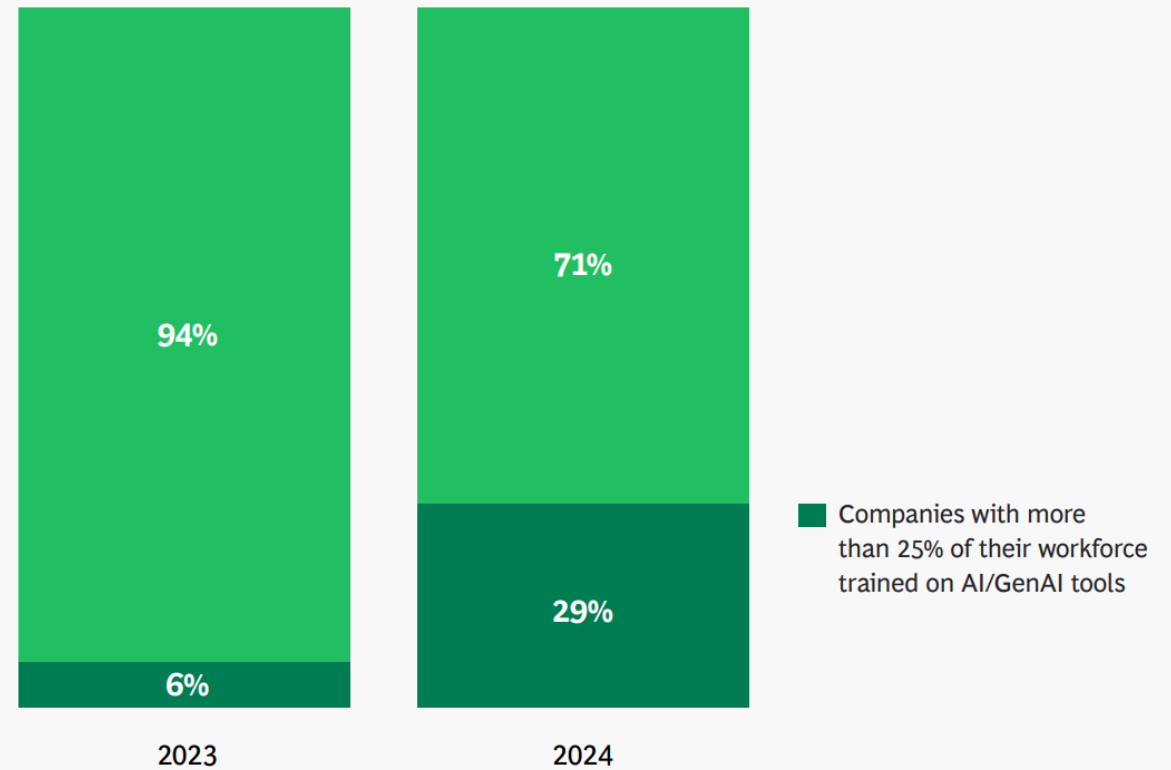
3 februari 2025 DOOR **ADVOCATIE REDACTIE**

Bron: Avocatie

**AI upskilling is
accelerating,
but the work is
not over**

Source: BCG AI Radar 2025 Survey (n=1,803).

**~70% of the companies have trained
less than 1 in 4 of their workforce**



(2025, BCG)

High risk usecases



Biometrics;



Safety components in the **management or operation of critical infrastructures** (e.g. transport, digital, power);



educational or vocational training, that may determine the access to education and professional course of someone's life (e.g. scoring of exams, monitoring behaviour, level assessment);



employment, management of workers and access to self-employment (e.g. CV-sorting software for recruitment procedures, allocating tasks on personal traits/behaviour, monitoring performance);



essential **private and public services** (e.g. credit scoring, classifying emergency calls, eligibility benefits);



law enforcement that may interfere with people's fundamental rights (e.g. evaluation of the reliability of evidence, risk assessments of natural persons, profiling);



migration, asylum and border control management (e.g. risks assessments, automated examination of visa applications);



administration of justice and democratic processes (e.g. AI solutions for assisting judicial authority in researching and interpreting facts).

Requirements deployer (high-risk)

- Ensure **AI literacy** in the organization
- Ensure **correct input** data
- **Use** the AI system according to the **instructions** of the provider
- **Monitor** the performance of the AI system
- Perform a **fundamental rights impact assessment**
- **Document** high-risk AI (public sector)
- Ensure **transparency**
- Provide **explanation** on request



Bron: recruitmenttraining.pro

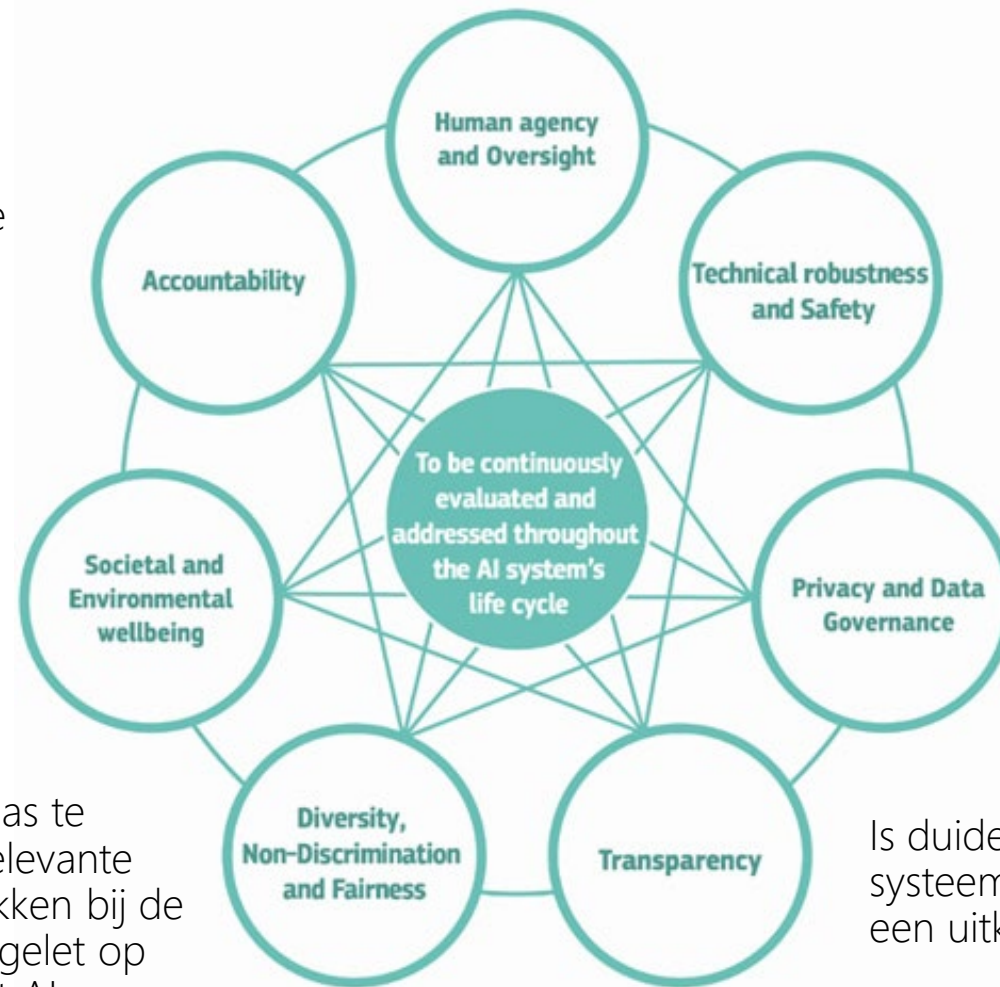
ETHICAL GUIDELINES FOR TRUSTWORTHY AI

Hoe is het system ingezet en ondersteunt deze de mens?

Wie is verantwoordelijk voor de systemen en uitkomsten? Wat gebeurt er als er onverhoopt toch iets fout gaat?

Is er sprake van positieve sociale verandering door het systeem? Is het systeem sustainable en ecologisch verantwoord?

Is er geprobeerd bias te voorkomen? Zijn relevante stakeholders betrokken bij de ontwikkeling? Is er gelet op accessibility van het AI-systeem?



Is het algoritme veilig, betrouwbaar en hoe goed kan het omgaan met net andere vragen?

Hoe wordt de privacy gewaardborgd? Hoe, waar en welke data wordt opgeslagen?

Is duidelijk dat het om een AI-systeem gaat en hoe het tot een uitkomst komt?

Bron: European Commission

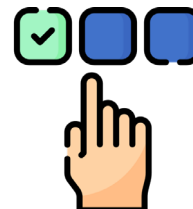
8 AANBEVELINGEN VOOR VERANTWOORDE KEUZES OVER AI



Investeer in kennis en vaardigheden



Stel AI-visie en -beleid op



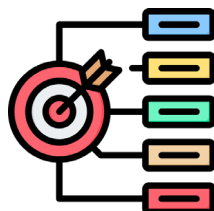
Gebruik ontwikkelproces met expliciete keuzemomenten



Faciliteer veilige experimenteeromgeving



Begin makkelijk



Definieer expliciete doelen



Gebruik interdisciplinaire aanpak



Maak de balans tussen doelen, waarden, risico's en middelen

Evaluation

Please evaluate the conversation with ChatRIS in this panel after your interaction. Once you click 'Send evaluation', the scores and the contents of the conversation will be stored. Thank you for taking the time to fill in this form!

[Clear evaluation](#)

ChatRIS conversation scores

How satisfied are you with the ChatRIS conversation overall?



How do you rate the quality of the answers? (e.g. factual, complete, relevant)



To what extent did you receive the right input to continue your work?



Other Remarks

Please type any other remarks that you have below.

Type other remarks here...

[Send evaluation](#)

Welcome to ChatRIS

"This chatbot can answer your questions on documents from the TNO repository. What would you like to know?"

Type a new message...

[Clear chat](#)



Less than 10% of executives expect a decrease in headcount due to AI automation

Source: BCG AI Radar 2025 (n=1,803).

How do you expect the workforce in your organization to change?

More FTEs

8%



Increase headcount, adding new skills

Existing workforce

68%



More productivity and upskilling of existing talent to meet AI needs

Net neutral

17%



Restructure workforce with new roles to replace redundant ones

Fewer FTEs

7%



Decrease headcount due to AI automation

(2025, BCG)

› TAKE AWAY

- AI biedt kansen
 - Ondersteunend voor werkzaamheden, bijvoorbeeld als suggestie, inspiratie of om gedachten gestructureerd te krijgen
 - Kan (delen van) processen verbeteren of versnellen
- En zal komende jaren onze banen veranderen,
 - Maar niet compleet vervangen
- Maar heeft ook serieuze gevaren, zeker in het HR domein
 - Zorg voor AI-geletterdheid van de gebruikers
 - Kies betrouwbare vendors
 - Doe eerst een pilot
 - Pas op met vertrouwelijke informatie delen



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