



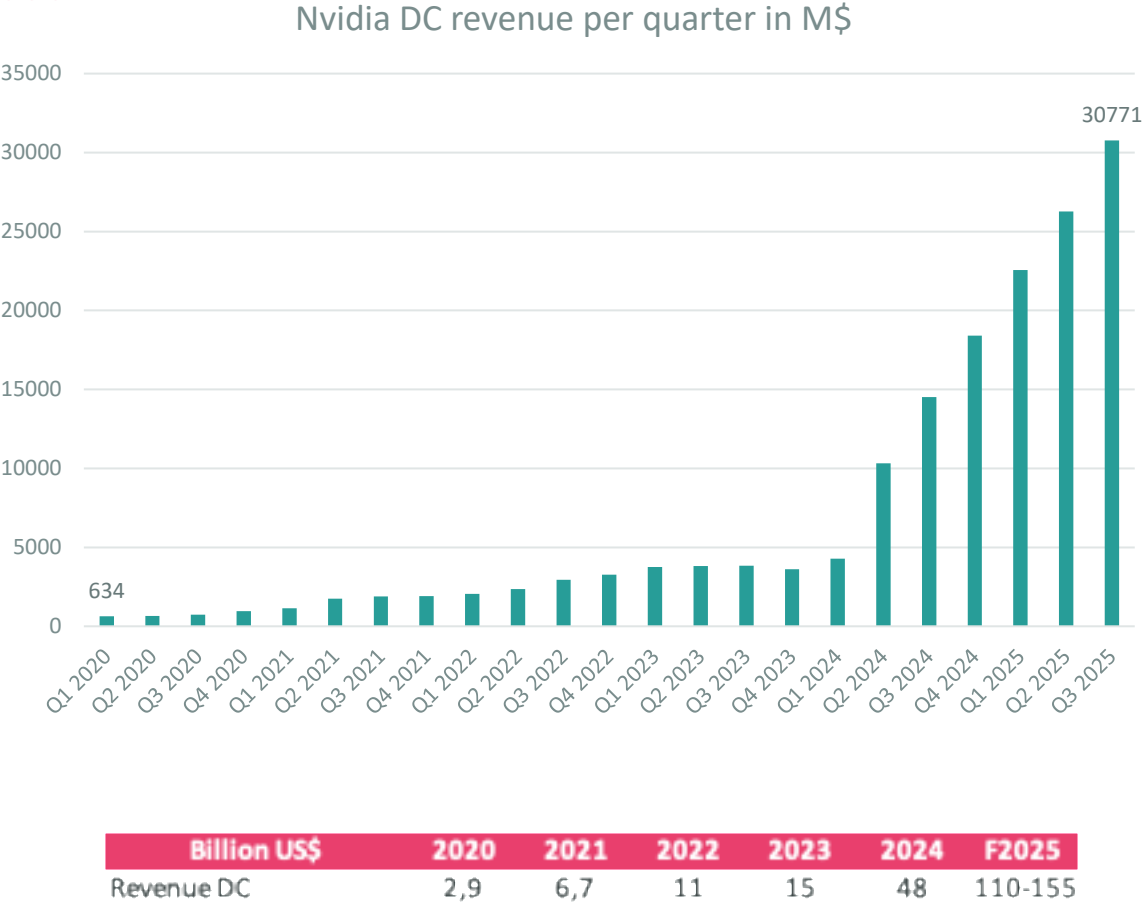
INDUSTRIALL EUROPE

NAVIGATING CHANGE WITH COLLECTIVE BARGAINING: A TRADE UNION COMPASS TOWARDS QUALITY JOBS IN THE TWIN TRANSITION

industriAll Europe

FEBRUARY 26TH AND 27TH 2025

NVIDIA SKYROCKETING REVENUE IS REFLECTING THE AI BOOM



► From 3US\$ bn per year in 2020 to more than 110 bn in 2025!



WHEN IT COMES TO AI, THERE ARE SEVERAL BLIND SPOTS TO BEAR IN MIND

▶ AI is not (only) an app. It needs:

Tangible infrastructures

Energy

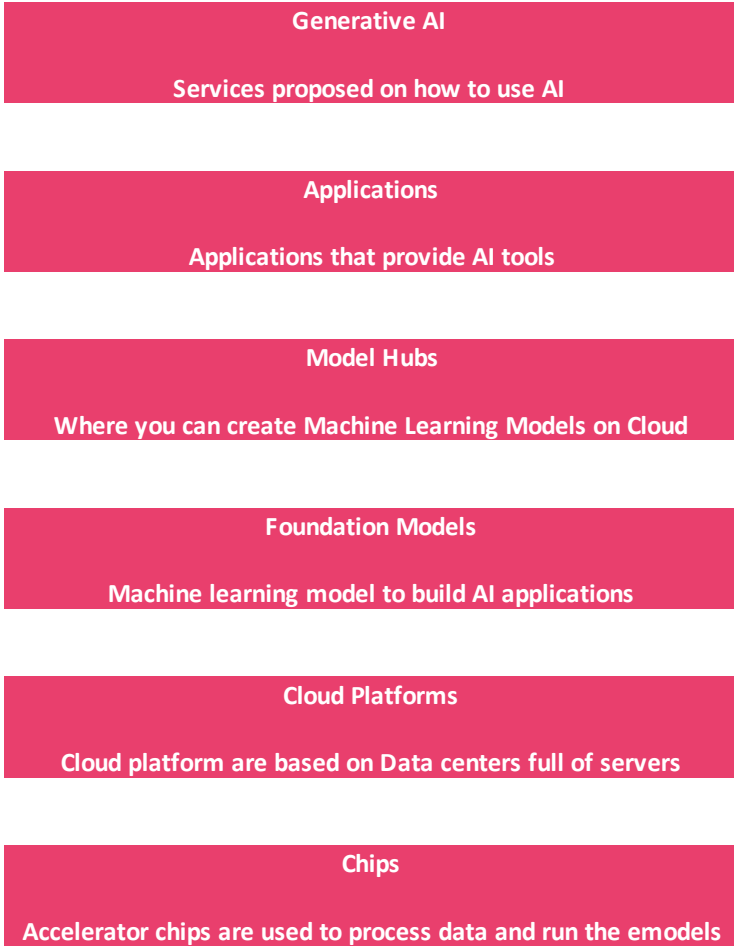
Click workers



INDUSTRY IS AT THE HEART OF THE AI VALUE CHAIN

AI =
Chips + Data centers

DCs are composed of racks, servers, cooling systems, energy management, cables, switches etc.



IMPACT ON EMPLOYMENT VOLUMES HARD TO PREDICT

NUMEROUS STUDIES

INTERNATIONAL LABOUR ORGANISATION (2023), *Generative AI and Jobs: A global analysis of potential effects on job quantity and quality, ILO Working Paper 96*

LANE M., WILLIAMS M., BROECKE S. (2023), *The impact of AI on the workplace, OECD Social, Employment and Migration Working Papers No. 288*

WORLD ECONOMIC FORUM (2023), *Future of Jobs Report.*

MC KINSEY & COMPANY (2023), *The economic potential of generative AI, The next productivity frontier.*

... WITH DIFFERING CONCLUSIONS

▶ From optimistic view

- more jobs created than destroyed

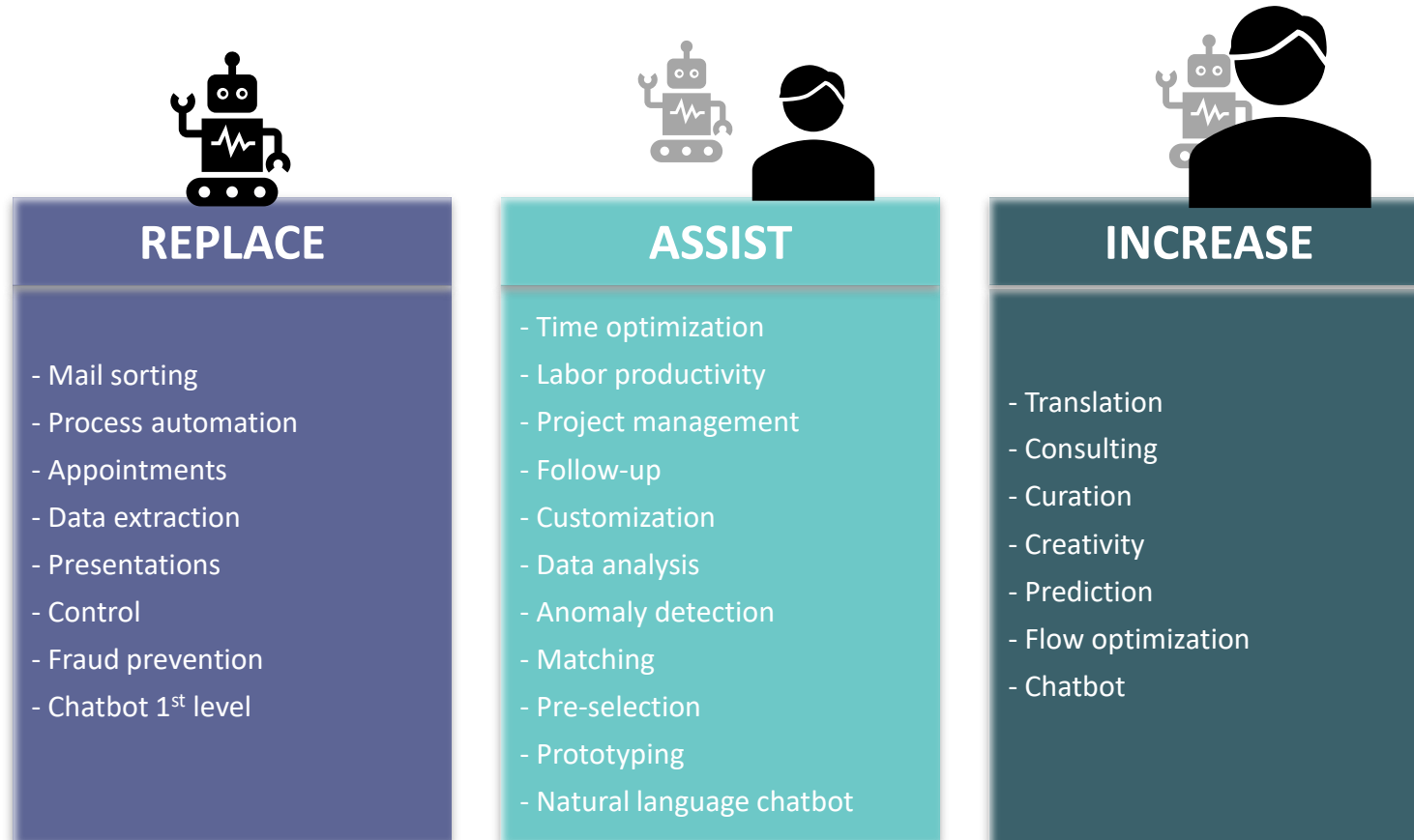
▶ To pessimistic view

- Massive jobs destruction, 70% of current tasks could be 50% automated

.... BUT WITH POINTS OF AGREEMENT

- ▶ Most at risks: administrative occupation
- ▶ White-collar more concerned than blue-collar
- ▶ Gap between high income and low-income countries
- ▶ Gender Gap
- ▶ A source of anxiety for employees

THE PURPOSE OF AN AI CAN BE TO REPLACE, ASSIST OR "AUGMENT" EMPLOYEES.¹



How are responsibilities shared?
How to deal with incomprehensible errors?

(1) "It'll be AI or me" - Cécile Dejoux - 2020, p.58

AI AND HUMAN WORK: AN AMBIVALENT RELATIONSHIP



BENEFITS	RISKS
Automation of time-consuming tasks, low-value tasks, repetitive work	De-establishment of modes of recognition
Automation of dangerous tasks	Dehumanization of practices
Enriching work with a higher degree of expertise	Weakening of know-how
	Higher risks of workplace injury
	Weakening of autonomy
	Destabilization of responsibility
	Cognitive fatigue.
	Surveil and monitor

AI introduction changes work content, work organization and work balance between different tasks.



APPLICATIONS IN INDUSTRY ARE NUMEROUS

Industries using reinforcement learning in various applications

Industry	Application
Advanced electronics and semiconductors	<ul style="list-style-type: none"> ● Optimize silicon and chip design to increase performance and reduce manufacturing costs ● Optimize fabrication manufacturing process for improved yield and throughput
Aerospace and defense	<ul style="list-style-type: none"> ● Optimize engineering design processes to reduce time to market for new systems and improve quality
Automotive	<ul style="list-style-type: none"> ● Optimize design processes to shorten development cycle for new cars and features and improve quality ● Deploy advanced predictive maintenance to prevent rare failures and unplanned outages ● Deliver real-time production monitoring and controls to increase manufacturing yield
Mining	<ul style="list-style-type: none"> ● Optimize design process so teams can explore a grater range of mine designs for improving mine yield ● Use intelligent process controls for managing power generation and bore milling to increase yield and reduce costs ● Apply holistic logistics scheduling to optimize mine-to-shipping operations and reduce costs
Oil and gas	<ul style="list-style-type: none"> ● Enable real-time well monitoring and precision drilling for increased yield ● Optimize tanker routing to reduce costs and ensure on time delivery ● Enable advanced predictive maintenance to prevent rare equipment failures and unplanned outages
Pharmaceuticals	<ul style="list-style-type: none"> ● Optimize drug discovery, identifying molecules of interest faster to reduce the time and cost of research and bring new therapies to market faster ● Automate chemistry, manufacturing, and controls (CMC) to maximize batch yield and quality ● Optimize biological methods to reach peak production output
Telecom	<ul style="list-style-type: none"> ● Optimize network layout to maximize coverage and minimize power consumption ● Manage networks in real-time to optimize service quality and reduce downtime ● Apply advanced personalization to increase cross-sell an upsell revenue

● Optimizing product development cycles (AI-assisted design) ● Optimizing complex operations ● Informing next best action for each customer

Sources: Statista/McKinsey.



KEY TAKEAWAYS 1/2

1 AI is not a single technology but a constellation of technologies.

2 AI is not an intangible technology but relies on real and sophisticated infrastructures, energy and water and a growing part of human labor.

3 It is difficult to predict AI impact on jobs & employment. AI like any other technology is ambivalent. Its impact depends on how it is implemented.

4 AI might boost productivity, but results are yet too fragmentary to be conclusive

5 AI is changing work, its content and the organization of work. Again, its ambivalence can be seen. AI can augment human. Or it can be a threat to human expertise.



KEY TAKEAWAYS 2/2

7

AI is already well deployed in many industrial sectors covering more and uses cases all along value chains, from R&D to after-sales and maintenance.

8

Very often workers and reps are not even aware of AI implementation in their company. Or conscious of their rights. There is a strong tendency for companies to skip their legal responsibilities or to comply with them too lately.

9

The GDPR and the AI act are important steps and interesting points of reference. It is regrettable that these major texts do not include sufficient provisions to enable employee representatives and trade unions to influence the introduction of AI within the company.

10

Involvement as far upstream as possible, with approaches such as social design, would increase the possibility of representatives influencing company choices.



RECOMMENDATIONS 1/3

Information and consultation processes should take place at the earliest stage

Information and consultation (I&C) processes need to be adjusted to take into account the regular update of AI systems. I&C should be renewed on a regular basis.

Negotiated agreements should allow unions/ reps to be involved in the experimentation/assessment of AI before their implementation

RECOMMENDATIONS 2/3

Experimentation and co-construction should be favored before implementation

Social dialogue should be reinforced by professional dialogue

Questionability of algorithm should be guaranteed

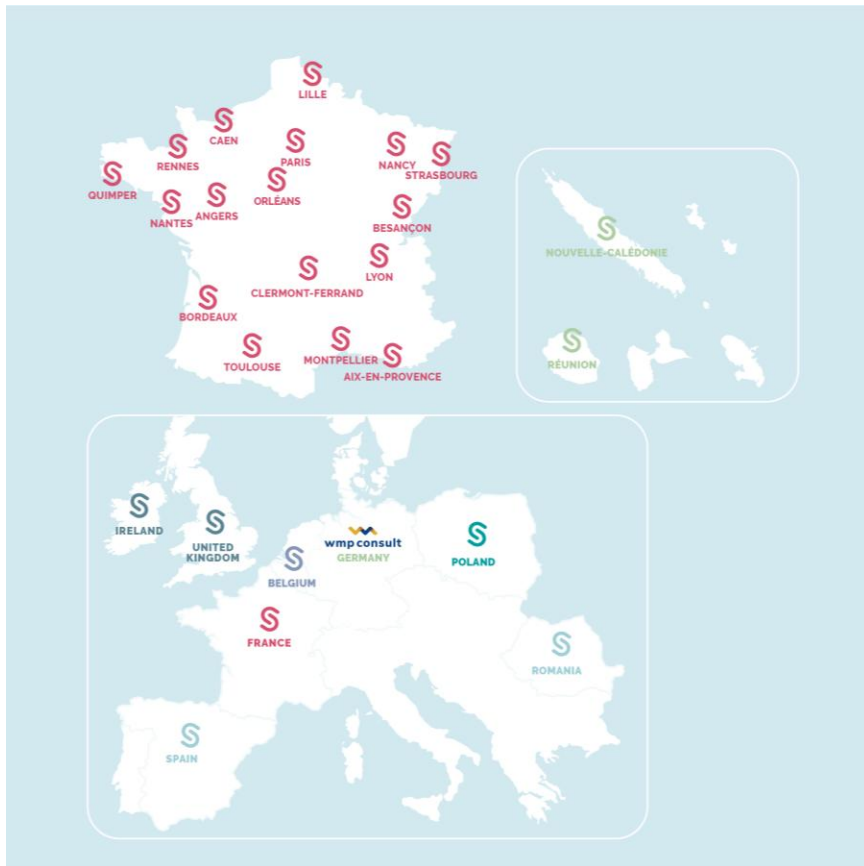


RECOMMENDATIONS 3/3

Labelling tools: need of trusted 3rd party to guarantee lack of bias/discrimination

GDPR and AI Act must be supplemented to take better account of the involvement of employee representatives

Reps must use the GDPR and the AI Act as hooks to put the subject of AI on the table



CONTACT DETAILS

Elsa Conzano

e.costanzo@syndex.fr

+ 33 66 19 61 59

Emmanuel Reich

e.reich@syndex.fr

+ 33 6 68 71 52 66



Follow us:

syndex.eu //  // 