



ManpowerGroup®

The Impact of AI on the Workforce

Q2 2023

ManpowerGroup Proprietary Information



Executive Summary

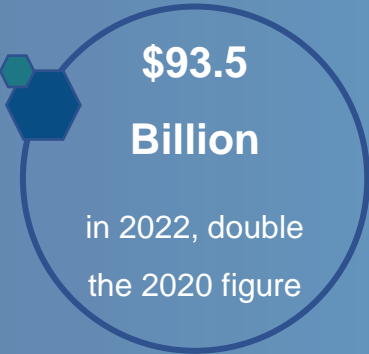
AI Is Here to Stay, and That's a Good Thing!

While technology has previously allowed us to automate repetitive and laborious tasks, Artificial Intelligence (AI) is rapidly encroaching on the realm of non-routine, cognitively complex tasks. For the first time in history, knowledge workers must face a future where their skills are no longer monopolized by humans. This paper investigates the history of artificial intelligence, its relationship with the labor market, and the future of AI-empowered work.

Middle Wage jobs will likely face a decline in demand and average salaries, while High Wage and Low Wage jobs will experience an increase in demand.



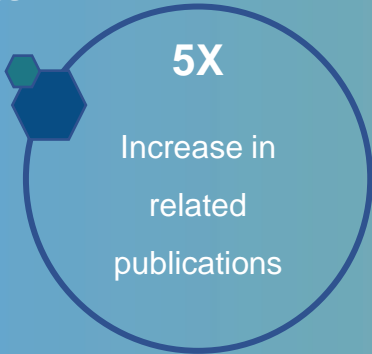
Key Insights



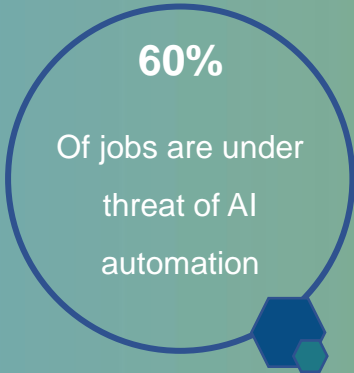
Private investment in AI soared while investment concentration intensified



US and China dominate cross country collaboration



The rise of AI ethics everywhere



Men dominated jobs are more exposed to AI automation



What is AI and How is it Affecting the World of Work?

What is Artificial Intelligence?



The OECD defines an AI system thus: “an AI system is a machine-based system that can influence the environment by producing an output (predictions, recommendations, or decisions) for a given set of objectives. It uses machine and/or human-based data and inputs”



1. Perceives real and virtual environments



2. Abstracts perceptions into models in an automated manner with machine learning



3. Use model inference to formulate options for outcomes

Forms of AI:



Human Input



No Human Input

Hardwired Systems

Assisted Intelligence

AI systems assisting human decision-making. Hardwired systems that do not learn from their interactions.

Automation

Automation of routine or non-routine tasks. Without creating new ways of doing things – it automates existing tasks

Adaptive Systems

Assisted Intelligence

AI systems that augment human decision-making and continuously learn from their interactions with humans and the environment

Assisted Intelligence

AI systems that can adapt to different situations and can act autonomously without human assistance.

Busting Myths

AI is ultimately a creative force in the job markets that will turbo charge careers and optimize industries



4 Myths about Artificial Intelligence in the Workplace

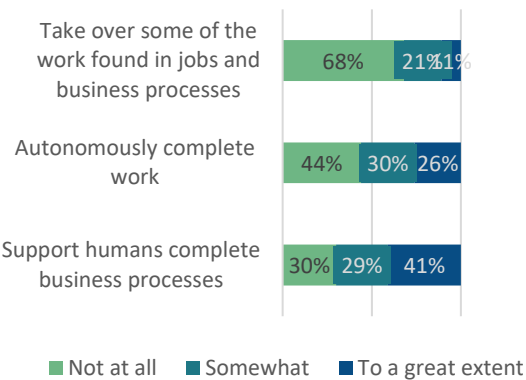
Given its potential to completely transform how we work, communicate, and life, artificial intelligence is understandably one of the most divisive topics out there. Yet some common misconceptions still exist about AI’s definition, its impact on jobs, and the intentions of corporations using the technology.



Myth 1

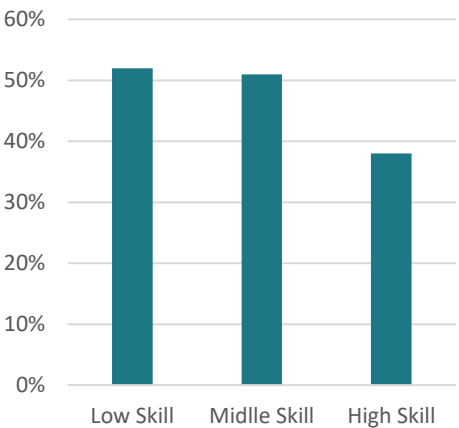
AI will replace all jobs

AI Automation of Work



Myth 2

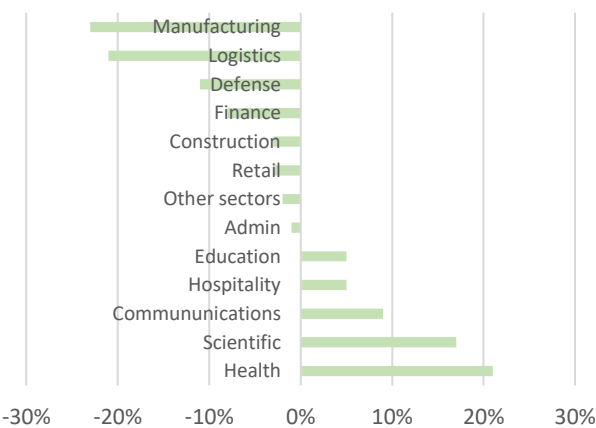
AI is only a threat to low-skill jobs



Myth 3

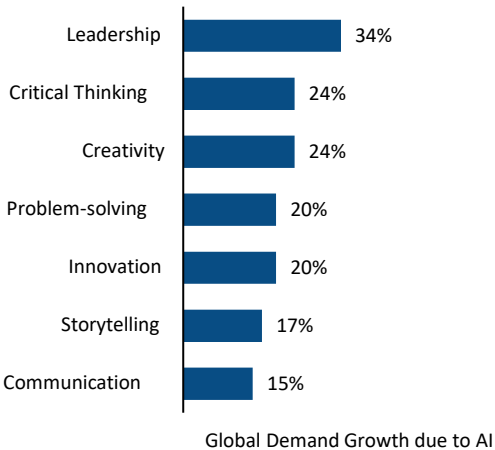
AI will cause a net loss of available jobs

Net job creation, 2017-2037



Myth 4

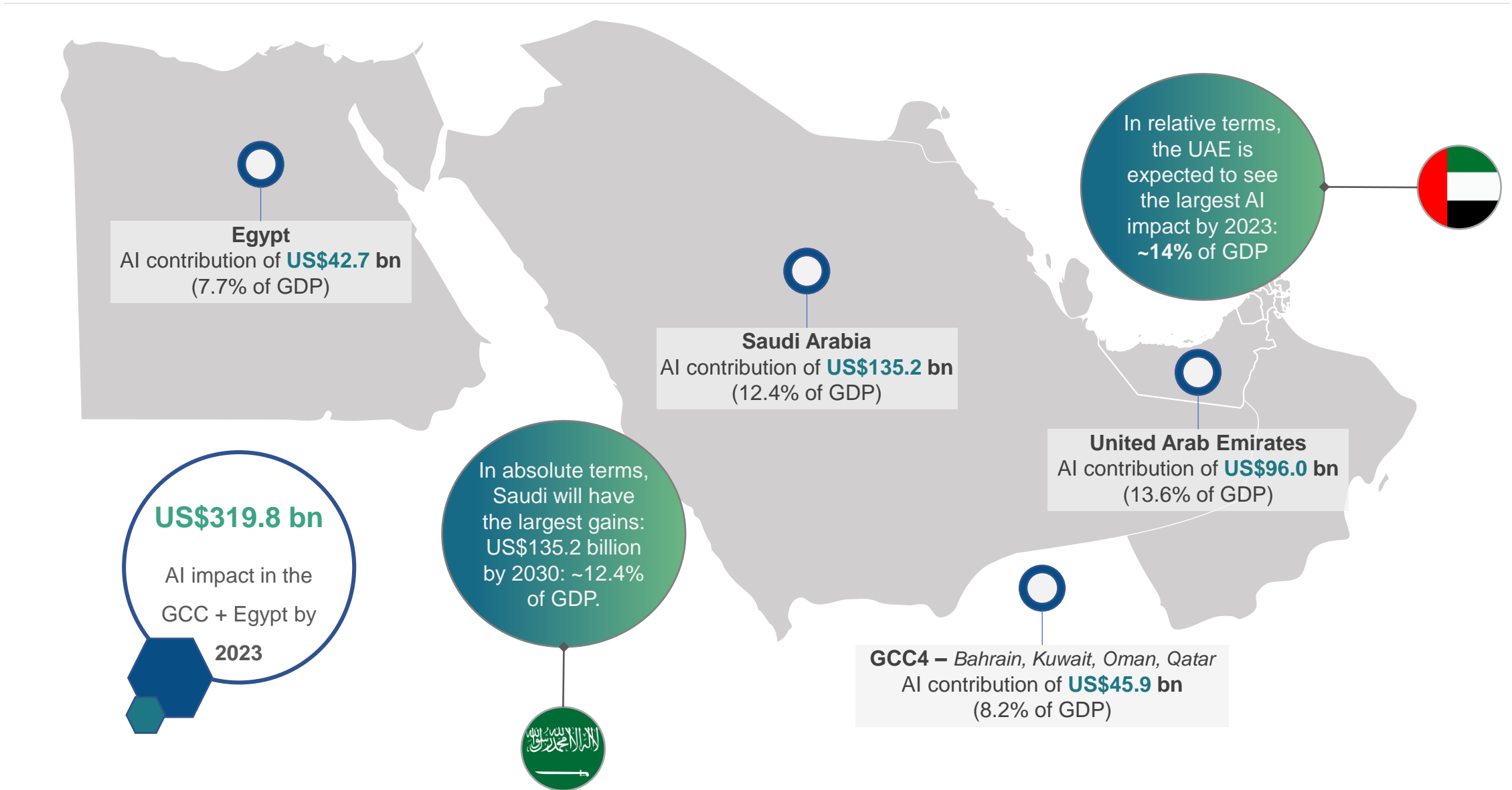
AI will devalue human interactions and soft-skills





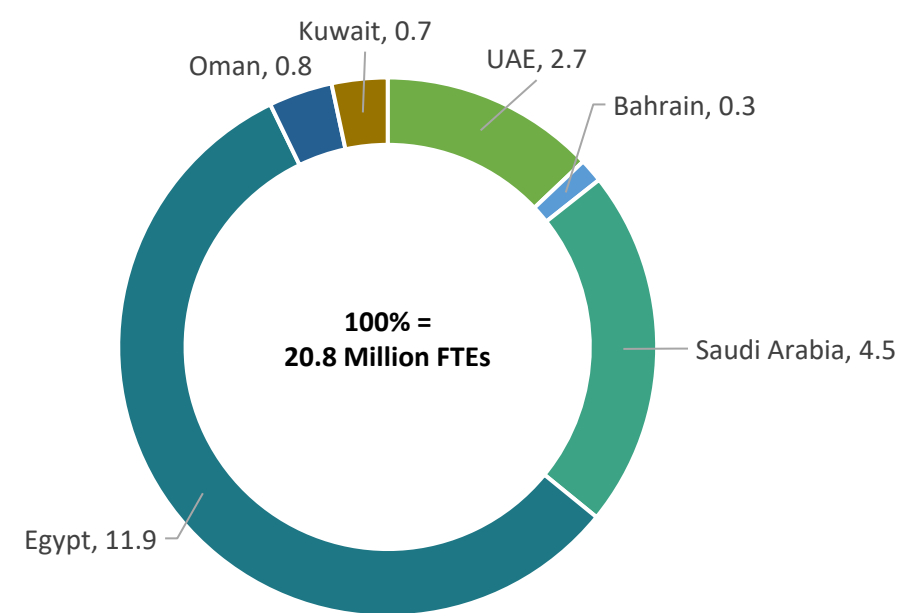
AI's Role in Shaping the Middle East Workforce Landscape

Which Countries in the Middle East will Gain the Most from AI?
The economies of Saudi Arabia and the United Arab Emirates stand to gain the most from AI by 2030

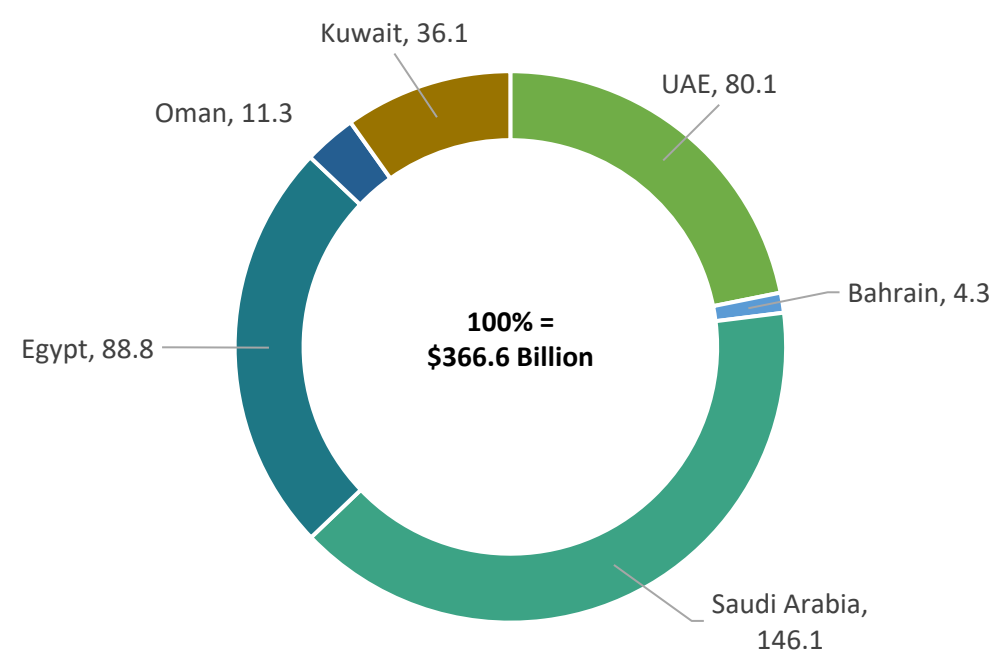


Potential impact due to automation, adapting currently demonstrated technology (6 countries)
In the Middle East, 20.8 million FTES and \$366.6 BILLION in wages are associated with activities that are already automatable

Labor Associated with Technically Automatable Activities



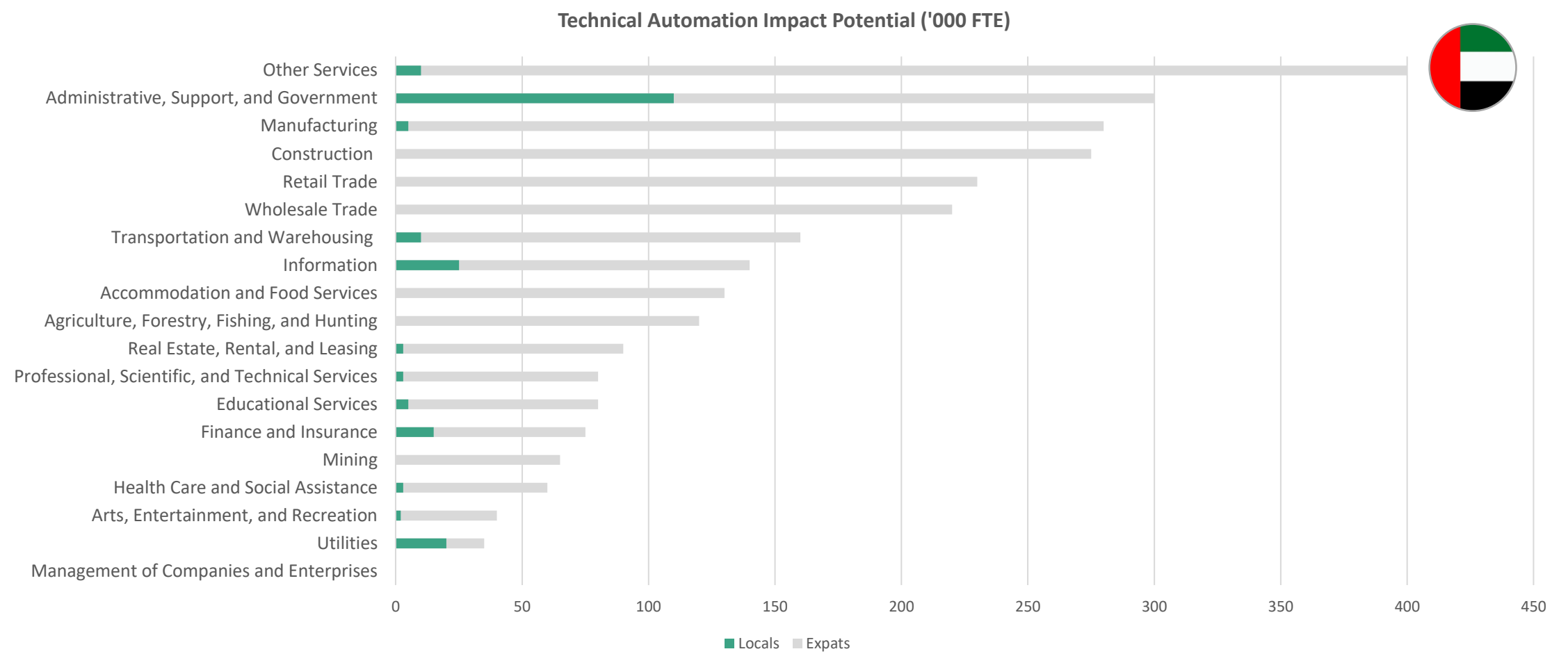
Wages Associates with Technically Automatable Activities



* FTE: Fulltime Equivalent

Potential impact due to automation, adapting currently demonstrated technology in UAE

60% of automation potential in UAE is concentrated in 6 sectors – and 90% is associated with work performed by Expats



* FTE: Fulltime Equivalent



How AI Will Change the Workforce

Automation of Work

AI will automate a significant portion of work

While the technical feasibility of automation is important, it is not the only factor that will influence the pace and extent of automation adoption. Other factors include:



1. The **cost of developing** and deploying automation solutions for specific uses in the workplace



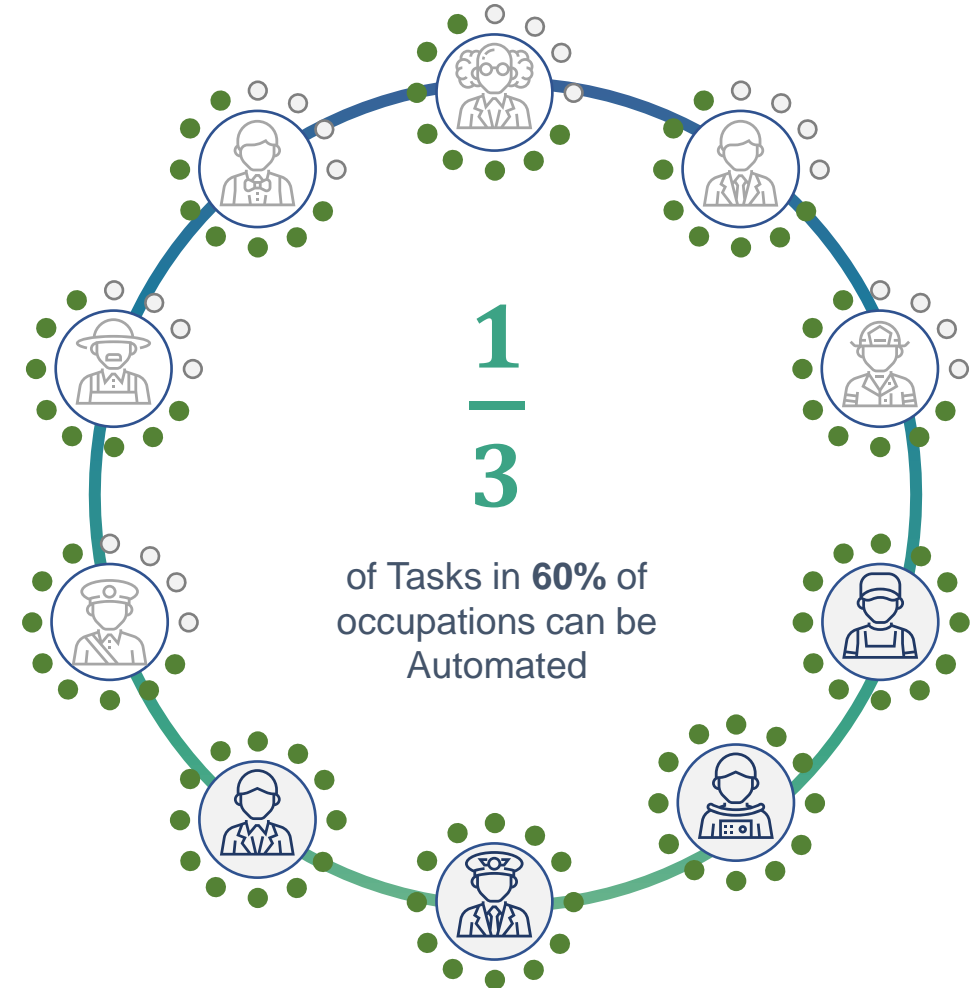
2. The **labour-market dynamics** (including quality and quantity of labour and associated wages)



3. The benefits of automation beyond **labour substitution**

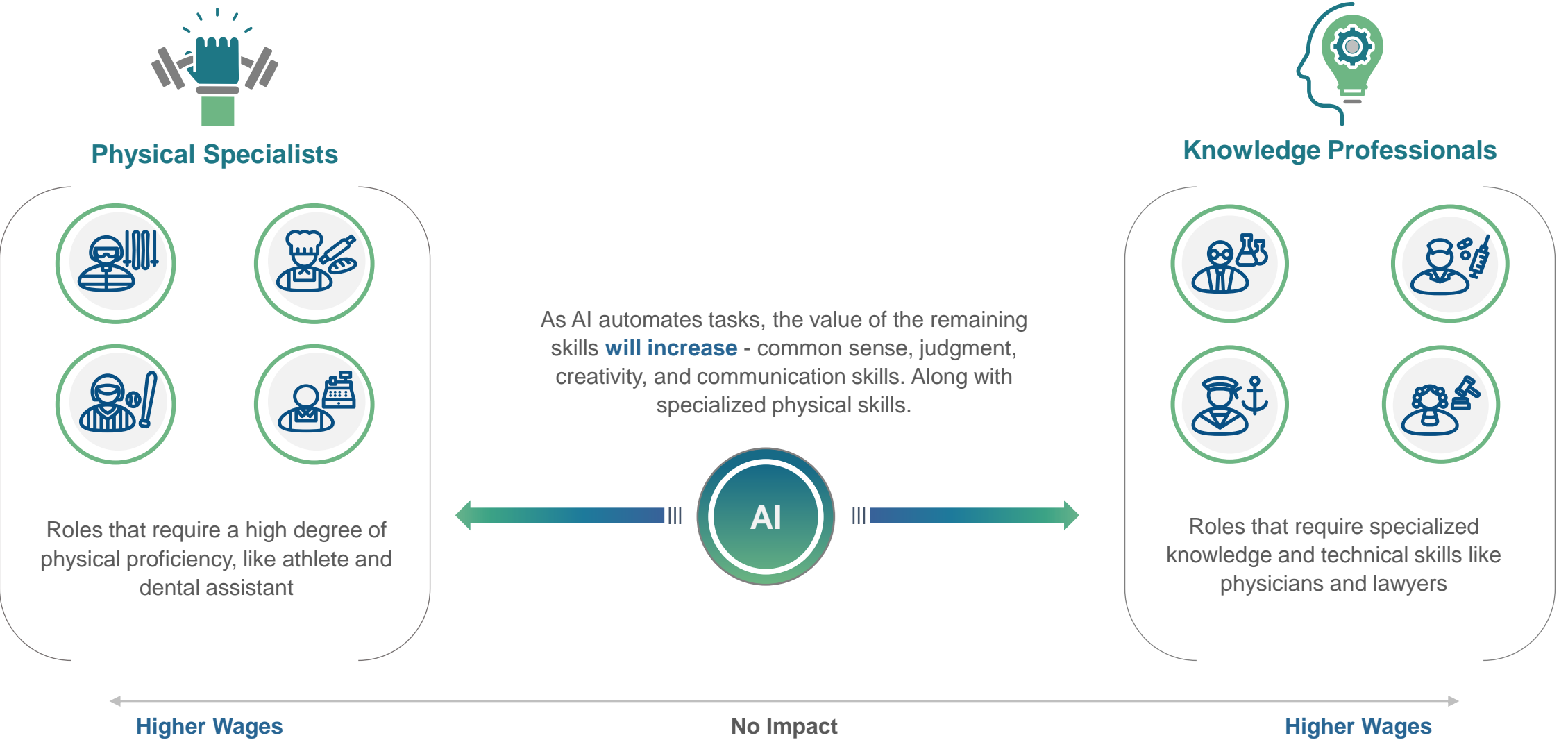


4. The regulatory and social **acceptance**.



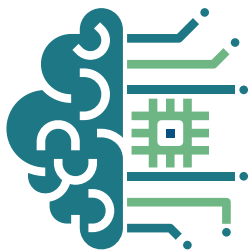
Workforce Polarization

Wages for jobs that require high-end financial knowledge and graphic design skills have increased, but so have wages for service jobs such as hairstylist and fitness trainer.

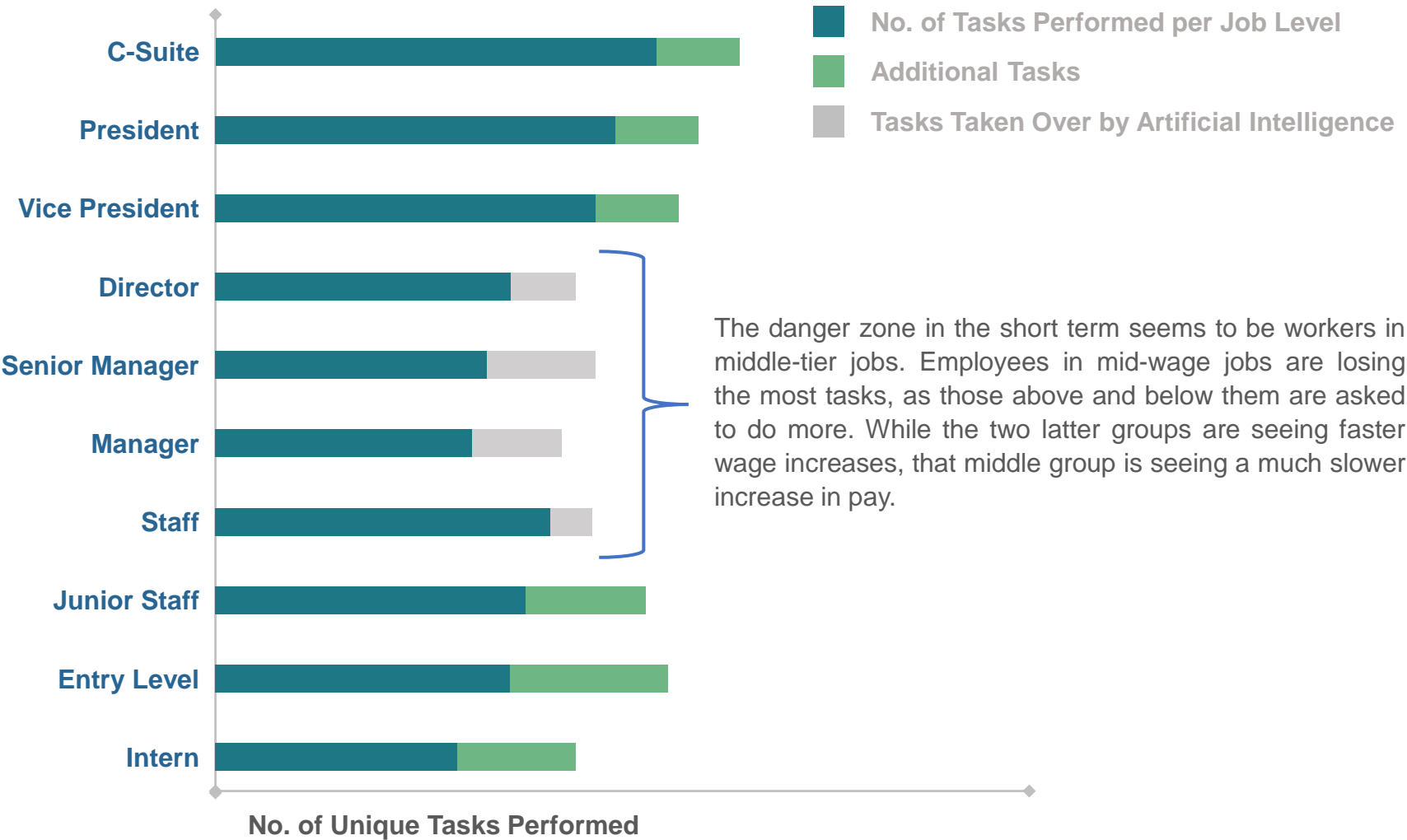


Middle of the Road

Tasks will be taken away from middle-tier professionals, while others will see an exponential increase in assigned tasks



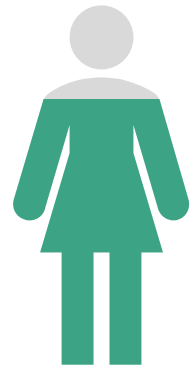
Based on 170 million online US job listings that were posted between 2010 and 2017, on average, tasks such as **scheduling** or **credential validation**, which could be performed by AI, appeared less frequently in the job listings in the more recent years.



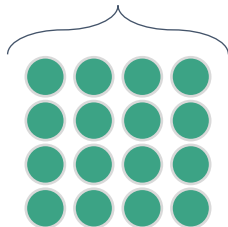
The danger zone in the short term seems to be workers in middle-tier jobs. Employees in mid-wage jobs are losing the most tasks, as those above and below them are asked to do more. While the two latter groups are seeing faster wage increases, that middle group is seeing a much slower increase in pay.

Note: the job levels are purely illustrative and do not necessarily reflect the actual automation status for these functions

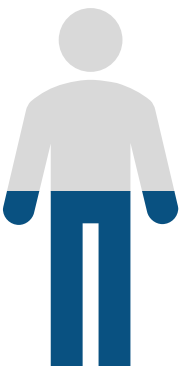
Gender Disparity in the Labour Landscape
Men and women are exposed differently to the impact of AI in the short run



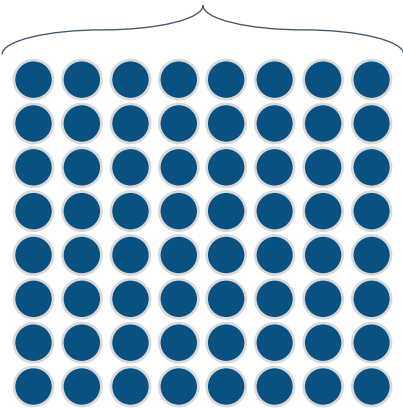
Tasks Potentially Automated by AI



Women are **less exposed to software** than men, reflecting the fact that women are clustered in occupations requiring complex interpersonal tasks, which software is not capable of performing.



Tasks Potentially Automated by AI



Men **under the age of 30 years** are most exposed to AI. These results are consistent with the literature on job polarization, which has found that AI reduced demand for routine, middle-wage jobs while increasing it for non-routine, low- and high-wage jobs.



AI's Positive Impact on Current Job Roles

AI will empower several jobs, creating new functions, tasks, and market opportunities for professionals



AI will empower several jobs, creating new functions, tasks, and market opportunities for professionals





AI Workforce Trends and Challenges

AI Impact Spectrum
Most jobs will either be automated or augmented by AI

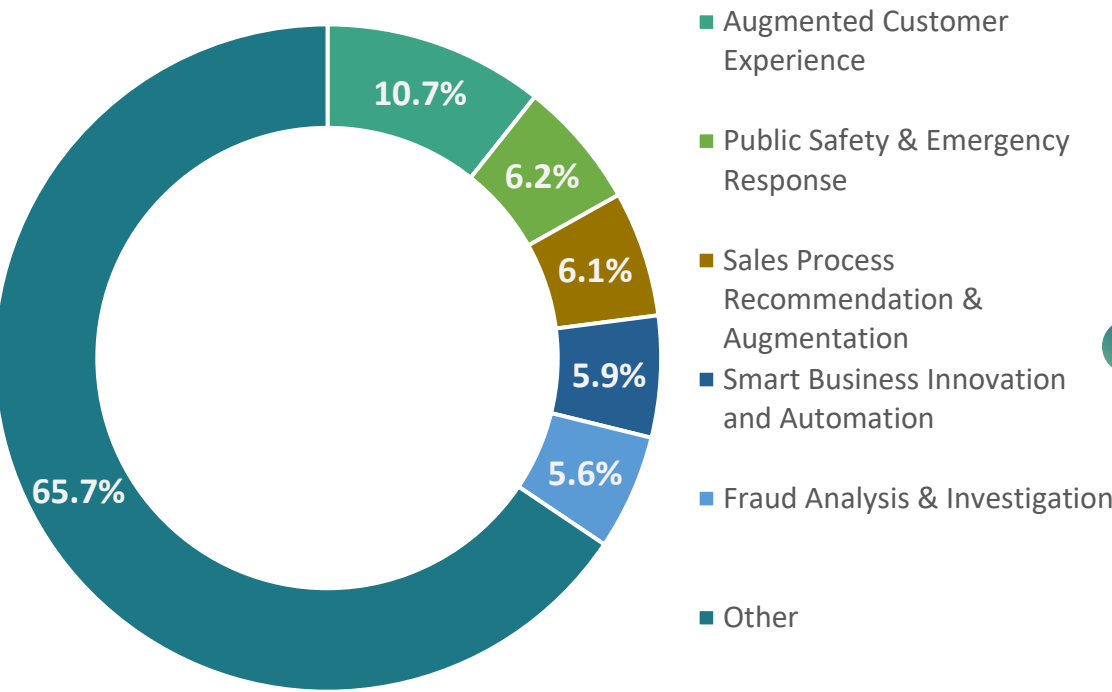


Some occupations, such as radiologic technologists and machinists, have a high rate of **automation** relative to augmentation. Therefore, labor demand will fall in these occupations. Conversely, in other occupations, including industrial engineers and analysts, **augmentation** has been more important than automation, resulting in an increase in employment in these occupations. Interestingly, many occupations are either simultaneously exposed to both augmentation and automation or are not exposed to any technology at all.

AI Adoption Rationales

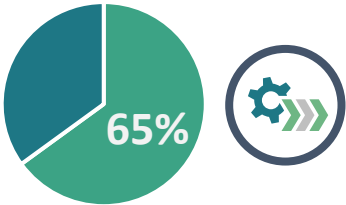
Across industries, firms adopt AI for largely overlapping reasons that relate to operational efficiency and cost control

Asia Pacific Artificial Intelligence Top Use Cases 2022

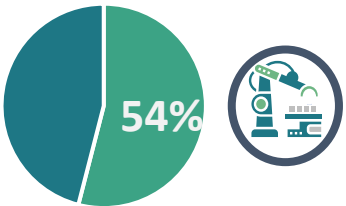


Why businesses adopt AI

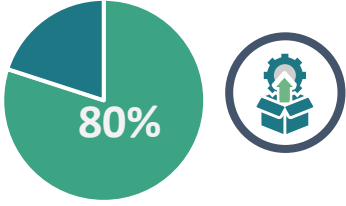
Upgrade Existing Processes



Automate Existing Processes



Improve Products & Services Quality



Of all AI adopters, around **80%** (employment-weighted) report doing so to improve the quality of their product or service, 65 percent to upgrade existing processes, and 54 percent to automate existing processes.

ManpowerGroup Solutions Across the Entire HR Life Cycle



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& Analytics**



**Workforce
Management**



**Talent
Resourcing**



**Career
Management**



**Career
Transition**



**Top Talent
Attraction**



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