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Impact of Digitalization and Artificial Intelligence as Causes and Enablers of Organizational Change: Implications for the International Civil Service

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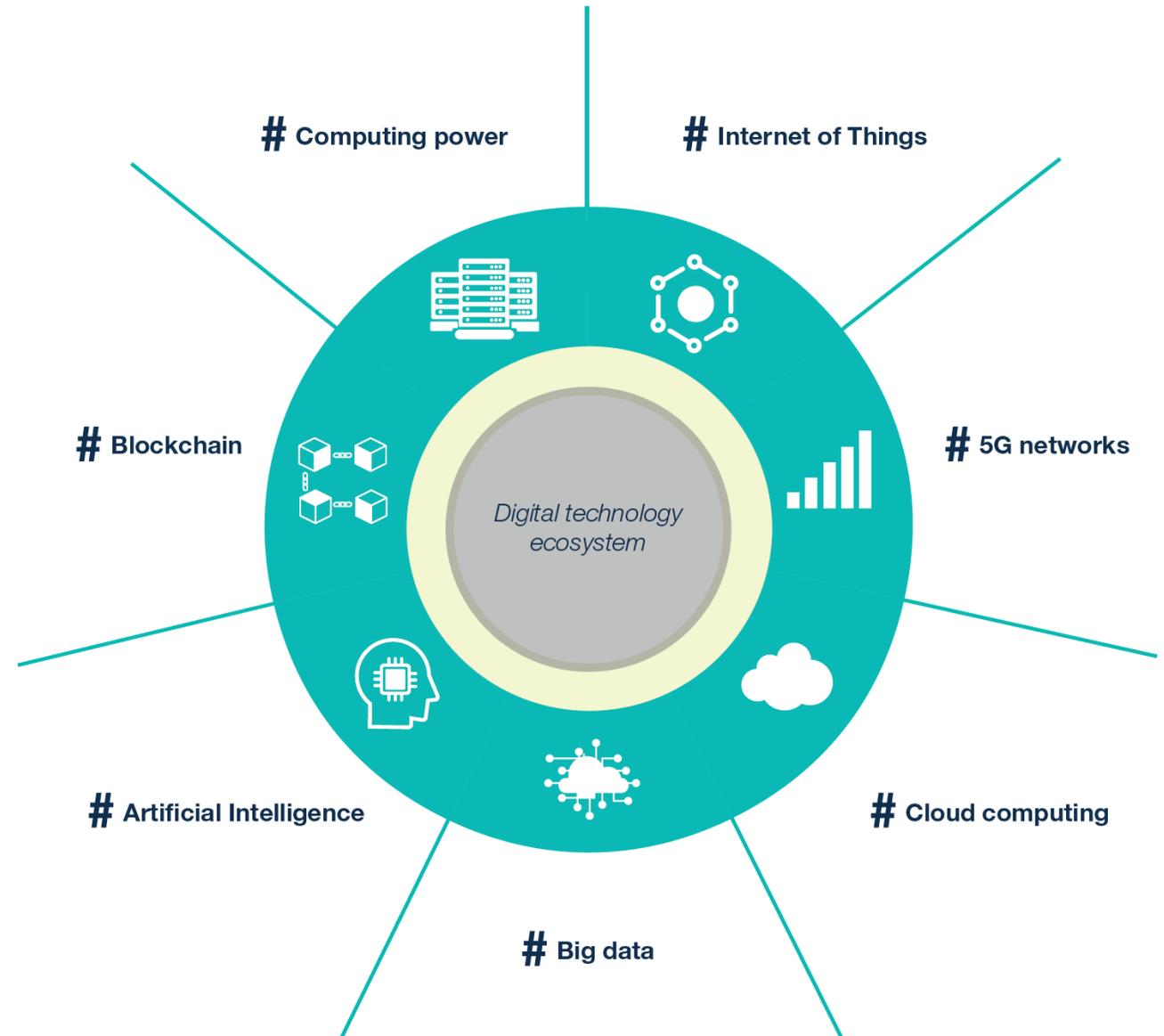
- Context
- Opportunities
- Challenges
- Key considerations linked to change fostered by digitalisation & AI
- Addressing the challenges and maximising the opportunities in the international civil service



What is digital transformation?

- Digitisation is the conversion of analogue data and processes into a machine-readable format.
- Digitalisation is the use of digital technologies and data as well as interconnection that results in new or changes to existing activities.
- Digital transformation refers to the economic and societal effects of digitisation and digitalisation.

(OECD, 2019)

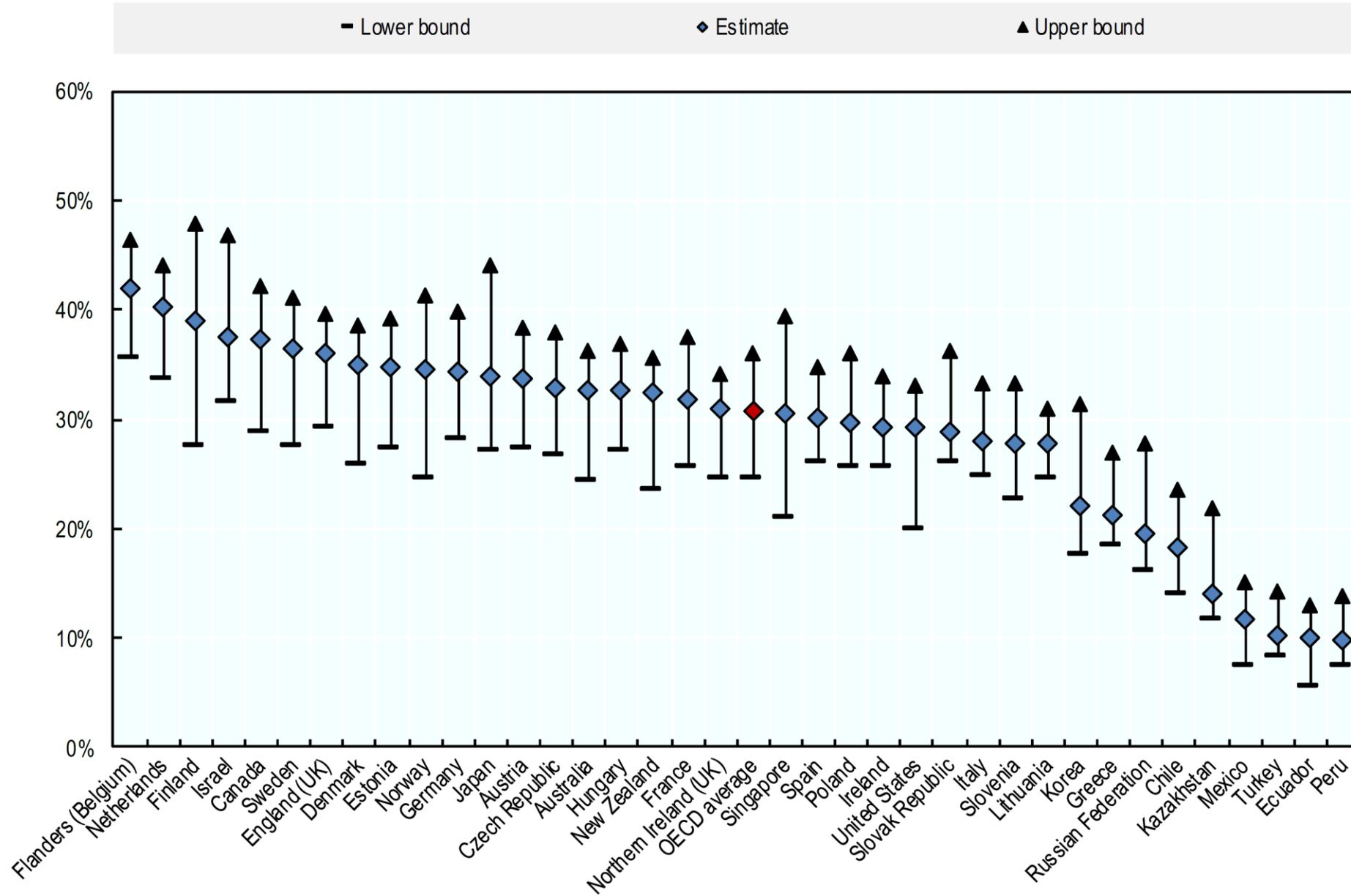




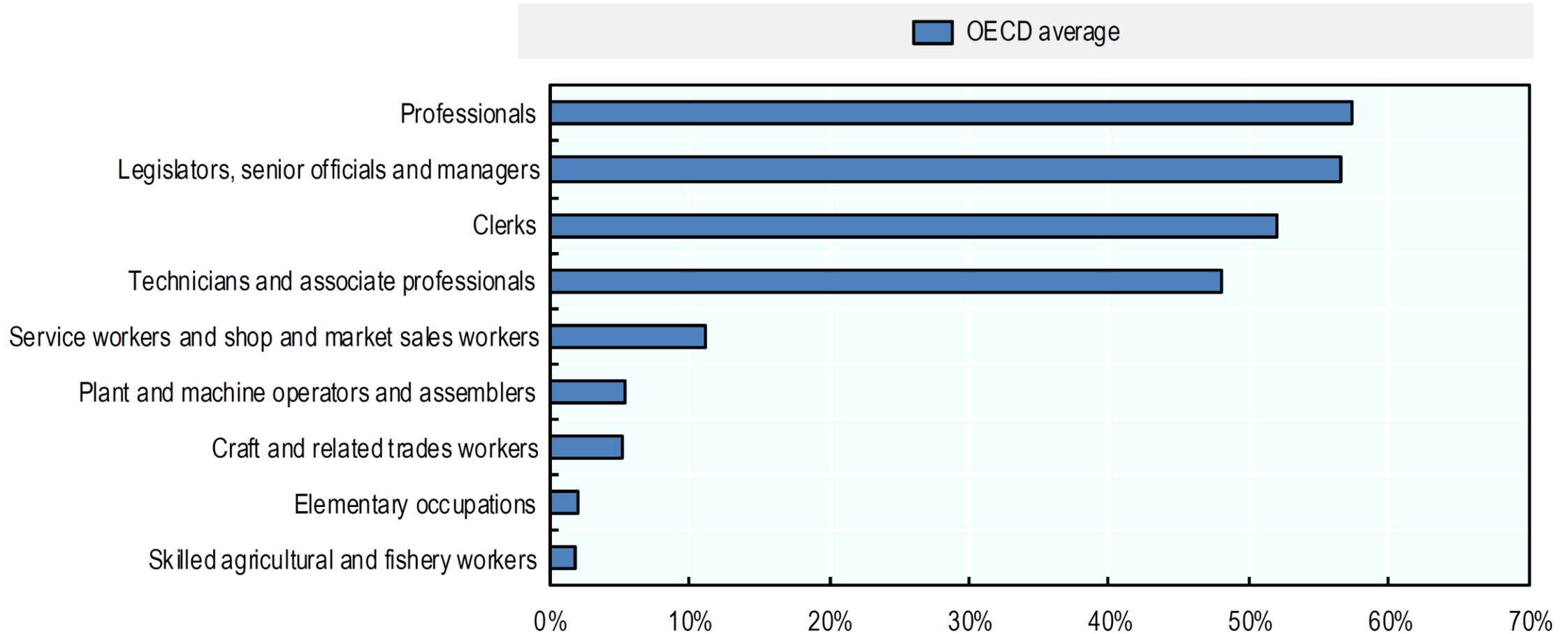
Context – Digitalisation and organisational change

- The development of digital technologies, such as artificial intelligence (AI), advanced robotics, widespread connectivity, the internet of things and big data, wearables, mobile devices and online platforms, is changing the nature and location of work, who works and when, and how work is organised and managed – *on employment and working conditions.*
- Includes: Telecommuting or Teleworking or Remote Work; Online jobs, “e-worker (or e-nomad)”; Platform work; Hot desking; ‘At-home’ jobs; Virtual team/Distributed team/Dispersed virtual team; Virtual reality (VR); Augmented reality (AR); AI and Robotics etc.
- Digital technology in itself is neither good nor bad. Maintaining a balance between the challenges and the opportunities presented by digitalisation depends on the proper application of technologies and how they are managed and regulated.
- Digitalisation is a primary driver of organisational change and offers the potential for innovative and exciting developments in the workplace, but also presents new challenges. *Change further accelerated by the pandemic*

Feasibility of teleworking by country (OECD, 2020)



Feasibility of teleworking by occupation (OECD, 2020)





- Can make work faster, more efficient and more cost-effective
- Can facilitate work from anywhere and connect individual workplaces > commuting and carbon emissions will be minimized contributing to more leisure time and a better work-life balance, as well as a greener environment
- Communication and collaboration processes can be improved (in the case of VR/AR utilising advanced sensory stimulation making the communication process much more realistic) and multidisciplinary work and teamwork strengthened
- They can make jobs more flexible and more accessible to a larger and more diverse pool of people, including older workers > this may result in longer working lives
- Can remove humans from hazardous environments, reducing for example physical risks, ergonomic risks, biological risks and exposure to dangerous substances
- Digitalised management methods can enable more accurate hiring of staff, data processing, distribution of work, performance monitoring and appraisals as well as tracking wellness aspects.
- This has the potential of facilitating less hierarchical, more participative management practices and could lead to new collective bargaining models.



- Impacts on employment and increasing precarity
- Impact on working conditions
- Skills and competence requirements
- Occupational health, safety and well-being
- Working time and work-life balance
- Work monitoring and surveillance
- Impact on existing and new inequalities in the labour market and workforce

Key considerations linked to change fostered by digitalisation & AI

Policy	How to achieve a good balance between regulation and other types of policy in order to address new and emerging risks in new forms of work while not hindering rapid progress.
Responsibility	How to define employer and worker responsibility in relation to risk management while working in new digitalised work contexts and conditions (e.g. remote virtual work; virtual work from home; working in a VR environment). How can social protection be ensured even for independent workers?
Autonomy and control	How to balance flexibility through with worker autonomy and control over their work. How can worker participation and collective bargaining be supported?
Privacy	How to protect worker privacy in a digital work environment while using algorithmic monitoring and surveillance. How can ethical hiring, appraisal and evaluation processes be developed maintaining human dignity?
Technology interface	How to incorporate new technological interfaces (e.g. enhanced sensory stimulation, AI and robotics) in virtual work processes while ensuring human sensitive and human-in-control design?
Productivity	How to balance organizational economic performance against social performance. How can health, safety and well-being be addressed in a preventative way in the context of digitalisation? How can an economy of well-being perspective be promoted and adopted?
Workforce diversity	How to support more participation of diverse groups (e.g. female, older, younger, migrant, low educated workers, other marginalised groups) in virtual work while developing their skills and providing appropriate support. How can a lifelong perspective to the development of the workforce be promoted?



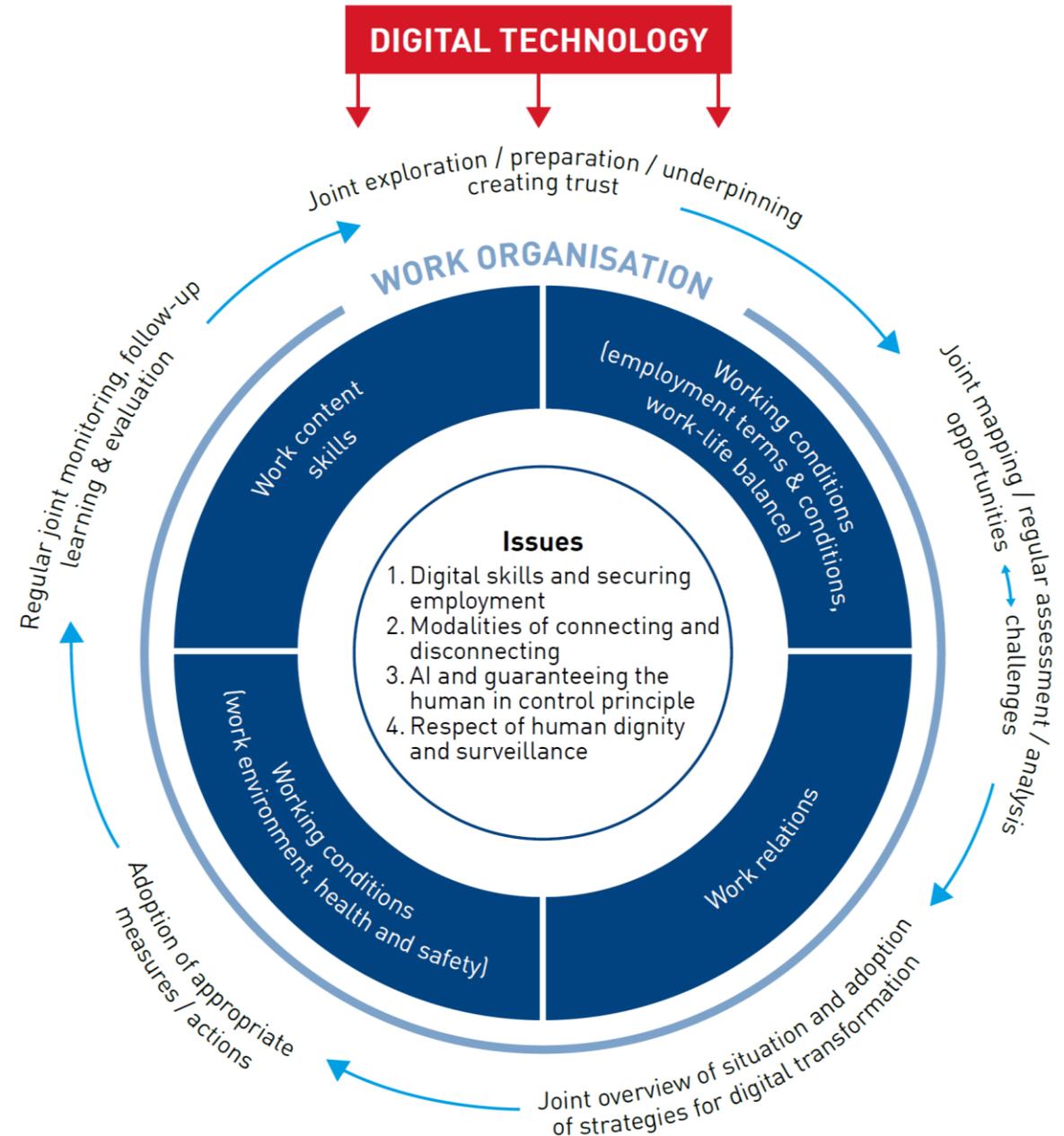
Addressing the challenges and maximising the opportunities: Implications for the international civil service

- Development of an ethical framework for digitalisation, codes of conduct and proper governance
- A clear policy framework to clarify responsibilities for health, safety and well-being in relation to new systems and new ways of working
- A strong 'prevention through design' approach that integrates human factors and worker-centred design
- Involvement of workers and their representatives in the design and implementation of any digitalisation strategies
- An adapted education system and training for workers
- The provision of effective OSH services to all workers of the digital world of work
- Collaboration with academics, industry, social partners and governments on research and innovation in digital technologies to properly take account of the human aspects

Multiple topics play a role or should be taken into account as they are interlinked and should not be dealt with in isolation. A broad multidisciplinary approach is therefore necessary, and holistic policy models should be developed adopting a lifelong perspective to working life with a strong well-being focus.

This framework agreement aims to:

- Raise awareness and improve understanding of employers, workers and their representatives of the opportunities and challenges in the world of work resulting from the digital transformation;
- Provide an action-oriented framework to encourage, guide and assist employers, workers and their representatives in devising measures and actions aimed at reaping these opportunities and dealing with the challenges, whilst taking into account existing initiatives, practices and collective agreements;
- Encourage a partnership approach between employers, workers and their representatives;
- Support development of a human-oriented approach to integration of digital technology in the world of work, to support/assist workers and enhance productivity;
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Stages in the process

- The first stage .‘**Joint exploration/preparation/underpinning.**’ is about exploring, raising awareness and creating the right support base and climate of trust to be able to openly discuss the opportunities and challenges/risks of digitalisation, their impact at the workplace and about the possible actions and solutions.
- The second stage .‘**Joint mapping/regular assessment/analysis.**’ is a mapping exercise looking into the topic areas in terms of benefits and opportunities (how successful integration of digital technology can benefit the workers and the enterprise) and in terms of challenges/risks. Possible measures and actions are also identified at this stage.
- The third stage .‘**Joint overview of situation and adoption of strategies for digital transformation.**’ is about having a basic understanding of the opportunities and challenges/risks, the different elements and their interrelationships, as well as agreeing on digital strategies setting goals for the enterprise going forward.
- The fourth stage .‘**Adoption of appropriate measures/actions.**’ is based on the joint overview of the situation. It includes prioritization of actions, piloting, clarifying roles/responsibility and securing resources and any support needed.
- The fifth stage .‘**Regular joint monitoring / follow-up, learning, evaluation.**’ is where we come full circle to a joint assessment of the effectiveness of the actions and discussion on whether further analysis, awareness-raising, underpinning or actions are necessary.



Digital skills and securing employment

- The commitment of both employers and worker/worker representatives to upskill or reskill to meet the digital challenges of the enterprise.
- Access to and arrangements of training, in line with diverse industrial relations and training practices and taking into account the diversity of the workforce, such as in the forms of training funds, learning accounts, competence development plans etc.
- A focus on quality and effective training: This means to provide access to relevant training responding to the identified training needs of the employer and the worker. A key aspect of this in the context of the digital transformation is to train workers, to help them make the best possible use of the digital technologies that are introduced.
- Where an employer requests to a worker to participate in a job-related training that is directly linked to the digital transformation of the enterprise, the training is paid by the employer and takes place at an appropriate and agreed time for both the employer and the worker, and where possible during working hours.
- Training arrangements that provide skills which could support mobility between and within roles/organizations.



Modalities of connecting and disconnecting

- Respect of working time rules and teleworking and mobile work rules;
- Being clear about the policies and/or the agreed rules on the use of digital tools for private purposes during working time;
- Providing guidance and information for employers and workers on how to respect working time rules and teleworking and mobile work rules including on how to use digital tools, e.g. emails, including the risks of being overly connected particularly for health, safety and well-being;
- Commitment from management to create a culture that avoids out of hours contact;
- Work organisation and workload, including the number of staff, are key aspects which need to be identified and evaluated jointly between managers and workers and/or their representatives;
- Appropriate measures to ensure compliance;
- Alert and support procedures in a no-blame culture to find solutions and to guard against detriment for workers for not being contactable;
- Prevention of isolation at work.



- Deployment of AI systems:
 - should follow the human in control principle;
 - should be safe, i.e. it should prevent harm. A risk assessment, including opportunities to improve safety and prevent harm such as for human physical integrity, psychological safety, confirmation bias or cognitive fatigue should be undertaken;
 - should follow the principles of fairness, i.e. ensuring that workers and groups are free from unfair bias and discrimination;
 - needs to be transparent and explicable with effective oversight, with checks in place to prevent erroneous AI output.
- In situations where AI systems are used in human-resource procedures, such as recruitment, evaluation, promotion and dismissal, performance analysis, transparency needs to be safeguarded through the provision of information. In addition, an affected worker can make a request for human intervention and/or contest the decision along with testing of the AI outcomes.
- AI systems should be designed and operated to comply with existing law, including the data protection regulations, guarantee privacy and dignity of the worker.



Respect of human dignity and surveillance

- Enabling workers.' representatives to address issues related to data, consent, privacy protection and surveillance.
- Always linking the collection of data to a concrete and transparent purpose. Data should not be collected or stored simply because it is possible or for an eventual future undefined purpose.
- Providing workers representatives with facilities and (digital) tools/equipment to fulfil their duties in a digital era.



Thank You!!!

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