UK-EU Green Skills Workshop: Meeting the Challenges & Opportunities of Renewable Energy and Sustainable Construction

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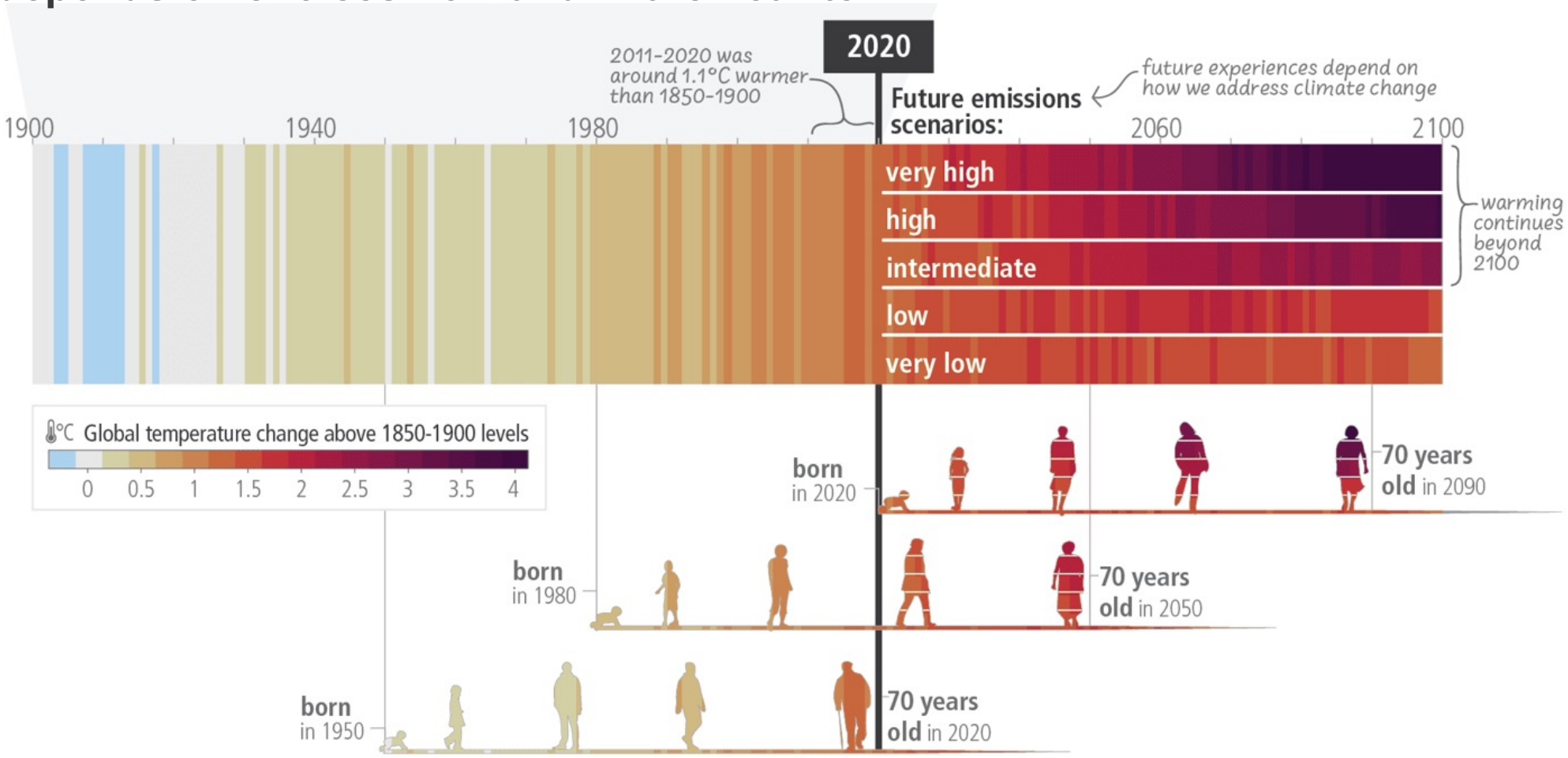
UK-EU Green Skills Workshop

OECD Centre for Skills
https://www.oecd.org/skills/centre-for-skills

The prevalence of high temperatures is increasing; the future depends on us

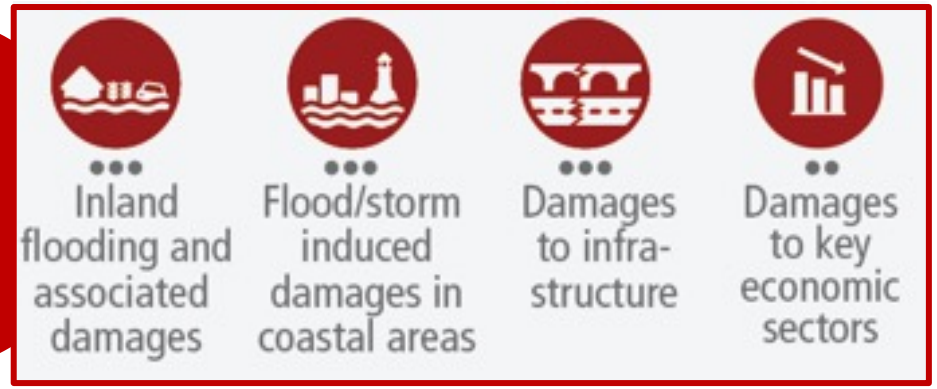
The extent to which current and future generations will experience a hotter and different world depends on choices now and in the near-term



Source: Intergovernmental Panel on Climate Change, 2023

Adverse impacts from human-caused climate change will continue to intensify if we don't act

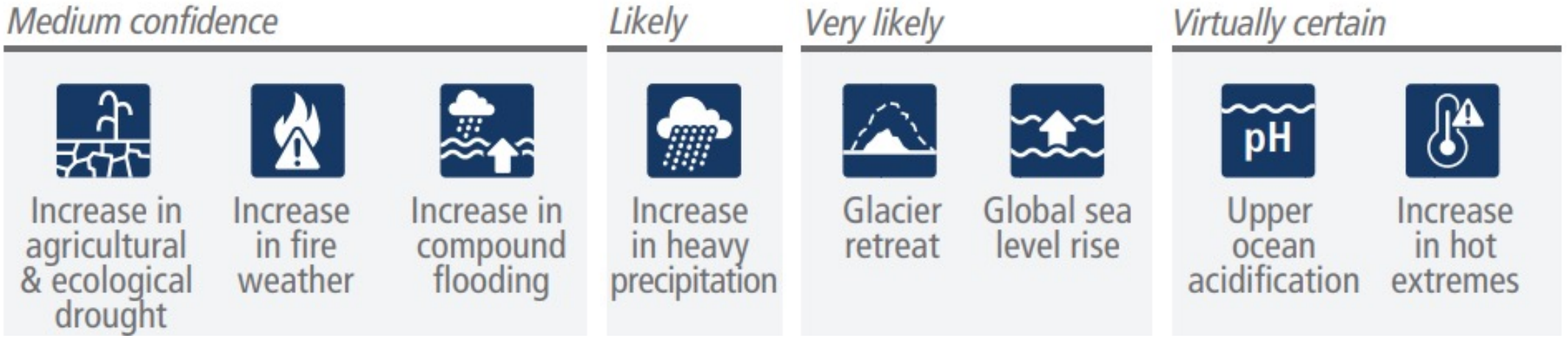
Global climate impacts on **cities**, **settlements** and **infrastructure**



Fit for 55

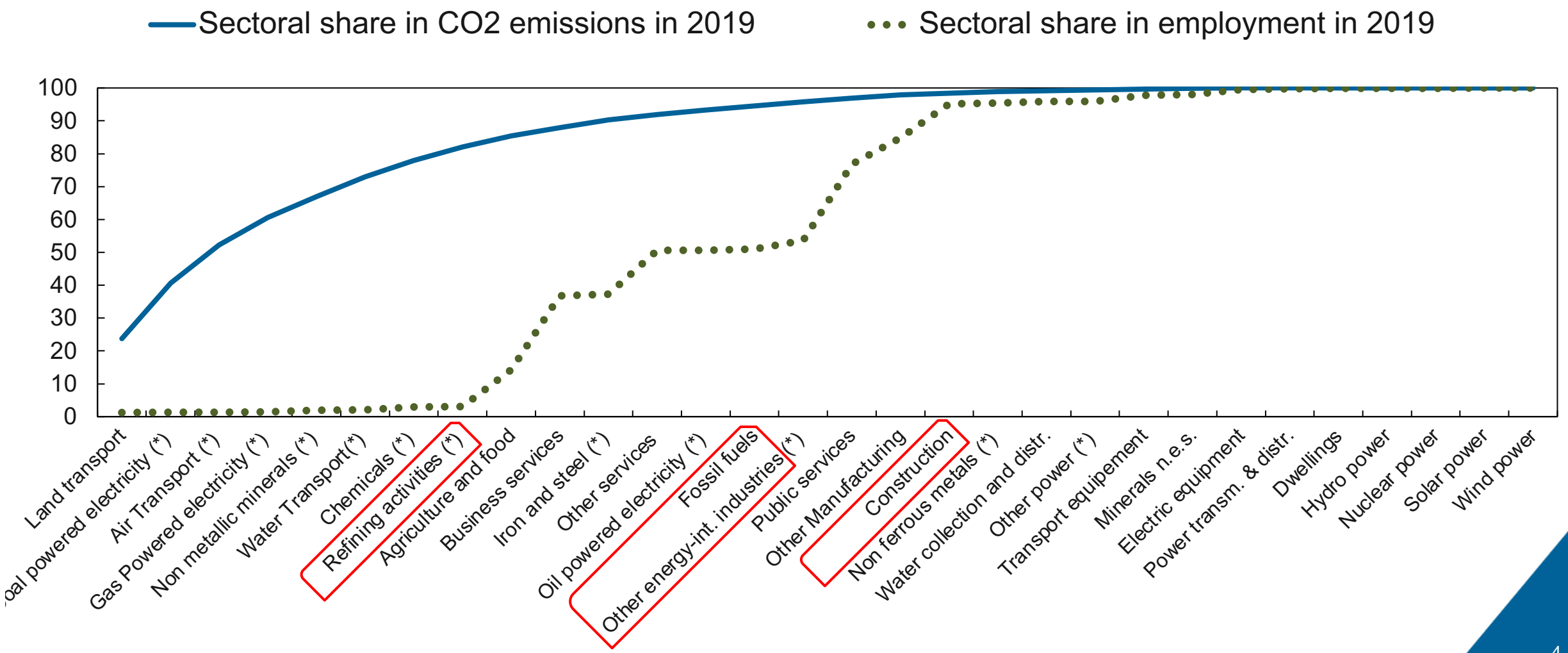
EU's target of reducing net greenhouse gas emissions by at least 55% by 2030. The proposed package aims to bring EU legislation in line with the 2030 goal.

Attribution of observed physical climate changes to human influence



Source: Intergovernmental Panel on Climate Change, 2023

Cumulative shares of CO2 emissions and employment per sector in 2019

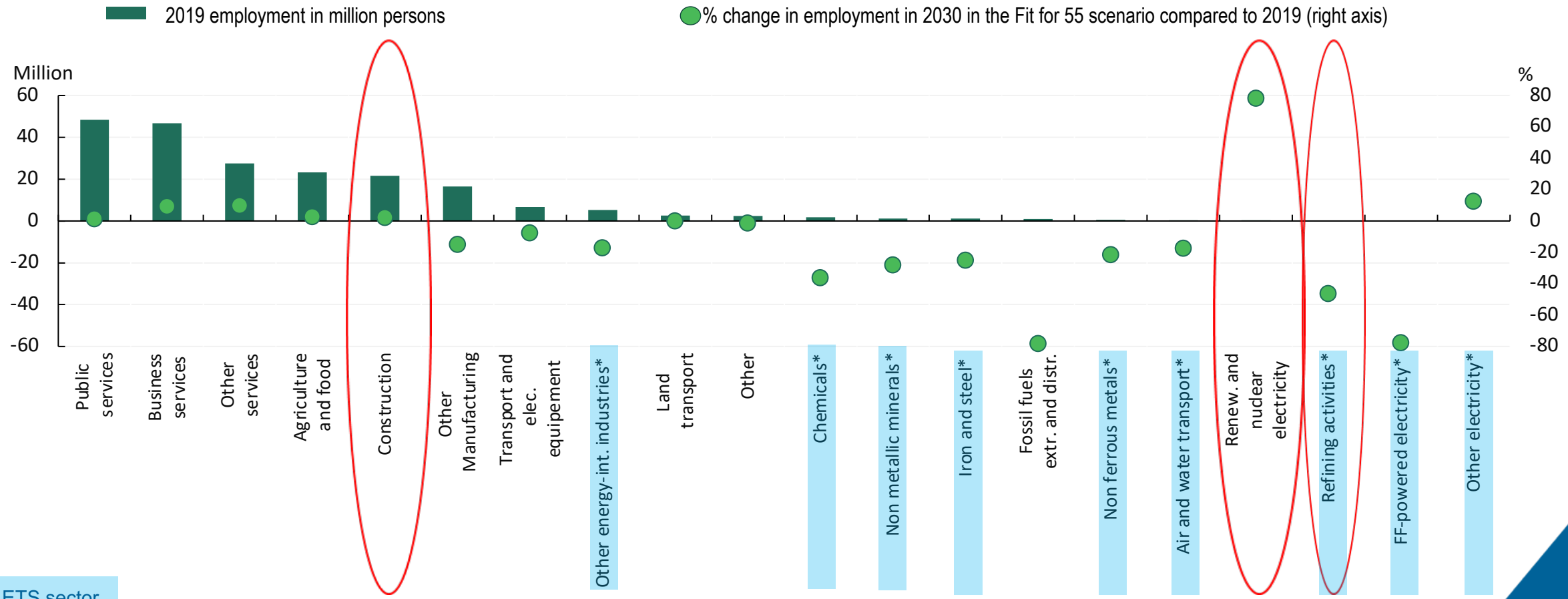


Source: OECD Skills Outlook 2023, Chapter 3, ENV-linkages model

Strongest employment change between 2019 and 2030 in sectors with lower initial employment levels

Evolution in sectoral employment in the Fit for 55 scenario

Employment in millions and percentage change based on Fit for 55

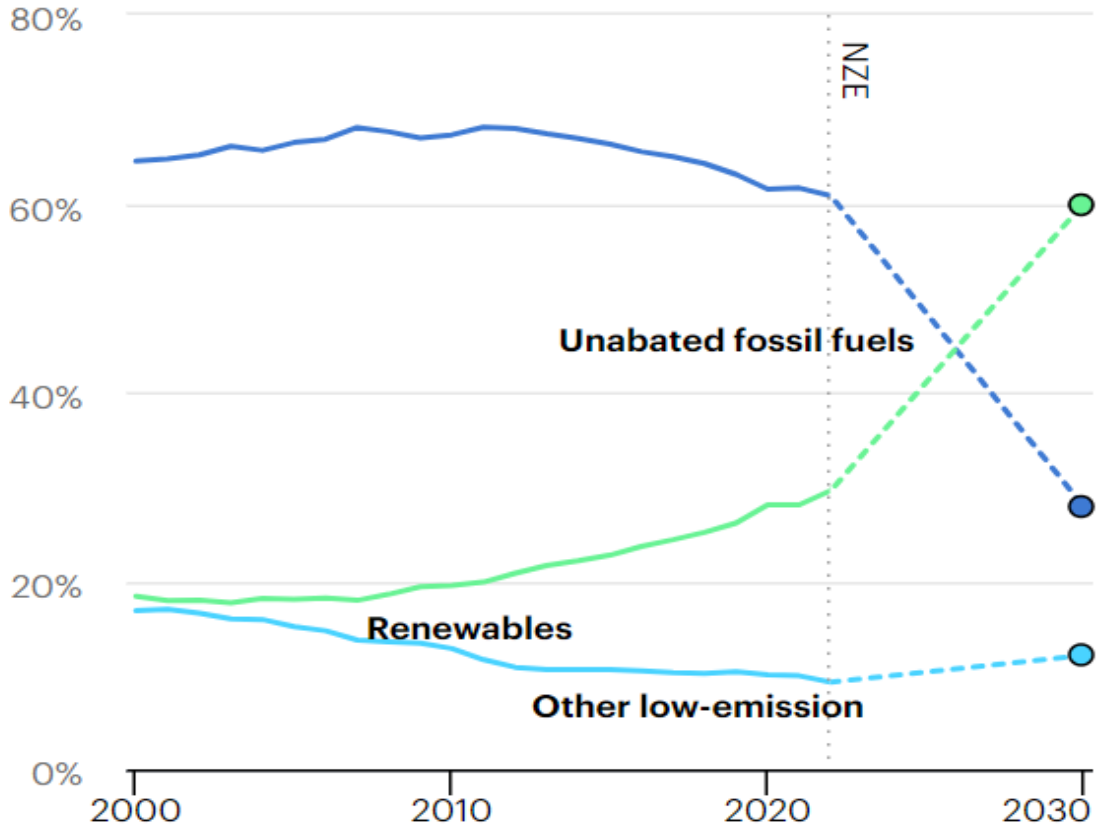


ETS sector

Source: OECD Skills Outlook 2023, Chapter 3, ENV-linkages model

Projected growth of the renewable energy sector and impact on job numbers

Shares of global electricity generation by source in the Net Zero Scenario, 2000-2030



Source: OECD/IEA. Licence: CC BY 4.0

Energy transition scenario by 2030 and its global employment impact in millions of jobs globally

Horizon 2030, in millions of jobs	Risk of job destruction	Potential job creation	Balance
Energy transition scenario	-7	+25	+18
Circular economy scenario	-71	+78	+7
Total	-78	+103	**+25**

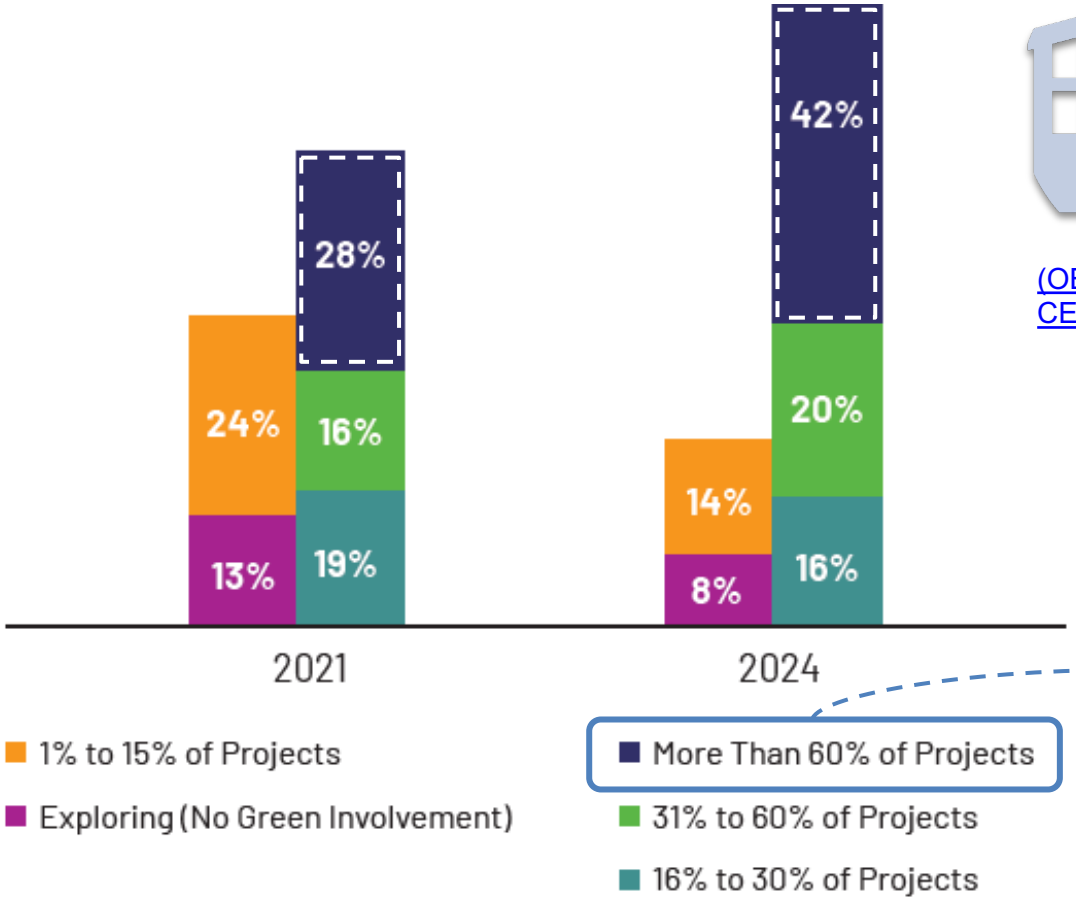
Source: International Labour Organisation, 2022

Solar employment in the **EU rose** by an estimated **30%** in 2022 to around **600,000 jobs**

Source: SolarPower Europe, 2022

Projected growth of the renewable construction sector and impact on job numbers

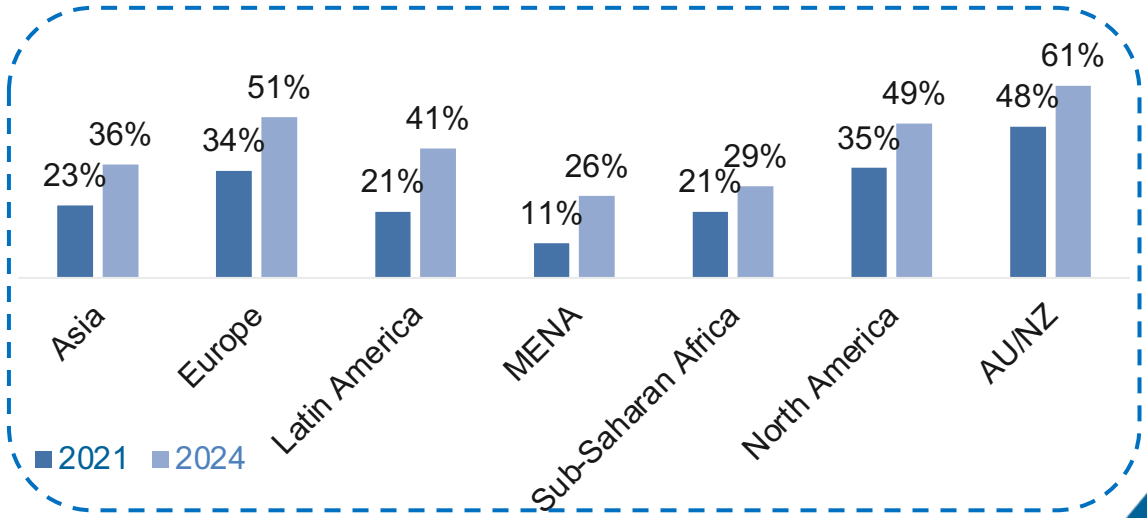
Level of green building activity
(according to all respondents *n=1,207*)



8% annual avg. growth of green jobs in the past five years across OECD countries

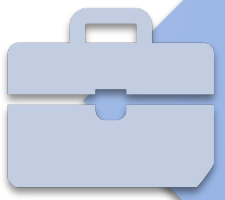
At least **27 mill. additional jobs** depend on the construction sector's performance

(OECD, 2023 ; CEDEFOP, 2023)



Source: World Green Building Trends Report, 2021

The green transition is changing jobs, skills required and the economy at large



Between **35%** and **40%** of all jobs in Europe could be affected by the green transition

(European Commission, 2023)

One in five jobs in the **UK** (approx. **6.3 mill. workers**) will require skills which may experience demand growth (approx. **10%** of UK jobs) or reduction (approx. **10%**) because of the transition to net zero

(Green Jobs Taskforce, 2021)

The transition to a net zero emissions environment by 2050 will create new industries worth **$10.3 trillion** to the global economy by that same year

(Global Green Economy Report, 2023)

Skills changes in the renewable energy sector and resulting transformation of the workforce to 2050

Transferable Skills

4 key skills that will be required:

- Problem Solving and Systems Thinking
- Digital and Data Literacy
- Client Services
- Innovation and R&D

Technical Skills

With a wide and fast rate and scope change:

- Overseeing grid connection and integrating DER/smart grid systems
- Understanding of and working with automation
- Working with Operational Technology/Information Technology linkages
- Knowledge of effective cyber security practices and procedures

Source: PricewaterhouseCoopers; Queensland Government Department of Energy & Public Works, 2022

Green skills (or skills for the green transition) and the green jobs puzzle

Green Skills

"The **knowledge**, **abilities**, **values** and **attitudes** needed **to live** in, **develop** and **support** a **sustainable** and **resource-efficient society**" (Cedefop, 2013)

However, **skills cannot be inherently green**; **but competencies** used in tasks **contributing** to a **greener economy** (ILO, 2011)

Components of Green skills

1. Technical knowledge and **skills** for **using green technologies** and **processes**

2. Transversal skills, **knowledge**, **values**, and **attitudes** facilitating **pro-environmental decisions** inside and outside work

(ETF, 2022; UNEVOC, 2022; OECD, 2023)

Jobs vary in **degrees** and **combinations** of **skills**, **influencing** their **"greenness"**

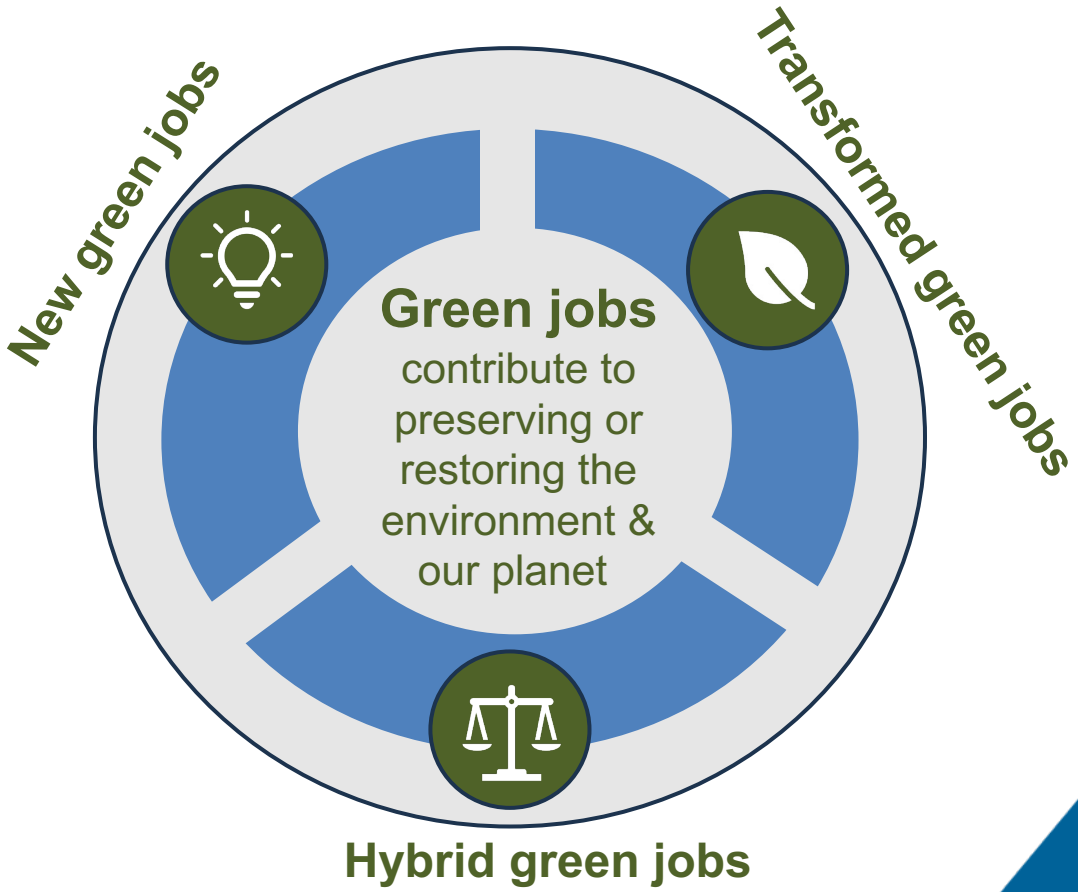
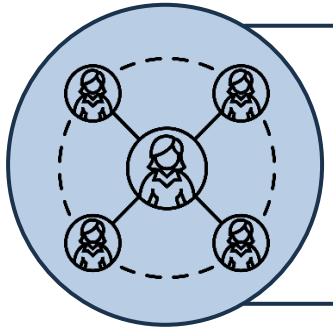


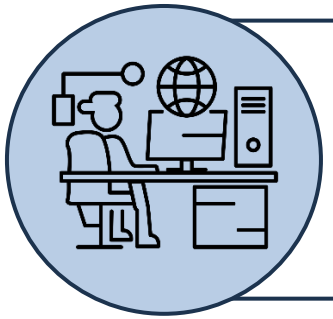
Figure adapted from the Global Green Economy Report based on OECD/Cedefop, 2014 & the definition of green jobs from GOV.UK

A diverse skillset is key for a resilient green transition



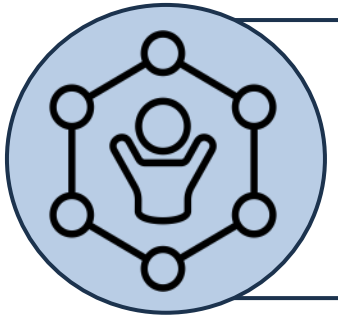
Skills to work alongside people

- *Assisting and Caring for Others*
- *Communicating with Persons Outside the Organization*
- *Initiative*



Skills to work alongside technology

- *Software Development*
- *Analysing Data and Information*



Skills to work across occupations and industries

- *Making Decisions and Solving Problems*
- *Dependability*
- *Achievement & Effort*

Source: OECD Skills Outlook 2023, Chapter 3, ENV-linkages model and Lightcast™

Addressing market barriers and gender differences is crucial in the growing demand of green sector jobs

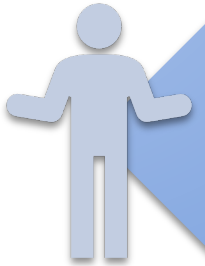
Top ranked barriers to the growth of green building in Europe (vs. Global avg.)

1st **53%** (vs. 1st 52% Global avg.)
Higher (perceived or actual) costs

2nd **30%** (vs. 5th 24% Global avg.)
Lack of trained/educated green building professionals

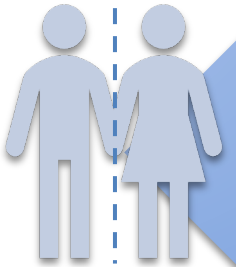
(World Green Building Trends Report, 2021)

Green skills gap will likely widen without proactive & inclusive up- and re-skilling



Labour shortages doubled between **2015 and 2021** in key sectors and jobs for the green transition in Europe

(European Commission, 2023)



72% **of green-task jobs** in OECD countries are held by men

(OECD, 2023)

Adapting VET for a greener future for all

Many occupations targeted by VET are impacted by the green transition

- Jobs for blue collar and farm workers on the decline
- Other typical VET jobs changing due to adoption of greener technologies and work practices

- ❖ ***Review and update VET program*** *offerings*
- ❖ *Essential* ***career guidance*** *for learners*

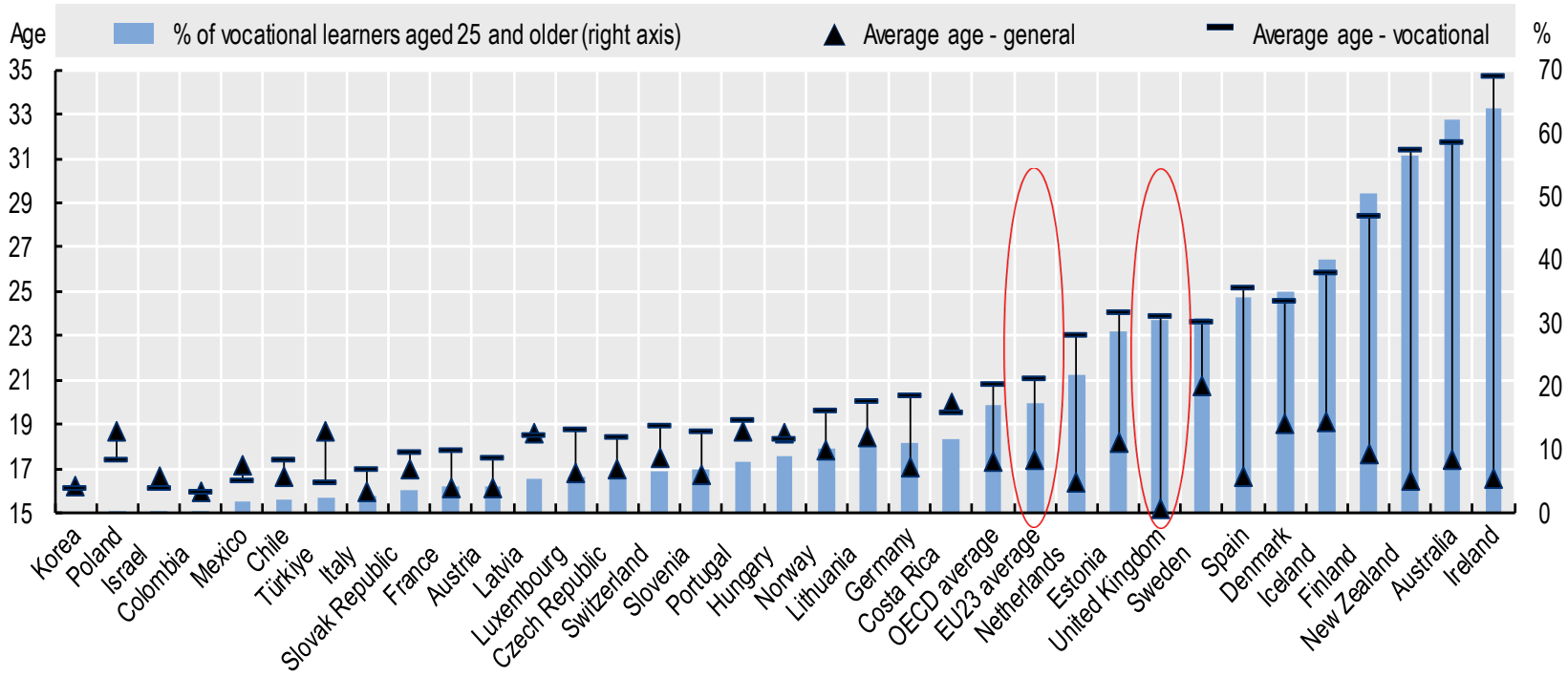
VET can develop the skills needed for the green transition

- VET aids transition to greener sectors and upskill or reskill in their greener job
- VET programmes, especially at higher levels, can prepare workers for vital green green jobs (e.g. solar panel installation, electric vehicle maintenance)

- ❖ ***Flexible VET programs*** *for market demands and diverse learners*
- ❖ ***Promote higher-level*** *VET* ***pathways*** *to further learning*

Adult participation in VET is low in many countries and work-based learning (WBL) is not provided

Age profile of learners in upper secondary education



Source: OECD Education at a Glance 2020

WBL is (a missing) key for responsive VET

- Many OECD VET learners lack access to WBL
- In the UK, half of Level 3 VET lacks work-based component
- SMEs are less likely to provide WBL opportunities to VET students

Source: Eurostat (2023) Continuing Vocational Training in Enterprises

Towards a responsible green transition across the private and education sectors

1. Career guidance for green sector opportunities

- E.g., Louisiana Green Corps (USA)

2. Access to education for rural workers

- E.g., Interplay Learning (Texas, USA)

3. Promoting work-based learning in the private sector

- E.g., Hinkley Point C construction (UK)

4. Integration of green education into curricula

- E.g., Education programmes in Moldova and Egypt (ETF, 2023)

5. International collaboration for green skills development

- E.g., Course on Green Skills in TVET (Australia)

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THANK YOU

To discuss OECD's work on skills, contact:
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To learn more about the OECD's work on skills visit: www.oecd.org/skills/