

# Future-oriented occupations in the EU: main features, employment conditions, and job strain

## Main findings

*European Workplace Innovation Network (EUWIN)*

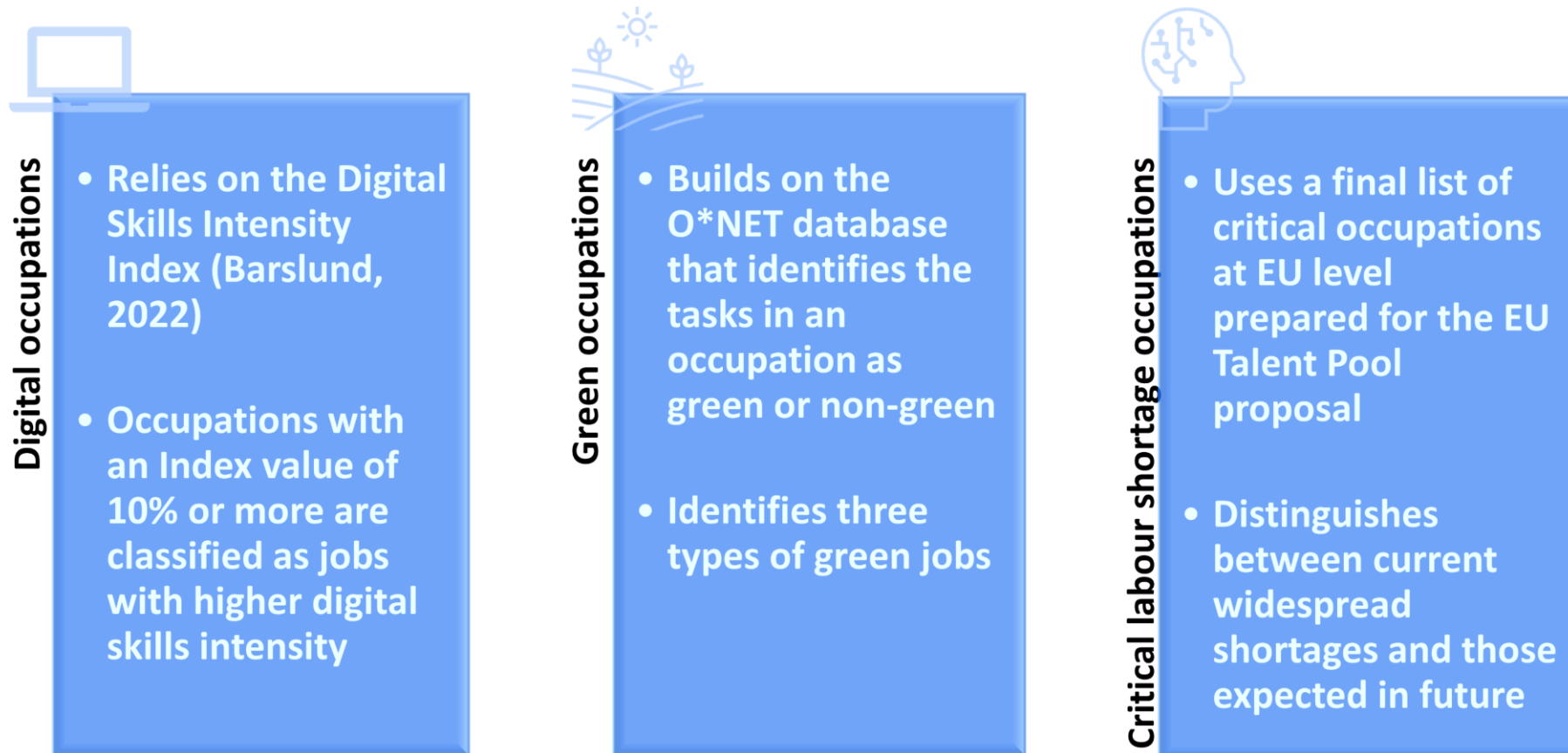
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# Defining and measuring 'future-oriented' occupations

Constructing occupational groups at the intersection of digital jobs, green jobs, and labour shortages occupations



# 10 occupational groups relevant for the transitions

Constructing occupational groups at the intersection of digital jobs, green jobs, and labour shortages occupations

## Occupations with higher digital skills intensity (DH)

- **15 occupations**
- ICT technicians and service managers, systems administrators, computer network and systems administrators

## Green occupations with increased demand and intermediate to lower digital skills intensity (GDDI)

- **35 occupations**
- Regulatory government professionals, field crop & vegetable growers, electronics mechanics

## Green occupations experiencing labour shortages with intermediate to low digital skills (LST-LSF-GNE)

- **13 occupations**
- Heavy truck and lorry drivers, civil engineers, motor vehicle mechanics and repairers, building electricians

# 79%

**Of jobs in the EU are relevant to the digital & green transition, as well as labour shortages**

**Heterogenous skill-levels amongst jobholders**

# 30%

**Of future-oriented jobs are managers, professionals, technicians, and skilled agricultural workers**

# Jobs and skills required by future- oriented occupations



# Labour market & demographic characteristics

- The majority of workers are in the **prime age group (aged 25-55)**.
- **The share of workers aged 56 and up is higher in some groups.**
- **Gender segregation** is identified in many occupation groups.
- Specifically, in **green jobs** experiencing labour shortages the majority of jobholders are men.

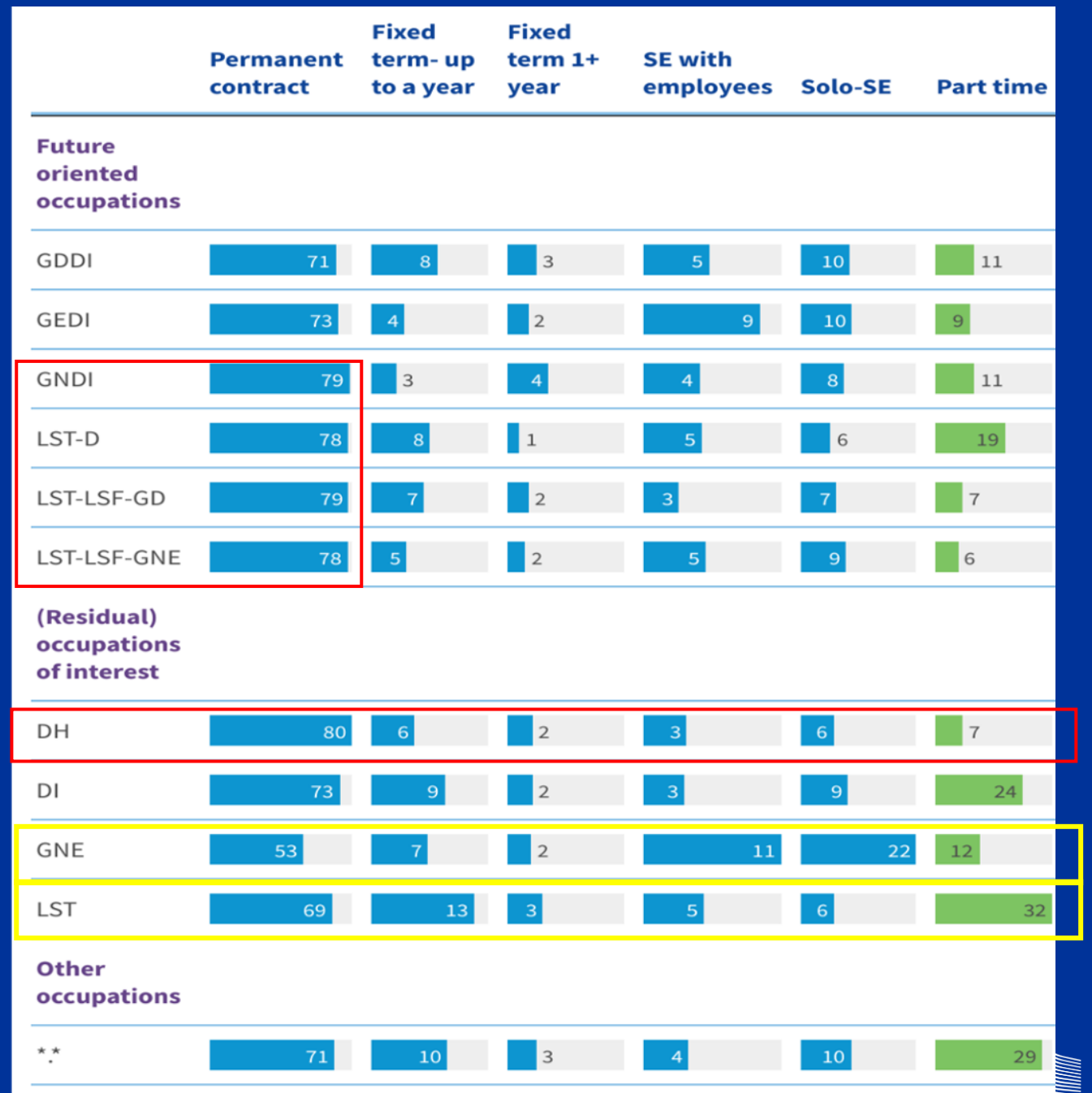
Occupations of interest	Code	Men (% in current jobs)	Male boss
Future-oriented occupations	GDDI	73	78
Future-oriented occupations	GEDI	66	77
Future-oriented occupations	GNDI	65	75
Future-oriented occupations	LST-D	46	58
Future-oriented occupations	LST-LSF-GD	91	90
Future-oriented occupations	LST-LSF-GNE	93	89
Occupations of interest	DH	74	78
Occupations of interest	DI	44	61
Occupations of interest	GNED	65	79
Occupations of interest	LST	35	53
Other occupations	**	39	56

Source: EWCTS 2021



# Employment conditions

- Future-oriented occupations generally have **more stable employment conditions**.
- **Part-time employment** is below average.
- Job stability and full-time employment is **higher** in **digitally intensive** and **lower** in **labour shortage occupations**.



Source: EWCTS 2021



# Participation in training

- Access to trainings is **more common in future-oriented occupations.**
- **Training was most received** by workers in future-oriented **new, emerging and enhanced green occupation groups**, following my digitally intensive jobs.
- More **digital intensive jobs reported the highest share** of recent participation in trainings.



# Measuring 'job strain' in future-oriented occupations

Dimensions of job quality and corresponding job demands and job resources

Dimensions	Job demands	Job resources
Physical and social environment	Physical risks (e.g. exposure to chemicals, noise)	Social support
	Physical demands (e.g. lifting and carrying heavy loads)	
	Intimidation and discrimination	
Job tasks	Work intensity (high speed and tight deadlines)	Task discretion and autonomy
Organisational characteristics	Dependence (self-employed only)	Organisational participation and workplace voice
Working time arrangements	Unsocial work schedules	Flexibility of working hours
Job prospects	Perceptions of job insecurity	Training and learning opportunities
		Career advancement
Intrinsic job features		Intrinsic rewards
		Opportunities for self-realisation

Source: Eurofound 2022.



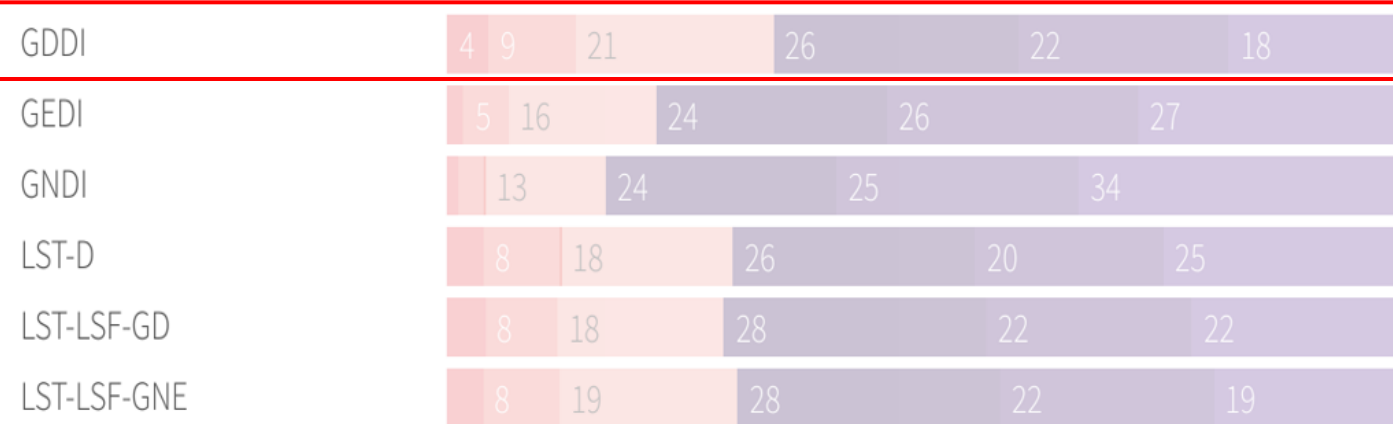


# Job strain as a dimension of job quality

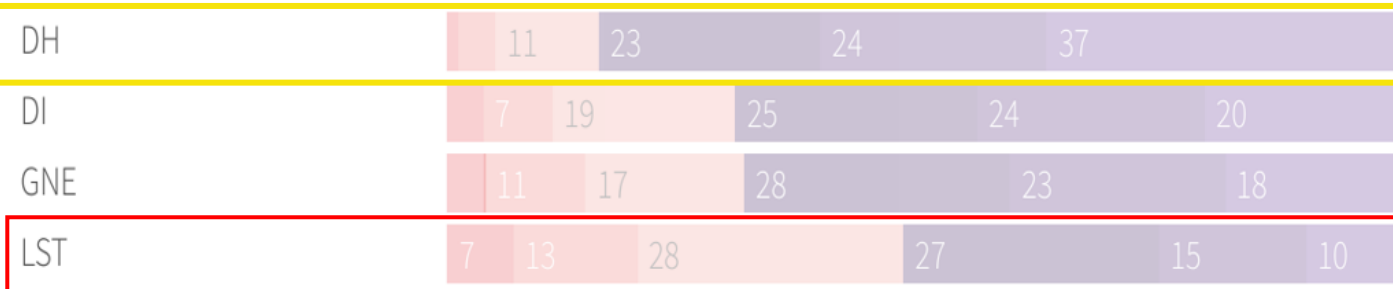
- **Job strain is heterogeneous** across jobs.
- **Job strain was highest for labour shortage (48%) and more manually-intensive green occupations (34%).**
- Occupations with **higher digital skills intensity** have the **lowest job strain (16%).**

■ Extreme strain 
 ■ High strain 
 ■ Moderate strain 
 ■ Low resourced 
 ■ Moderately resourced 
 ■ Highly resourced

## Future-oriented occupations



## Occupations of interest



## Other Occupations



## AI exposed occupations



# Lessons learned

- **A considerable number of occupations are affected** by the transitions.
- **Gender segregation** is identified in many future-oriented occupation groups.
- **Jobs with higher digital skills intensity** score better regarding dimensions of job quality.
- **Occupations with labour shortages and certain green jobs** report higher job strain and safety risks.



# Thank you!



## ESDE Working Paper Series:

[https://employment-social-affairs.ec.europa.eu/future-oriented-occupations-eu-main-features-employment-conditions-and-job-strain\\_en](https://employment-social-affairs.ec.europa.eu/future-oriented-occupations-eu-main-features-employment-conditions-and-job-strain_en)

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