



DATA ANALYSIS CAPSTONE PROJECT

# Digitalisation in the European Union

# EU objectives and approach to digitalisation

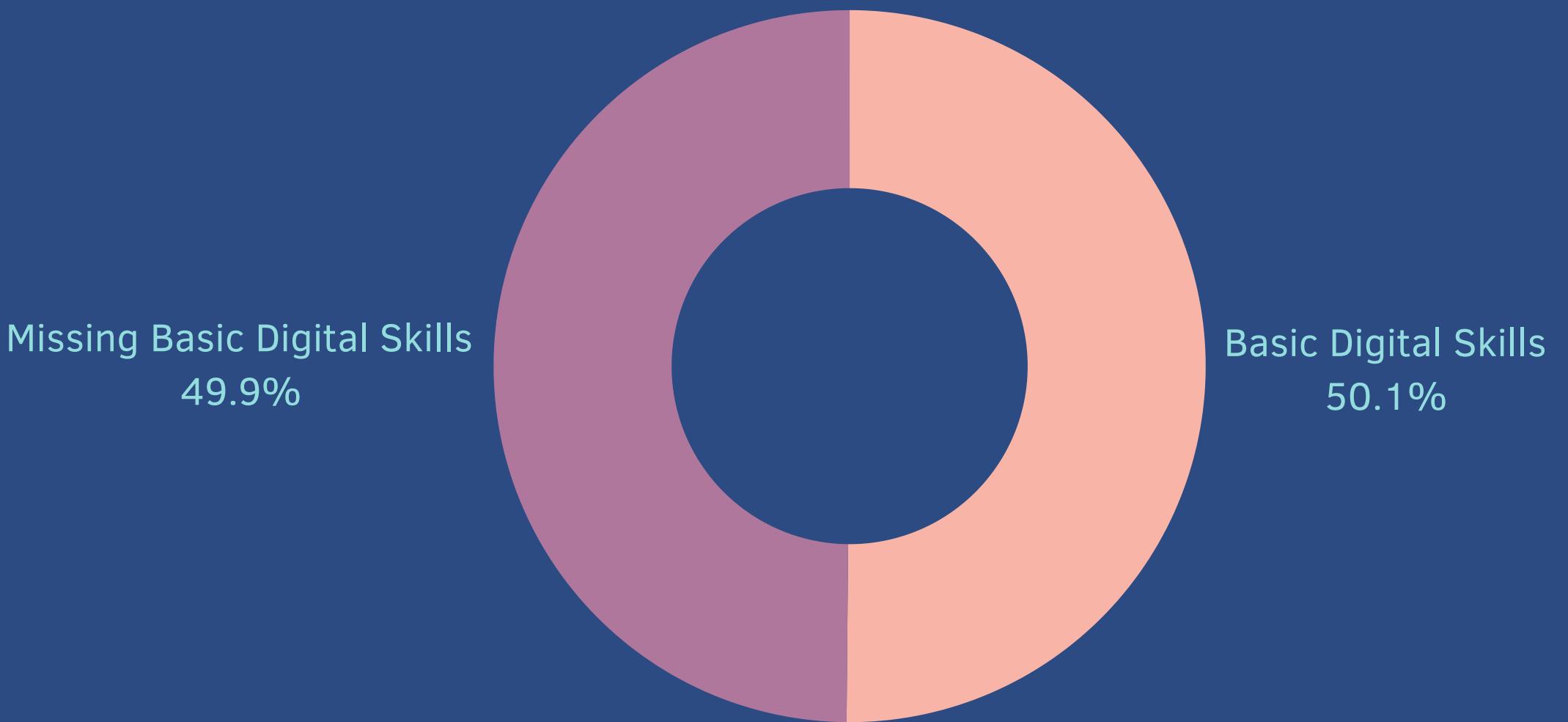


European Decade Initiative of the European Commission: A Programme, with concrete targets and objectives for 2030.

The Programme guides Europe's digital transformation in four key areas with measurable goals: Connectivity, Digital Business, Digital Public Services, and Digital Skills.

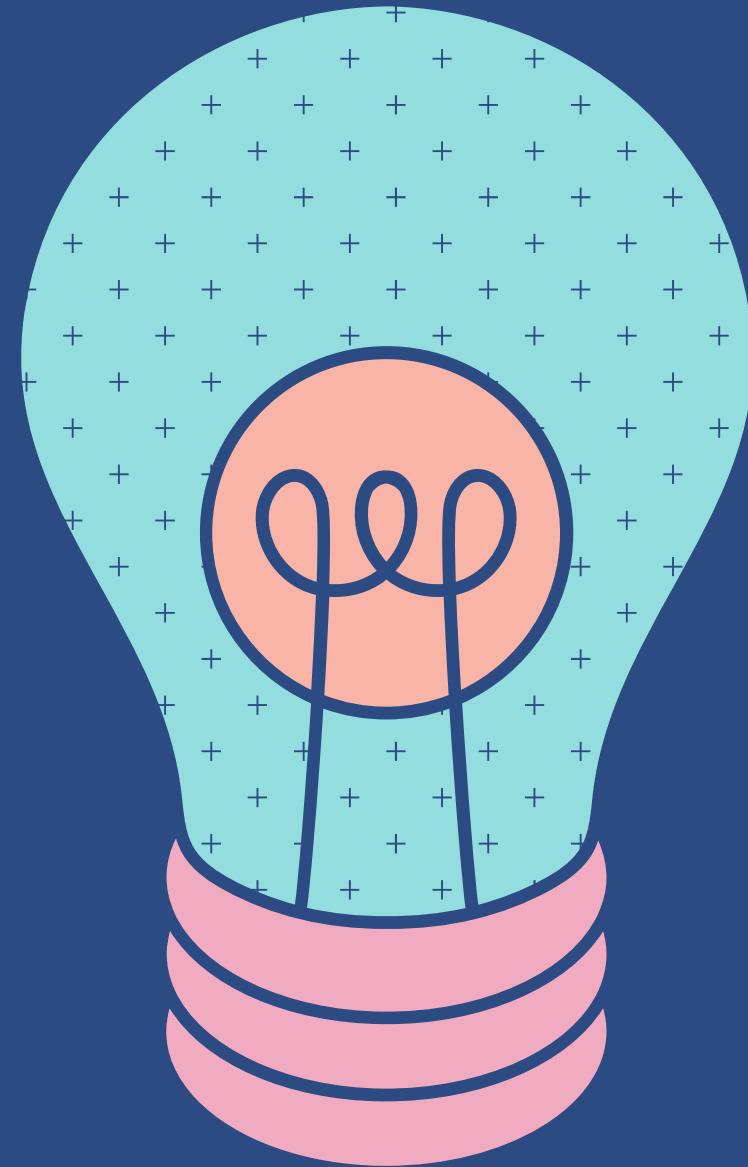
# Digitalisation in the European Union

*Goal for 2030: A digitally skilled population  
and highly skilled digital professionals.*



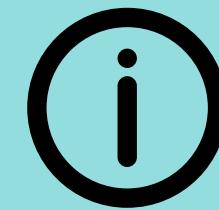
*“Digital skills are essential to the  
EU’s digital transition.  
It is key that the population at  
large is digitally literate.”*

**EUROPEAN COMMISSION, 2024**

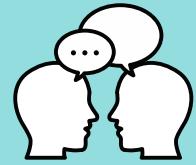


# What are Digital Skills?

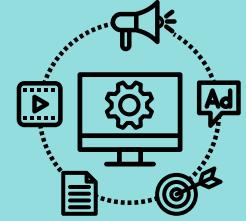
Eurostat, the statistical office of the European Union



Information and  
data literacy skills



Communication and  
collaboration skills



Digital content  
creation skills



Safety skills



Problem  
solving skills

Further categorisation from 0 to 5,  
0 = no digital skills to 5 = above basic skills.

# The Problem

Digital skills are unevenly distributed across Europe.  
Some countries excel in digital skills, while others fall  
behind.

# Our Research Focus

WHAT MAKES COUNTRIES WITH HIGH ADVANCED DIGITAL SKILLS STAND OUT?

## Age

Are young people better digitally skilled?

## Gender Equality

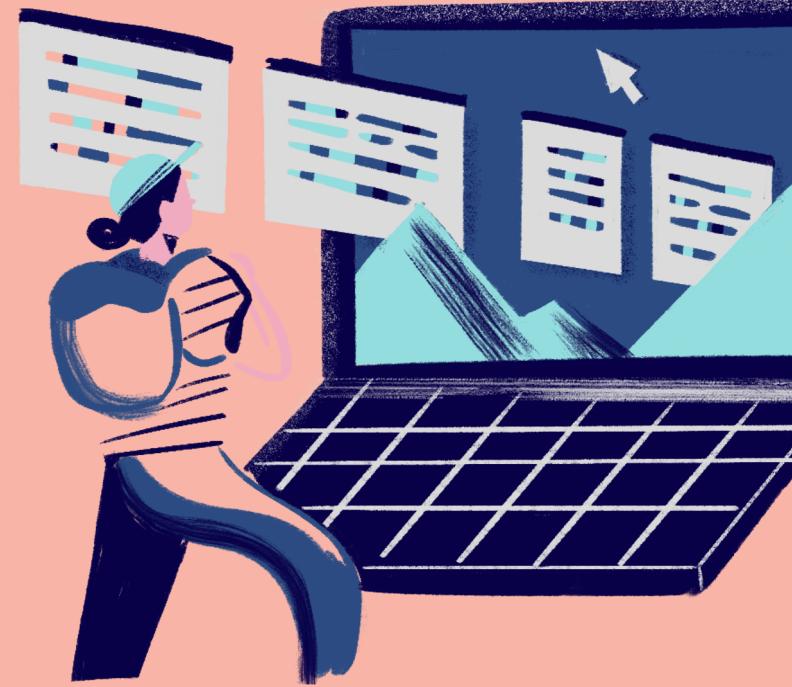
Are women in countries with higher gender equality more likely to exhibit advanced digital skills?

## Social Inequality

Do people in countries with lower income inequality tend to have advanced digital skills?

## Internet Infrastructure

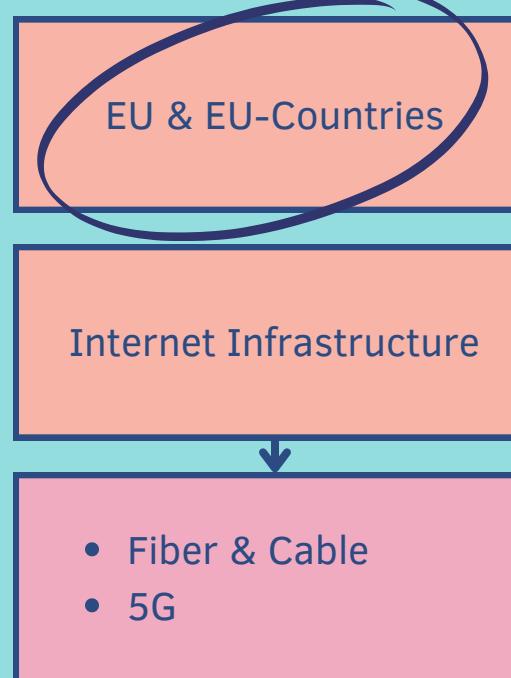
Do people in countries with a better internet access also show more advanced digital skills?



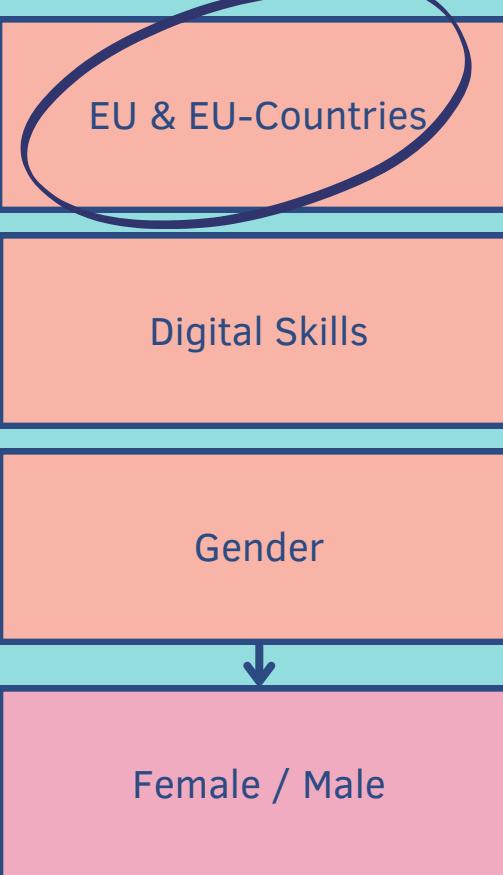
# Our Approach

- 1) Analyzing current distributions.
- 2) Investigating trends.
- 3) Testing relationships.

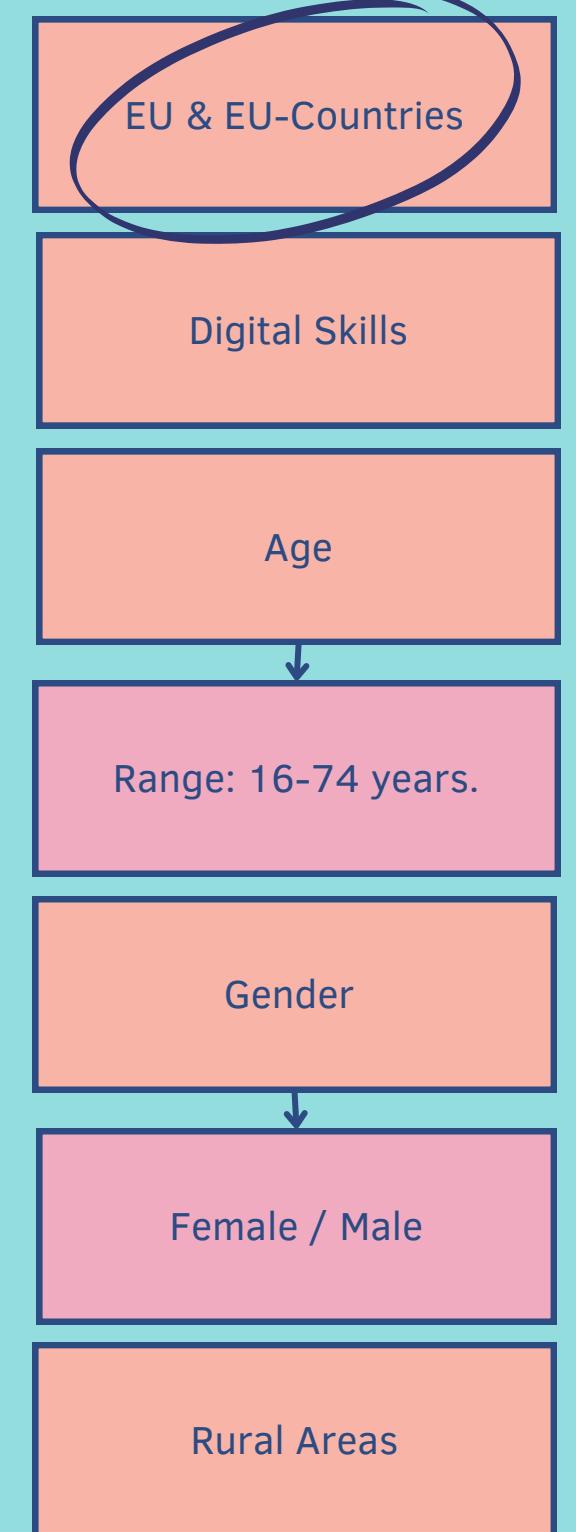
## Broadband Internet Coverage by Technology



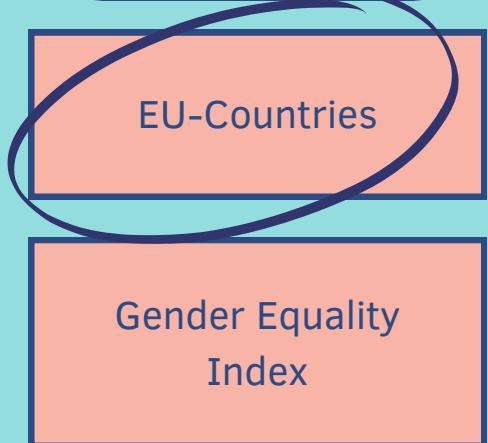
## DESI - Digital Economy and Society Index



## Individuals' Level of Digital Skills



## Gender Equality Index



## Gini Coefficient

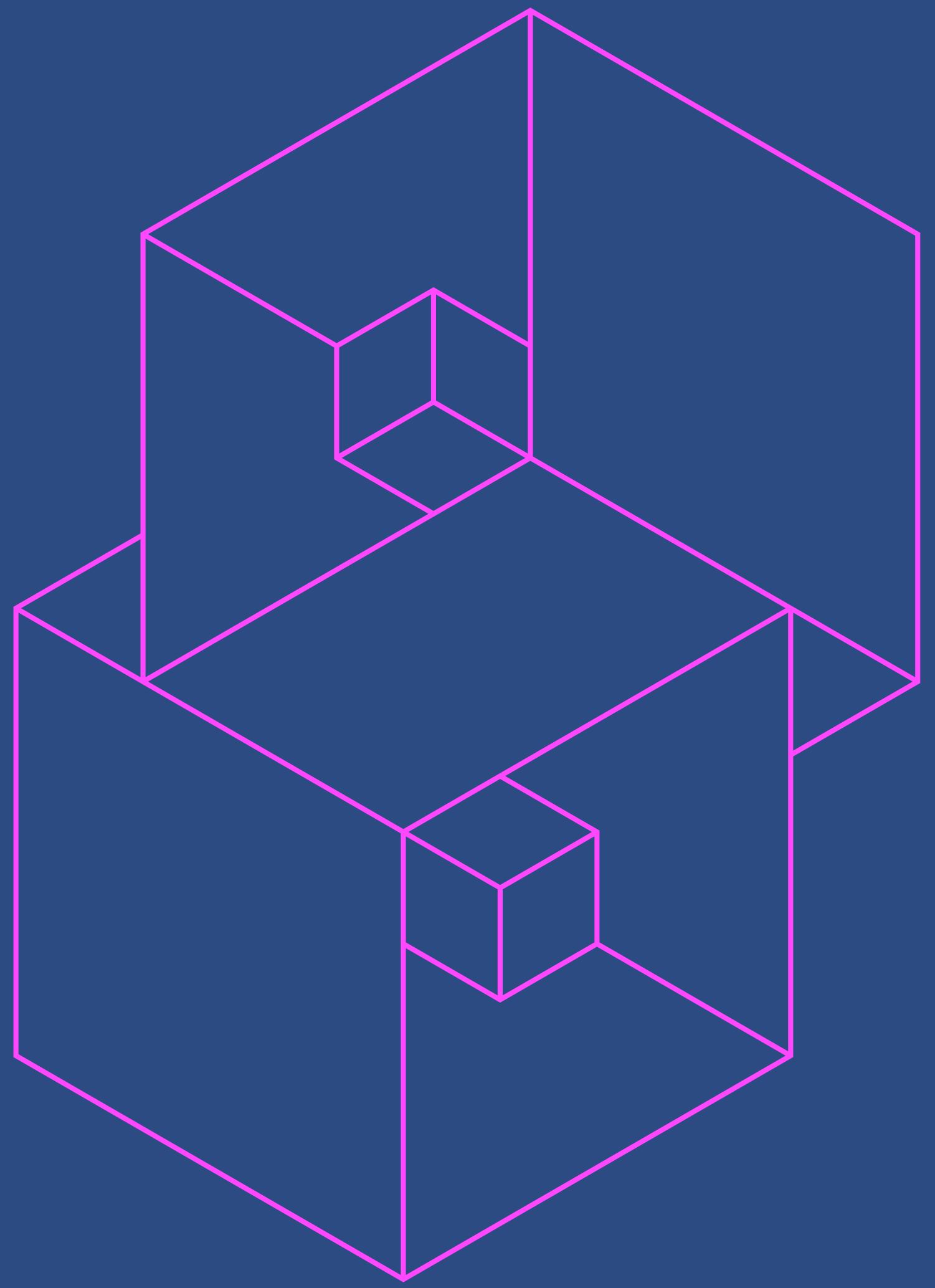


# Our Data

eurostat



# Key Findings



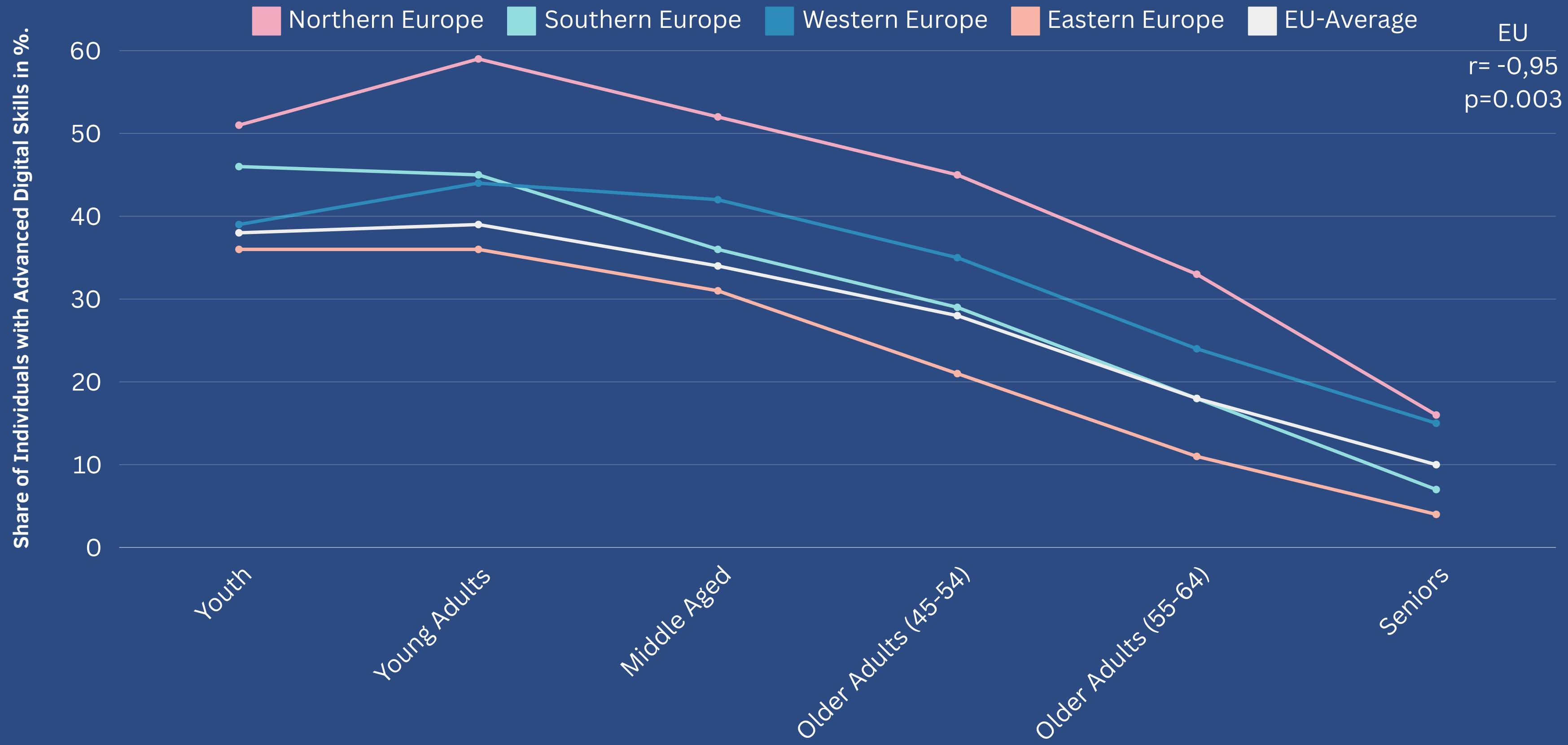
1  
Age

# Age Groups

- **Youth** (16-24 years)
- **Young Adults** (25-34 years)
- **Middle Aged** (35-44 years)
- **Older Adults - Earlier** (45-54 years)
- **Older Adults - Later** (55-64 years)
- **Seniors** (65-74 years)



# All regions of Europe follow the same trend.

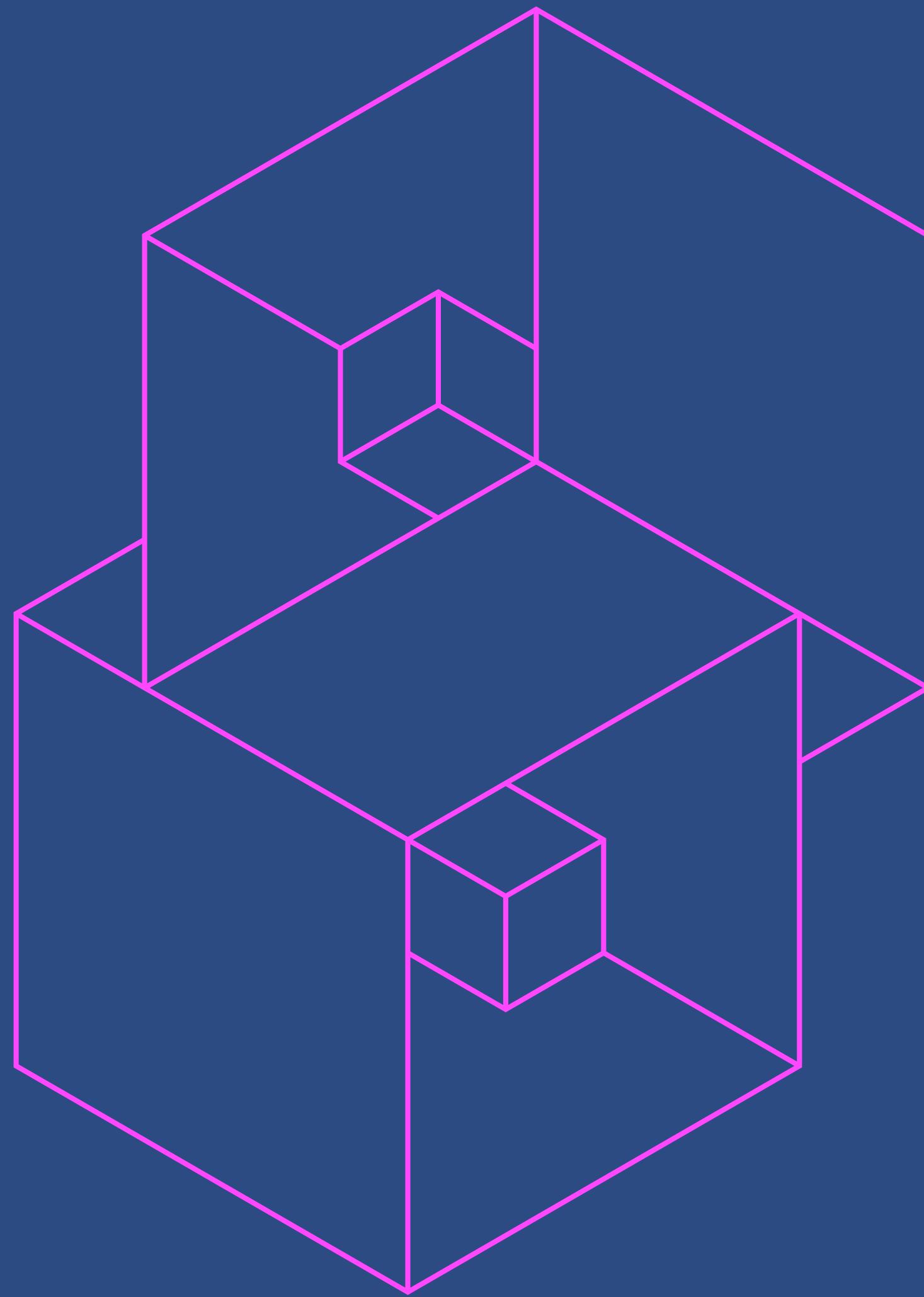


**Northern Europe:** Denmark, Finland, Sweden | **Southern Europe:** Greece, Italy, Malta, Portugal, Spain | **Western Europe:** Austria, Belgium, France, Germany, Ireland, Luxembourg, Netherlands | **Eastern Europe:** Bulgaria, Croatia, Cyprus, Czechia, Estonia, Hungary, Latvia, Lithuania, Poland, Romania, Slovakia, Slovenia.

# But the regions also show specific distributions.

	Youth	Young Adults	Middle Aged	Older Adults (45..)	Older Adults (55..)	Seniors
EU	38%	39%	34%	28%	18%	10%
Northern Europe	42%	53%	43%	40%	30%	15%
Eastern Europe	36%	36%	31%	21%	11%	4%
Western Europe	34%	38%	34%	27%	19%	11%
Southern Europe	46%	45%	36%	29%	18%	7%

**Most skilled group in total:** Young adults aged 25-34yo. in Northern Europe.  
**Least skilled group between 25-64yo:** Older adults (55-64) in Eastern Europe.

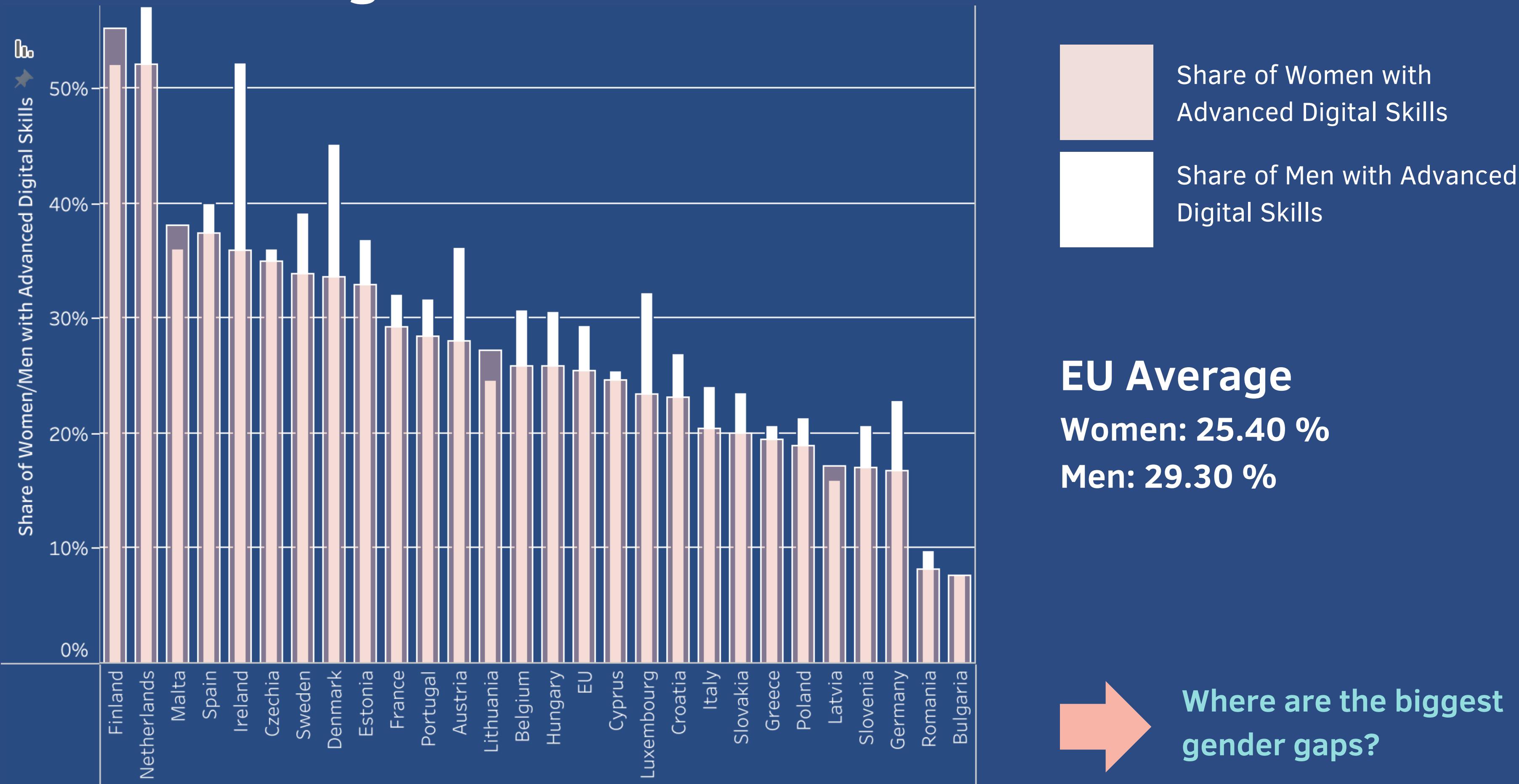


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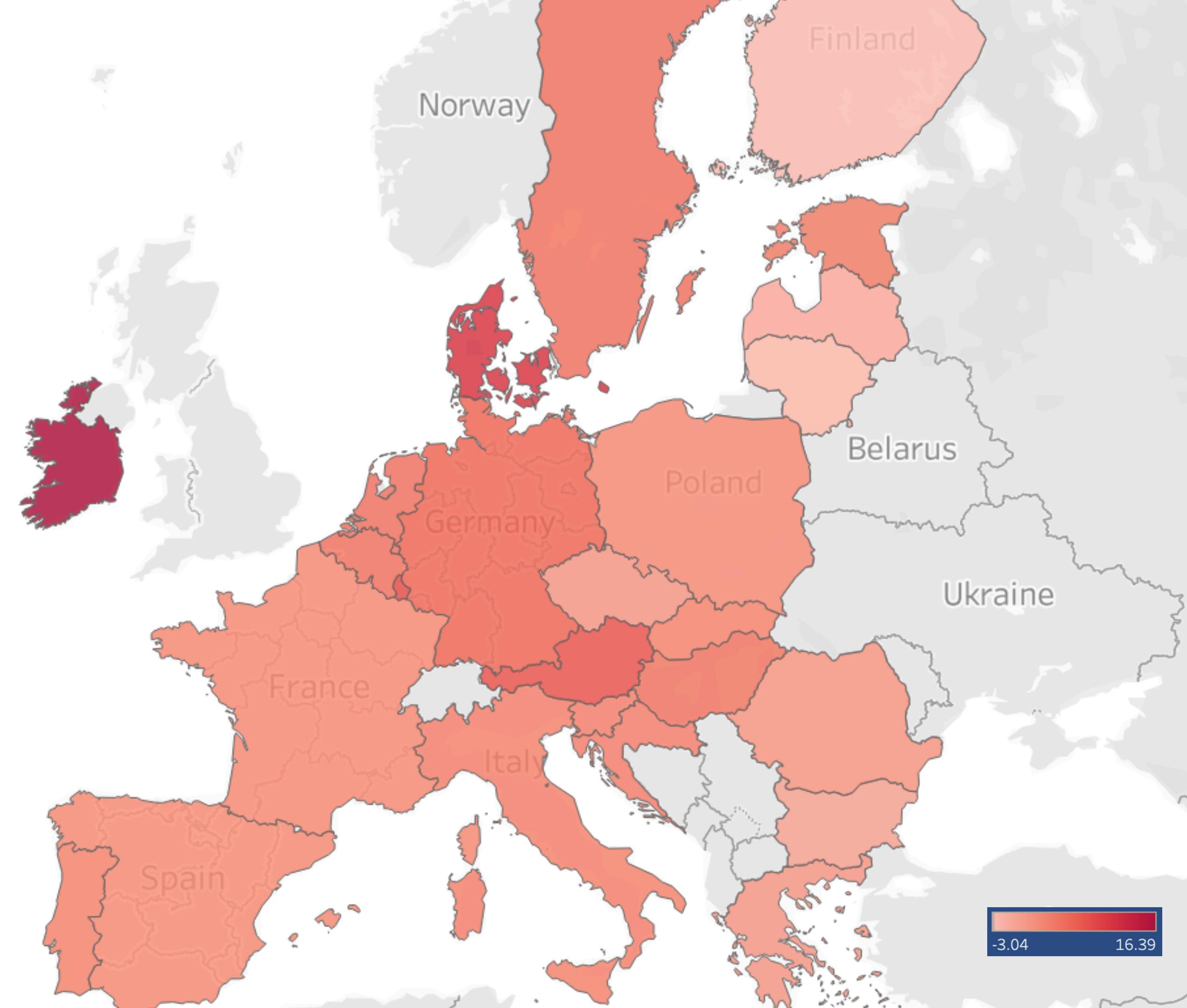
**Gender  
Equality**

# Advanced Digital Skills in the EU



# Gender Gap in Advanced Digital Skills in Europe

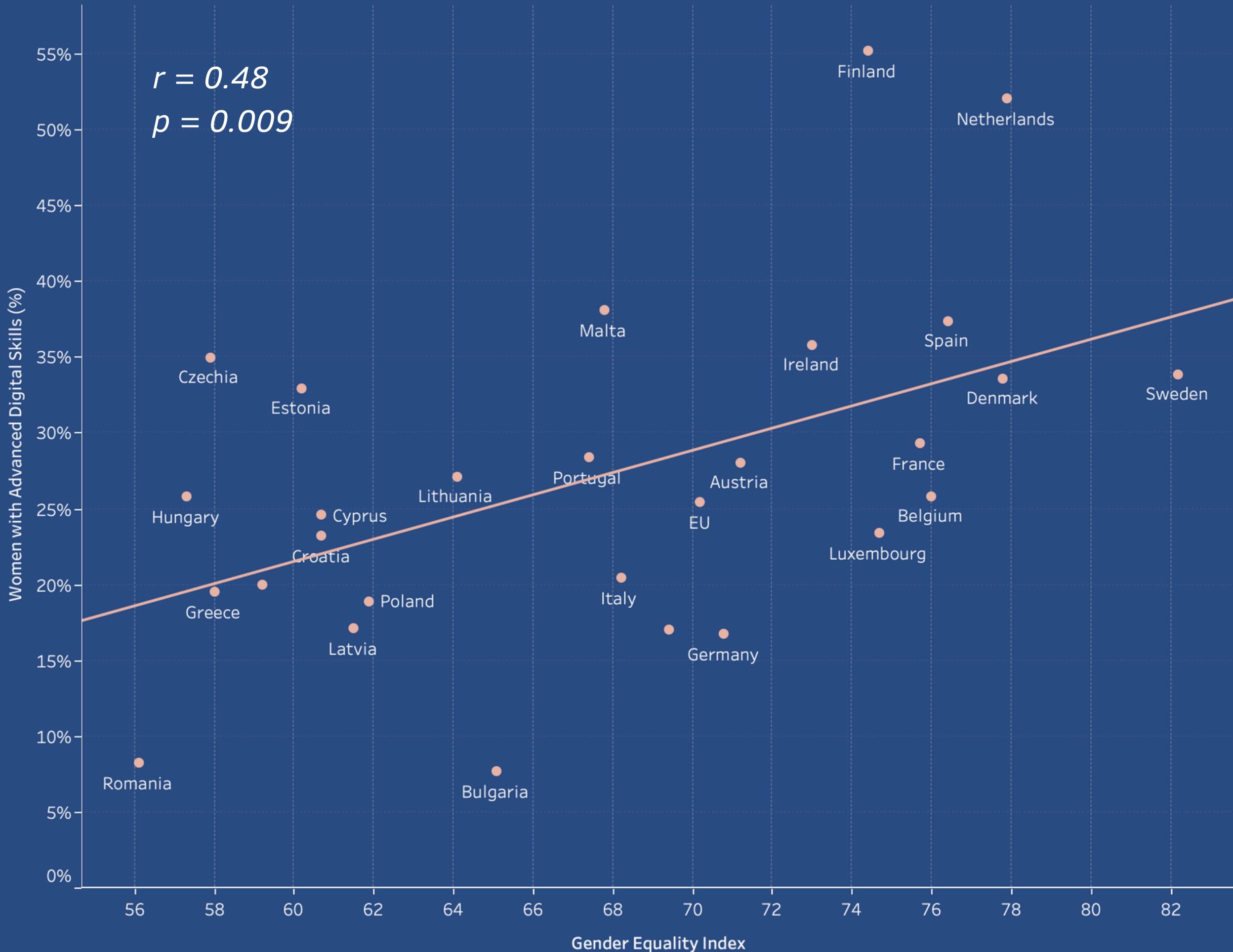
Biggests gaps

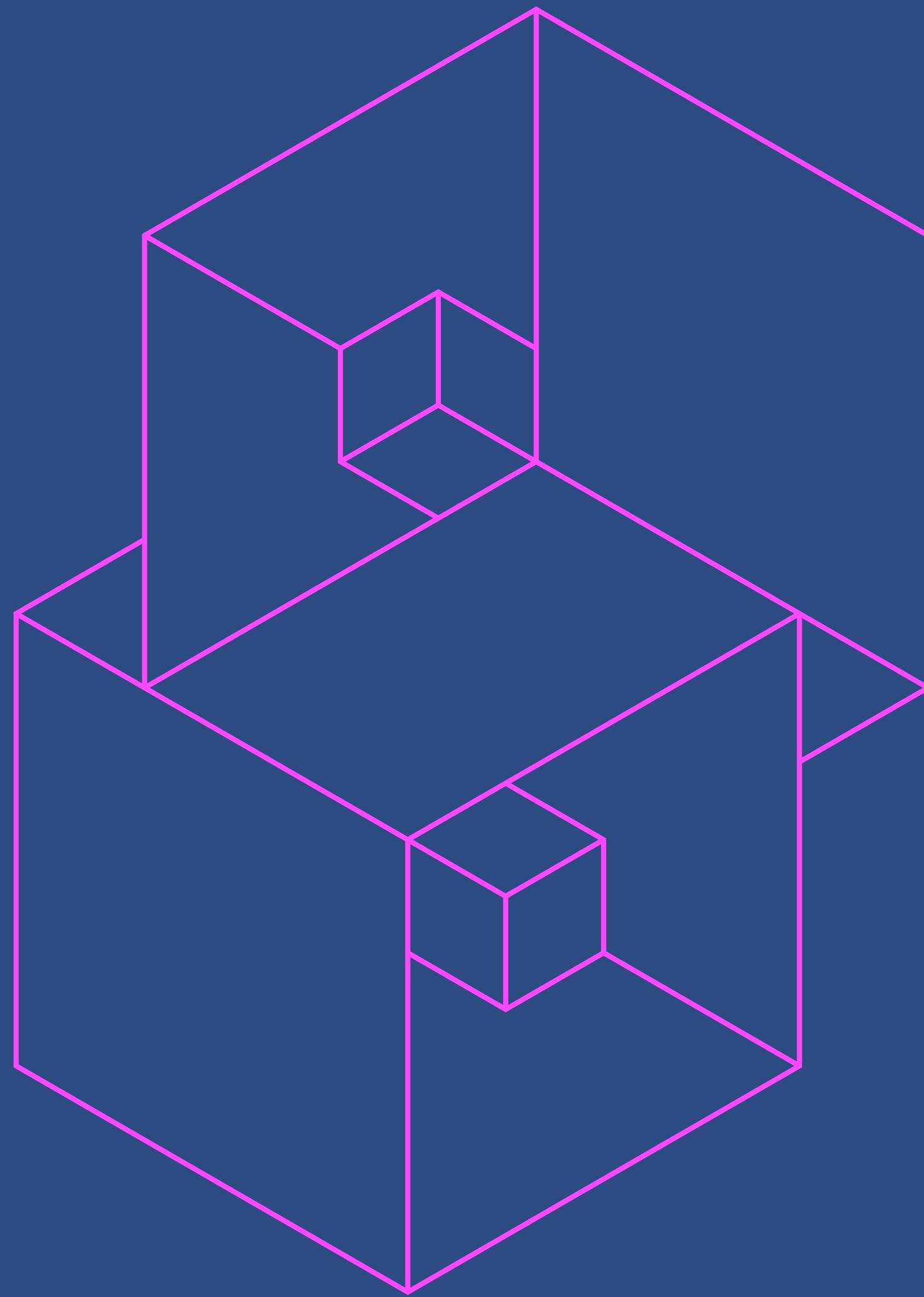


# Moderate positive Relationship between Gender Equality and Advanced Digital Skills

The **Gender Equality Index**  
measures gender equality on a  
scale from 0 to 100.

100 = full equality between men  
and women





3  

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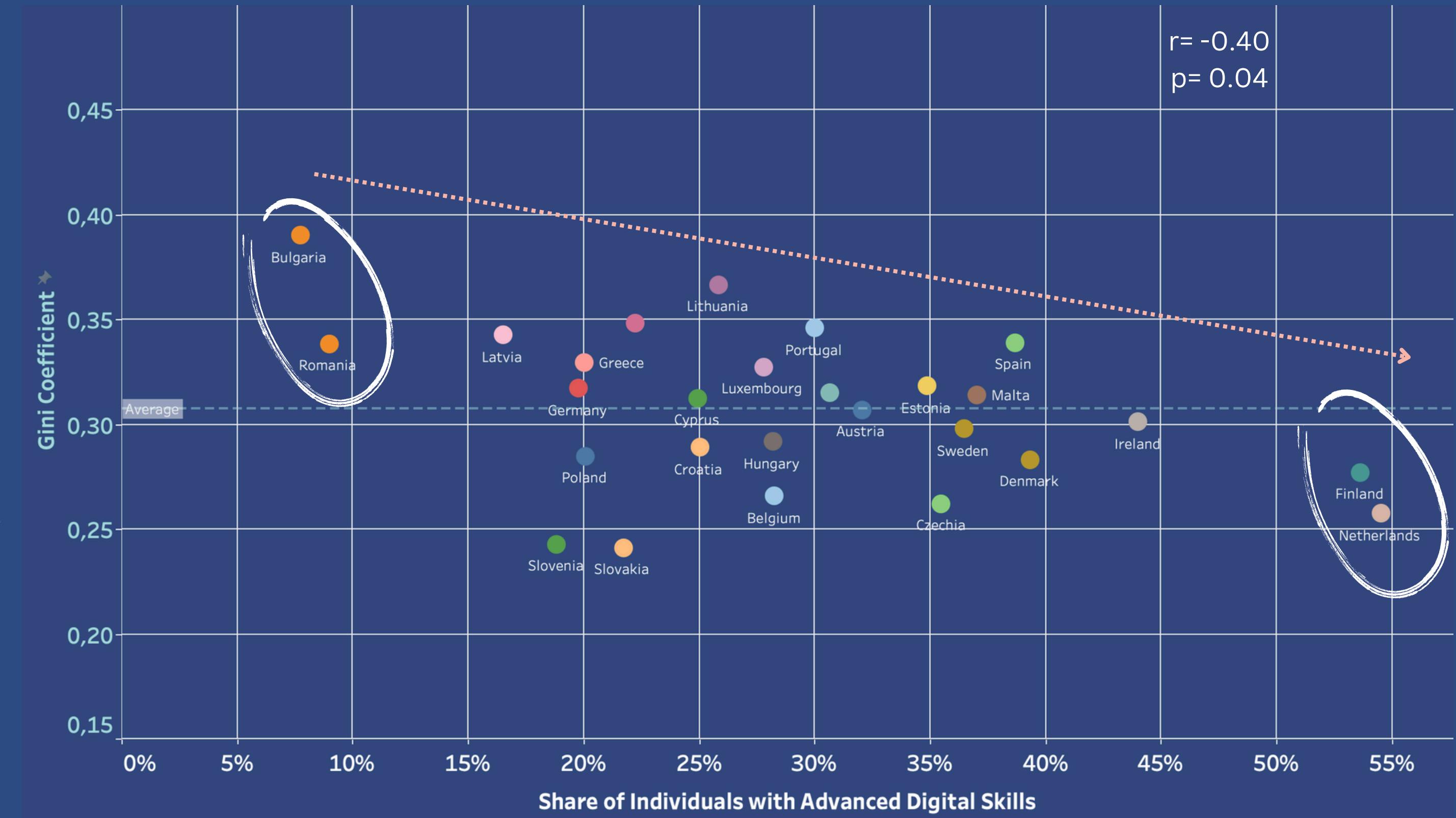
**Social  
Inequality**

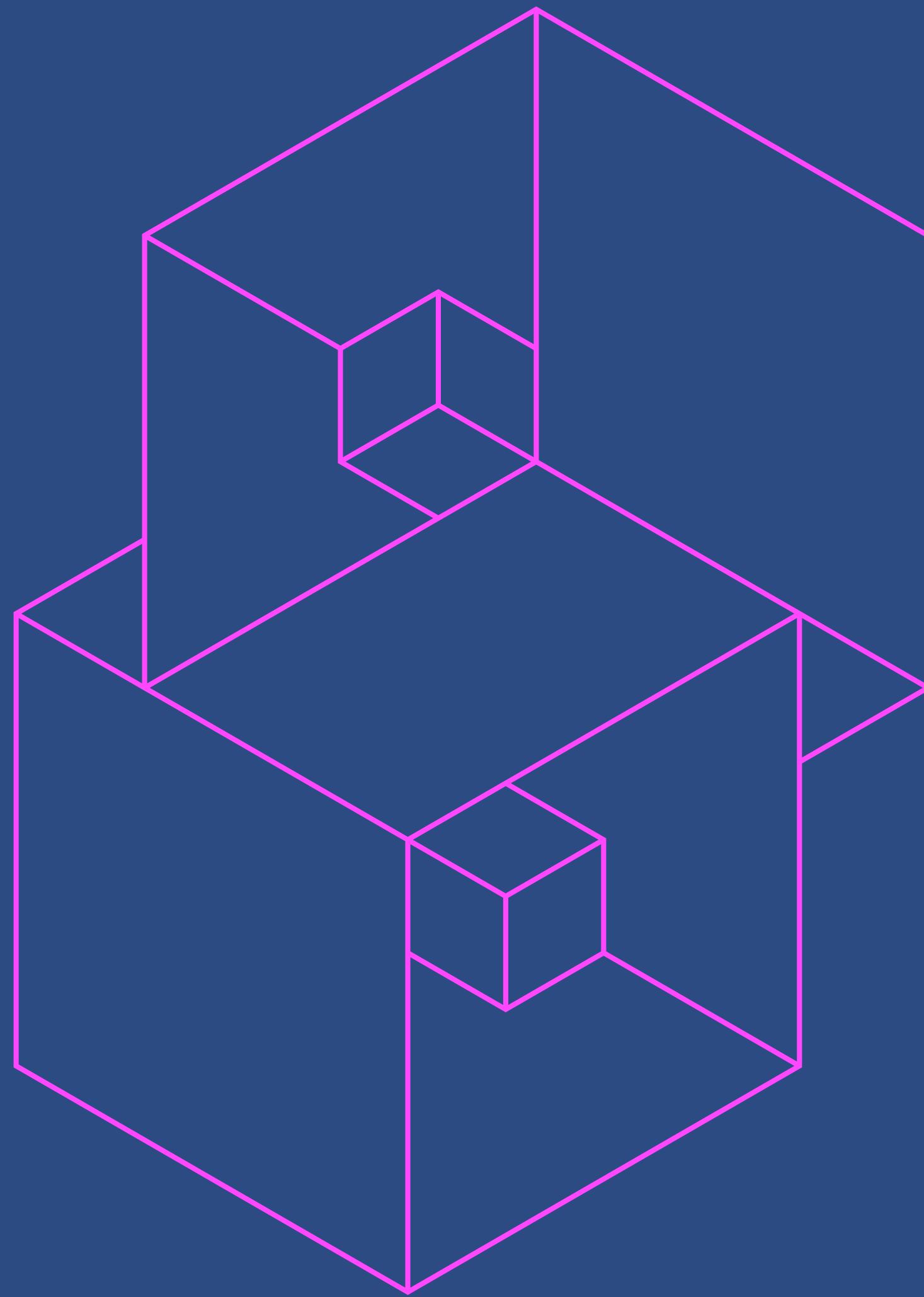
# There is a significant moderate negative relationship between income inequality and advanced digital skills.

The *Gini Coefficient* measures income inequality on a scale from 0 to 1:

1 = very unequal

0 = very equal



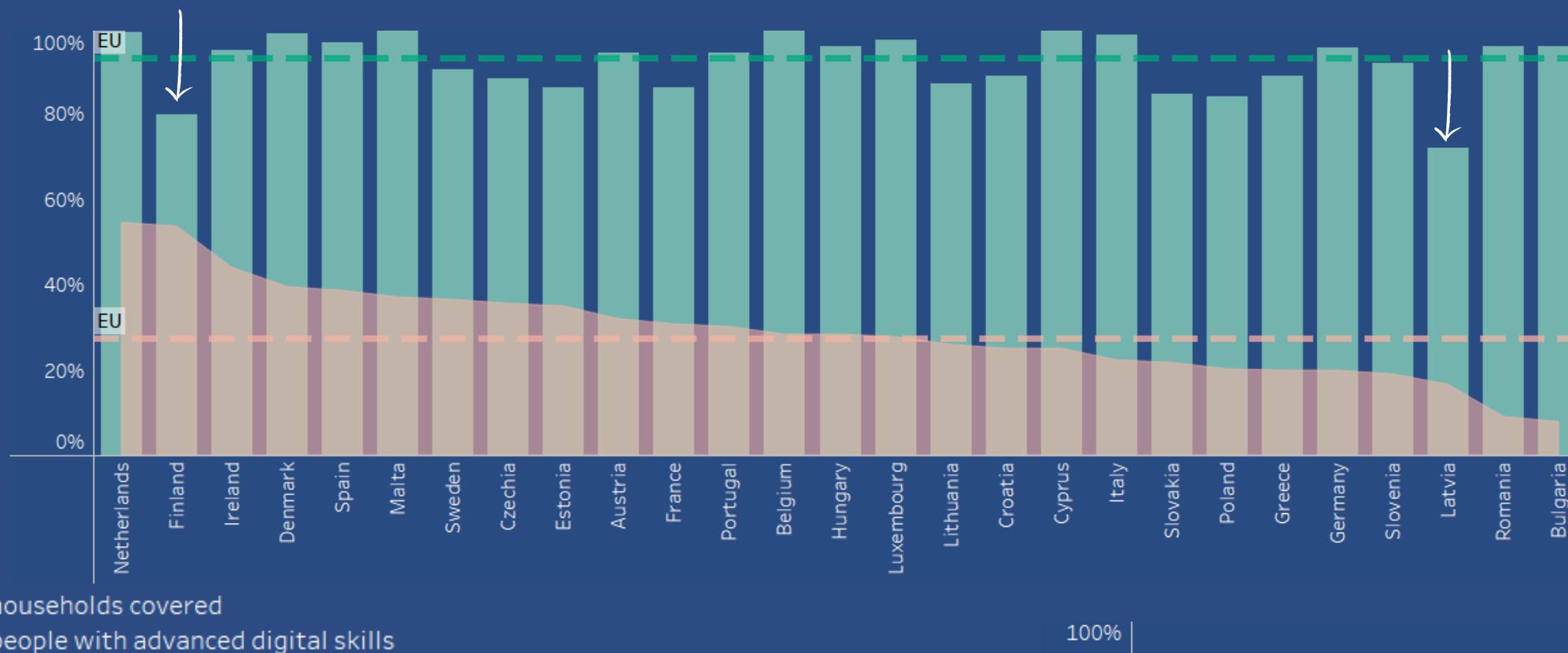


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# Internet infrastructure

# No significant correlation between internet coverage and advanced digital skills.

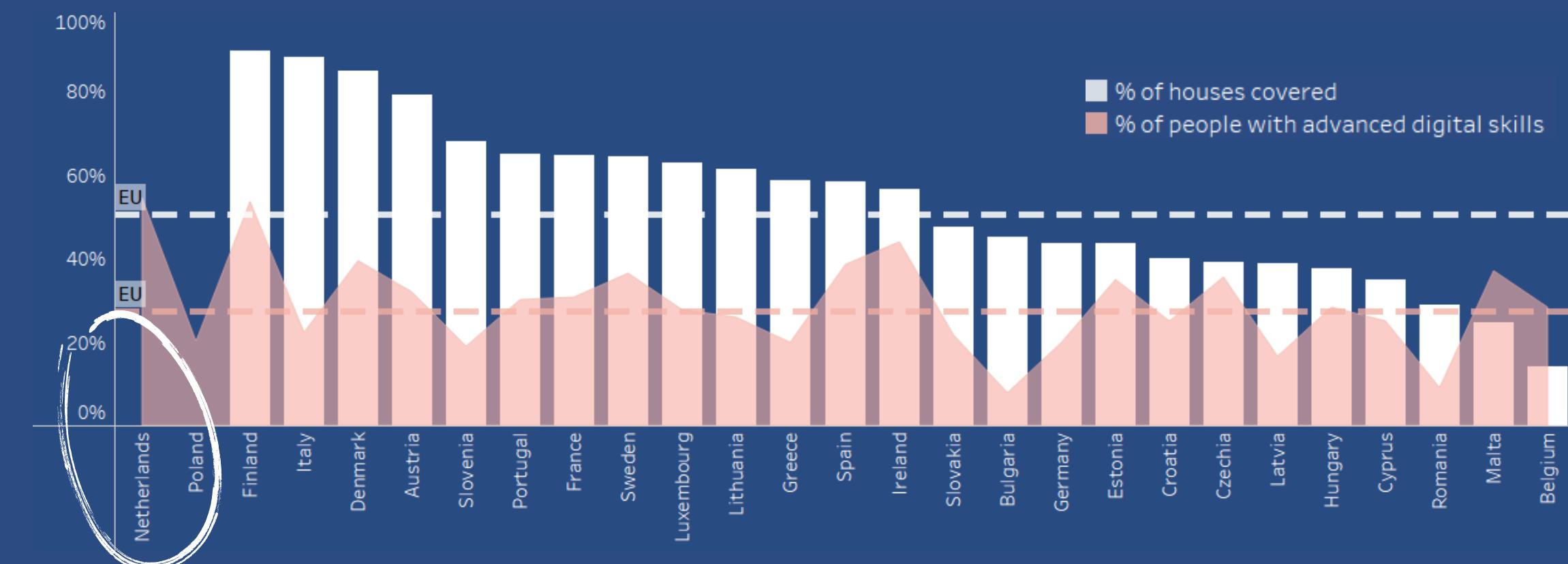


## Fiber&Cable

- **2030 Goal: 100% coverage**
- **Status: 93% coverage | Rural: 80%**
- Finland and Latvia fall behind (-80%)

## 5G\*

- **2030 Goal: 100% coverage**
- **Status: 50% | Rural: 15%**
- 52% of EU fall behind average.
- Netherlands and Poland: none



# Conclusion

ADVANCED DIGITAL SKILLS SHOW...

Our analysis suggests that countries with strong gender equality, younger populations, and balanced income distribution are more likely to exhibit higher digital skills.

A Significant Strong Relationship with

- Age.

A Significant Moderate Relationship with

- Gender Equality.
- Income Inequality.

No Significant Relationship with

- Internet Infrastructure.



# Thank you for your attention.

We hope you learned something new!

