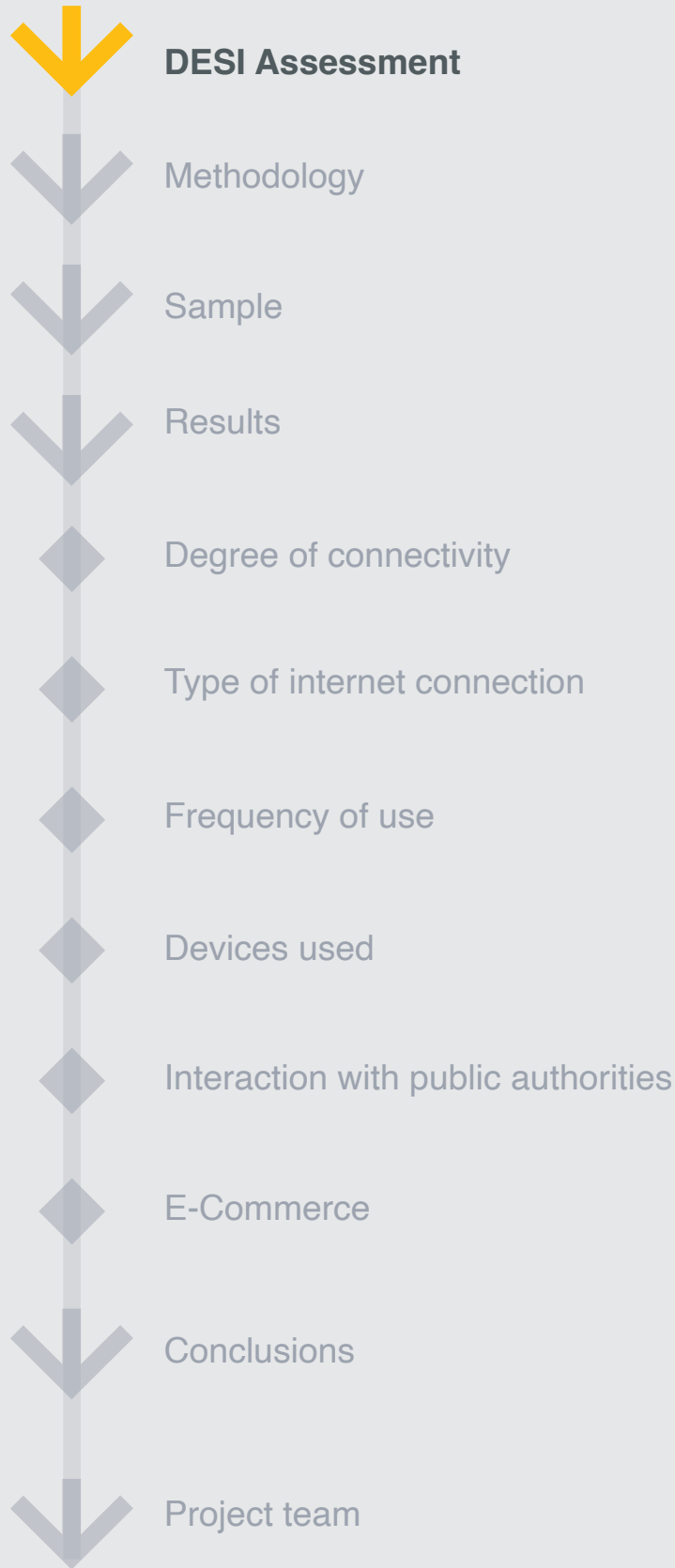


An aerial photograph of Timișoara, Romania, during a golden sunset. The sun is a large, bright orb in the upper center, casting a warm glow over the city. The Danube River flows through the lower left, with several boats visible. A large, lush green park occupies the center of the image. To the right, the city's skyline is visible, featuring a prominent church with a tall, ornate spire. A large, stylized graphic of a blue star with yellow arrowheads pointing outwards is overlaid on the left side of the image.

# Barometer of the Quality of Life in Timișoara DESI Report 2022

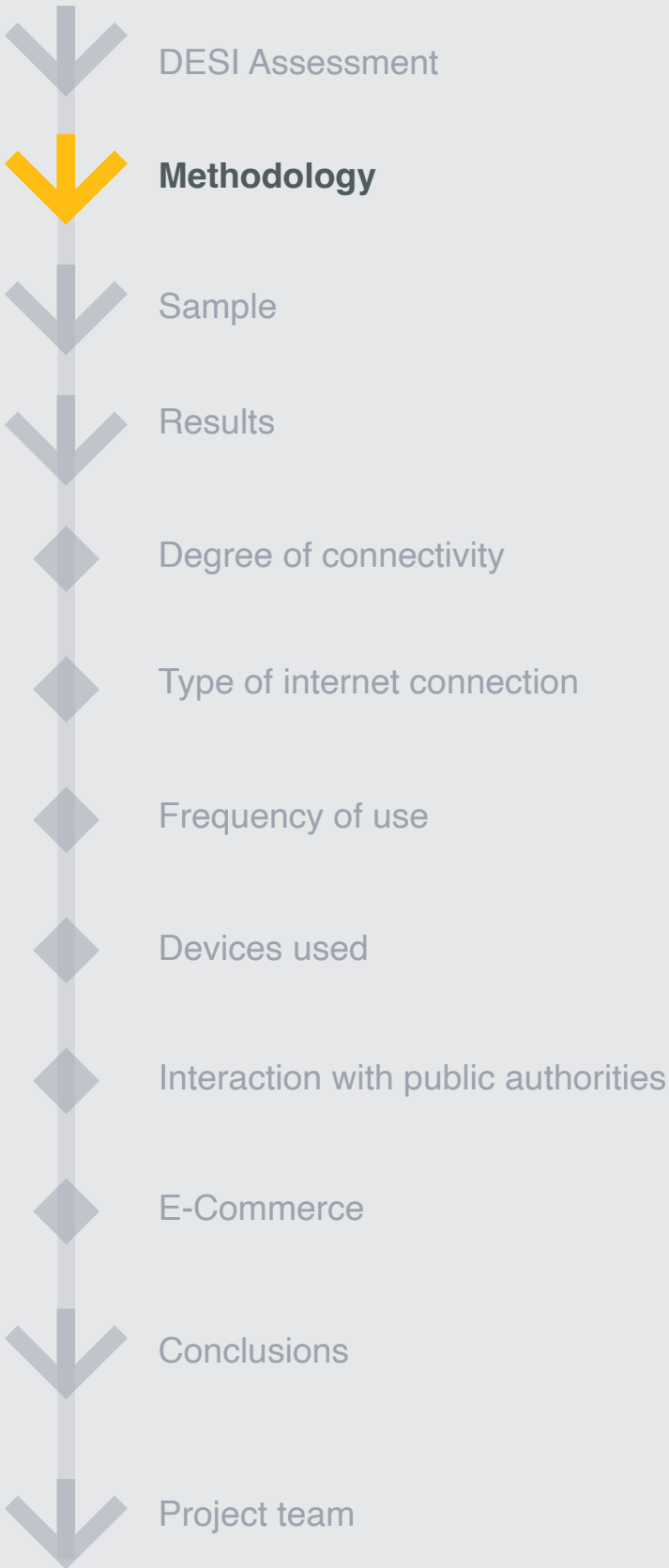


# Assessment of the Digital Economy and Society Index (DESI)



- Identify the degree of connectivity at the level of Timișoara Municipality (Q23-Q24)
- Identify the frequency of the use of internet at the level of Timișoara Municipality (Q25-Q28)
- Identify the degree of on-line interaction with public authorities (Q29-Q30)
- Identify the behavior in terms of use of e-commerce (Q31-Q33)

# Methodology



Research method:

**public opinion survey**

Investigated universe:

**Persons of age 18+ from Timișoara Municipality**

Volume of the sample:

**1,413 persons**

Means to collect data:

**telephone, face2face, on-line.**

Margin of error:

**+/- 2,6%**

Confidence interval:

**95%**

Period of data collection:

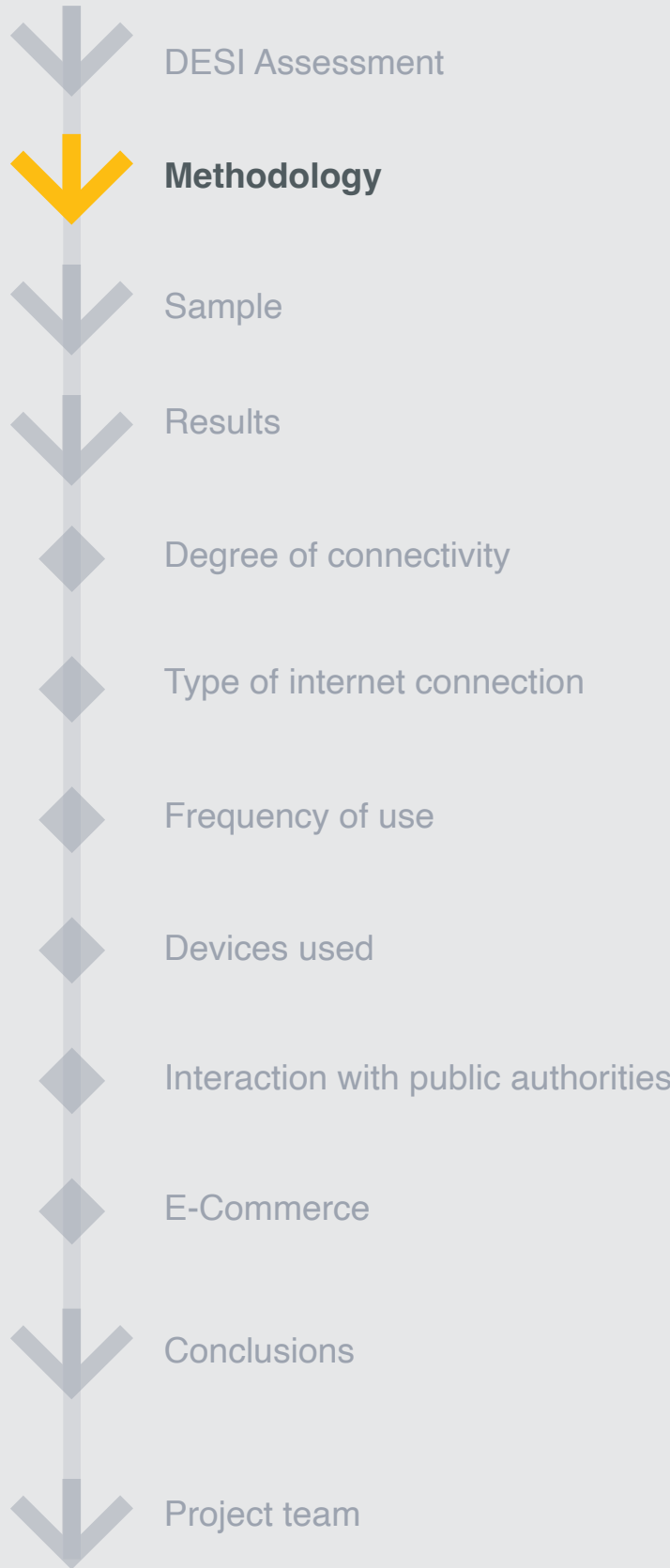
**November 20, 2021 – January 23, 2022**

Type of sample:

**Stratified sampling, depending on gender and age**

# Methodology

## Principles of the analysis



**Reporting the value for each dimension**



**Comparing the resulting values with DESI – EU and Romania, EU urban areas and Romanian urban areas**

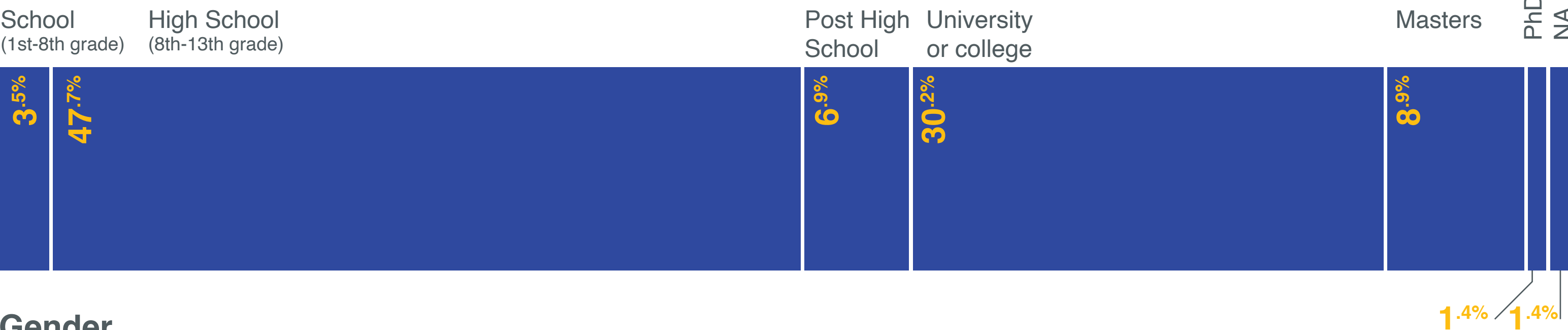


**Assessment by reference to social and demographic characteristics of respondents: gender, age, education, ethnicity.**

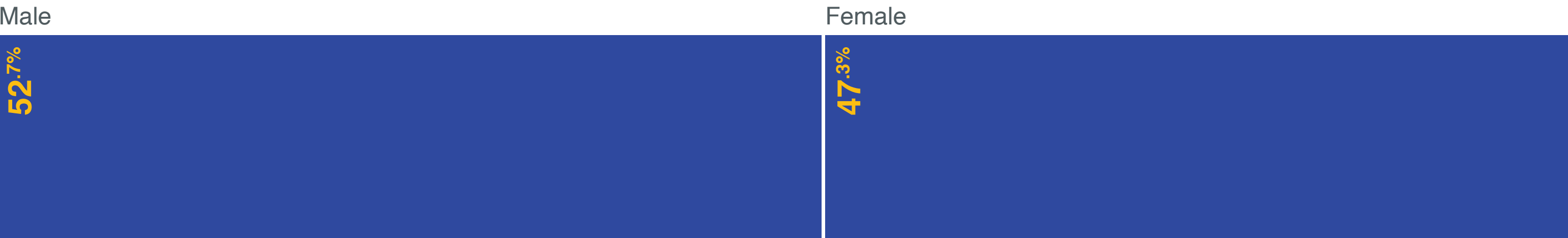
# Sample

↓	DESI Assessment
↓	Methodology
↓	<b>Sample</b>
↓	Results
◆	Degree of connectivity
◆	Type of internet connection
◆	Frequency of use
◆	Devices used
◆	Interaction with public authorities
◆	E-Commerce
↓	Conclusions
↓	Project team

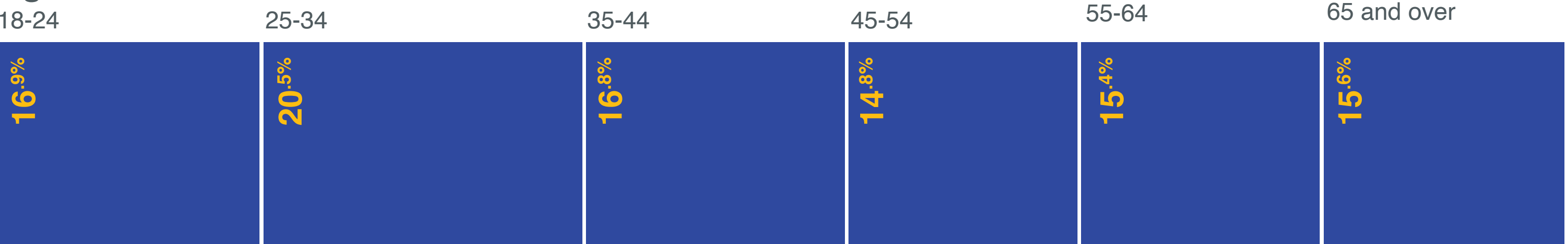
## Education



## Gender



## Age



# Results

↓	DESI Assessment
↓	Methodology
↓	Sample
↓	<b>Results</b>
◆	Degree of connectivity
◆	Type of internet connection
◆	Frequency of use
◆	Devices used
◆	Interaction with public authorities
◆	E-Commerce
↓	Conclusions
↓	Project team



**Degree of connectivity at the level of Timișoara Municipality**



**Frequency of the use of internet at the level of Timișoara Municipality**



**Degree of on-line interaction with public authorities**

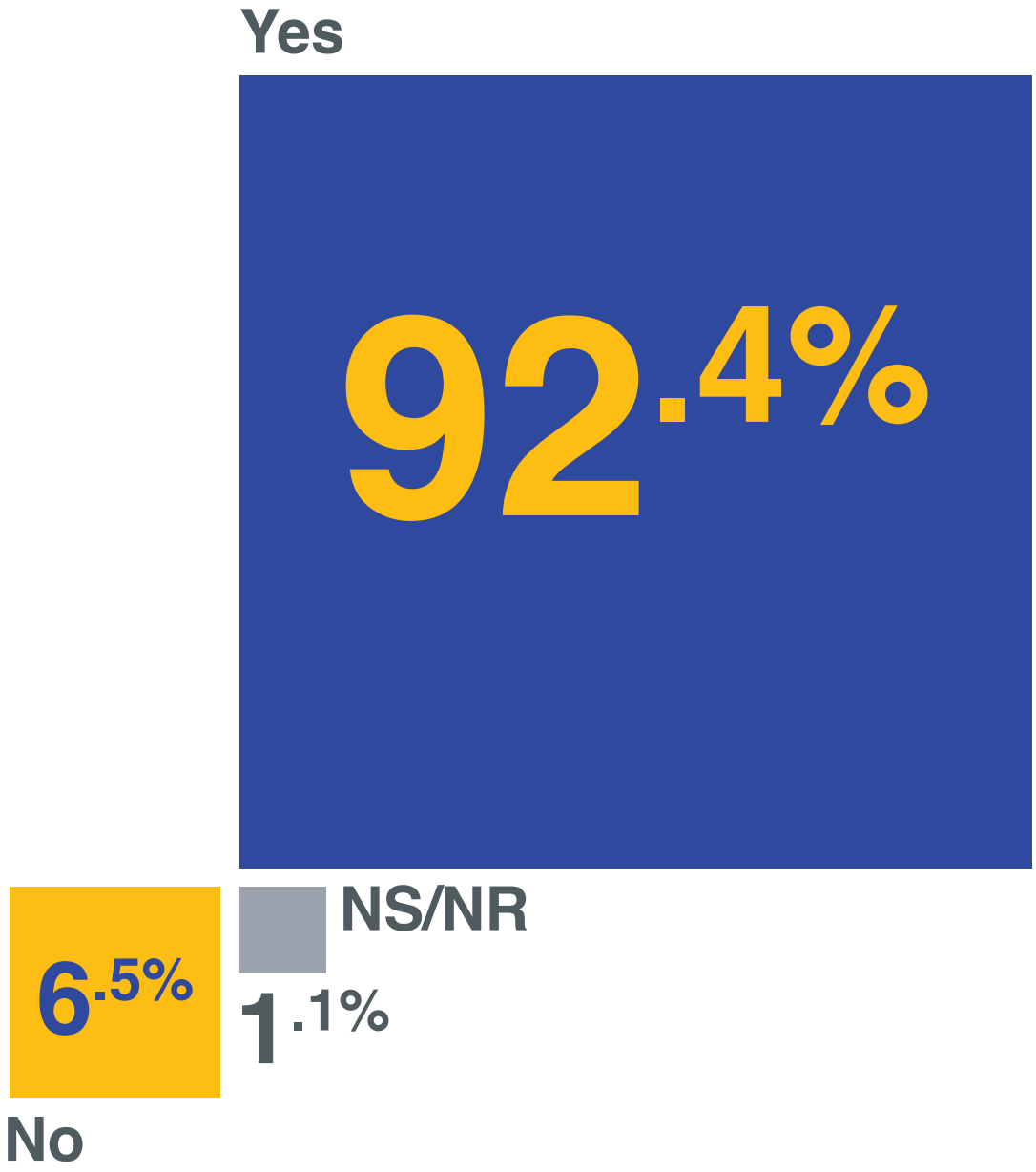


**Behavior in terms of use of e-commerce**

# Degree of connectivity

- DESI Assessment
- Methodology
- Sample
- Results**
- Degree of connectivity**
- Type of internet connection
- Frequency of use
- Devices used
- Interaction with public authorities
- E-Commerce
- Conclusions
- Project team

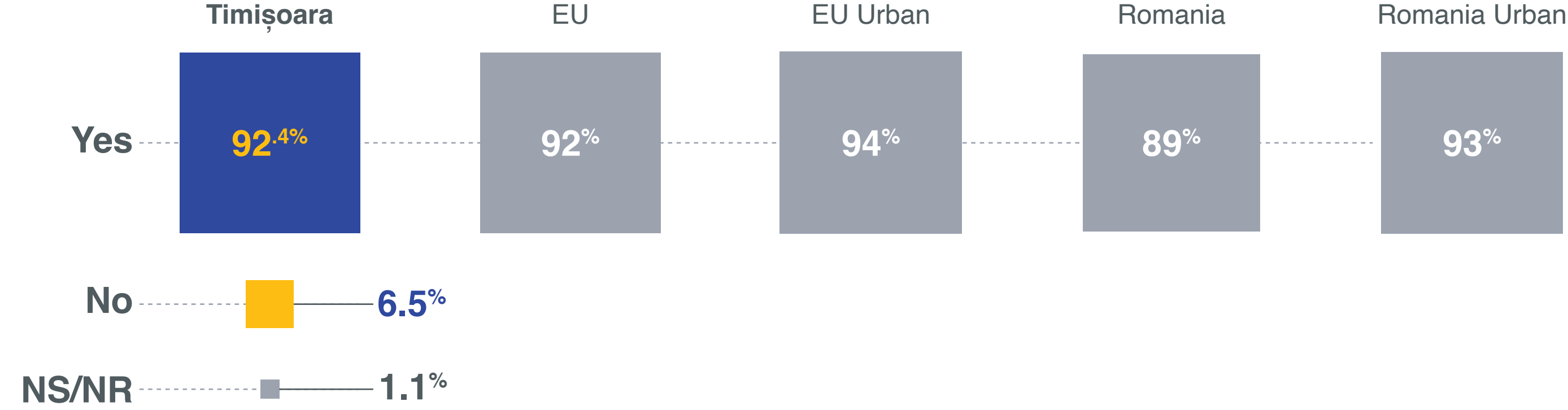
Do you or anyone in your household have access to the internet at home?



# Degree of connectivity

## Timișoara vs Romania vs EU

- DESI Assessment
- Methodology
- Sample
- Results**
- Degree of connectivity**
- Type of internet connection
- Frequency of use
- Devices used
- Interaction with public authorities
- E-Commerce
- Conclusions
- Project team

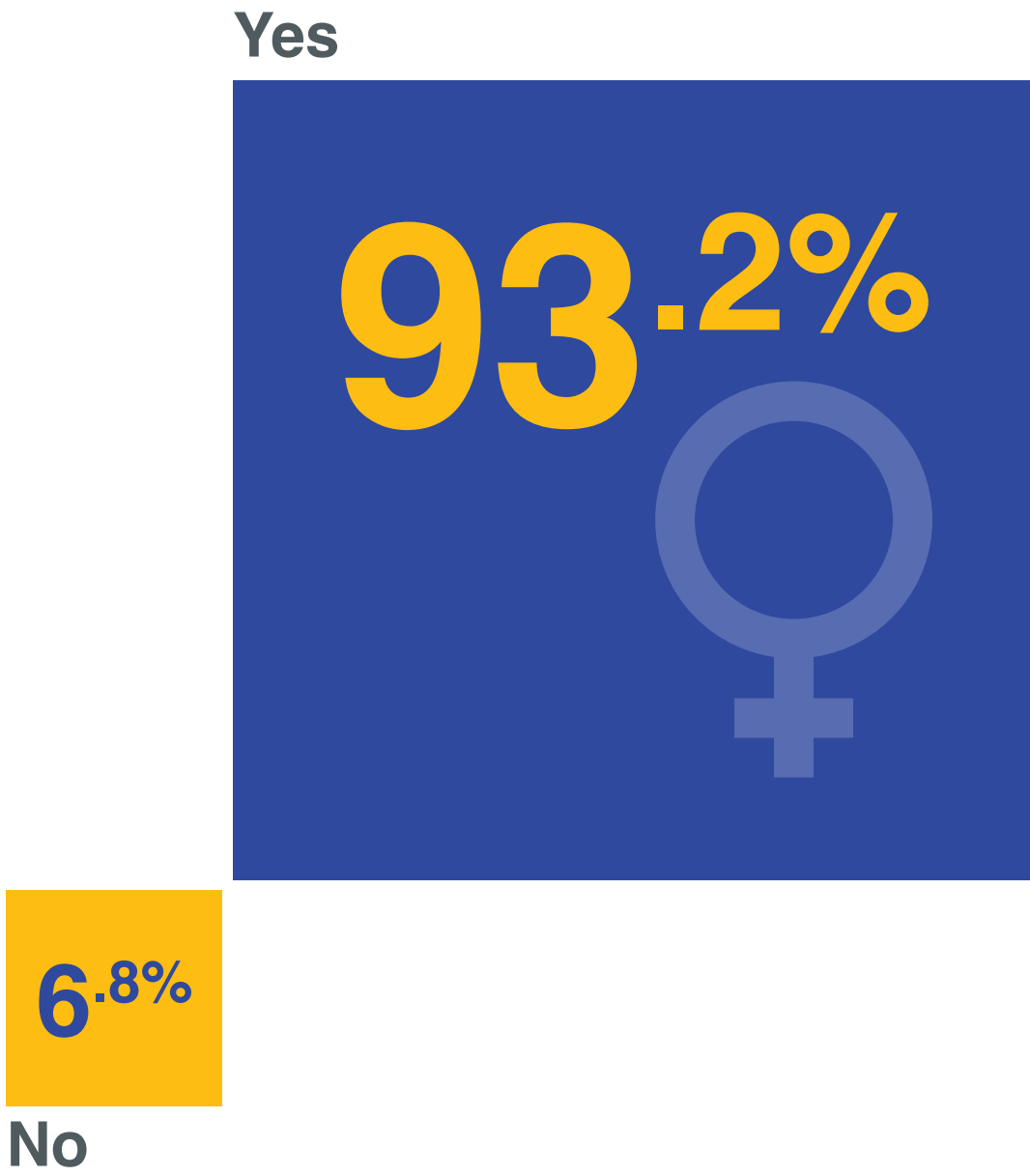
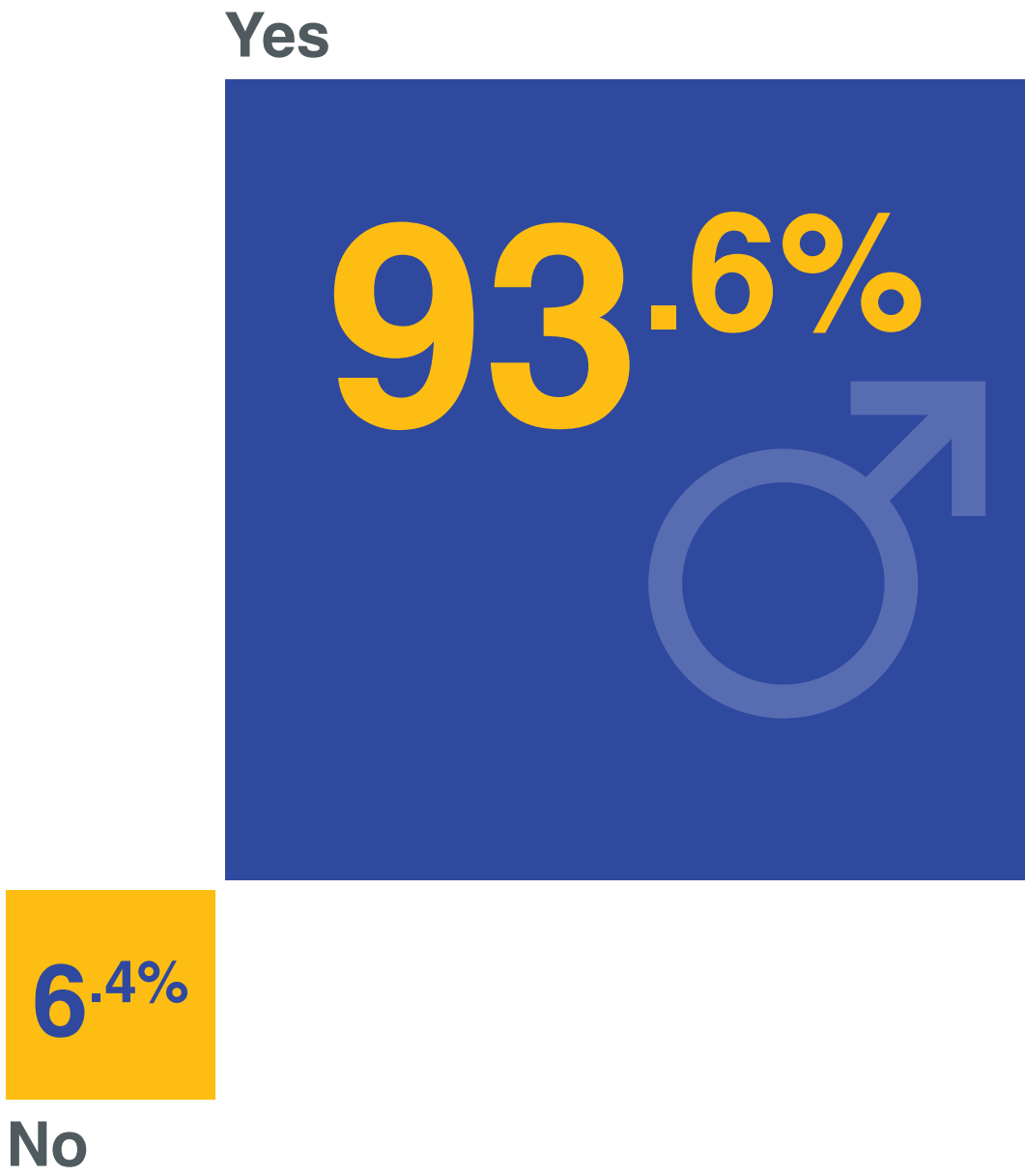




# Degree of connectivity

## By gender

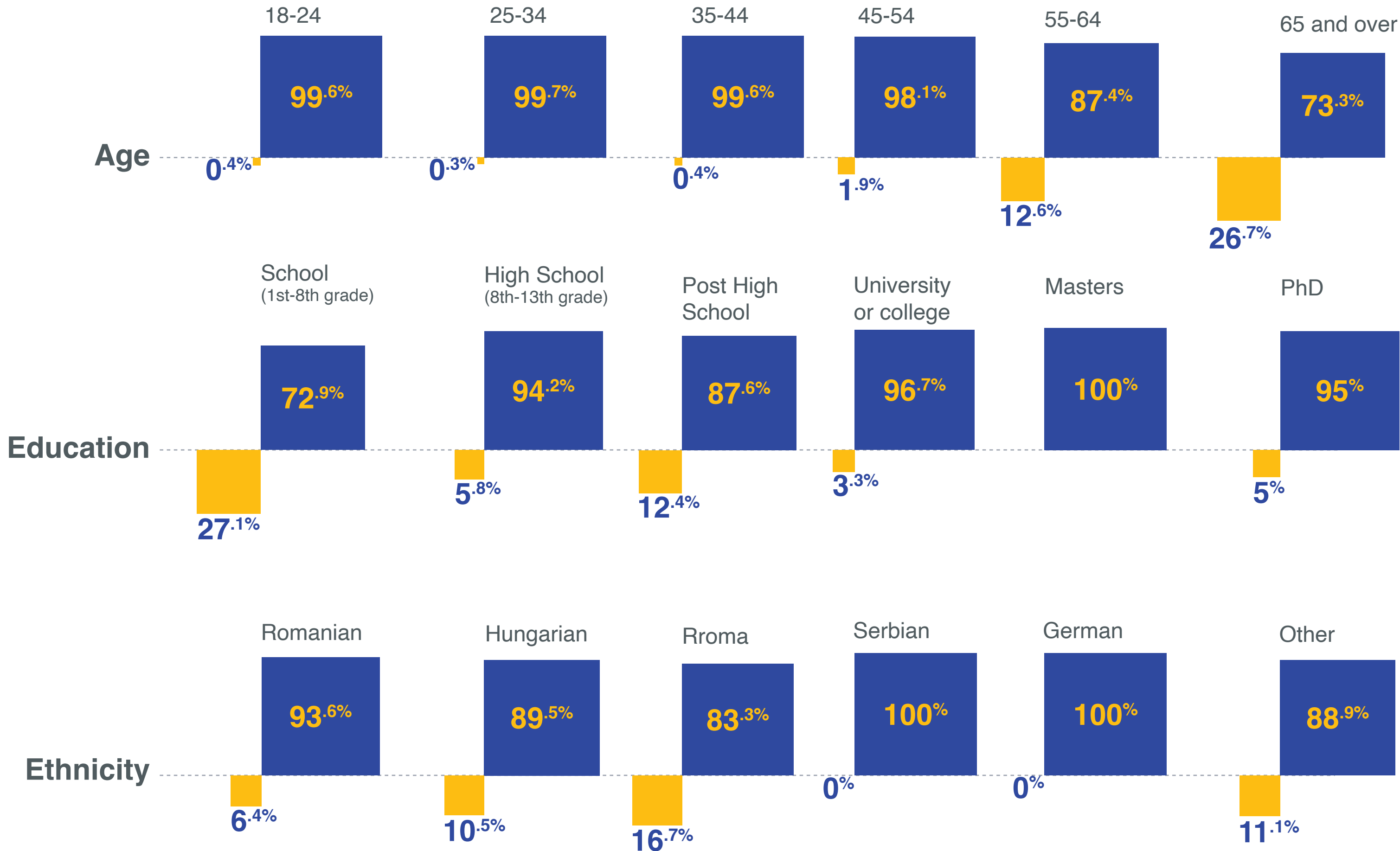
- DESI Assessment
- Methodology
- Sample
- Results**
- Degree of connectivity
- Type of internet connection
- Frequency of use
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- E-Commerce
- Conclusions
- Project team



# Degree of connectivity

## By age, education and ethnicity

- DESI Assessment
- Methodology
- Sample
- Results**
- Degree of connectivity
- Type of internet connection
- Frequency of use
- Devices used
- Interaction with public authorities
- E-Commerce
- Conclusions
- Project team





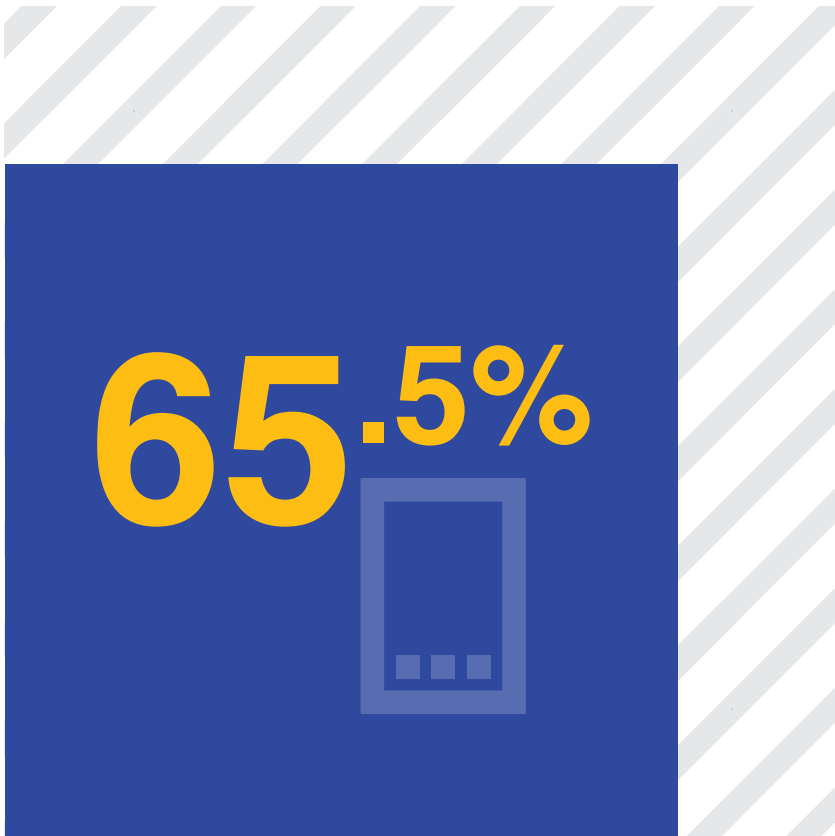
# Type of internet connection

- ↓ DESI Assessment
- ↓ Methodology
- ↓ Sample
- ↓ Results**
- ◆ Degree of connectivity
- ◆ Type of internet connection**
- ◆ Frequency of use
- ◆ Devices used
- ◆ Interaction with public authorities
- ◆ E-Commerce
- ↓ Conclusions
- ↓ Project team

## Types of internet connections used at home



Fixed broadband connections

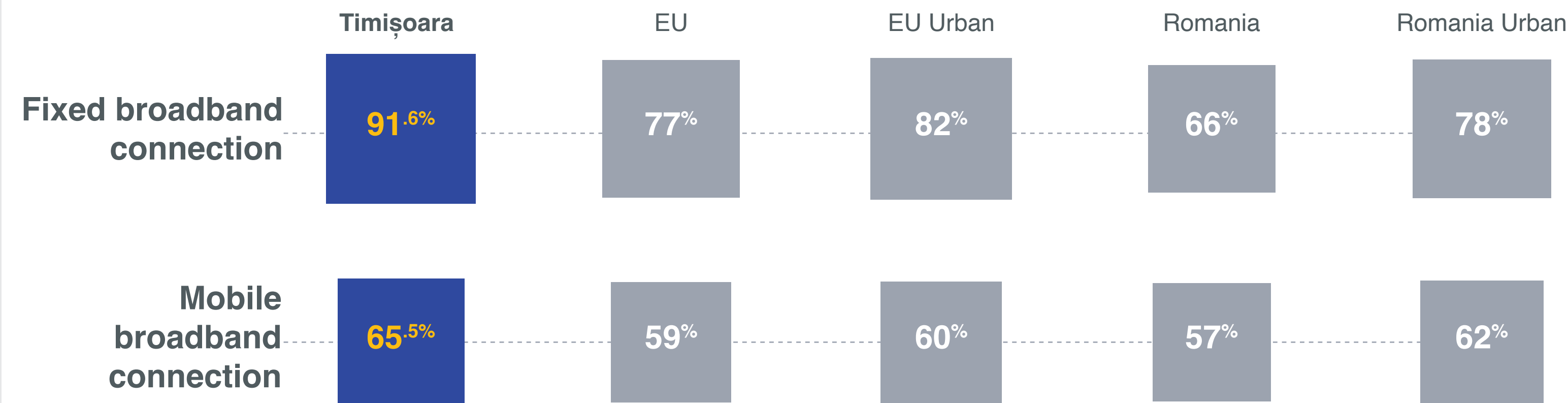


Mobile broadband connections

# Type of internet connection

## Timișoara vs Romania vs EU

- DESI Assessment
- Methodology
- Sample
- Results**
- Degree of connectivity
- Type of internet connection
- Frequency of use
- Devices used
- Interaction with public authorities
- E-Commerce
- Conclusions
- Project team

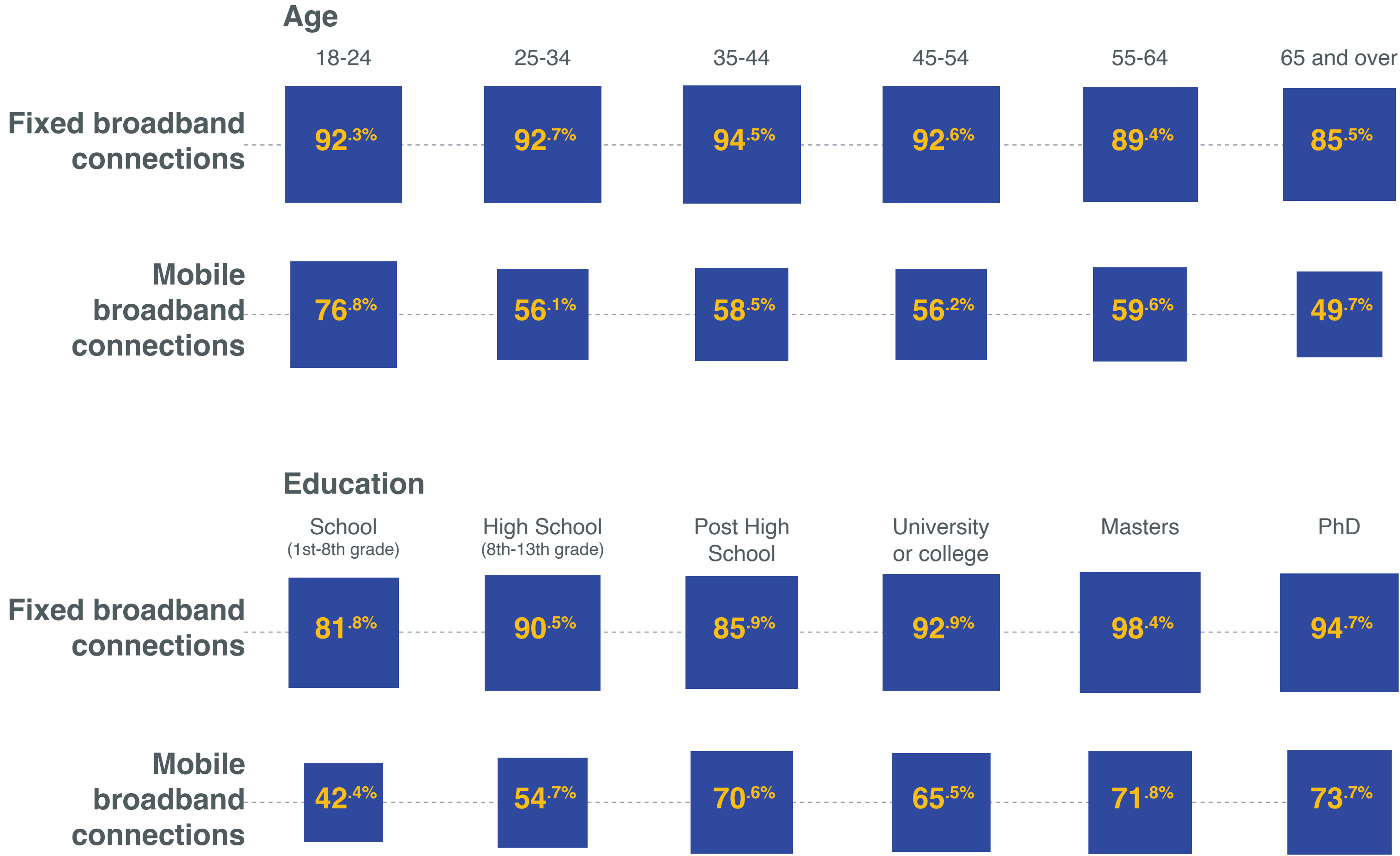




# Type of internet connection

## By age group and education

- DESI Assessment
- Methodology
- Sample
- Results**
- Degree of connectivity
- Type of internet connection
- Frequency of use
- Devices used
- Interaction with public authorities
- E-Commerce
- Conclusions
- Project team

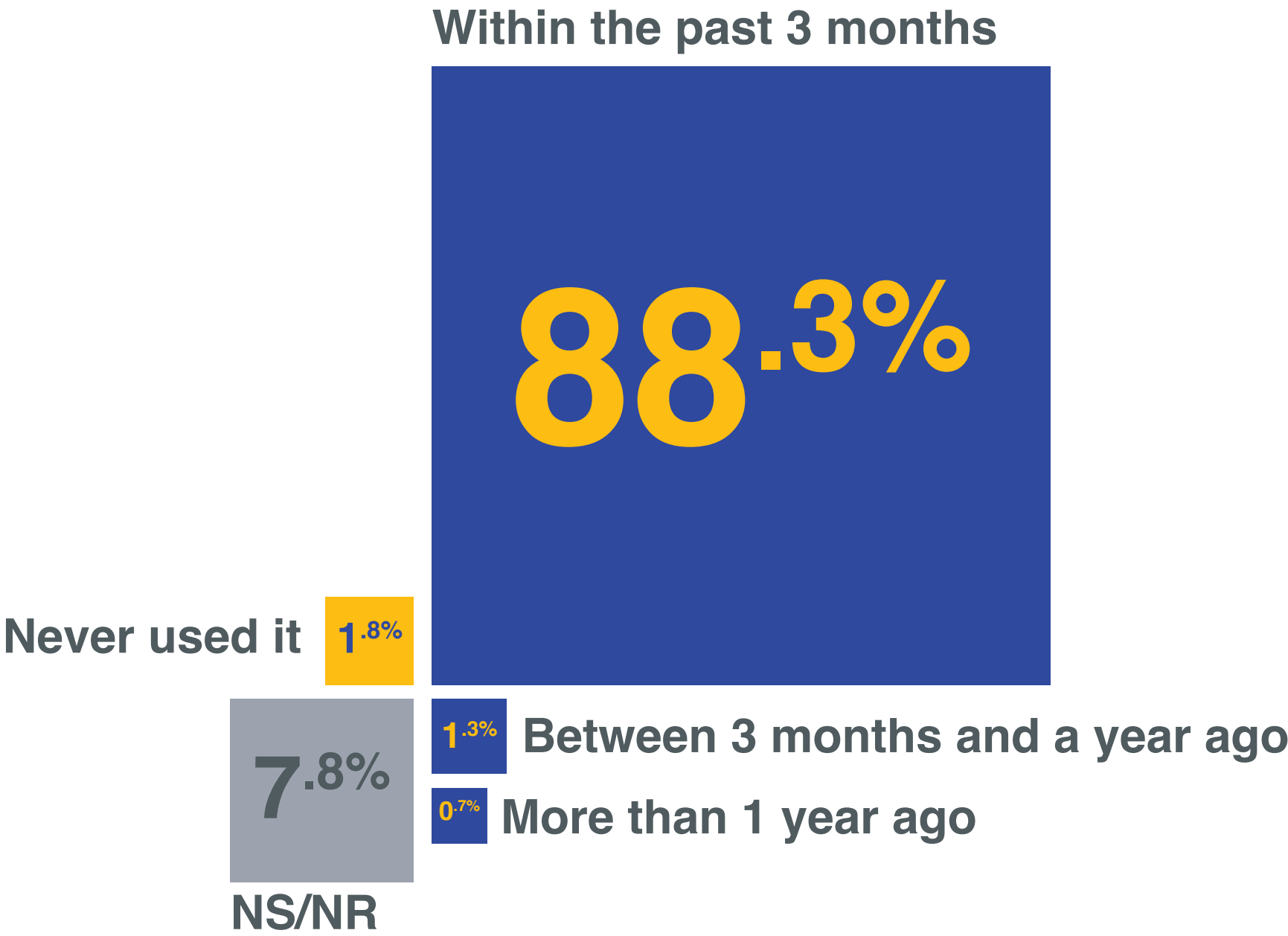


# Frequency of use

## When did you last use the internet?

- DESI Assessment
- Methodology
- Sample
- Results**
- Degree of connectivity
- Type of internet connection
- Frequency of use
- Devices used
- Interaction with public authorities
- E-Commerce
- Conclusions
- Project team

## When did you last use the internet?





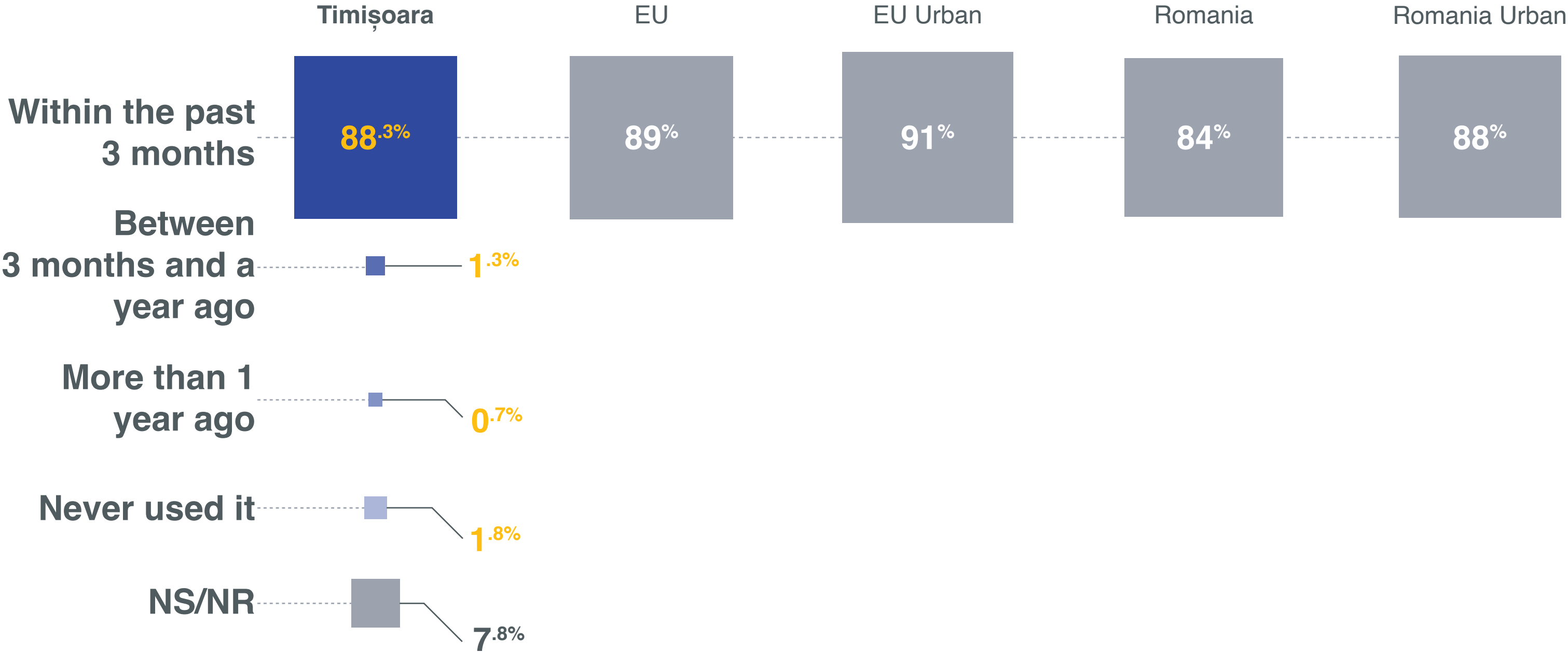
# Frequency of use

## Timișoara vs

## Romania vs EU

- DESI Assessment
- Methodology
- Sample
- Results**
- Degree of connectivity
- Type of internet connection
- Frequency of use
- Devices used
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- E-Commerce
- Conclusions
- Project team

### When did you last use the internet?

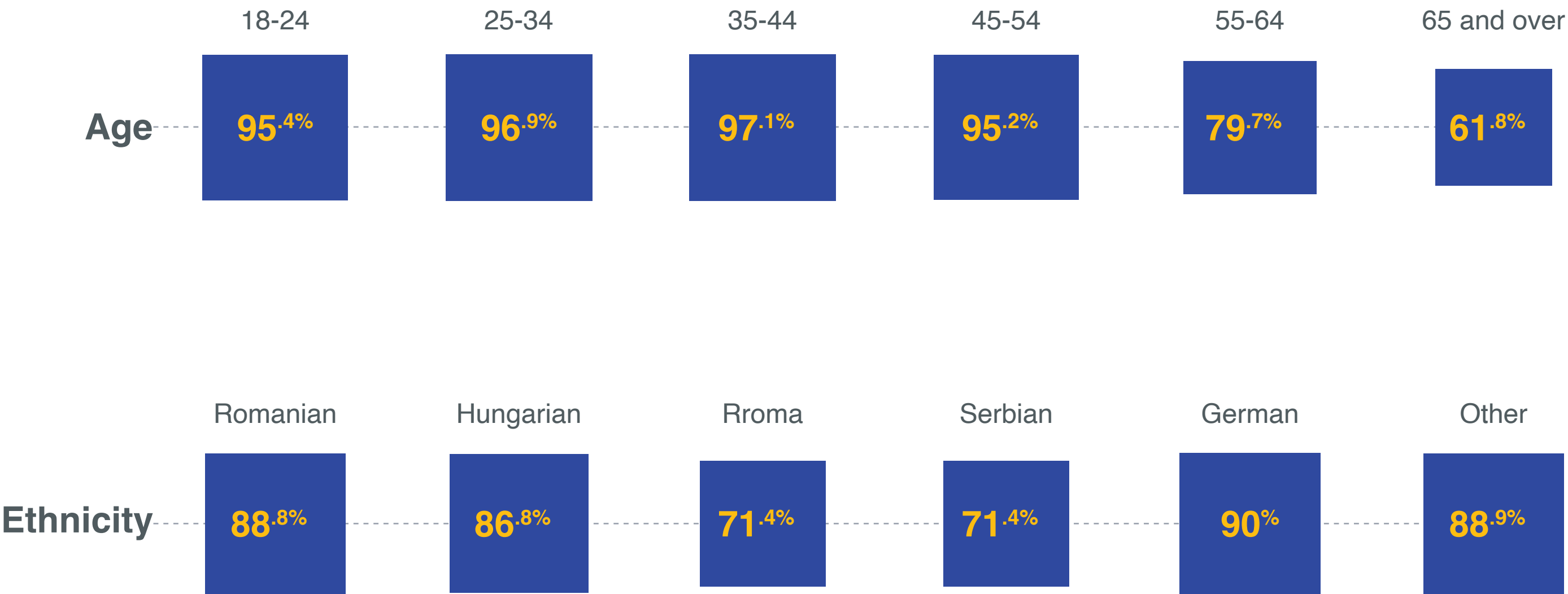


# Frequency of use

## By age and ethnicity

- DESI Assessment
- Methodology
- Sample
- Results**
- Degree of connectivity
- Type of internet connection
- Frequency of use
- Devices used
- Interaction with public authorities
- E-Commerce
- Conclusions
- Project team

### Use of internet within the past 3 months

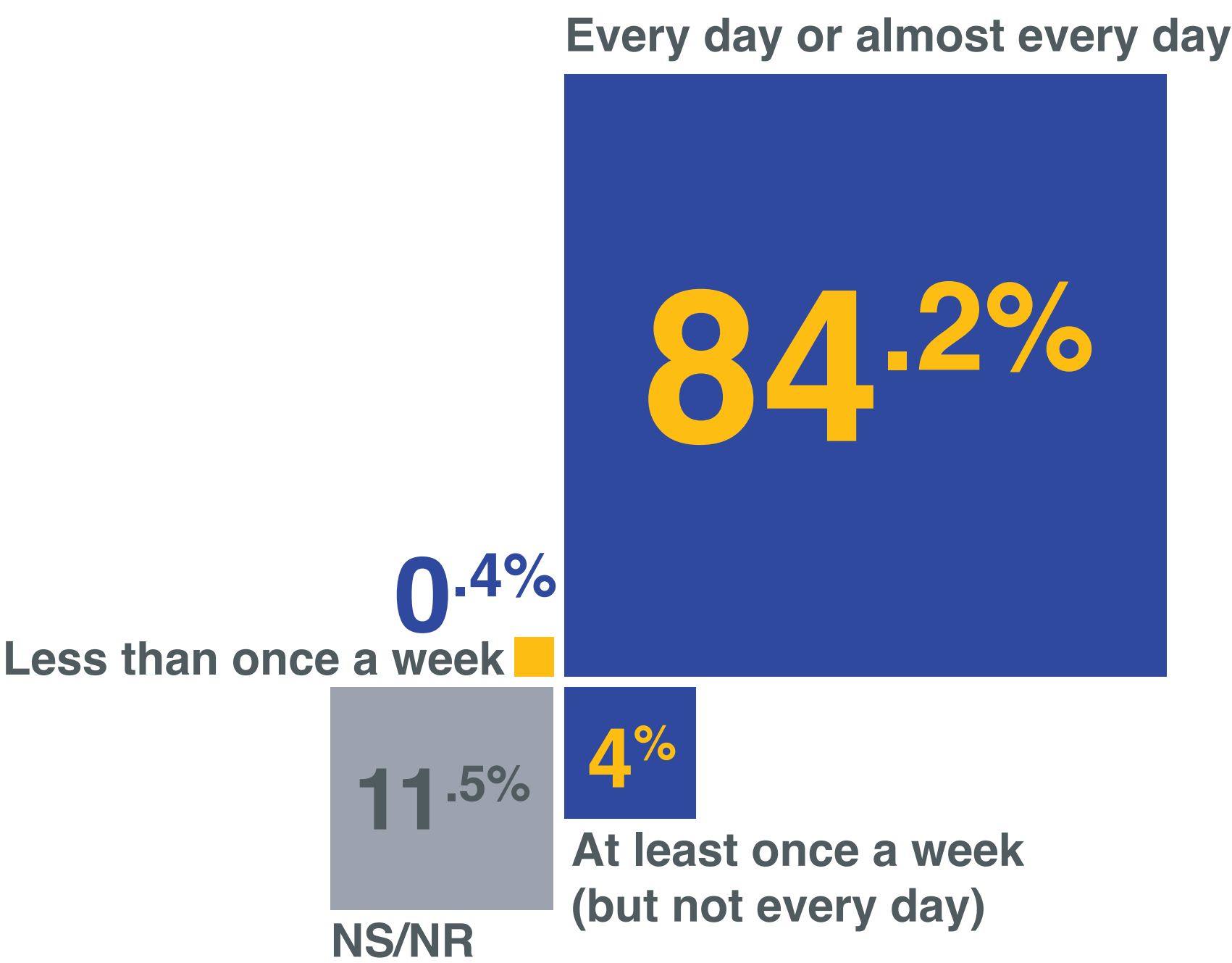




# Frequency of use

- DESI Assessment
- Methodology
- Sample
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- Frequency of use
- Devices used
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- E-Commerce
- Conclusions
- Project team

How often on average did you use the internet over the last 3 months?

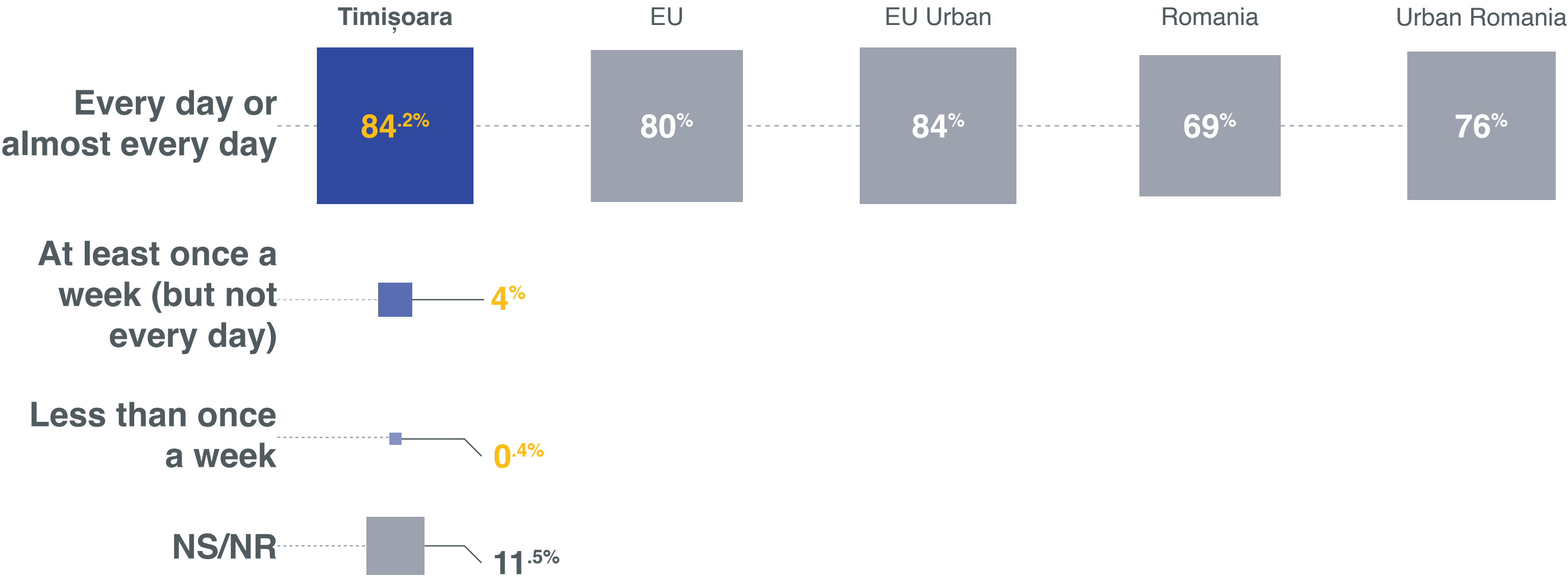


# Frequency of use

## Timișoara vs

## Romania vs EU

- DESI Assessment
- Methodology
- Sample
- Results**
- Degree of connectivity
- Type of internet connection
- Frequency of use**
- Devices used
- Interaction with public authorities
- E-Commerce
- Conclusions
- Project team



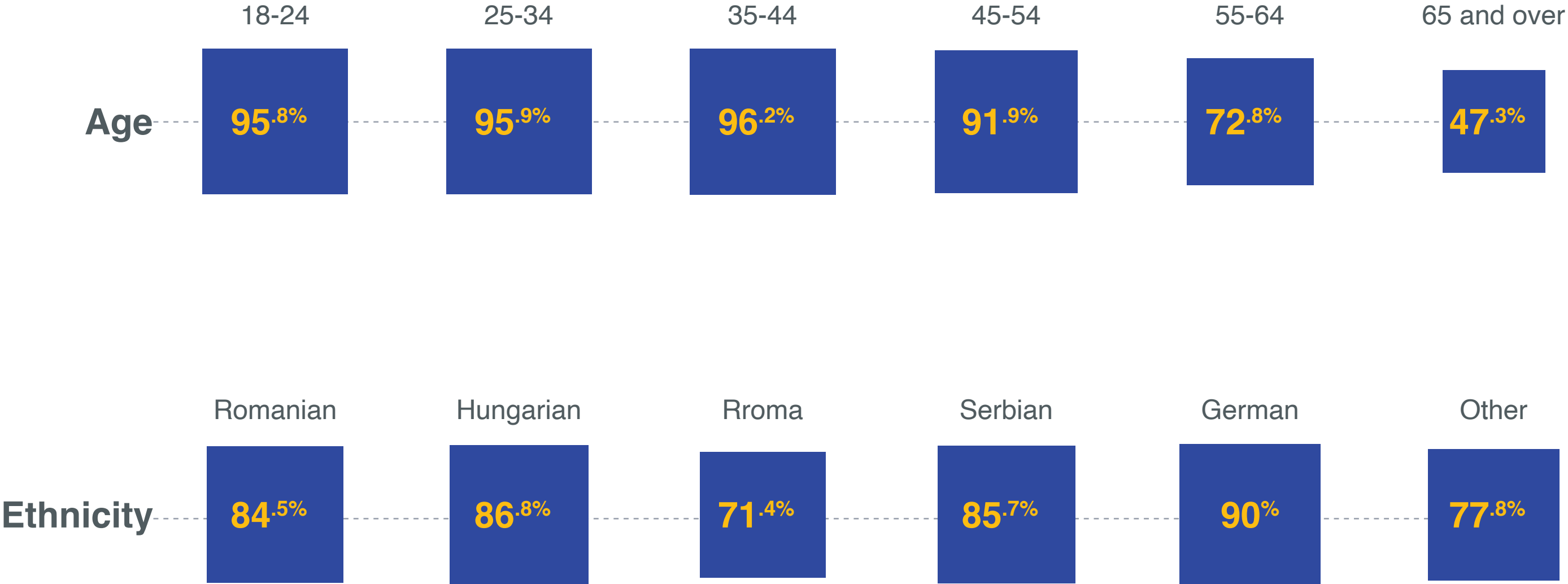


# Frequency of use

## By age and ethnicity

- DESI Assessment
- Methodology
- Sample
- Results**
- Degree of connectivity
- Type of internet connection
- Frequency of use
- Devices used
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- E-Commerce
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- Project team

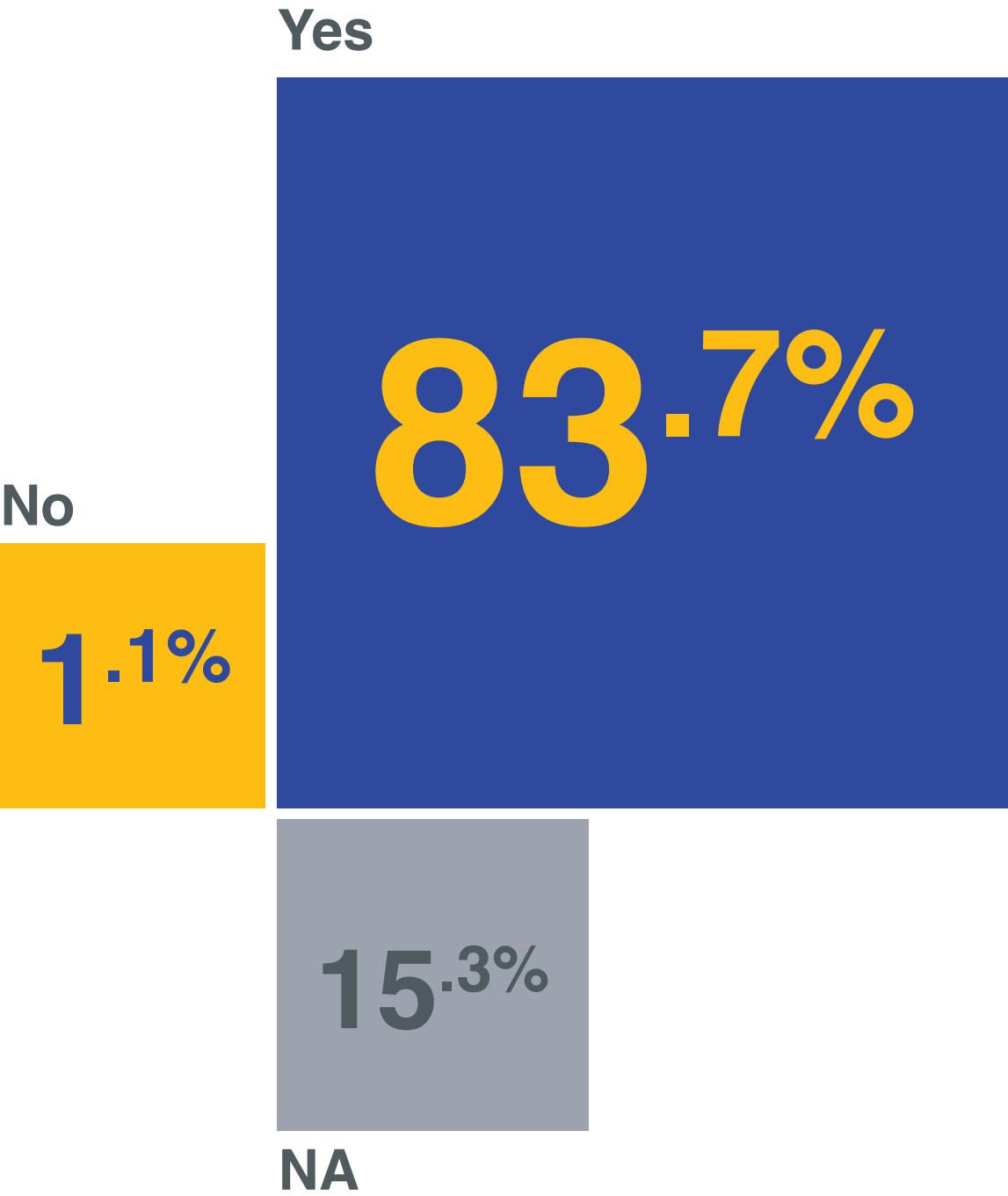
### Use internet daily



# Frequency of use

- DESI Assessment
- Methodology
- Sample
- Results**
- Degree of connectivity
- Type of internet connection
- Frequency of use
- Devices used
- Interaction with public authorities
- E-Commerce
- Conclusions
- Project team

## Use internet several times during the day

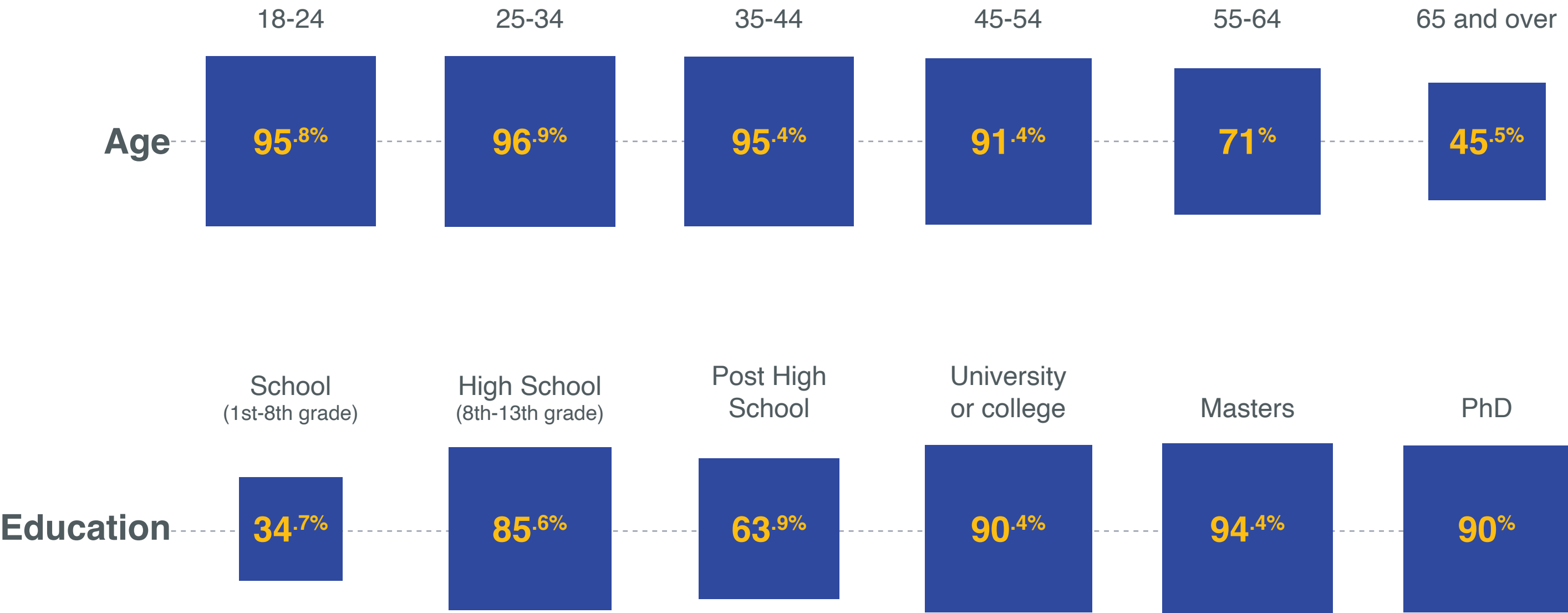


# Frequency of use

## By age and ethnicity

- DESI Assessment
- Methodology
- Sample
- Results**
- Degree of connectivity
- Type of internet connection
- Frequency of use
- Devices used
- Interaction with public authorities
- E-Commerce
- Conclusions
- Project team

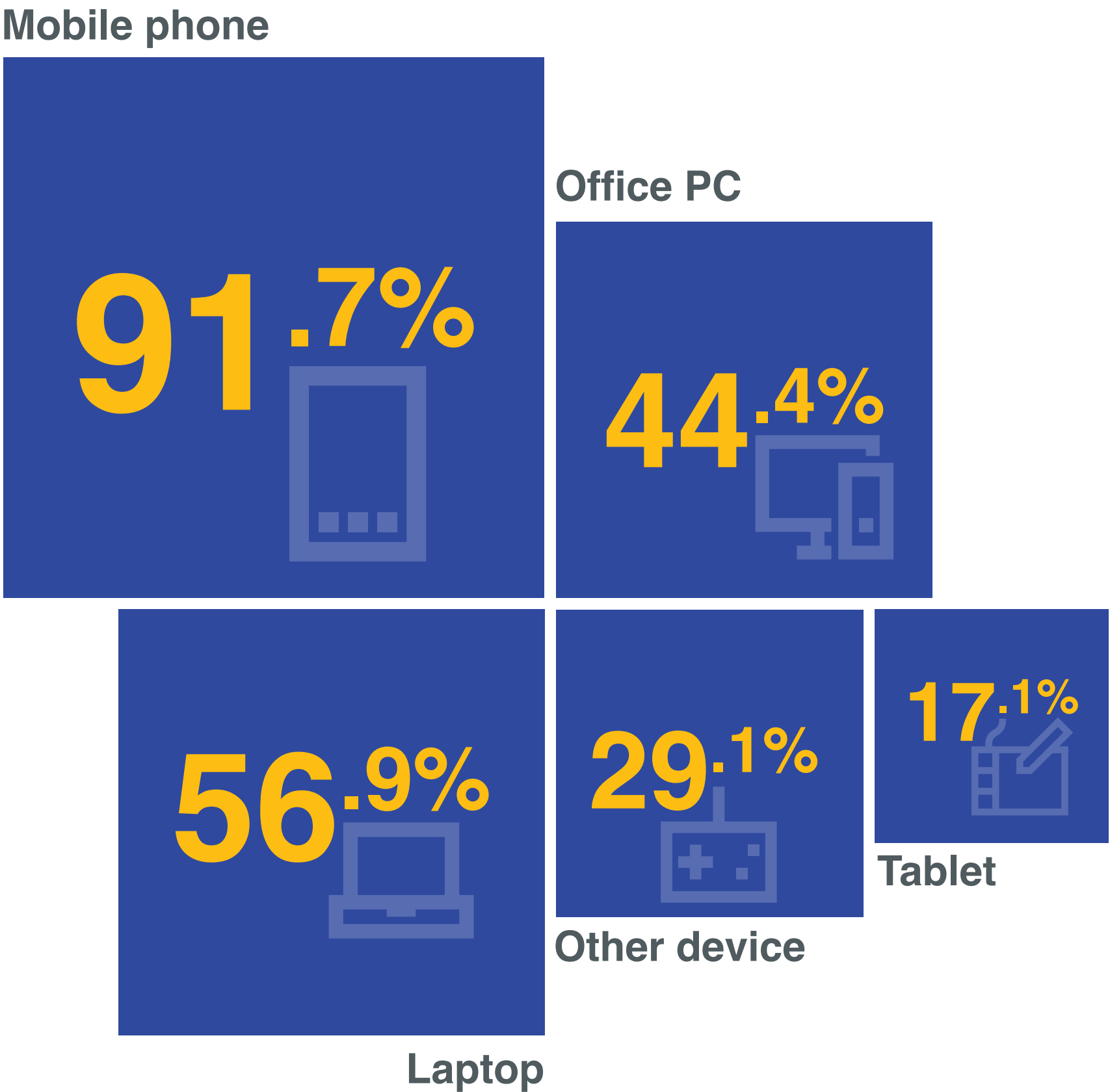
### Use internet several times during the day





# Devices used

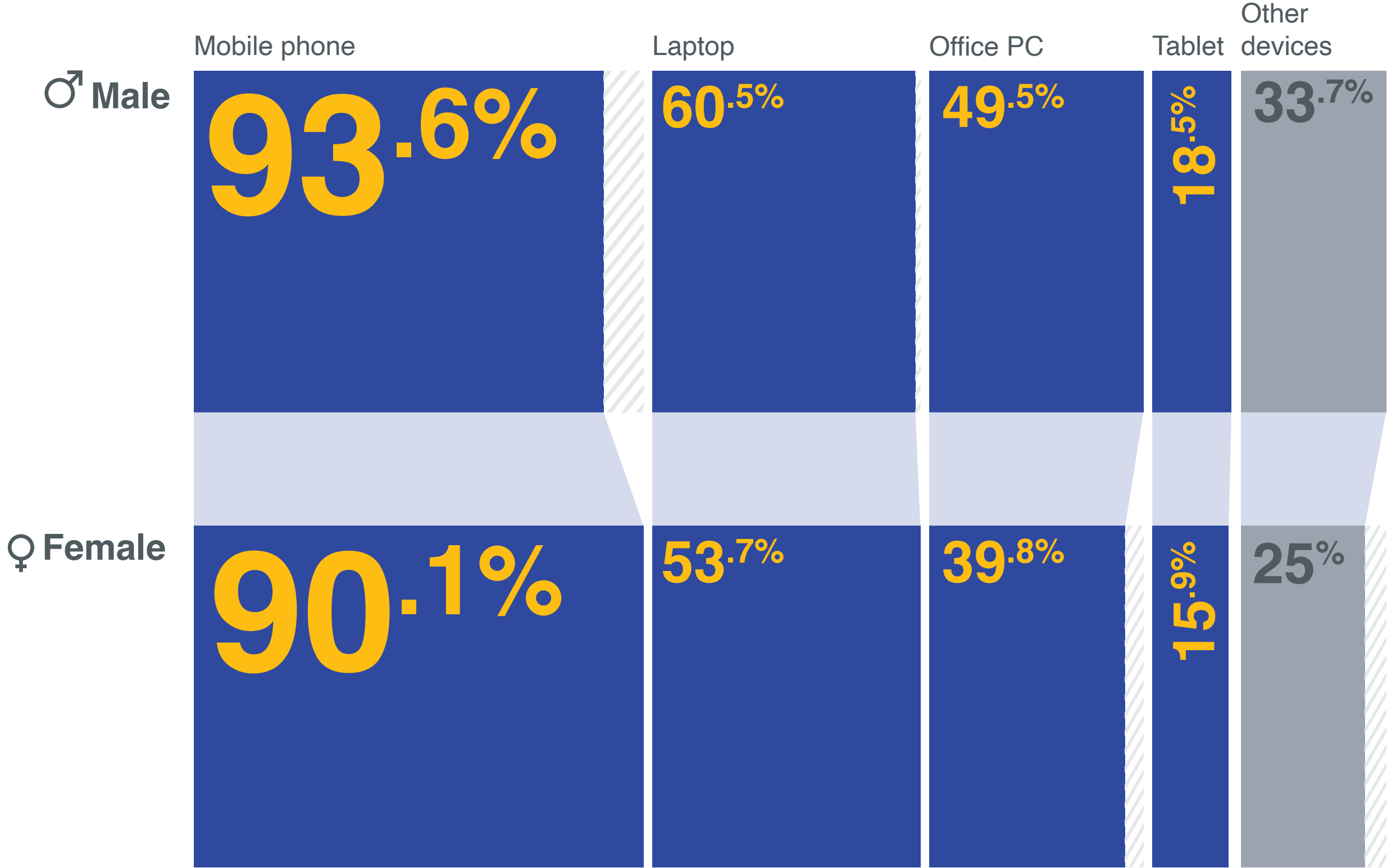
- DESI Assessment
- Methodology
- Sample
- Results**
- Degree of connectivity
- Type of internet connection
- Frequency of use
- Devices used**
- Interaction with public authorities
- E-Commerce
- Conclusions
- Project team



# Devices used

## By gender

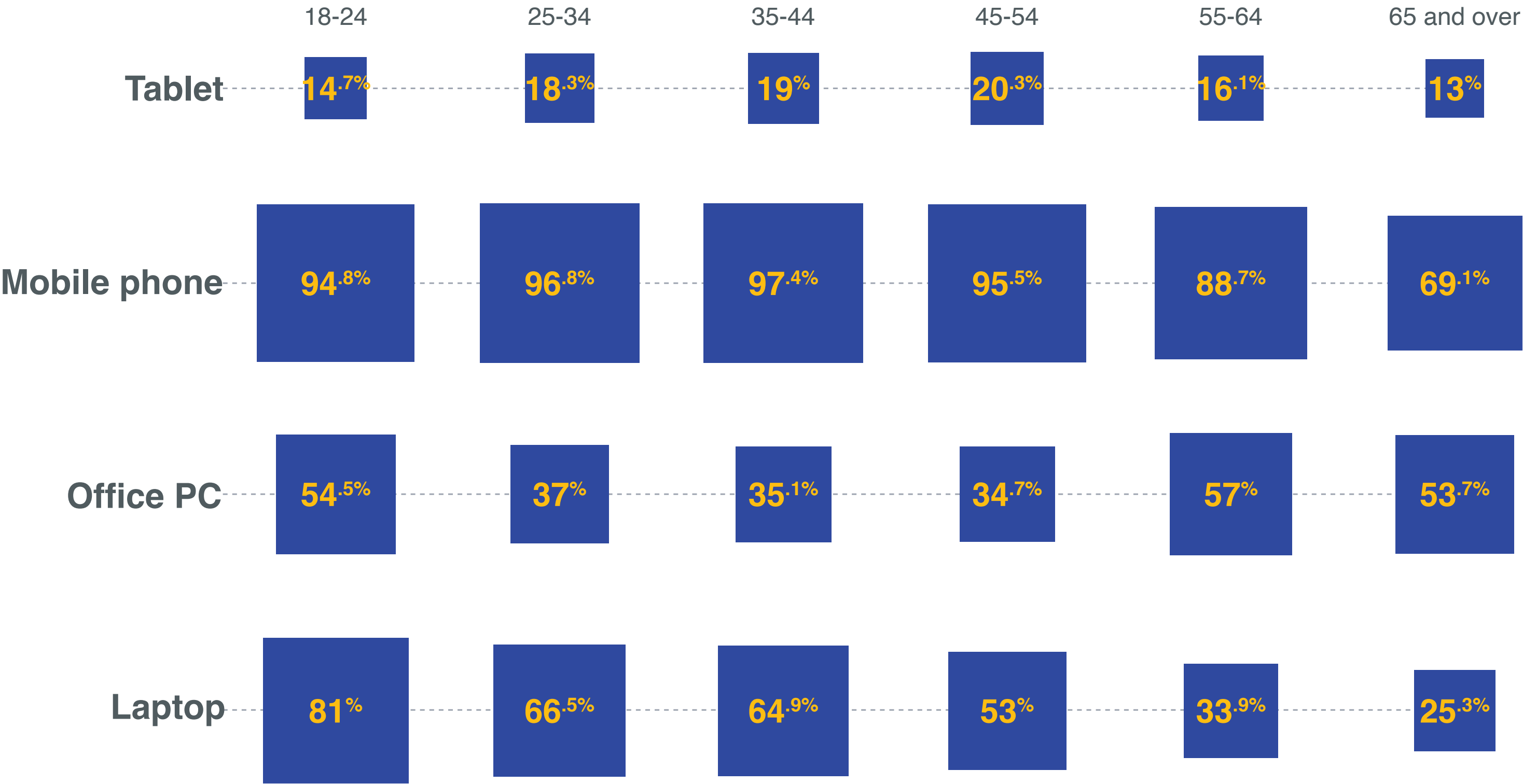
- DESI Assessment
- Methodology
- Sample
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- Degree of connectivity
- Type of internet connection
- Frequency of use
- Devices used**
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- Project team



# Devices used

## By age group

- DESI Assessment
- Methodology
- Sample
- Results**
- Degree of connectivity
- Type of internet connection
- Frequency of use
- Devices used**
- Interaction with public authorities
- E-Commerce
- Conclusions
- Project team

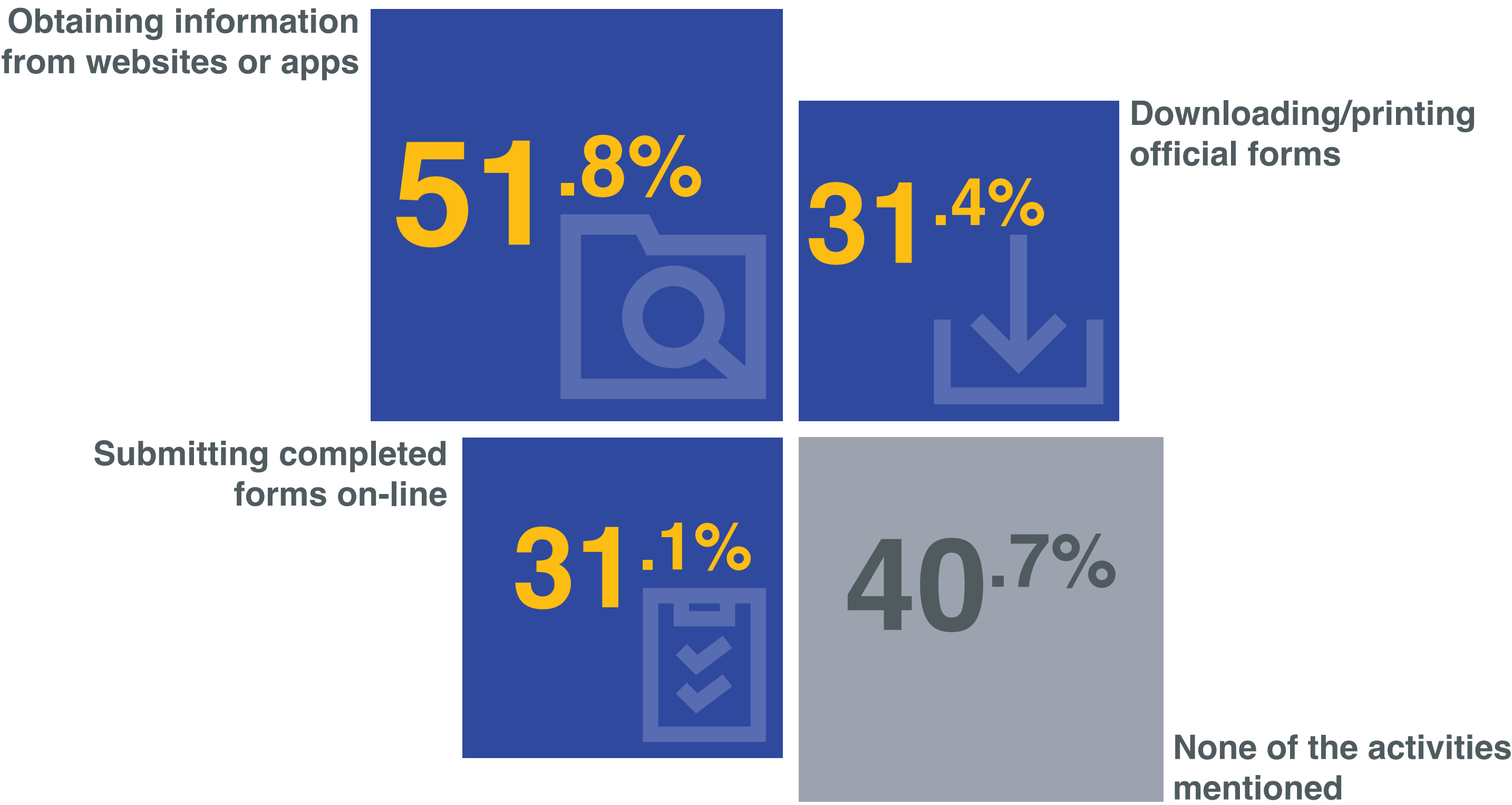




# Interaction with public authorities

- DESI Assessment
- Methodology
- Sample
- Results**
- Degree of connectivity
- Type of internet connection
- Frequency of use
- Devices used
- Interaction with public authorities**
- E-Commerce
- Conclusions
- Project team

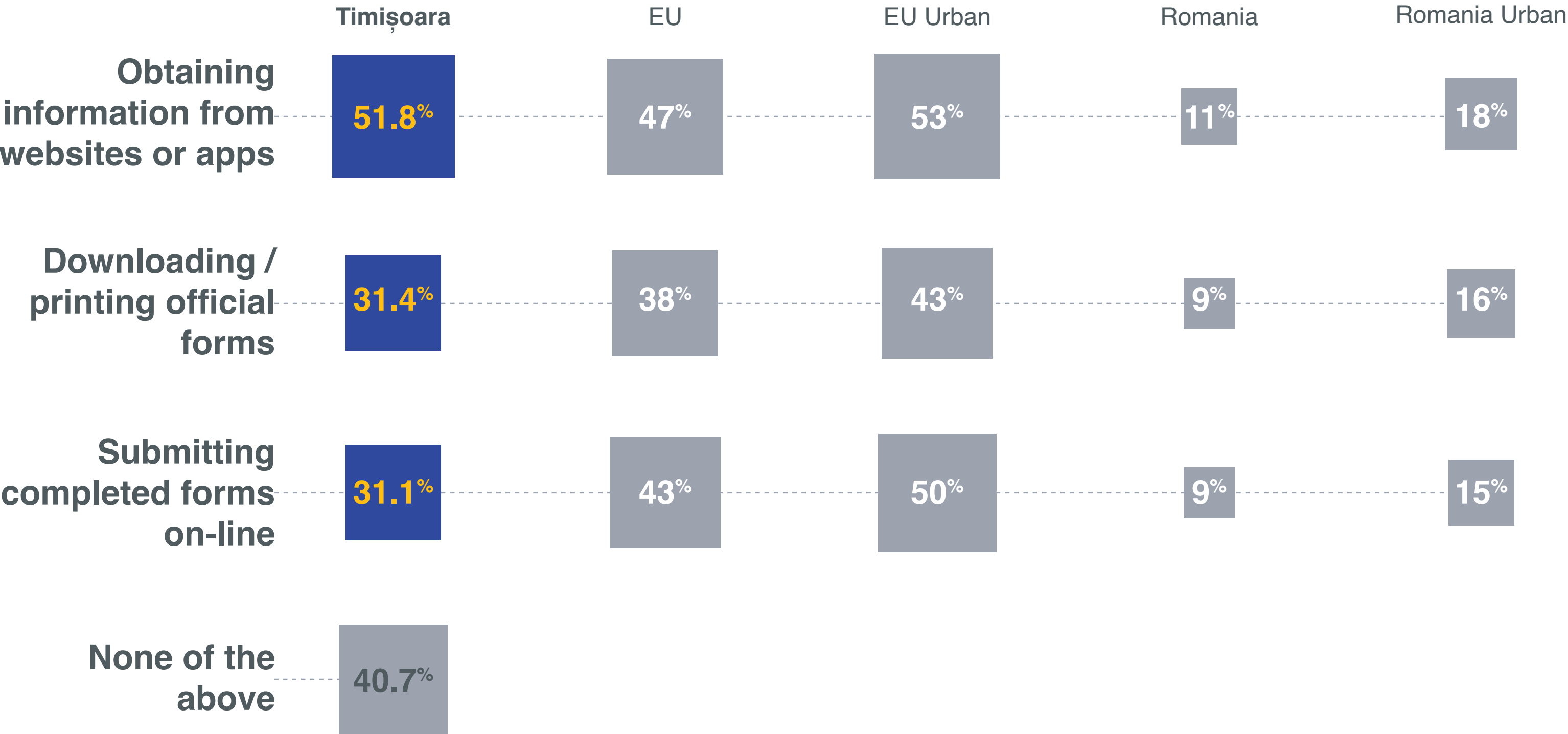
Did you interact with public authorities for the below purposes over the internet?



# Interaction with public authorities

## Timișoara vs Romania vs EU

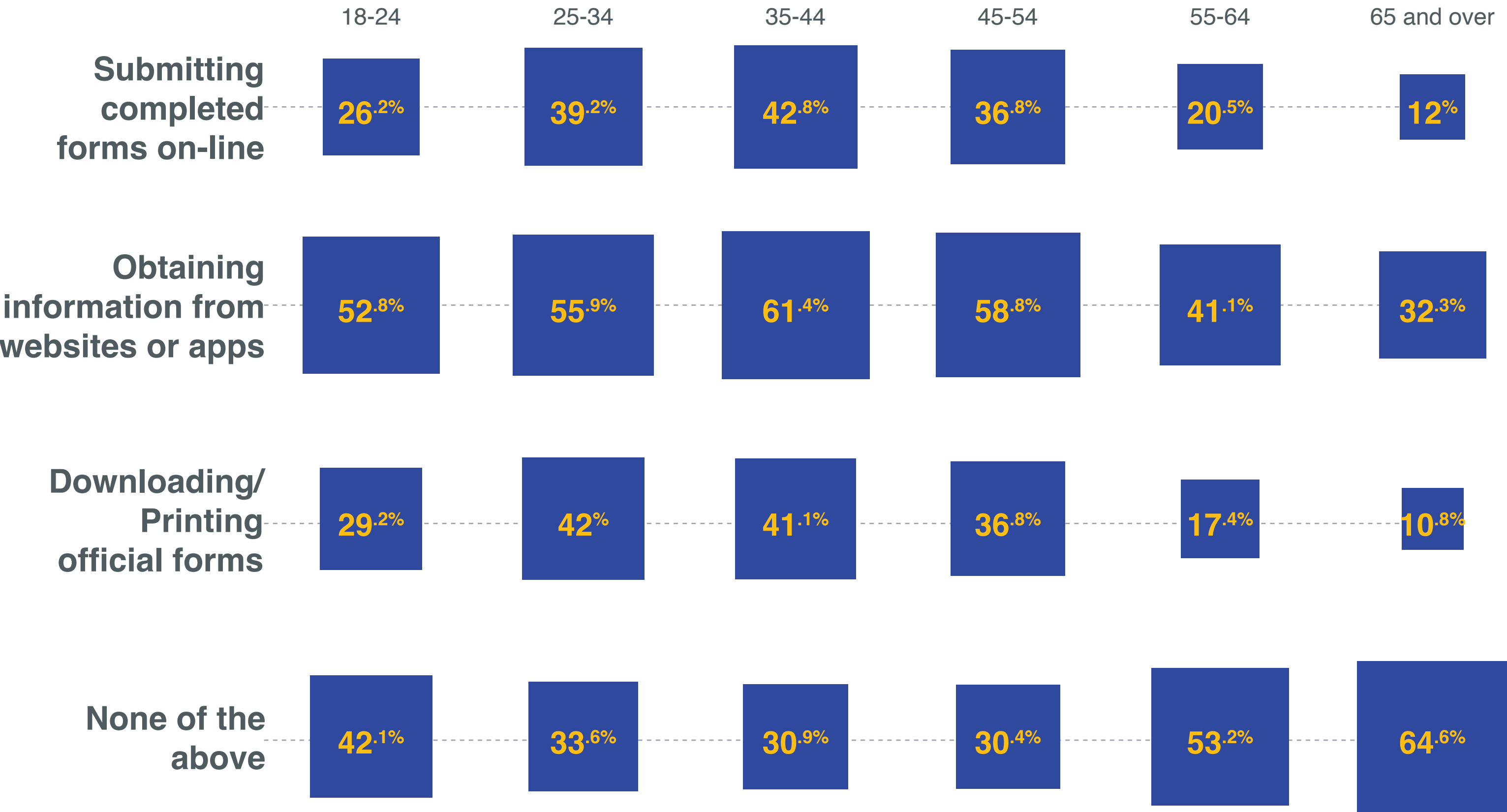
- DESI Assessment
- Methodology
- Sample
- Results**
- Degree of connectivity
- Type of internet connection
- Frequency of use
- Devices used
- Interaction with public authorities**
- E-Commerce
- Conclusions
- Project team



# Interaction with public authorities

## By age group

- DESI Assessment
- Methodology
- Sample
- Results**
- Degree of connectivity
- Type of internet connection
- Frequency of use
- Devices used
- Interaction with public authorities**
- E-Commerce
- Conclusions
- Project team



# Interaction with public authorities

- DESI Assessment
- Methodology
- Sample
- Results**
- Degree of connectivity
- Type of internet connection
- Frequency of use
- Devices used
- Interaction with public authorities**
- E-Commerce
- Conclusions
- Project team

## What were the reasons for not submitting completed forms?

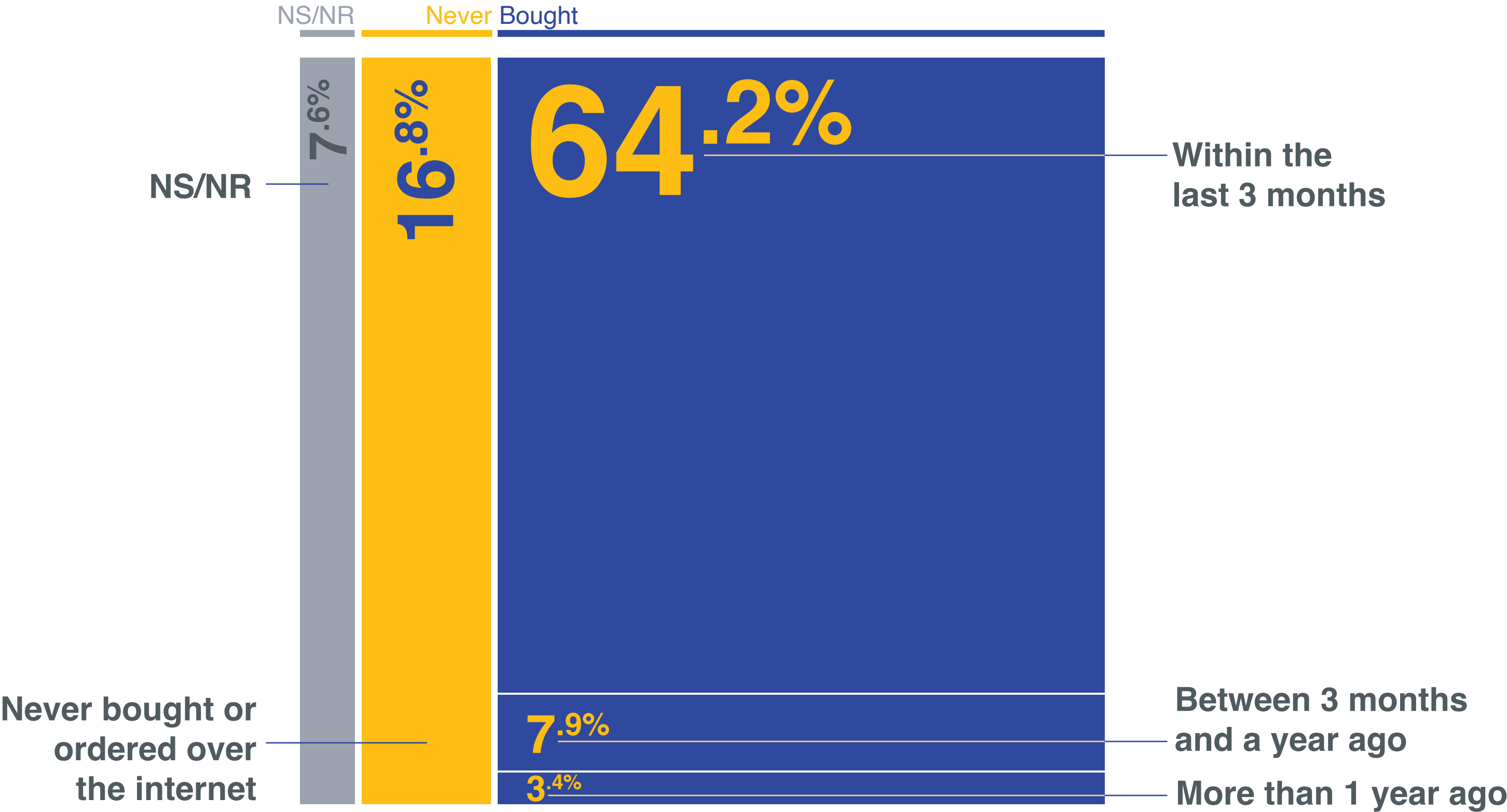




# E-Commerce

- DESI Assessment
- Methodology
- Sample
- Results**
- Degree of connectivity
- Type of internet connection
- Frequency of use
- Devices used
- Interaction with public authorities
- E-Commerce**
- Conclusions
- Project team

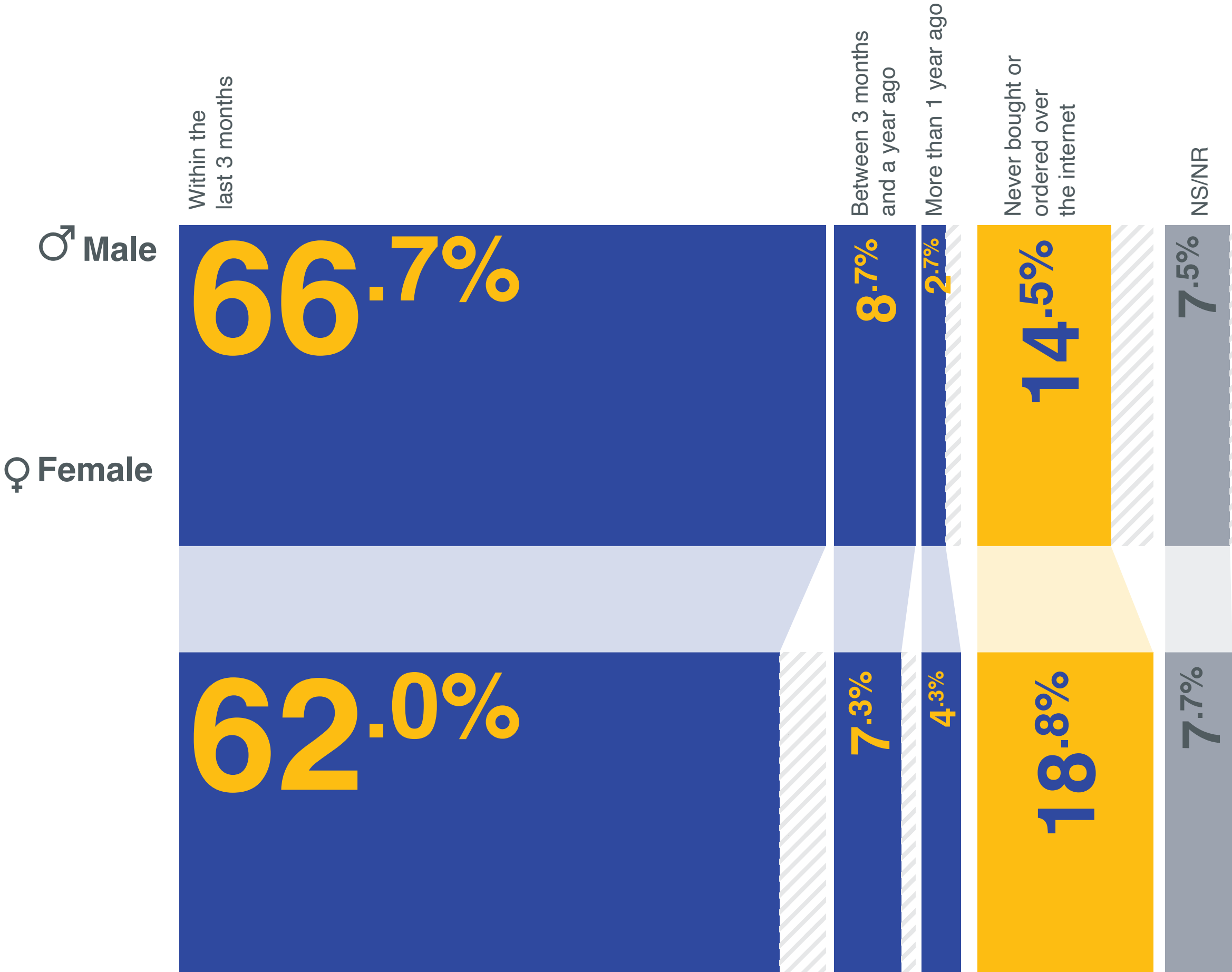
## When did you last buy or order goods or services for private use over the internet?



# E-Commerce

## By gender

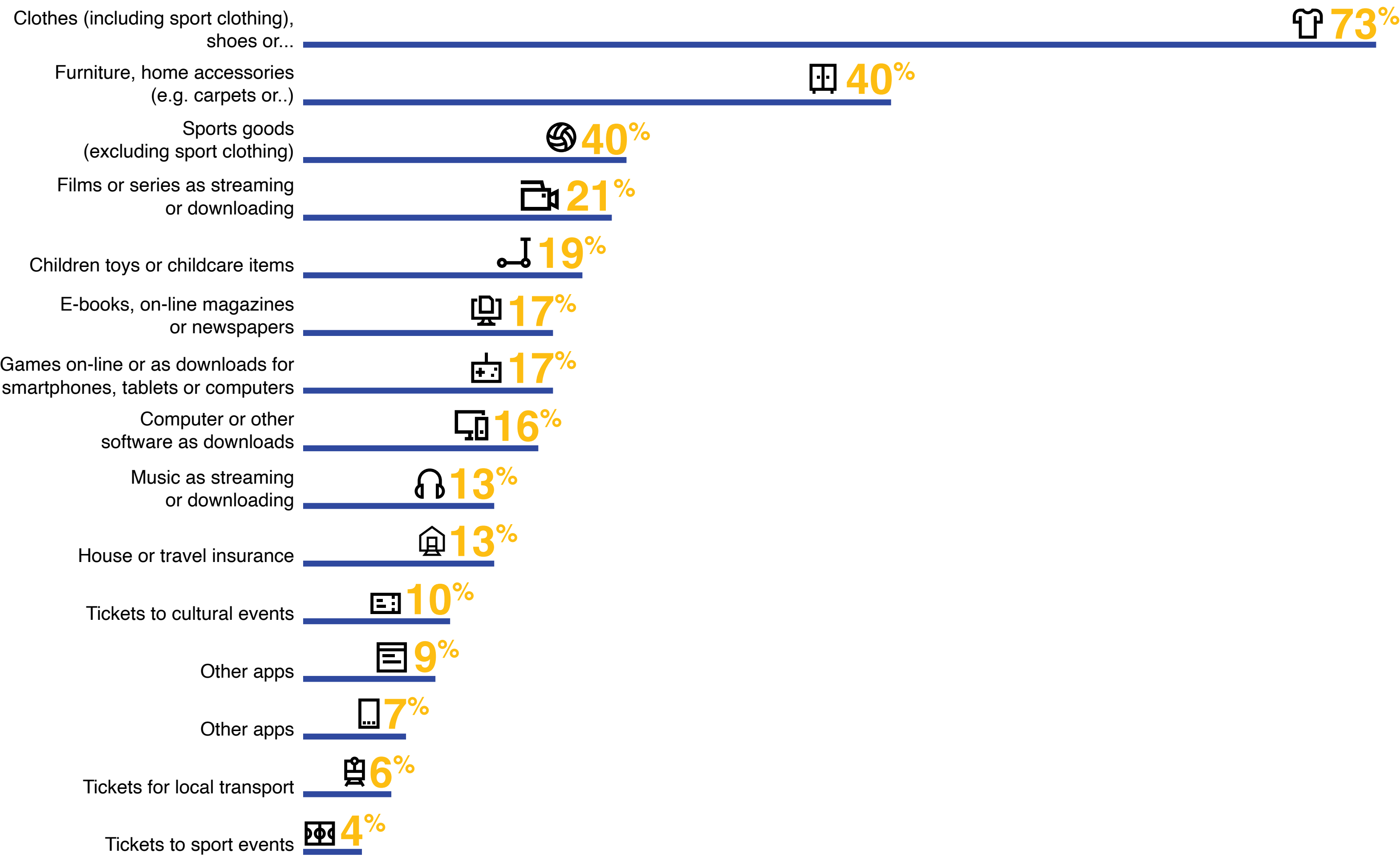
- DESI Assessment
- Methodology
- Sample
- Results**
- Degree of connectivity
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- Frequency of use
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- Interaction with public authorities
- E-Commerce**
- Conclusions
- Project team



# E-Commerce

## Purchased goods through websites / apps over the last 3 months

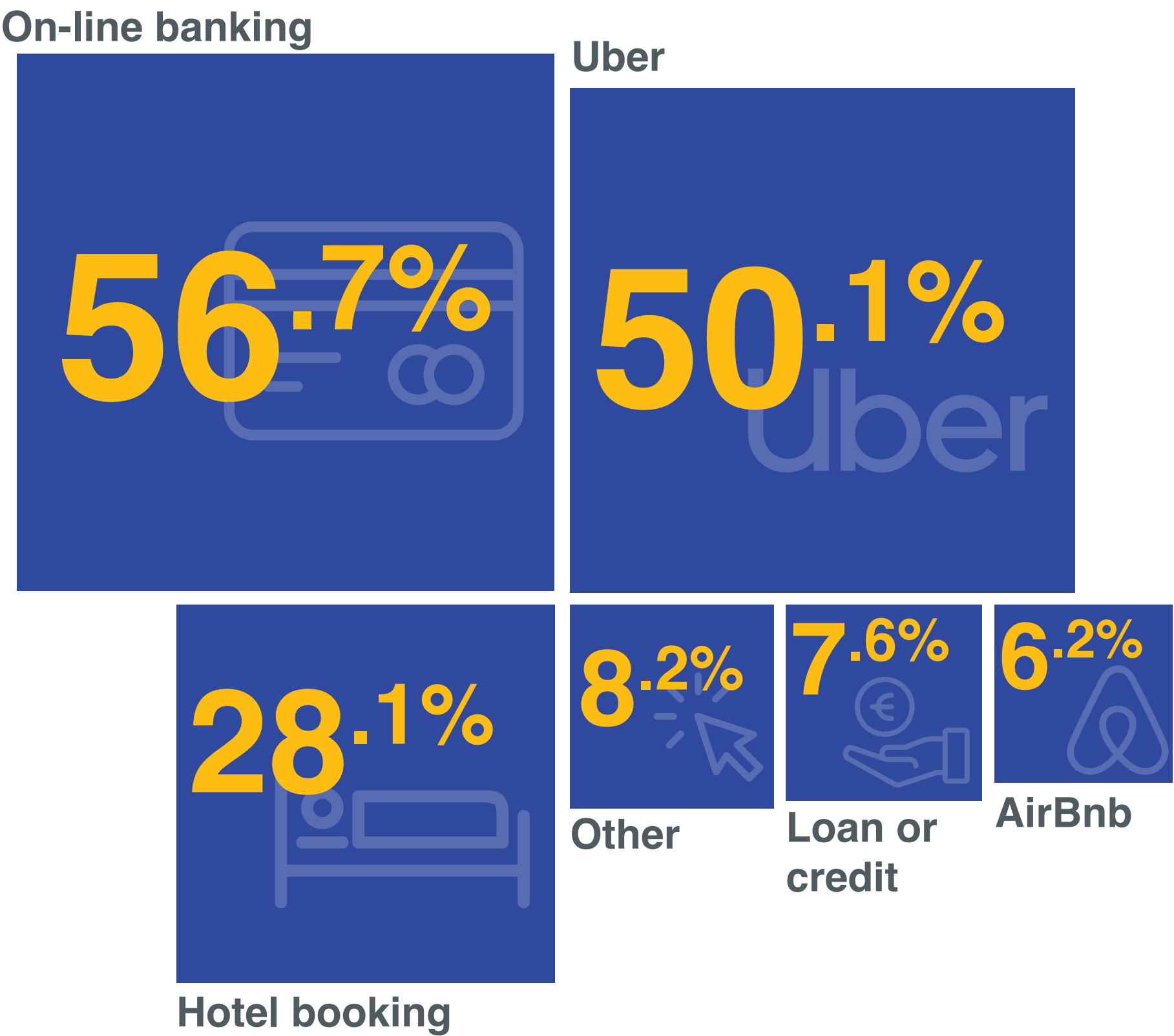
↓	DESI Assessment
↓	Methodology
↓	Sample
↓	<b>Results</b>
◆	Degree of connectivity
◆	Type of internet connection
◆	Frequency of use
◆	Devices used
◆	Interaction with public authorities
◆	<b>E-Commerce</b>
↓	Conclusions
↓	Project team



# E-Commerce

## Services or subscriptions purchased over the internet in the last 3 months

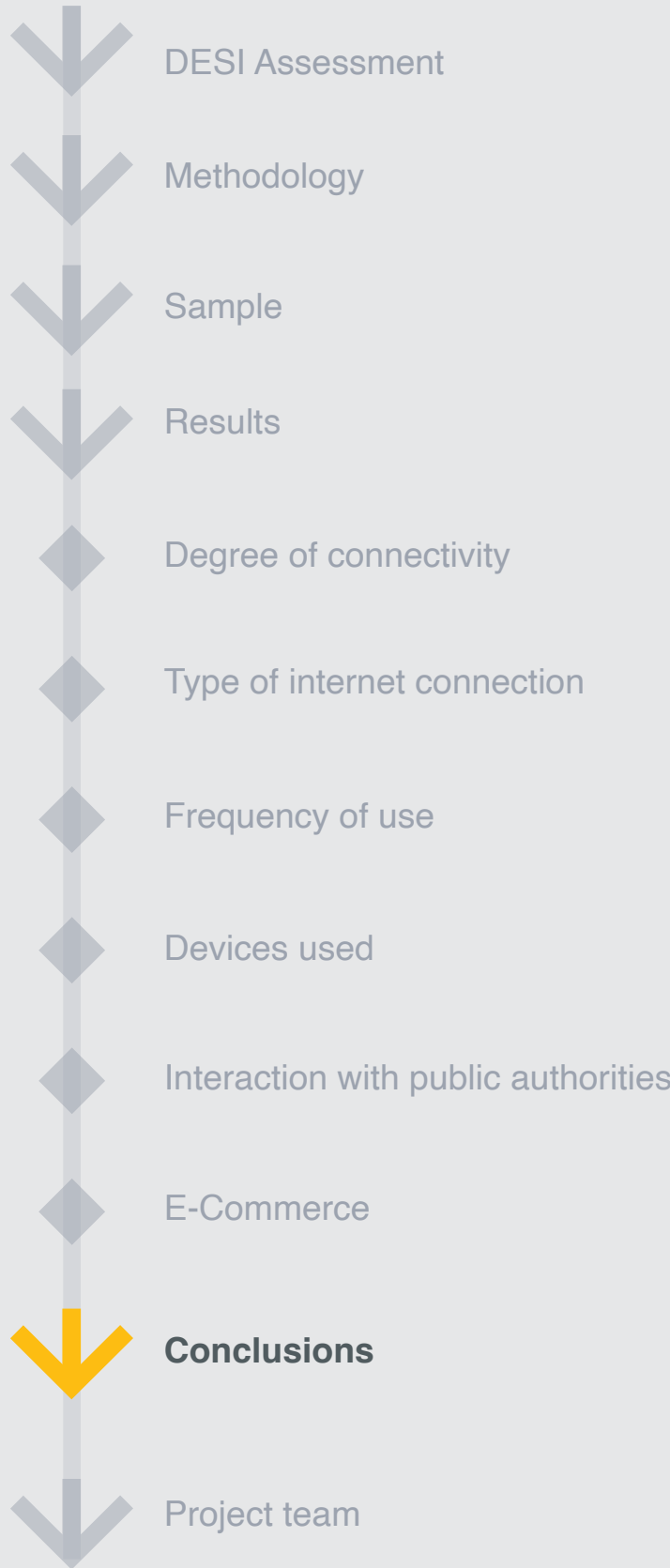
- DESI Assessment
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- Sample
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# Conclusions

## Degree of connectivity



➤ **The access to the internet is generalised**, as 92,4% of the respondents mention that they have access to the internet. The degree of connectivity at the level of Timișoara Municipality is above the national and EU average, nevertheless slightly below the urban national and EU average

➤ **Age and education level represent the main factors which lead to significant differences between categories**. As well, ethnicity represents a factor in this sense, though less relevant.

# Conclusions

## Use of internet

- DESI Assessment
- Methodology
- Sample
- Results
- Degree of connectivity
- Type of internet connection
- Frequency of use
- Devices used
- Interaction with public authorities
- E-Commerce
- Conclusions**
- Project team

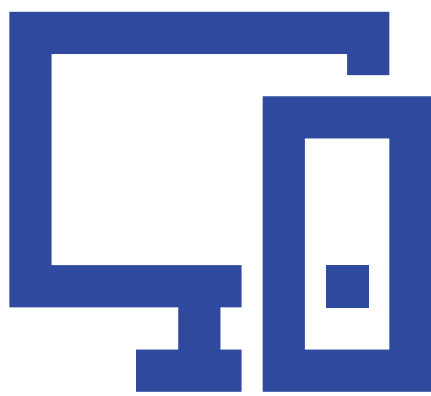


- 88% of the respondents used the internet over the last 3 months.** The percentage is similar with the EU one (89%), and the urban average in Romania (88%), while inferior to the EU urban average (91% )
- The degree of daily use of the internet in Timisoara is similar to the average of European cities, and exceeds the general EU average,** as well as the Romanian average. Consequently, even though in terms of connectivity we notice similarity with other cities in Romania, when it comes to the use of internet, the frequency of use is significantly superior in Timișoara.
- The use of internet decreases with age, increases in accordance with the level of education, and it does not vary in terms of gender.**

# Conclusions

## Devices used

- DESI Assessment
- Methodology
- Sample
- Results
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- E-Commerce
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**The mobile phone is the device mostly used for connecting to the internet**

Out of the total of respondents, **91,7% use the internet on their mobile phone**, yet only 65,5% state that they have a mobile connection via phone

The rest of 26% from the respondents use the internet on the phone without owning a mobile data subscription, and using the internet from other sources (e.g.: Wifi, hotspot). **Consequently, 25% from the population do not use the smart phone at its real potential.**

It is relevant to mention the rate of use of other devices (Smart TV, consoles, speakers, e-books, smart watch) connected to the internet, especially due to their potential to boost the creative culture.

# Conclusions

## Interaction with public authorities

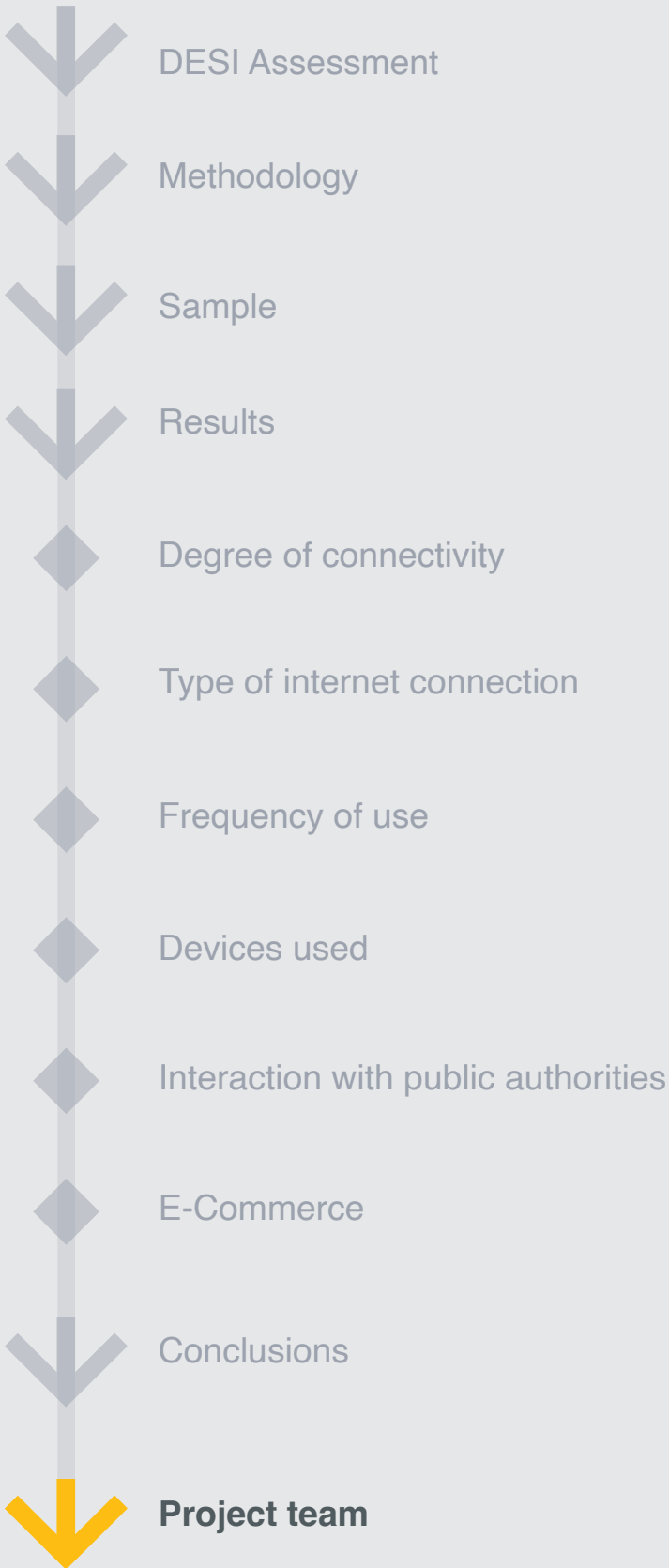
- DESI Assessment
- Methodology
- Sample
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- 52% from the respondents use the websites of public institutions for information purposes.** The percentage is very similar in comparison to the European urban average (53%), and net superior to the Romanian average. Thus, it is proven that the citizens of Timișoara are prone to the digital interaction in relation with the public administration.
- The interaction with the administration decreases severely when it comes to moving from information to action.** Only 31% of the citizens download and submit official documents to the public authorities (43% European average; 50% European urban average)
- As 56% of the respondents use the internet banking, this percentage could be relatively easy to achieve for the payment of local taxes, as long as user-friendly features will be available.**



# Project team



**Project coordinator:** Lect. univ. dr. Marius Matichescu

**Methodology:** Prof. univ. dr. Delia Vârgă, Conf. univ. dr. Daniel Lucheș, Lect. univ. dr. Viorel Proteasa, Lect. univ dr. Alexandru Drăgan

**Data analysis:** Ianis Rușitoru-student MD year III, Lect. univ. dr. Marius Matichescu,

**Report drafting:** Ianis Rușitoru-student MD year III, Lect. univ. dr. Marius Matichescu, Lect. univ dr. Alexandru Drăgan

**Maps:** Lect. univ dr. Alexandru Drăgan

