

Public consultation on the needs for Internet speed and quality beyond 2020

GENERAL INFORMATION ABOUT THIS PUBLIC CONSULTATION

The European Commission has prepared this public consultation to look into the needs for Internet speed and quality beyond 2020. The purpose is to assess and understand those needs better with a view to developing public policy to accompany investors in the deployment of future-proof connectivity networks and to ensure that all users, e.g. households, businesses, public institutions, can take advantage of the digital economy and society. This public consultation is addressed to everyone (citizens, businesses, NGOs, public authorities, etc.) and every sector (from agriculture to ICT, from education to automotive, services and industry) which has an interest in ensuring that their future Internet connectivity needs are fully met.

Some of the questions below make a distinction between fixed and mobile connectivity. Fixed connectivity is to be understood as connectivity available at a fixed location, e.g. at home or at work (and not necessarily on a fixed line). Mobile connectivity is to be understood as connectivity available to individual users and objects “on the move”, e.g. when commuting, when travelling, in shopping centres, in stadiums, etc.

Most of the questions below are designed to be answerable by all stakeholders, with various levels of technical details. A few questions, however, are more complex and addressed in particular to respondents who have a deep knowledge of connectivity quality features and their forthcoming evolution. The attached document gives definitions / examples of connectivity features, as well as further background, that aim at helping respondents to better understand some of the questions.

Background and definitions for the public consultation on the needs for Internet speed and quality 2020

[BG.docx](#)

[CS.docx](#)

[DA.docx](#)

[DE.docx](#)

[EL.docx](#)

[EN.docx](#)

[ES.docx](#)

[ET.docx](#)

[FI.docx](#)

[FR.docx](#)

[HR.docx](#)

[HU.docx](#)

[IT.docx](#)

[LT.docx](#)

[LV.docx](#)

[MT.docx](#)

[NL.docx](#)

[PL.docx](#)

[PT.docx](#)

[RO.docx](#)

[SK.docx](#)

[SL.docx](#)

[SV.docx](#)

GENERAL INFORMATION ABOUT YOU

Are you responding as?

- ☐ An individual in my personal capacity
☒ The representative of an organisation

Do you have a disability or respond on behalf of an organisation of persons with disabilities?

- ☐ Yes
☒ No

In which country is your organisation based?

Belgium



Please indicate your age group.

- ☐ Below 20 ☐ 20-30 ☐ 30-40 ☒ 40-50 ☐ 50-60 ☐ Beyond 60

Are you / your organisation based in?

- ☒ An urban area with a minimum population of 50 000
- ☐ A rural area with a maximum population of 5 000
- ☐ A sub-urban area with a population between 5 000 and 50 000

Is connectivity the primary means by which your business is conducted or an important part of your business or activity / an important component for your household?

- ☒ Yes
- ☐ No

If connectivity is the means or an important part of your business or activity, what is the scale of your activity?

- ☐ Local / regional
- ☐ National
- ☒ European
- ☐ Global

Please tick the box(es) that appl(y)(ies) to your organisation and sector.

- ☐ National authority
- ☐ Regional authority
- ☐ Representative association at EU level
- ☐ Non-governmental organisation
- ☐ Representative association at national level
- ☐ Independent professional
- ☐ Micro enterprise (less than 10 persons employed)
- ☐ Small enterprise (10-49 persons employed)
- ☐ Medium-sized enterprise (50-249 persons employed)
- ☐ Large enterprise (250 or more persons employed)
- ☐ Research institute
- ☐ Education establishment
- ☐ ICT industry
- ☒ International organisation
- ☐ Other

Please specify the NACE code if applicable.

The list of NACE codes is available [here](#).

In which country(ies) does your organisation operate?

Belgium

Is your organisation registered in the [Transparency Register](#) of the European Commission and the European Parliament?

- ☒ Yes
☐ No

Please indicate your organisation's identification number in the Transparency Register.

09838612482-61

Please enter the name of your institution/organisation/business.

FTTH Council Europe ASBL

Please enter your / your organisation's address and contact details.

Rue des Colonies 11, 1000 Brussels

Contributions received will be published on the Commission's website unless it would harm your legitimate interest. Do you agree to your contribution being published?

- ☒ Under the name supplied. (I consent to the publication of all the information in my contribution, and I declare that none of it is subject to copyright restrictions that would prevent publication.)
- ☐ Anonymously. (I consent to the publication of all the information in my contribution except my name/the name of my organisation, and I declare that none of it is subject to copyright restrictions that would prevent publication.)
- ☐ No publication - your answer will not be published but it may be used internally by the Commission. Note that your answer may be subject to a request for public access to documents under Regulation (EC) No 1049/2001.

QUESTIONS

All questions are optional. Please reply consistently either as an individual or as an organisation or a public authority as per your responses to the "information about you" section.

1. Is your / your organisation's main Internet connection (the one you pay for if you reply as an individual or your organisation pays for if you reply as an organisation)?

- ☐ A residential connection (fixed or bundled)
- ☒ A professional connection
- ☐ A leased line
- ☐ A mobile only connection

2. What is the maximum number of devices (e.g. computers, tablets, smart phones, televisions, assistive technologies, cameras, sensors and other connected objects) that share simultaneously the same main connection in your organisation / household?

- ☐ Less than 3
- ☐ Between 3 and 5
- ☐ Between 6 and 10
- ☒ More than 10

Please specify.

1 TV, 3 laptops, 4 smartphones and various other devices (music streaming, kindle, fitbit etc.)

3. How do you think that the maximum number of devices that will share simultaneously the same main connection in your organisation / household will evolve by 2025?

- ☐ Decrease
- ☐ Remain stable
- ☐ Increase slightly
- ☒ Increase significantly

Please specify.

More and more services will become device specific

4a. Which of the following Internet services and applications do you / does your organisation use and how often?

| | Continuously through fixed connectivity | At least once a day through fixed connectivity | At least once a week through fixed connectivity | At least once a month through fixed connectivity | At least once a year through fixed connectivity | Continuously through mobile connectivity | At least once a day through mobile connectivity | At least once a week through mobile connectivity | At least once a month through mobile connectivity | At least once a year through mobile connectivity |
|--|--|---|--|---|--|---|--|---|--|---|
| Data repository (e.g. archiving files in the cloud) | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Text communication (e.g. e-mails, instant messaging, social media) | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Voice communication (e.g. IP telephony) | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Video communication (e.g. video conferencing, video calls) | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

| | | | | | | | | | | |
|--|-------------------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| Collaborative tools (e.g. social networks) | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Connected objects (e.g. cameras, sensors) | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Assistive devices and/or accessible technologies | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Other | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

If "other", please specify.

| |
|--|
| |
|--|

4b. Which of the following content, products and services do you / does your organisation access to (primarily download) and how often?

| | Continuously through fixed connectivity | At least once a day through fixed connectivity | At least once a week through fixed connectivity | At least once a month through fixed connectivity | At least once a year through fixed connectivity | Continuously through mobile connectivity | At least once a day through mobile connectivity | At least once a week through mobile connectivity | At least once a month through mobile connectivity | At least once a year through mobile connectivity |
|---|---|---|---|--|---|--|--|--|---|--|
| Access to text content (e.g. blogs, newspapers) | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Access to audio content (e.g. music streaming) | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Access to video content (e.g. video games, IPTV) | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Access to financial / banking products and services | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

| | | | | | | | | | | |
|---|-------------------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| Access to e-commerce / shopping products and services | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Access to e-learning products and services | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Access to digital public services | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Access to e-health products and services | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Other | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

If "other", please specify.

| |
|--|
| |
|--|

4c. Which of the following content, products and services do you / does your organisation provide (primarily upload) and how often?

| | Continuously through fixed connectivity | At least once a day through fixed connectivity | At least once a week through fixed connectivity | At least once a month through fixed connectivity | At least once a year through fixed connectivity | Continuously through mobile connectivity | At least once a day through mobile connectivity | At least once a week through mobile connectivity | At least once a month through mobile connectivity | At least once a year through mobile connectivity |
|--|---|---|---|--|---|--|--|--|---|--|
| Provision of text content (e.g. blogs, newspapers) | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Provision of audio content (e.g. music streaming) | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Provision of video content (e.g. video games, IPTV) | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Provision of financial / banking products and services | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

| | | | | | | | | | | |
|--|-------------------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| Provision of e-commerce / shopping products and services | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Provision of e-learning products and services | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Provision of digital public services | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Provision of e-health products and services | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Other | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

5. Among the Internet services, applications, content and products mentioned in questions 4a, 4b and 4c , how many at most do you / does your organisation use simultaneously through the same fixed connection?

- ☐ 1
- ☐ 2-3
- ☐ 4-5
- ☐ 6-10
- ☒ More than 10

Please specify.

6a. How do you think your / your organisation's uses of the following Internet services and applications will evolve by 2025 compared with today?

| | Not used anymore through fixed connectivity | Less used through fixed connectivity | Used the same through fixed connectivity | More used through fixed connectivity | Not used anymore through mobile connectivity | Less used through mobile connectivity | Used the same through mobile connectivity | More used through mobile connectivity |
|---|---|--|---|--|---|---|--|---|
| Data repository (e.g. archiving files in the cloud) | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Text communication (e.g. e-mails, instant messaging, social media) | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Voice communication (e.g. IP telephony) | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Video communication (e.g. video conferencing, video calls) | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| | | | | | | | | |

| | | | | | | | | |
|--|--------------------------|--------------------------|--------------------------|-------------------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| Collaborative tools (e.g. social networks) | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Connected objects (e.g. cameras, sensors) | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Assistive devices and/or accessible technologies | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Other | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

6b. How do you think the way you / your organisation access(es) to the following content, products and services will evolve by 2025 compared with today?

| | Not used anymore through fixed connectivity | Less used through fixed connectivity | Used the same through fixed connectivity | More used through fixed connectivity | Not used anymore through mobile connectivity | Less used through mobile connectivity | Used the same through mobile connectivity | More used through mobile connectivity |
|---|---|--|--|--|---|---|--|---|
| Access to text content (e.g. blogs, newspapers) | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Access to audio content (e.g. music streaming) | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Access to video content (e.g. video games, IPTV) | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Access to financial / banking products and services | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

| | | | | | | | | |
|---|--------------------------|--------------------------|--------------------------|-------------------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| Access to e-commerce / shopping products and services | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Access to e-learning products and services | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Access to digital public services | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Access to e-health products and services | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Other | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

6c. How do you think the way you / your organisation provide(s) the following content, products and services will evolve by 2025 compared with today?

| | Not used anymore through fixed connectivity | Less used through fixed connectivity | Used the same through fixed connectivity | More used through fixed connectivity | Not used anymore through mobile connectivity | Less used through mobile connectivity | Used the same through mobile connectivity | More used through mobile connectivity |
|--|---|--|--|--|---|---|--|---|
| Provision of text content (e.g. blogs, newspapers) | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Provision of audio content (e.g. music streaming) | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Provision of video content (e.g. video games, IPTV) | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Provision of financial / banking products and services | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

| | | | | | | | | |
|--|--------------------------|--------------------------|--------------------------|-------------------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| Provision of e-commerce / shopping products and services | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Provision of e-learning products and services | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Access to digital public services | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Provision of e-health products and services | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Other | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

7. How do you think that the maximum number of Internet services and applications that you / your organisation use(s) simultaneously through the same fixed connection will evolve by 2025?

- ☐ Decrease
- ☐ Remain stable
- ☐ Increase slightly
- ☒ Increase significantly

Please specify.

8. In your view, how important are / will be the following features of **fixed** connectivity?

Should you need further information about the following features, please refer to the introduction "general information about this public consultation" and the attached document "background and definitions on the needs for Internet speed and quality 2020".

| | Not important at all today | Not important today | Neutral today | Important today | Very important today | Not important at all in 2025 | Not important in 2025 | Neutral in 2025 | Important in 2025 | Very important in 2025 |
|----------------------|----------------------------|--------------------------|--------------------------|--------------------------|-------------------------------------|------------------------------|--------------------------|--------------------------|--------------------------|-------------------------------------|
| Download speed | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| Upload speed | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| Symmetry | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| Latency | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| Network congestion | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| Resilience | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| Reliability | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| Uninterrupted access | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| Ubiquity | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

| | | | | | | | | | | |
|-------|---|---|---|--|---|---|---|---|---|---|
| Other |  |  |  |  |  |  |  |  |  |  |
|-------|---|---|---|--|---|---|---|---|---|---|

9. In your view, how important are / will be the following features of **mobile** connectivity?

Should you need further information about the following features, please refer to the introduction "general information about this public consultation" and the attached document "background and definitions on the needs for Internet speed and quality 2020".

| | Not important at all today | Not important today | Neutral today | Important today | Very important today | Not important at all in 2025 | Not important in 2025 | Neutral in 2025 | Important in 2025 | Very important in 2025 |
|----------------------|----------------------------|--------------------------|-------------------------------------|--------------------------|--------------------------|------------------------------|--------------------------|--------------------------|--------------------------|-------------------------------------|
| Download speed | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| Upload speed | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| Symmetry | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| Latency | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| Network congestion | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| Resilience | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| Reliability | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| Uninterrupted access | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| Ubiquity | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

| | | | | | | | | | | |
|-------|---|---|---|--|---|---|---|---|---|---|
| Other |  |  |  |  |  |  |  |  |  |  |
|-------|---|---|---|--|---|---|---|---|---|---|

10. Which **fixed** connectivity features do you think you / your organisation need(s) today / will need in 2025?

| | Today | In 2025 |
|--|-------------------------------------|-------------------------------------|
| Download speed below 30 Mbps | <input type="checkbox"/> | <input type="checkbox"/> |
| Download speed between 30 and 100 Mbps | <input type="checkbox"/> | <input type="checkbox"/> |
| Download speed between 100 Mbps and 1 Gbps | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| Download speed above 1 Gbps | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| I don't know about my download speed's needs | <input type="checkbox"/> | <input type="checkbox"/> |
| Upload speed below 30 Mbps | <input type="checkbox"/> | <input type="checkbox"/> |
| Upload speed between 30 and 100 Mbps | <input type="checkbox"/> | <input type="checkbox"/> |
| Upload speed between 100 Mbps and 1 Gbps | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| Upload speed above 1 Gbps | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| I don't know about my upload speed's needs | <input type="checkbox"/> | <input type="checkbox"/> |
| Latency between user and ISP above 100 milliseconds | <input type="checkbox"/> | <input type="checkbox"/> |
| Latency between user and ISP between 10 and 100 milliseconds | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| Latency between user and ISP below 10 milliseconds | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| I don't know about my latency's needs | <input type="checkbox"/> | <input type="checkbox"/> |

11. Which **mobile** connectivity features do you think you / your organisation need(s) today / will need in 2025?

| | Today | In 2025 |
|--|-------------------------------------|-------------------------------------|
| Download speed below 30 Mbps | <input type="checkbox"/> | <input type="checkbox"/> |
| Download speed between 30 and 100 Mbps | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| Download speed between 100 Mbps and 1 Gbps | <input type="checkbox"/> | <input type="checkbox"/> |
| Download speed above 1 Gbps | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| I don't know about my download speed's needs | <input type="checkbox"/> | <input type="checkbox"/> |

| | | |
|--|-------------------------------------|-------------------------------------|
| Upload speed below 30 Mbps | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| Upload speed between 30 and 100 Mbps | <input type="checkbox"/> | <input type="checkbox"/> |
| Upload speed between 100 Mbps and 1 Gbps | <input type="checkbox"/> | <input type="checkbox"/> |
| Upload speed above 1 Gbps | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| I don't know about my upload speed's needs | <input type="checkbox"/> | <input type="checkbox"/> |
| Latency between user and ISP above 100 milliseconds | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| Latency between user and ISP between 10 and 100 milliseconds | <input type="checkbox"/> | <input type="checkbox"/> |
| Latency between user and ISP below 10 milliseconds | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| I don't know about my latency's needs | <input type="checkbox"/> | <input type="checkbox"/> |

12. Please indicate and specify any relevant aspect of your / your organisation's current and future connectivity needs which you think was not covered by the questions above.

The structure of organisations is changing with less centralised organisations being complemented with external (consulting) resources. Our organisation is a virtual organisation without a specific office for many resources. Instead our offices are complemented by the virtual participation of a range of resources delivered from countries all across Europe. This sort of structure is less common today but will likely become more and more common in the future even for SMEs. In that context, connectivity is fundamental to the functioning of the firm. Resources located in areas without sufficient connectivity will not be able to participate in this kind of workforce.

13. Do you consider inadequate connectivity as a risk to?

| | No risk at all | Very low risk | Low risk | Neutral | High risk | Very high risk |
|---------------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|----------------------------------|
| Competitiveness | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input checked="" type="radio"/> |
| Social inclusion | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input checked="" type="radio"/> |
| Employment | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input checked="" type="radio"/> |
| Cohesion / digital divide | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input checked="" type="radio"/> |
| Education and learning | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input checked="" type="radio"/> |

| | | | | | | |
|---|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|----------------------------------|
| Research and data driven activities | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input checked="" type="radio"/> |
| Consumer welfare | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input checked="" type="radio"/> |
| Accessibility for persons with disabilities | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input checked="" type="radio"/> |
| Other | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |

14. Overall, do you feel that your / your organisation's current fixed and/or mobile connectivity needs are fulfilled?

- ☐ Fully fulfilled
- ☐ Partially fulfilled
- ☒ Not at all fulfilled
- ☐ I don't know

14a. If you replied "partially fulfilled" or "not at all fulfilled", please specify what you think should be done for your current connectivity needs to be fully fulfilled.

I need a FTTH Connection for speed and reliability.

15. Overall, are you optimistic that your / your organisation's future fixed and/or mobile connectivity needs will be fully fulfilled in 2025?

- ☐ Very optimistic
- ☐ Optimistic
- ☐ Pessimistic
- ☒ Very pessimistic
- ☐ I don't know

15a. If you are (very) pessimistic concerning the fulfillment of your future connectivity needs, do you consider that measures by public authorities are needed to promote investment in and take-up of connectivity networks and services in line with identified future needs?

- ☒ Yes
- ☐ No
- ☐ I don't know

If you replied "yes", please explain why and specify by what means and at what level should initiatives be taken (e.g. EU, national, regional, sectorial).

It would be best if public funds were applied at an EU level.

15aa. From a public policy perspective, should measures to promote connectivity in 2025 and beyond focus on?

- ☒ Households
- ☒ Professional use (e.g. companies, including SMEs)
- ☒ Public use (e.g. schools, hospitals, libraries, public buildings)
- ☒ Some specific sectors (e.g. health, automotive)
- ☒ Particular industrial connectivity needs such as in the area of the Internet of Things or of connected car
- ☐ None of the above
- ☒ Other

If "other", please specify.

We need to take a holistic approach. All members of society will have a greatly increased demand for speed and other functionality (latency, jitter etc.)

15ab. As far as mobile connectivity is concerned (related to individual users and objects "on the move"), and considering technological developments such as 5G, do you think that public policy should focus on?

- ☒ Ensuring complete territorial coverage of basic voice and data services
Ensuring seamless high-quality experience between different users, devices and
- ☒ wireless objects in populated areas (where people live, work and gather) and along transport routes
- ☒ Ensuring seamless high-quality experience between different users, devices and wireless objects everywhere
- ☐ None of the above
- ☐ Other

15b. Please indicate and specify any additional relevant aspect of what you think should be done for your / your organisation's future connectivity needs to be fully fulfilled.

The FTTH Council believe that the widespread deployment of FTTH will facilitate enormous benefits for the economic and social development of Europe. Many of the potential uses of FTTH such as home working and home-based eHealth applications have significant impacts with them which can be classified as positive externalities. In the case of home-working this could be relief of traffic congestion allowing other commuters to

save time as well as positive environmental impacts and in the case of home-based eHealth applications decongestion of healthcare facilitates and financial savings to the State can be anticipated in addition to the direct benefits. In these circumstances, the benefits accruing to society often go far beyond the direct economic benefits identified by investors.

The challenges facing Europe and identified in the Commission's EU2020 strategy are many but importantly include aging populations and the increased pressure on healthcare systems as well as environmental sustainability and lifting economic productivity. The FTTH Council believe that FTTH networks can help to deliver or enable a significant part of the solutions to these problems by working with service providers in the different sectors of the economy where these problems are identified.

It may be that service providers who could provide innovative healthcare services simply need much higher bandwidth in order to use simultaneously a number of applications such as high definition video, or symmetric video. Moreover, many applications right now, and more so in the future, also need the reliability of FTTH – for example connected healthcare applications, and FTTH networks are significantly more robust than existing networks. This is a very important non-speed factor if critical healthcare elements are to be put on the line, reliability and customer trust in the networks involved will be the critical metrics.

However, the delivery of high end public services requires vision to develop service delivery to end users and where that happens, these benefits are already tangible in countries that have adopted fibre over the past decade, such as Sweden (e.g. nurse Gudrun care channel which relies on FTTH to provide patients with online video consultations over their TV sets, thereby reducing out-patient visits). For government, local authorities or communities, these benefits may represent compelling arguments for fibre in their own right. Commercially driven organisations may also be able to capture a financial benefit from these so-called network externalities, for example, by winning public funding, or signing up a healthcare provider as a core customer.

16. What kind of action(s) can the European Commission take to monitor the development and take-up of connectivity in Europe in line with future needs?

The FTTH Council sees a growing recognition that high speed internet connections are important for economic and societal development. A critical issue in the context of publically financed networks (wholly or partially) is what type of network should be built. The FTTH Council believes that these networks should be Fibre To The Home (FTTH). Recently, public bodies have recognised the importance of high performance networks. This can be seen in the number of national regulatory agencies that are actively promoting the build-out and adoption of ultra-fast broadband speeds.

In 2010, the Digital Agenda for Europe set up three "broadband targets":

- Basic broadband for all citizens by 2013;
- Coverage: Next Generation Networks (NGN) (30 Mbps or more) accessible for all by 2020;
- Uptake: 50% of households having 100 Mbps subscriptions or higher by 2020.

It should be noted that while the European Commission's stated goal is to have 50% of EU households to subscribe to 100 Mbps or greater by 2020, such a subscription rate would imply virtually ubiquitous availability (with a 50% take rate). In that sense, any consideration of a 30Mbps threshold already looks antiquated.

Europe needs to revise its Broadband targets significantly upwards or risk falling behind other regions of the world.

In the US, the FCC's National Broadband Plan calls for 100 million homes to have access to 100 Mbps download speeds and 50 Mbps upload speeds by 2020.

The FTTH Council sees it as important that the network targets are set across a range of metrics and that they are set at an appropriate level. The FTTH Council would also stress the need to incorporate targets that can evolve over time and that can react to changes in demand - for instance, if in 10 years end user demand will be 1Gbps symmetrical, or 1 millisecond latency becomes critical for service applications, then the network built should be able to show that it can deliver such characteristics in the future.

Where networks are being delivered in less densely populated areas, often the commercial case is weak but a large number of studies have shown that the societal benefits are greatest in these low density areas. A recent study by Ovum for the FTTH Council looking at the socio-economic benefits of fibre found that the provision of fibre at a municipal level is regarded as having positive benefits on health, education and other public services. These benefits range from reduced telecom costs to more efficient and new services. This is particularly true in rural areas where limited resources and distance can be barriers to service quality. One example from Sweden is the nurse Gudrun care channel which relies on FTTH to provide patients with online video consultations over their TV sets, thereby reducing out-patient visits. At the time of the launch, the Nurse Gudrun service provided online consultations at one sixteenth of the cost of a hospital visit implying important savings on public health budgets can be achieved as well as service delivery for consumers.

Service innovation requires service competition and the FTTH Council believes that where publicly funded networks are deployed third party access competition must be facilitated in order to ensure that services based competition is well developed.

ADDITIONAL INFORMATION

Please upload any additional information, e.g. position papers, reports.

- [83a004c9-11c0-4621-b08c-dbf9320e731/New Commission Business friendly measures final.pdf](#)
- [ea7a7536-a476-427c-8ce8-0a90322e7615/New Commission State as Anchor Client final.pdf](#)
- [45c94a2f-56be-41e5-990d-f564b1680ed1/New Commission Structural Separation final.pdf](#)
- [7e98fa2e-65e0-4f4f-8c09-21f675a86f3f/New Commission Technological neutrality final.pdf](#)
- [f4084a2b-c79f-49ac-b1cc-41633b7e7491/New Commission Transparency final.pdf](#)

Any other comments?

Contact

✉ CNECT-B5-PUBLIC-CONSULTATION@ec.europa.eu
