Ageing in the digital era

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ITU Digital Transformation for Cities and Communities Webinar Series - Episode #10: The role of digital technologies on aging and health
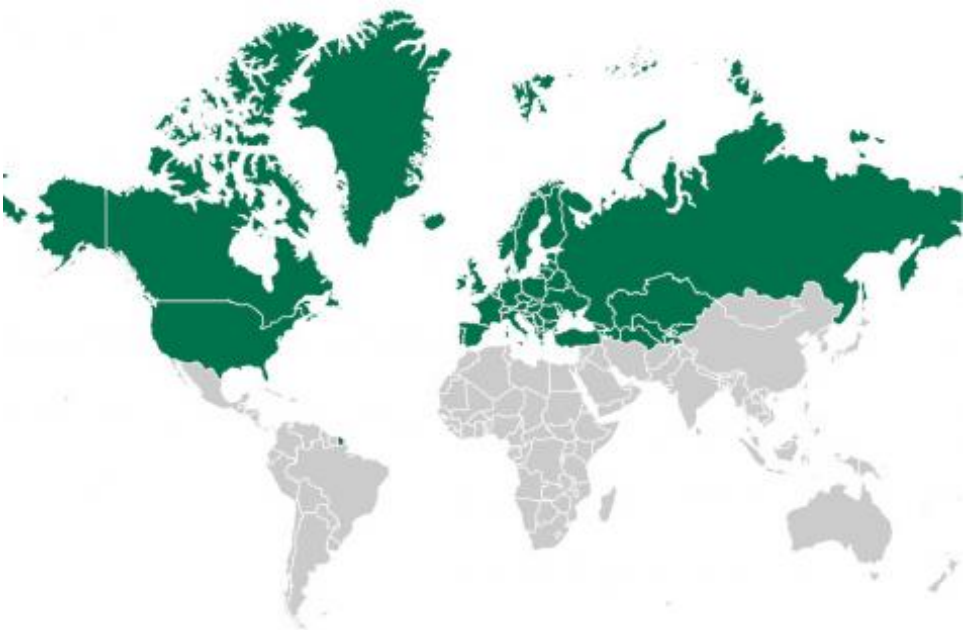
Few facts on digital gaps in UNECE region
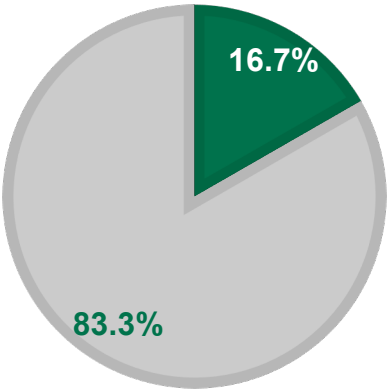
Barriers to digital inclusion of older persons
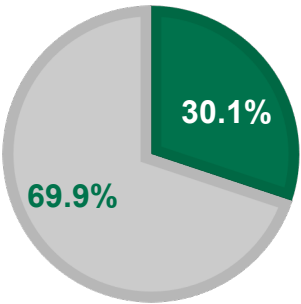
Suggested policy action areas & some practice examples

UNECE region - 56 member States

TOTAL POPULATION

16.7%

83.3%

65+

30.1%

69.9%

80+

39.4%

60.6%
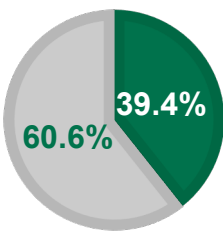
■ UNECE*   ■ Rest of the world

2020

Median age 37.9
65 + 14.6%

Median age 41.1
65 + 19.0%

male   female

10%   5%   0%   5%   10%

2050

Median age 42.5
65 + 22.2%

Median age 45.5
65 + 26.6%

male   female
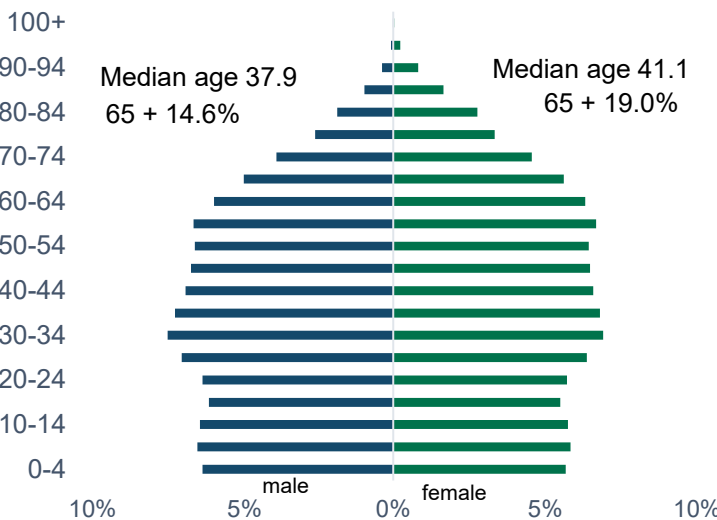
10%   5%   0%   5%   10%
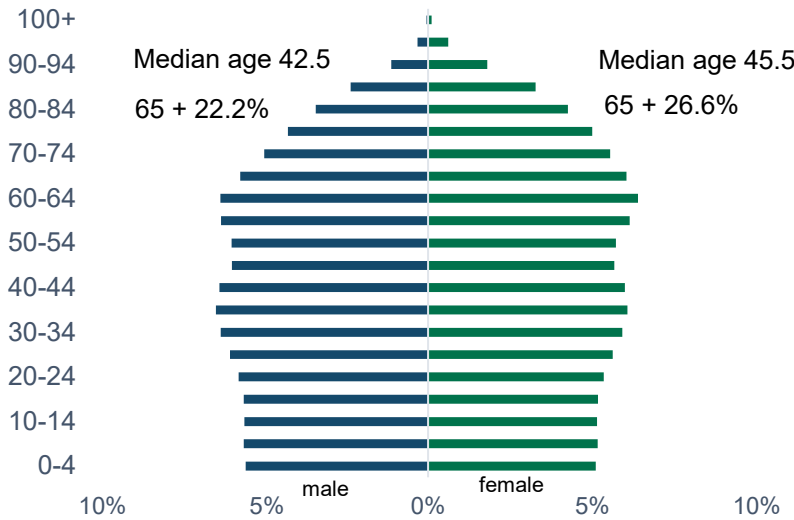
Source: 2019 Revision of World Population Prospects
*Except Andorra, Liechtenstein, Monaco, San Marino

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Share of individuals who have basic or above basic overall digital skills by age groups, EU-27, 2019
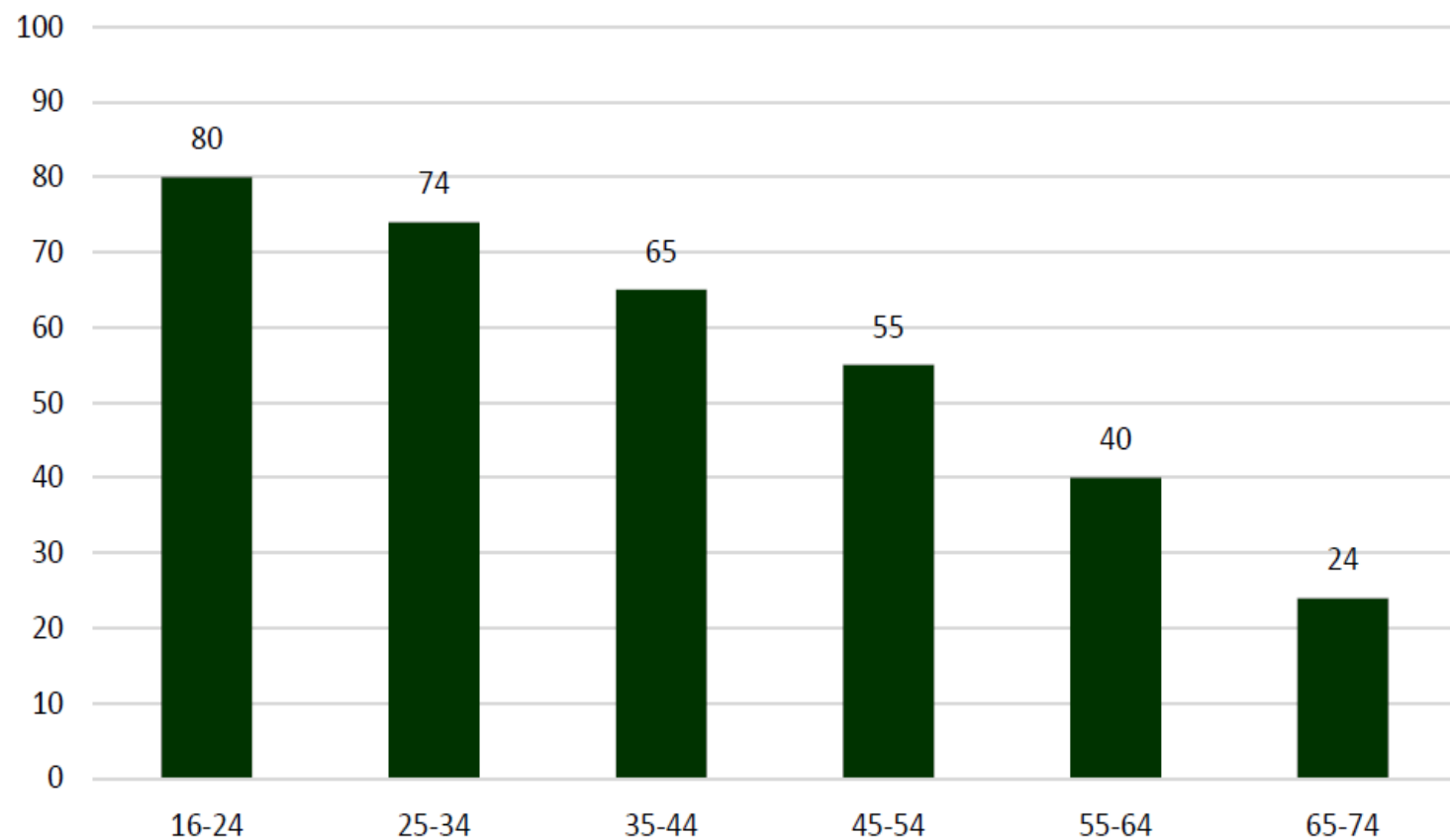
Never used the Internet, selected countries, 2011 and 2020

65-74 years old
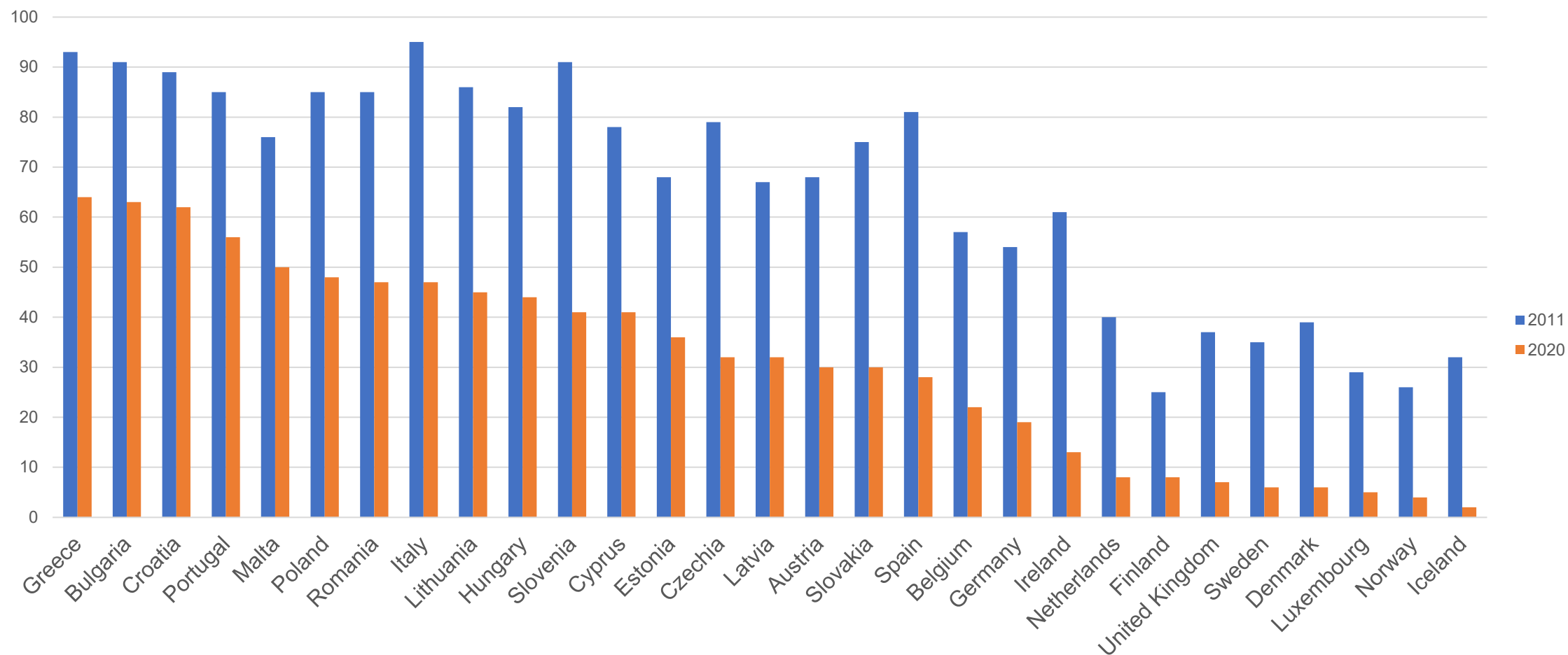
Source: Eurostat, ISOC_CI_IFP_FU (2021)

Internet activities by gender among individuals aged 55-74, EU-27, 2019

Internet activities by educational groups among individuals aged 55-74, EU-27, 2019
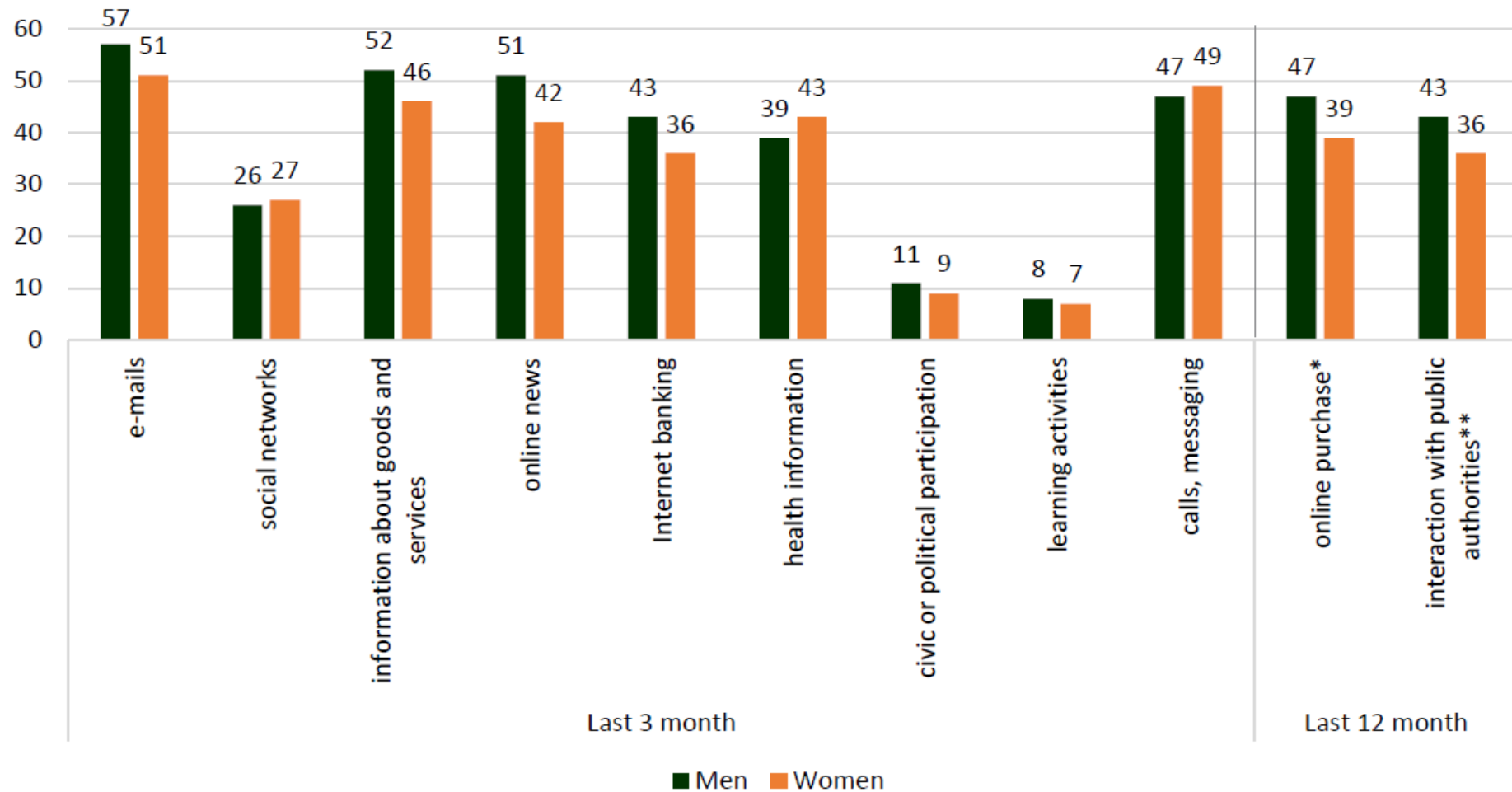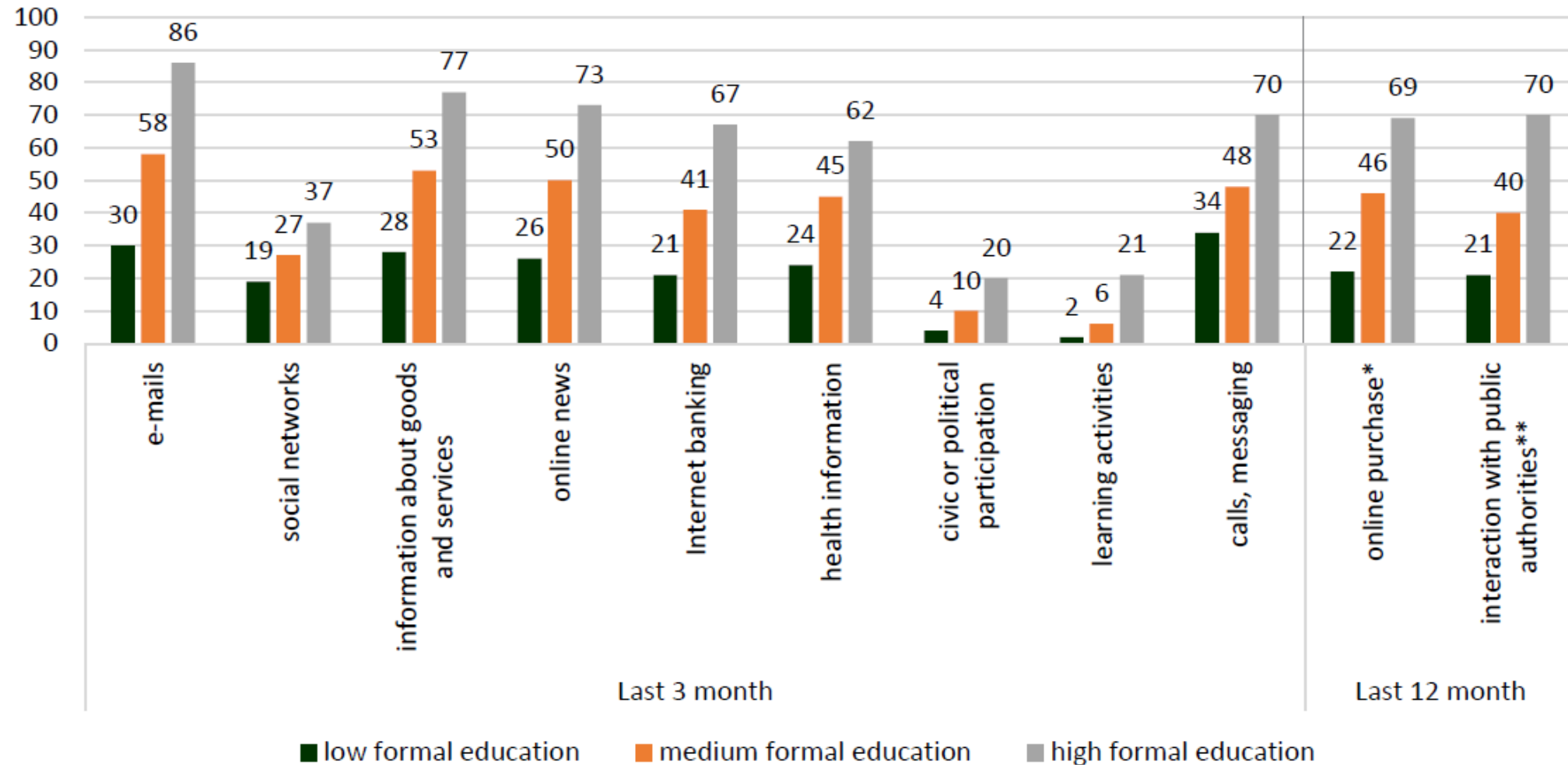
Source: Eurostat, isoc_ci_ac_i , isoc_ciegi_ac, isoc_ec_ib (2021).

Barriers to digital technology adoption and use in later life

Cultural Social Economic Phychological Health Disability status

backgrounds
- socioeconomic
- educational
- professional

Low digital engagement

disengagement ← Physical and cognitive impairments

Lacking digital skills and experience

Barriers to digital technology adoption and use in later life

little end-user experience on initial stages
overfocused on health care
inaccessible design
lack of relevance

Design and target products

lack of self-confidence
low motivation
no interest

Negative self-perception

technophobic, incapable, or uninterested

stereotypes
prejudice
discrimination

Ageism

internalized ageism

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Digital inclusion and empowerment of older persons in the digital era requires policy action to:

- Ensure equal access to goods and services involving digital technology

- Enhance digital literacy to reduce the digital skills gaps

- **Leverage the potential of digital technologies for active and healthy ageing, well-being and empowerment of older persons**

- Protect the human rights of older persons in the digital era

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Access to goods and services

Universal connectivity

Affordability

Design for all

Support for use of digital services

| e-banking | e-government | e-commerce | e-learning |

Offline access to goods and services

- high-speed Internet infrastructure and broadening geographical coverage
- **Internet coverage in long-term-care institutions /care homes**

- financial support to facilitate access to digital technologies, devices and the Internet

- focus on **usability, usefulness, functionality, acceptability and accessibility**
- participatory design and co-design of digital technology
- promotion of digital artefacts and services for leisure and social interaction
- **tailored support** (incl. encouraged through government measures)
- guidance to service providers to make online services
- ensuring digital literacy and providing coaching

- maintenance of offline access to essential information, goods and services
- no financial penalty for offline access to services
- offline assistance in using online services

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Enhancing digital literacy

Digital skills, competence and ability

- life-course perspective (maintenance and updating)
- intergenerational and peer-to-peer training (incl. **internet safety and security training**)

Tackle ageism

- change the narrative surrounding older technology users, eradicate ageist notions (incl. media)
- sensitize developers and service providers to the diversity of older persons' needs and preference
- awareness-raising campaigns and initiatives, incl. intergenerational contact and learning

Leveraging the potential of digital technologies for active & healthy ageing

Reduce loneliness and enhance connections

- facilitate social connections and participation by older persons via digital communication
- ensure human interactions are not fully substituted

Opportunities for healthy ageing & independent living

- **promote access to e-health services**
- facilitate **health management** through the use of digital devices and services
- facilitate **independent living through use of digital technologies** and assistive devices
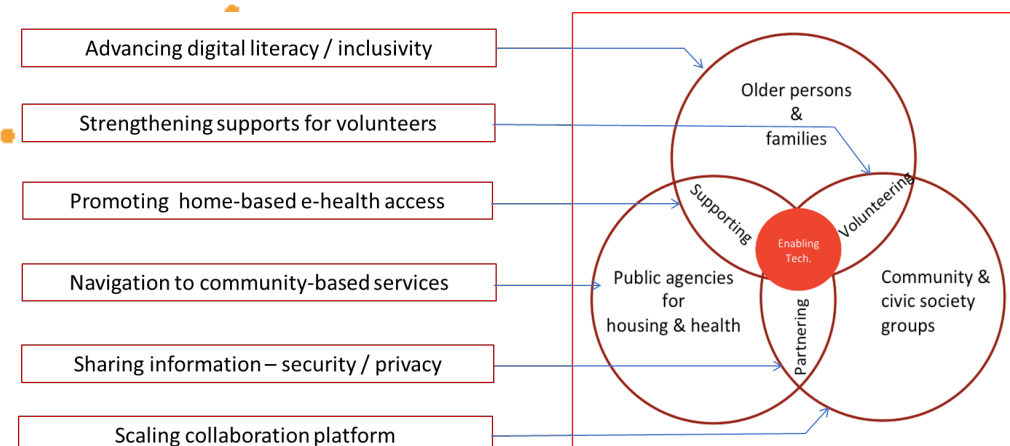
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Digital technology to foster health management and independent living in Ireland

The BConnect service by the Irish organization ALONE provides technology and services to support older people to better manage their health and remain living at home for longer. The BConnect service includes comprehensive assessments with older people to identify areas of support including where technology may be able to provide it. ALONE can then provide tailored packages of technology solutions, including: information resources, such as Wi-Fi and tablets, to avail of Internet services, and communication devices, to support contact with carers, family and friends; e-Health devices, such as smartwatches, blood pressure monitors and ECG's to enable the older person to maintain their own health at home; Smart home devices, such as motion sensors, door sensors and smart doorbells, to ensure the safety of vulnerable older people; and portable emergency alarms with GPS capabilities, to provide additional safety and security measures for older people.

These devices can be connected with family members' or other trusted carers' smartphones, enabling better care and better outcomes for the older person and their carers. Information provided can include: smartphone alerts, based on activity in the home or front door activity, alerts from emergency alarms activated by the user, and communication pathways from the carers' smartphone direct to the older person without any interaction. ALONE provide training and support to ensure the older person benefits from the devices optimally. ALONE has carried out over 200 installations and completed over 4 pilot projects displaying the benefits of technology to older people, their families, health care facilities and Approved Housing Bodies. ALONE is working as a living lab with th[e] Transformation Team, and as such are training their network of Support Coordinators to prescribe t[o] health, welfare and social issues.

Source: Information provided by ALONE. https://alone.ie/what-we-do/bconnect/

Source: Policy Brief #26 & ALONE presentation at the 2020 Policy seminar

Technology Engagement

ALONE
YOU'RE NOT ALONE

- Advancing digital literacy / inclusivity
- Strengthening supports for volunteers
- Promoting home-based e-health access
- Navigation to community-based services
- Sharing information – security / privacy
- Scaling collaboration platform

Older persons & families
Supporting
Volunteering
Enabling Tech.
Public agencies for housing & health
Partnering
Community & civic society groups

Czech Republic: Virtual Reality (VR) in activating older persons

Virtual reality can serve as a an activation tool which could break down prejudices of older people towards new technologies. A VR experience can positively affect their self-expression and self-confidence, motivate them, stimulate their curiosity and to strengthen their well-being. A new project by the Faculty of Theology, University of South Bohemia, the Czech Institute of Informatics, Robotics, and Cybernetics and the Association for Virtual and Augmented Reality, in collaboration with the Ministry of Labour and Social Affairs of the Czech Republic (2019-2022) works with nursing home residents to create VR software - a set of virtual experiences providing a naturally stimulating environment. Older persons in nursing homes were consulted about environments they appreciated and as a result of the research Czech forests, travelling in the Czech Republic and abroad and a centre of a Czech town or village were selected to inspire the creation of virtual environments. The project will provide instructions on using this new technology and practical examples of using experiences in a virtual environment for employees in nursing homes. Worksheets for activity coordinators in nursing homes and informal carers provide instructions on how to work with virtual reality experiences, for example in group or individual memory training. A first version of the software will be tested in nursing homes to provide feedback from older persons and activity coordinators, and subsequently will help to adapt the software to their requirements and make it more user friendly.

Source: Information provided by National Focal Point on Ageing from the Czech Republic.

Together Program with Uniper in Israel

In order to tackle isolation among older persons during the pandemic, the Government of Israel has installed 450 Uniper devices. The Uniper technology is a TV-based and mobile-based solution for care delivery and social engagement, including live and interactive health and wellness content, HIPAA compliant video telehealth, remote assessments, family communication, and peer-led groups. This end-to-end solution transforms a TV or mobile device into an interactive connectivity hub providing older persons with access to services and opportunities for social interaction from the comfort of their home.

Source: Policy Brief #26

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Human rights

Dignity and autonomy

- avoid disempowering practices, avoid dehumanization in care
- human rights impact assessments of digital technologies in health and social care
- guidelines on human-rights based approach to digital technology design on all stages of development

Privacy

- ensure data protection and ethical use of data collected through the use of digital technology
- transparency on monitoring, data processing, gathering purpose, data storage and sharing

Participation in decision-making

- involve older persons and their representatives in decision-making processes about digital technology use
- monitor impact of digitalisation on older persons, incl. the most vulnerable

Free and informed consent

- enable older persons to weigh risks and advantages of technology use through tailored information and training
- older persons should remain in control of what kind of information is collected, how it will be processed and who will get access to it

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Policy brief

Ageing in the Digital Era

UNECE Policy Brief on Ageing No. 26
July 2021

UNECE Policy Brief on Ageing No. 26

Checklist: Ageing in the digital era

Main areas	Areas of implementation	Key elements
Access to goods and services	Universal connectivity	• Internet access for all older persons, including those living in long-term-care institutions
	Affordability	• Financial assistance to those who cannot afford digital technologies and broadband connections
	Design for all	• Accessibility regulations • Involvement of older persons in the design and development of digital technology and services to ensure they meet their needs and interests
	Support for use of digital services	• Tailored support to older user of digital services such as e-banking, e-Government, e-learning • Guidance to service providers to make online services more age-friendly
	Offline access to goods and services	• Maintain offline access to essential information, goods and services • Avoid financial penalty for offline access to services
Digital literacy	Digital skills	• Intergenerational training • Peer-to-peer training • Internet security training
	Ageism	• Avoid ageist stereotypes against older technology users • Promote intergenerational digital training and contact • Tailor programmes to enhance self-confidence of older persons in using digital technologies
Benefits of digital technology	Loneliness and social isolation	• Facilitate social connections and participation by older persons via digital communication
	Opportunities for healthy ageing and independent living	• Promote access to e-health services • Facilitate health management through the use of digital devices and services • Facilitate independent living through use of digital technologies and assistive devices
Human rights	Dignity and autonomy	• Avoid disempowering practices such as neglect of older persons' needs and preferences • Human rights-based impact assessments of digital technologies in health and social care • Guidelines on human-rights based approach to digital technology design, development and use involving technology designers, services providers, procurers and civil society • Access to medical technologies for all
	Privacy	• Ensure data protection and ethical use of data collected through the use of digital technology • Transparency on monitoring, data processing, gathering purpose, data storage and sharing
	Participation in decision-making	• Involve older persons and their representatives in decision-making processes about digital technology use • Monitor impact of digitalisation on older persons, including on the most vulnerable
	Free and informed consent	• Enable older persons to weigh risks and advantages of technology use through tailored information and training • Older persons should remain in control of what kind of information is collected, how it will be processed and who will get access to it

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Gender equality in ageing societies

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Ageing in sustainable and smart cities

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May 2020

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Older Persons in Emergency Situations

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November 2020

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GUIDELINES FOR MAINSTREAMING AGEING

UNITED NATIONS

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Thank you for your attention!

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