Census Technology

Preparing the 2030 census recommendations

Conference of European Statisticians task force on census technology
Andres Vikat (UNECE)

UNECE Group of Experts on Population and Housing Censuses

Geneva, 20-22 September 2023

Task Force 4: Census Technology

- Canada: Stéphanie Fortier

- Ireland: John Conway

- Israel: Ana Binstok

- Russian Federation: Galina Sheverdova

- Eurostat: Hannes Reuter

- United Nations Economic Commission for Europe: Andres Vikat (chair)

- United Nations Statistics Division: Seiffe Tadesse

Scope

- Assist in introducing technologies not used in a country before

- Help assess benefits and risks of specific technologies

- Potential for technologies not yet applied in a census

- **Internet response; Devices; Software; Outsourcing**

- Mainly for field enumeration

- (Geographic information systems: task force 11)

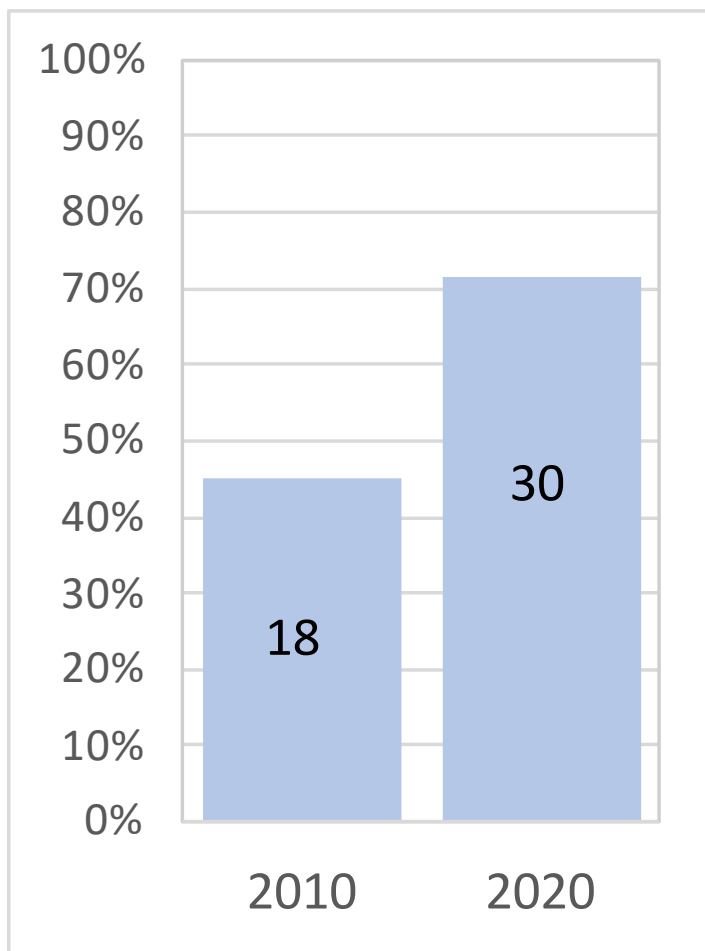- Review the practice in the 2020 census round

Internet response and use of electronic devices, 2010 and 2020 census rounds, UNECE region
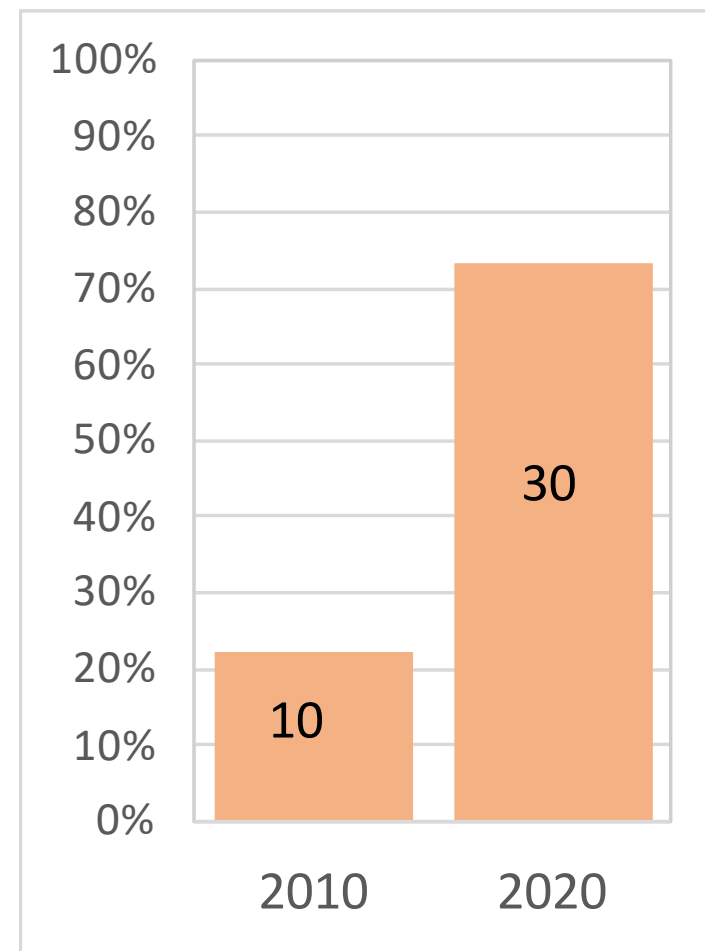
Number and percentage of censuses with field enumeration

Internet

Electronic devices

Internet response

- Online or downloadable forms

- Internet first? Login credentials. Privacy

- Features used in online form

- Peak demand time

Devices

- Laptop / tablet / smartphone / …

- Obtaining and disposing

- Difficulties

Software

- Kinds of software applications for specific operations

- Cloud technologies

- Cyber security standards

- Optical reading

- Enhance accessibility

- Anonymizing micro-data

Considerations for the 2030 recommendations

- Guidance on designing and processing data from **electronic questionnaires**

- Advise to take the time and resources to **test** technology fully on diverse user groups

- Consider **implications** on other census operations and on data quality

- **Outsourcing:** consider advantages of engaging one contractor for linked applications, to ensure responsibility and functionality

- Some aspects for the use of **registers**: linking, storage, remote access, security

- Potential for **big data, synthetic data, artificial intelligence** (Swiss example for household type). Study other relevant examples

- Minimise descriptions of paper-based technologies

Thank you
for your attention!

Andres Vikat

UNECE Statistical Division

unece.org/statistics