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
• 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**

<table>
<thead>
<tr>
<th>Year</th>
<th>2010</th>
<th>2020</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>18%</td>
<td>30%</td>
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**Electronic devices**

<table>
<thead>
<tr>
<th>Year</th>
<th>2010</th>
<th>2020</th>
</tr>
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<tbody>
<tr>
<td></td>
<td>10%</td>
<td>30%</td>
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</table>
Internet response

- Online or downloadable forms
- Internet first? Login credentials. Privacy
- Features used in online form
- Peak demand time
• 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!

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