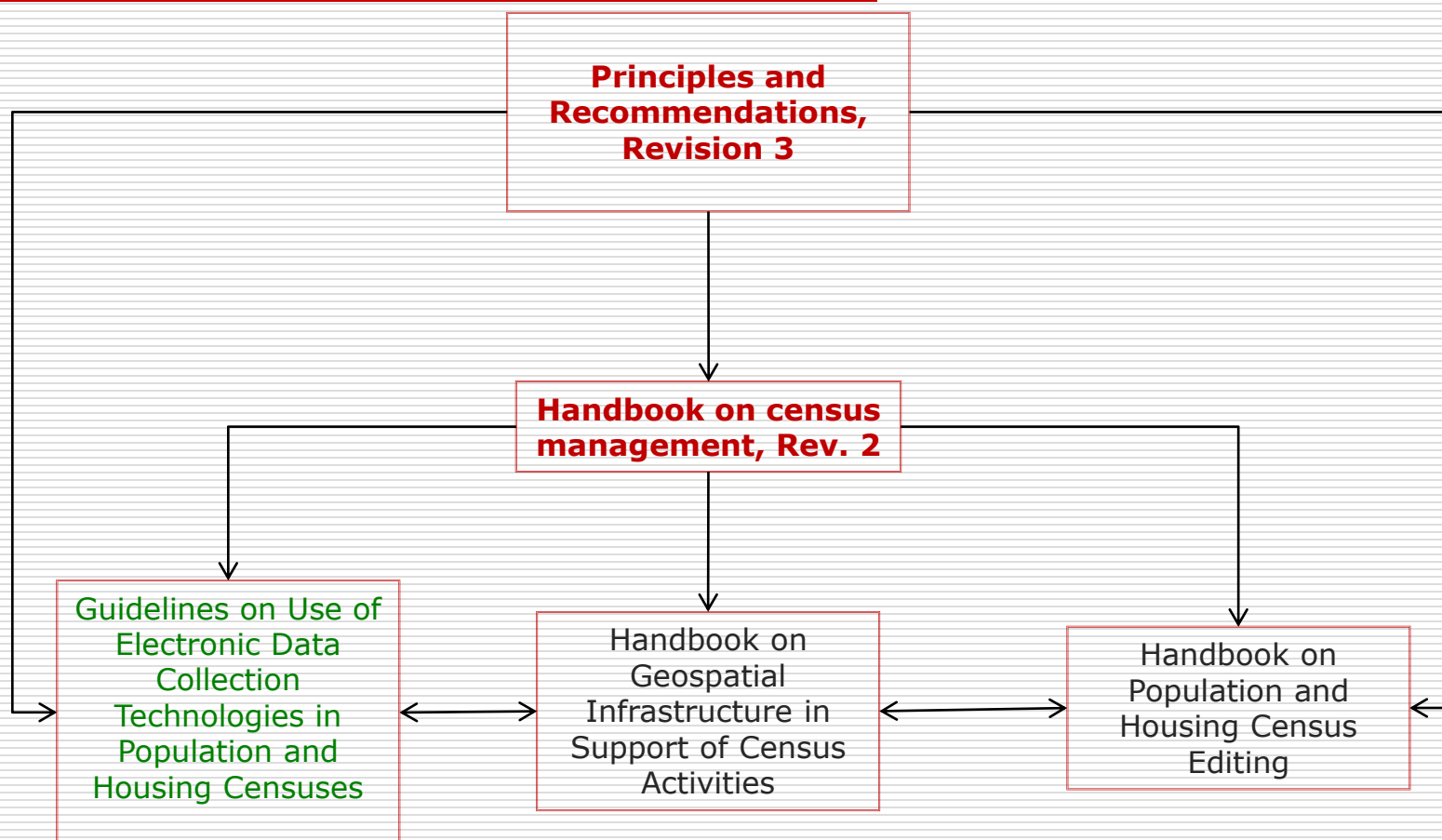# Draft Guidelines on the Use of Electronic Data Collection Technologies in Population and Housing Censuses

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UNSD Methodological framework – 2020 Round of Censuses

Principles and Recommendations, Revision 3

Handbook on census management, Rev. 2

Guidelines on Use of Electronic Data Collection Technologies in Population and Housing Censuses

Handbook on Geospatial Infrastructure in Support of Census Activities

Handbook on Population and Housing Census Editing

Outline of the *Guidelines*

- ❑ Chapter A. Introduction

- ❑ Chapter B. Overview

- ❑ Chapter C. Decision making

- ❑ Chapter D. Planning and preparations

- ❑ Chapter E. Handheld devices

- ❑ Chapter F. Internet

Chapter A. Introduction

❑ **Rationale for handbook**
  - ❑ In the context of the overall UNSD methodological framework
  - ❑ In the context of steps already undertaken in number of countries
  - ❑ Cross-referencing with national experiences

❑ **Scope**
  - ❑ All aspects of hand-held and internet use

❑ **Purpose**
  - ❑ Provide guidelines and advice for the 2020 round in concatenation with other methodological standards

Chapter B. Overview

❑ **Drivers of technological innovations in contemporary censuses**
  ❑ Timely and high-quality statistics
  ❑ Efficiency and savings
  ❑ Public expectations and data

❑ **Overview of data collection methods**
  ❑ Paper questionnaire with face-to-face interviews – PAPI
  ❑ Computer-assisted personal interviewing – CAPI
  ❑ Computer-assisted telephone interviewing – CATI

  ❑ Paper questionnaire with self-enumeration – PASI
  ❑ Computer –assisted self-interviewing – CASI

  ❑ Multi-mode

Chapter C. Decision-making in adoption of electronic data collection technologies

- ❑ **Key determinants**
  - ❑ Institutional factors
  - ❑ Technological factors
  - ❑ Economic factors
  - ❑ Human, social, cultural …
- ❑ **Information required**
  - ❑ National context
  - ❑ Operational aspects
  - ❑ Resources, cost estimates, benefits, risks
  - ❑ Time table
  - ❑ Re-use
  - ❑ Best practices
- ❑ **Processes**
  - ❑ Management group,
  - ❑ Analysis, decision

Chapter D. Planning and preparation

- ❑ Managing investment
- ❑ Institutional capacity development
  - ❑ Re-organizing the office
  - ❑ Management adjustment
  - ❑ IT skills, human capacity development
- ❑ IT Acquisition
- ❑ IT systems development
- ❑ Uses of geospatial technology
- ❑ Testing IT systems and processes
- ❑ Contingency planning
- ❑ Information and system security
- ❑ Evaluation of investment in technology

Chapter E. Data collection with handheld electronic devices

- ❑ **Considerations for selection of handheld devices**
  - ❑ Assessing available devices; features such as portability, size …;evaluation schemes and protocols; device acquisition
- ❑ **Data collection application(s)**
  - ❑ CAPI features; buy, build or use freeware; design and performance
- ❑ **Data transmission**
  - ❑ Means of data transmission; technical considerations; risk mitigation
- ❑ **Data security**
  - ❑ Concerns and risks; security policies and measures
- ❑ **Use of geospatial technology for enumeration**
  - ❑ GIS for logistics, planning and operations; map applications; monitoring
- ❑ **Testing application(s) and system**
- ❑ **Field operation management and monitoring**
  - ❑ Recruitment; organization; technical support; management and monitoring
- ❑ **Re-use of devices**

Chapter F. Data collection with internet

- ❑ Benefits of using internet for data collection
    - ❑ Cost, quality, respondent burden
- ❑ Requirements
    - ❑ Reliable infrastructure; high literacy rate; public trust; address register
- ❑ Development of application and portal
    - ❑ User friendly, intuitive; adaptable to different platforms and devices
- ❑ Implementation
    - ❑ Only self-enumeration using internet or a combination
- ❑ Authentication
    - ❑ Unique access; unique code distribution protocols
- ❑ Communication strategies
    - ❑ Publicity
- ❑ Management and monitoring of responses
- ❑ Privacy and security
- ❑ Support for respondents

Work in progress

❑ At this moment (October 2017) half of the content is in the phase of a final draft

❑ Soliciting input and national examples for another two months

❑ Finalizing the *Guidelines* for final review by Task Force in January 2018

❑ Releasing (posting the volume on our website) February 2018

❑ As a live, online document, it will be updated at regular intervals as experiences and practices are accrued