Session VI. Data Processing and IT Solutions

Overall ICP Tools Landscape
ICP Process Diagram

1. Item Lists Update
2. Data & Metadata Exchange (iterative)
3. Processing of Input Data (iterative)
4. ICP Validation of Input Data (iterative)
5. Calculation of Preliminary PPPs (iterative)
6. Derivation of Indicators
7. Production of Results
8. Calculation of PPP Time Series (iterative)
Challenges

- Tedious data and metadata management
- Disparity of input/output formats and tools
- Manual processing takes precious time away from validation and quality assurance
- Cumbersome archival and dissemination
Improvement Targets

- Improve overall efficiency
- Streamline Global ICP Unit (GIU) processes
- Standardize input and output formats
- Automate data and metadata exchange with RIAs
- Drive ICP tools standardization through reusable components
- Track and document ICP data downloads
Overview of Available Tools

**Data & Metadata Management**
- Item lists update
- Data & metadata exchange
- Processing of input data

**WBG Data Collection System (DCS)**
**Eurostat PPP Tools:**
- Item List Management
- Data Entry

**Validation and Computation**
- Validation of input data
- Calculation of PPPs
- Derivation of indicators
- Production of results
- Calculation of PPP time series

**ICP Validation and Computation Tools**
**Eurostat PPP Tools:**
- Aggregation Tool

**Dissemination**
- Global and regional reports
- Standard tables and charts

**WBG Databank and online tools**
**Eurostat PPP Tools:**
- Visualization Tool
- Reporting Tool
Available WBG Tools

Data Dissemination

- World Bank Data Site
- Databank Query Tool
- Public Data Catalog (subset of DDH)
- Thematic data sites
- WITS
- APIs
- Bulk downloads

Information flow per: Terms of use, Access to Information Policy, Security controls

Data Collection and Management

- Macro datasets
- Subnational
- ICP
- Research
- Micro
- Trade
- Geospatial
- Unstructured Data

Development Data Hub (DDH)
A central data catalog and store
Increasing Collaboration and Automation

By moving from manual to DB-centric processing, we can improve collaboration and focus on quality assurance and reproducibility.
Reporting and Dissemination

- Basic Tables, Charts
- Publish in PPP User Centered Format
- Dynamic visualizations
- Live, Dynamic, Real Time Presentation
How Are We Getting There?

- Improve GIU internal processes
  - Integrate GIA processes and tools into WBG infrastructure (Files -> DCS (purpose) / Databank (dissemination)) for more efficient archiving
- Improve data and metadata exchange with RIAs
- Implement Eurostat PPP Tools w.r.t.:
  - Item List Management
  - Data Entry
  - Validation
- Enhance ICP quality assurance processes
- Gather feedback and requirements from RIAs
### Improving Efficiency

#### ONLINE COLLABORATION

#### DATA PROCESSING & STORAGE
## Summary short-term changes of ICP Tools

<table>
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<tr>
<th>Step</th>
<th>Item Lists Update</th>
<th>Data &amp; Metadata Exchange</th>
<th>Intra-country Validation</th>
<th>Inter-country Validation</th>
<th>Calculation &amp; Aggregation</th>
<th>Reporting &amp; Dissemination</th>
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<tbody>
<tr>
<td>Tool(s)</td>
<td>MS Excel</td>
<td>ICP Kit (Country Module)</td>
<td>ICP Kit (Country Module)</td>
<td>ICP Kit (Regional Module) &amp; Dikhanov Tool</td>
<td>Dikhanov Tool</td>
<td>MS Excel</td>
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<tr>
<td>Platform</td>
<td>PC</td>
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<td>Requirement(s)</td>
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<td>MS Excel w/ VBA Macros</td>
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<tr>
<td>WBG-GIU (Before)</td>
<td>Item List Management Tool (ILMT)</td>
<td>Data Collection System (DCS) &amp; Data Entry Tool (DET)</td>
<td>Data Entry Tool (*)</td>
<td>Validation Tool (*)</td>
<td>Dikhanov Tool</td>
<td>Databank / ICP Website</td>
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<tr>
<td>WBG-GIU (ICP 2017)</td>
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<td>PC</td>
<td>PC</td>
<td>Web</td>
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<td>Requirement(s)</td>
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<td>JAVA-enabled browser</td>
<td>Modern browser</td>
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Current Status as of October 2017

- ICP-Kit modules are no longer updated/upgraded, however minimal maintenance and support available
- Integration with WBG environment completed
- Standardized input and output formats
- GIA adopting ILMT, DET and Validation tools as first step (see next presentation, incl. benefits)
Submission forms

- New submission forms that allow for more efficiency in data processing and management
- Allow for two submission formats to accommodate different regional situations:
  - Individual country files
  - Regional matrix files
THANK YOU