INNOVATIVE TOOLS AND SOURCES

in European Social Surveys

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Effective ways to collect Time-Use Statistics

Presentation overview

✓ **Introduction**

✓ **Innovative tools and sources for HBS-TUS project**

✓ **New specific projects in 2019**

   ✓ **iCard project - use of iCard in HBS**

   ✓ **Geolocation project - use of geolocation in TUS**

✓ **Innovation grant projects running 2019-2020**

✓ **Conclusions**

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Part one

INTRODUCTION

The Wiesbaden Memorandum
(Wiesbaden, Germany)

Stressed the need for better information from **time use** and **household budgets** in terms of coverage and comparability.

The need was confirmed:

✓ to explore and **implement new possibilities for improving responsiveness to user needs**;

✓ to better **link the data collection with other data sources**;

✓ for more efficient data collection for Member States, **taking into account new technological developments**;

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To find solutions to:

✓ **Lower the burden on respondents** in MS for the surveys' data collection.

✓ **Increase** the subsequent low and/or decreasing **response rates**.

✓ **Lower the burden for NSIs** on completing the surveys and processing the incoming data.
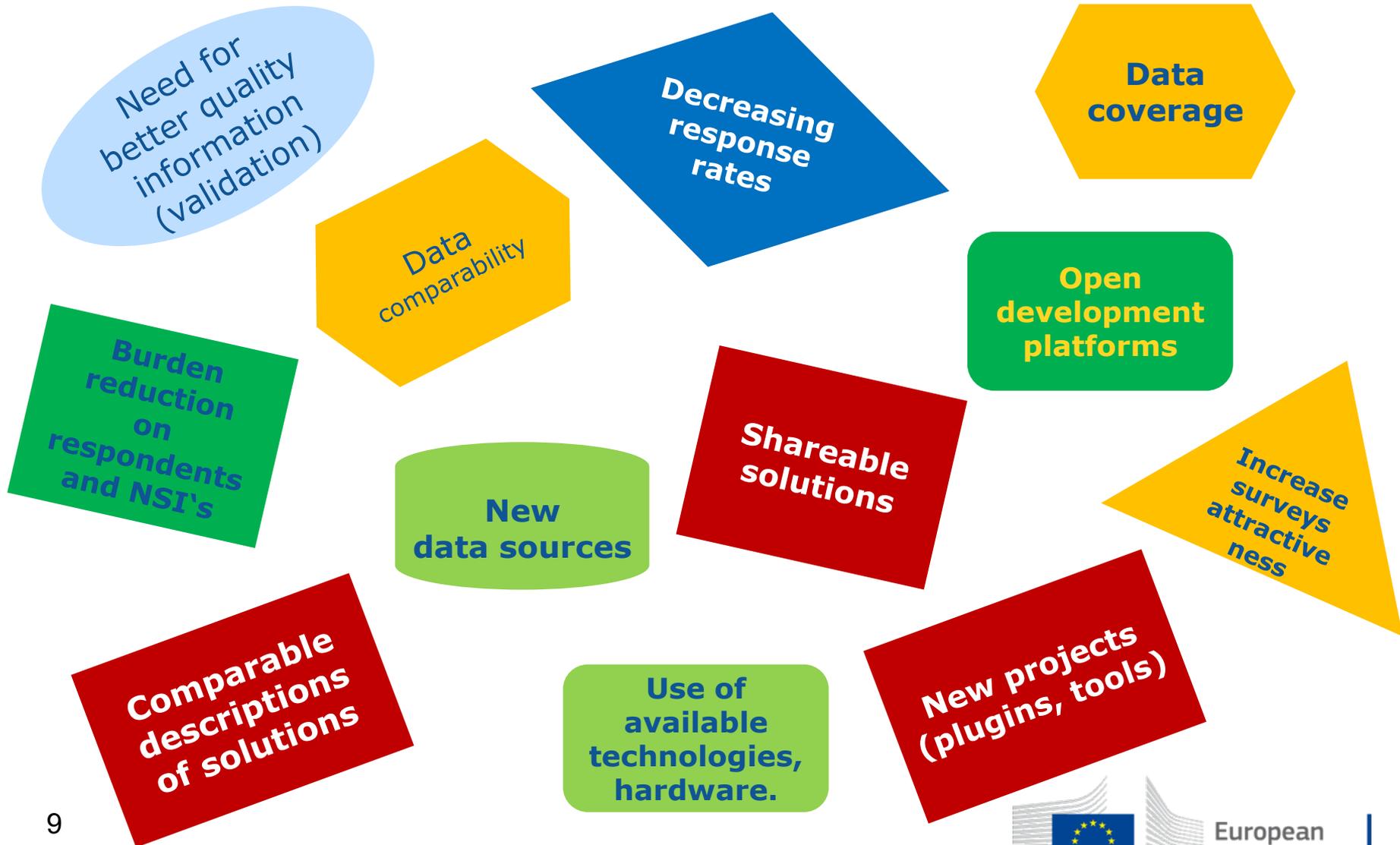
Eurostat's approach

- Eurostat started a dedicated project on **Innovative tools and sources for HBS-TUS**
- Two **Task Forces** on innovation for TUS and HBS were born!
- A number of **grants** supporting innovation projects were launched and are **currently running...** results expected in H1 2020
- **Specific projects** on **TUS** and **HBS**.

Part two

INNOVATIVE TOOLS AND SOURCES FOR HBS-TUS

Innovation's project coverage....

Need for better quality information (validation)

Decreasing response rates

Data coverage

Data comparability

Open development platforms

Burden reduction on respondents and NSI's

Shareable solutions

New data sources

Increase surveys attractiveness

Comparable descriptions of solutions

Use of available technologies, hardware.

New projects (plugins, tools)

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State of play – Baseline created

- Questionnaire on innovation in TUS and HBS
- An **inventory** of innovative tools and sources
- Tool descriptions on definition level using Common Statistical Production Architecture (CSPA) recommendations
  - **-** The highest level to define the business function of tools used for data collection in Member States.
- Selection **criteria** for assessing potential tools and sources by the Task Forces in the future.

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Innovative Tools and Sources
INVENTORY

eurostat
Statistical Office of the European Union

Directorate F: Social Statistics

Unit F-4

Income and living conditions | Quality of life
Innovative tools and sources for living conditions surveys

TOOLS' INVENTORY

SOURCES' INVENTORY

This Inventory contains a collection of innovative Tools and Sources that are developed and used in Member States, Candidate and EFTA countries. The purpose of the Inventory is to offer an up-to-date view on initiatives and programmes of modernisation of data collection in HBS and TUS.

Version notes

The Inventory START page

Innovative Tools for TUS
INVENTORY

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Unit F-4

Income and living conditions | Quality of life
Innovative tools and sources for living conditions surveys

Tool Identification	Business goals Processes Stakeholders	Validation Accessibility Usability	Other data sources linked to the Tool
Security Privacy	Back Office architecture	Front Office architecture	Projects

Criteria

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Next steps (2019-2020)

- Continuous development of the **Inventory** of tools and sources: **new content**, migration to a **new platform** - Confluence Wiki.

- Some tools being **shared** in test among some Member States.

- Continuous work on CSPA comparable descriptions at conceptual level; to start with the **specifications** at logical level.

- Methodological developments considering new sources and tools…

- Proposal for future governance of tools and sources for HBS and TUS

Part three

NEW SPECIFIC PROJECTS

Two new specific projects:

- Expected to start in Autumn 2019
- Related to **Time Use Survey** (TUS) and **Household Budget Survey** (HBS)
- Both surveys share similar issues:
  - **Diary based surveys**
  - **Heavy burden on Respondents and Statistical Offices**
  - **Consequent reduced response rates**

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Ideas on potential solutions...

HBS

the iCard concept

- smartphone app
- plastic smartcard

TUS

Geolocation

- Outdoor solutions
- Indoor solutions

Eurostat has carried out some preparatory work: background documents exist

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iCard Data content

- ## Payment transaction data
  - -Total sum
  - -Date & time
  - -Account number of the payer
  - -Merchant information; name, MCC, Org.number

- ## Purchase transaction data
  - -Item description GTIN (barcode), item text etc.
  - -Price each item (possibly promo info)
  - -Total sum of the receipt
  - -Date & time
  - -Name & address of retail store/-chain (Org. number)

Auchan Kirchberg
5 rue Alphonse Weicker
L-2721 LUXEMBOURG
tel : 352/43 77 43-1
www.auchan.lu

Vous avez été accueilli par Dalila
Le 18 février 2019 à 09:19:11

Caisse : 054   Ticket : 34877
Hôte(sse) : 461

PHOTOS D'IDENTITES   1*9,95   9,95

Total   9,95 €

TVA%   TVA   Net   Brut
17,00   1,45   8,50   9,95
Brut   1,45   8,50   9,95

Reçu   EURO   10,00
Rendu   EURO   -0,05

1 Articles

Votre ticket vous sert de garantie.
Echange possible sous 15 jours
sur présentation du ticket de caisse.
Votre magasin est ouvert
du lundi au samedi
de 08h00 à 20h00
et le vendredi jusqu'à 21h00

Geolocation in TUS

- Can be used to…

- …ask respondents to provide specific data about their time use when they are in certain place (home, office, gym, etc.), or area, or moving from one place to another;

- …create a **map** of **movement** and **activities** of respondents by the end of every day during the survey and to **remind** the respondents to check and add data (e.g. about time use in different locations);

- …ask respondent to answer specific **context questions** based on their location.

- …

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Geolocation outdoors: possible idea

- **Location-based social network service provider**

  User check-in at a location

  Write reviews, etc

- **Provides context to physical places (shop, cinema)**

- **Tracking point A to B to ...**

FOURSQUARE

Geolocation indoors: possible idea

- **Transmits Bluetooth radio signals**
  - Universally Unique Identifier (UUID) device
  - indoor locations can be mapped
- **(still) not feasible in a full scale survey**

BEACON

The aim of using these solutions

- **automating data collection** and processing (at least partly);
- increasing **accuracy** and **reliability** of the data collected;
- making it **easier** for the respondents **to provide answers** to surveys.

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What's next?

1. New projects running 2019-2020
   - feasibility studies and prototypes for:
   - iCard and Geolocation solutions
2. Cooperation with different NSIs
3. Contacts set up with local retailers (iCard)

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Part four

INNOVATION DEVELOPMENT PROJECTS 2019-2020

5 projects running (2019/2020) supported by Eurostat grants
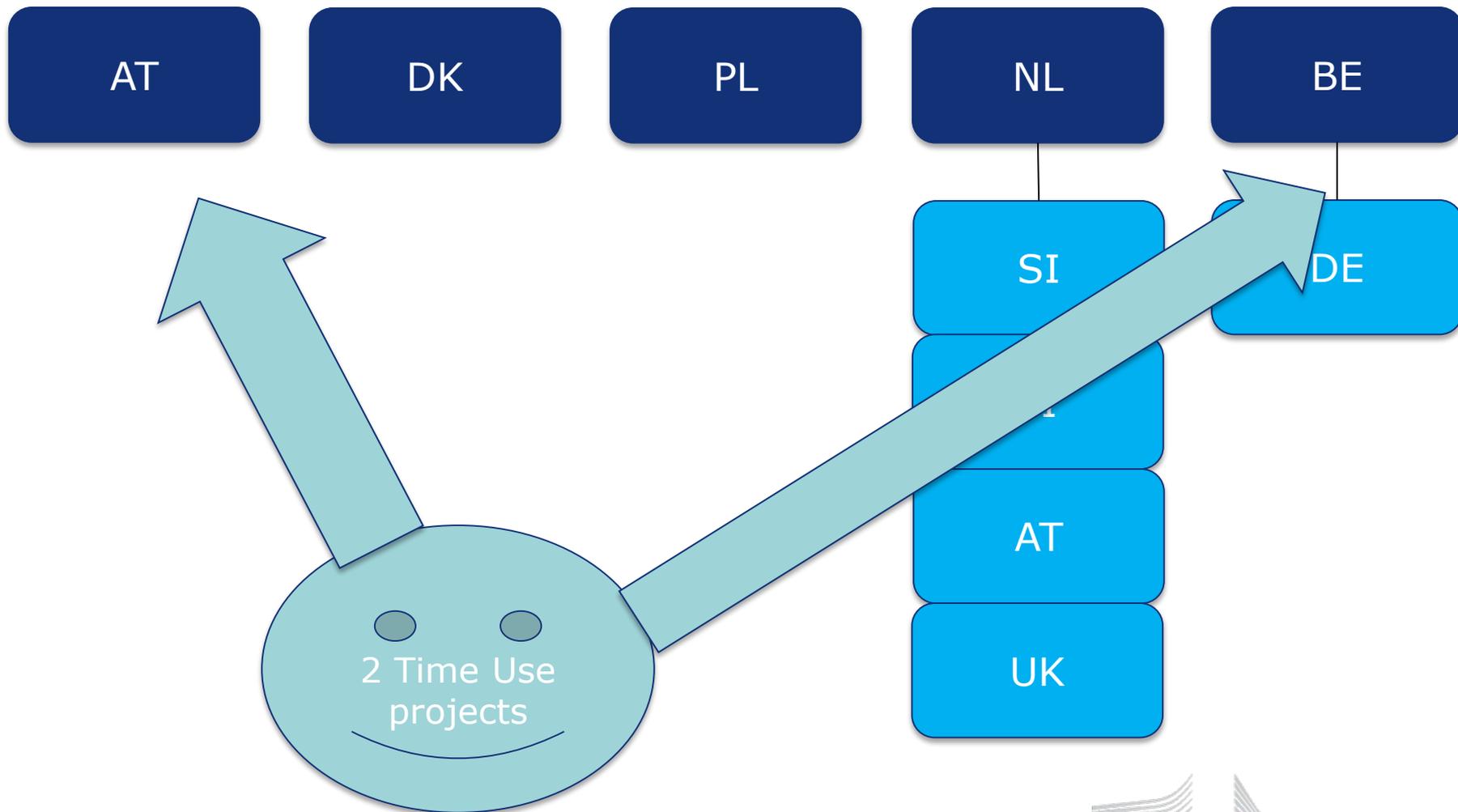
Projects focus:
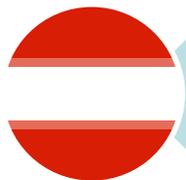
TUS: Update of existing App for Time Use data collection: new functions, documentation, language

HBS: Development online tool for the reporting household in the household budget survey, incl. validation incl. COICOP codes

HBS: development of a prototype for defining the parameters of

the application functioning in the scope of handling the diary for household budget surveys (based on existing web application), language
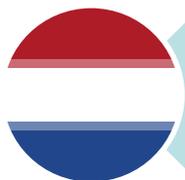
HBS: develops an app-assisted approach towards HBS data collection in which a diary, scanning of receipts,

inclusion of geographical context information and big data linkage consent questions and measurements are combined
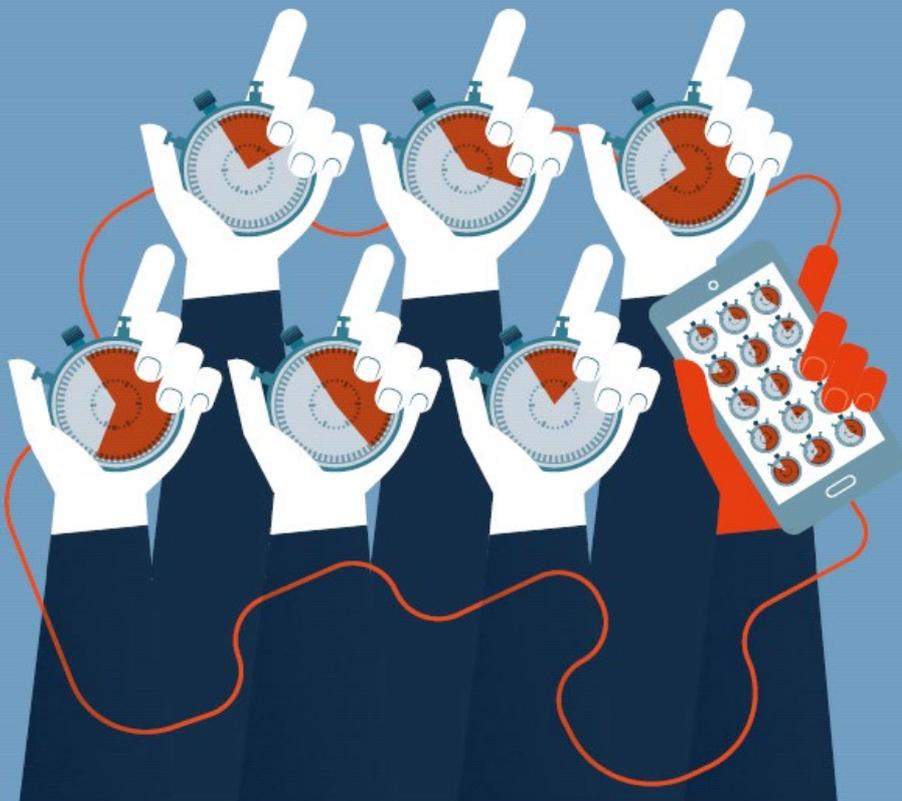
TUS: a software platform designed to collect highly contextualized time-use data through the use of online and offline devices.

…and also **HBS**…cross domain approach

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Statbel – VUB - Eurostat @ NTTS 2019

Projects' leaflet and posters:

https://ec.europa.eu/eurostat/web/products-catalogues/-/KS-01-19-066

Statbel – VUB - Eurostat @ NTTS 2019

POSTER 1

https://ec.europa.eu/eurostat/web/ products-catalogues/-/KS-01-19-067

Statbel – VUB - Eurostat @ NTTS 2019

POSTER 2

https://ec.europa.eu/eurostat/web/products-catalogues/-/KS-01-19-168
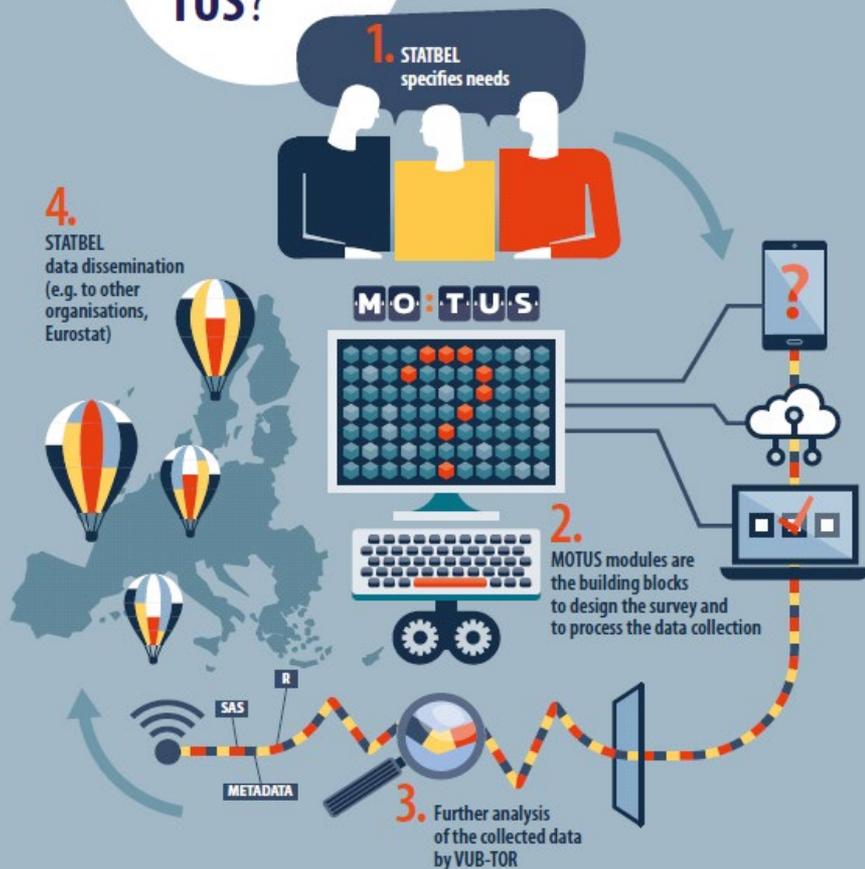
Part five

CONCLUSIONS

2019 – 2024, in a nutshell...

2022-2024

- Other data sources part of the normal data collection process
- Increased quality of the data; supporting further validation and allowing to extend mix mode
- Automated data collection
- Governance model implemented
- ESS wide deployment of solutions
- Prepared for more frequent data collection cycles

2019-2022

- Data collection Apps
- Add new data sources
- Web application instead of paper
- Mix mode data collection
- Validation codes and format
- Back office processing of survey data
- First sharing on ESS level

Today

- Paper
- Isolated solutions

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Long term objectives...

To have, by 2025, innovative solutions for HBS and TUS data collection in the ESS implemented **by all participating Member States**.

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for further information, contact :

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Eurostat – ESTAT.F.4 – Income and living conditions; Quality of life

Project:

Innovative tools and sources for living conditions surveys - HBS and TUS

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What is the Household Budget Survey about?

- *consumption* *is the focus of the Household Budget Survey (HBS); majority of variables that countries collect at* **household level***.*

- *the advantage: it can get* **information about the characteristics of the household and its members***.*

- *is the* **basis** *for the consumption patterns used for* **weighting price indices including the Harmonised Index of Consumer Prices**

- *gives a* **picture of the living conditions of households**

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