

# KARAT: The new integrated data transmission system of the HCSO

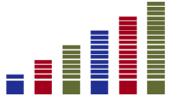
28 - Integrated Production & Business Process Model



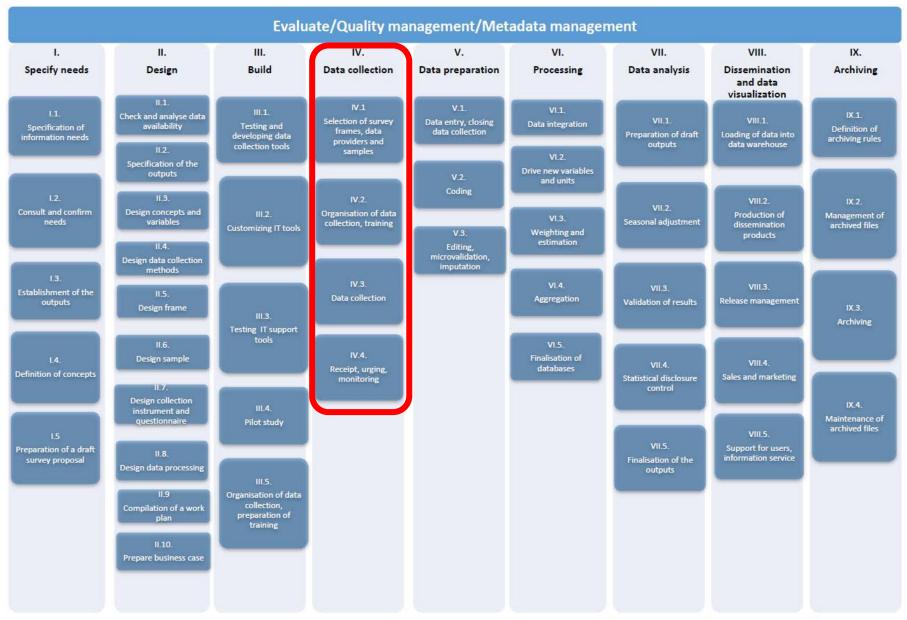


### **Topics**

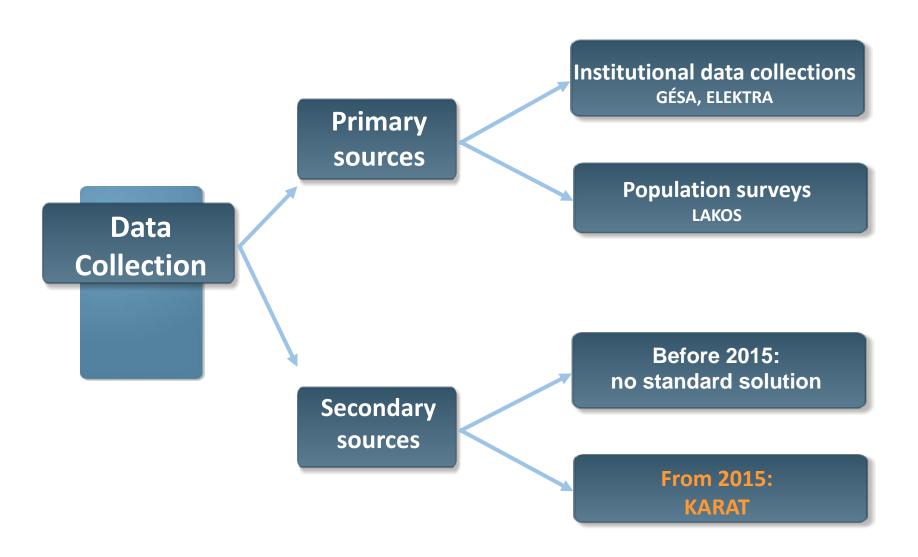
- Background of the development ✓
- Functions of the KARAT system
- Quality indicators in KARAT



## Standard process model in HCSO: GSBPM v.4 adaptation - ESTFM



#### Data collection system of the HCSO





#### Main objectives of the development

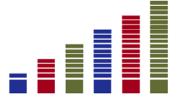
- Secure channels for the transmission of the datasets;
- Documentation of secondary sources;
- Documentation of data transmissions;
- Formal control and check of the transmitted data;
- Loading data into database;
- Archiving data;
- Supporting data providers with proactive functions.





## **Topics**

- Background of the development ✓
- Functions of the KARAT system ✓
- Quality indicators in KARAT



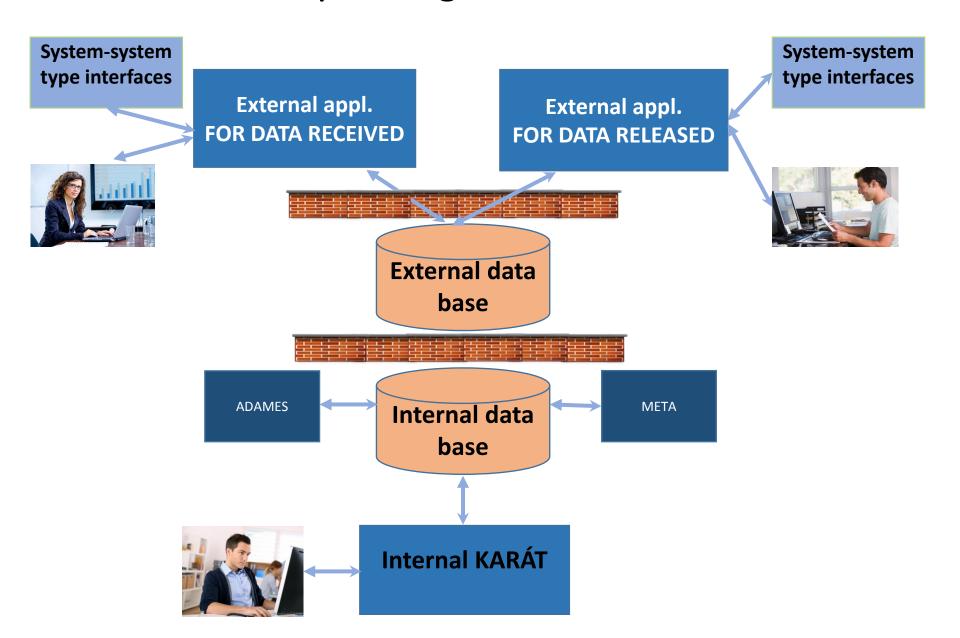
### Metadata for the KARAT system

#### Data source register of the HCSO and the NSS

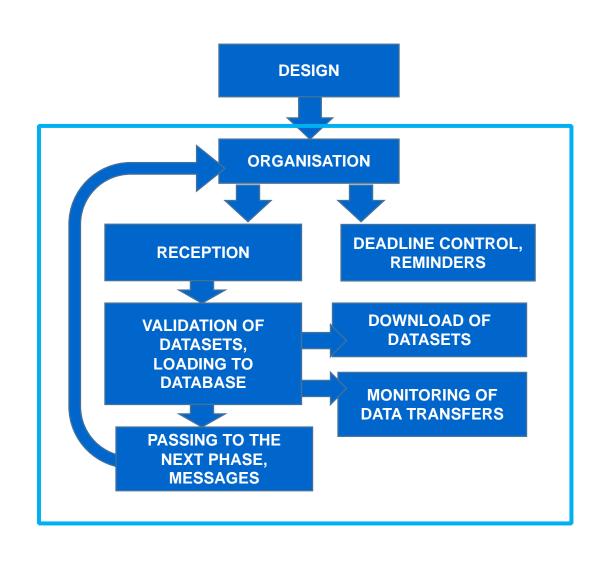
Identification of data sources

Description of the main characteristics of data sources

## Operating environment



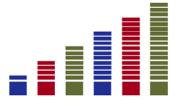
### The procedure of data transfer





#### Characteristics of KARAT

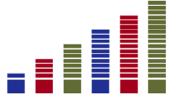
- General
- Metadata-driven
- Process-driven
- Logged
- Proactive





### **Topics**

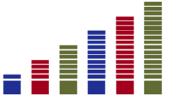
- Background of the development ✓
- Functions of the KARAT system ✓
- Quality indicators in KARAT





## KARAT paradata

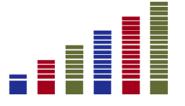
- Status information;
- Dates of creation and deadlines for the data transmission tasks;
- Channel of transmission;
- Size and type of transmitted datasets;
- Urging of data providers;
- Cause of missing data transmission.





## Indicators computed by KARAT

- Quality indicators on secondary data sources;
- Indicators on the quality of data transmission processes;
- Indicators on the respondent burden.





## Quality indicators on secondary data sources

#### Indicators on the documentation of secondary data sources

- number of registered secondary data sources;
- number and rate of secondary data sources involved in KARAT system.

#### Indicators on the complexity of data transmissions

- number of secondary data sources loaded into database;
- number of transmitted files by data source and by period;
- transmitted datasets by file format.





## Indicators on the quality of data transmission processes

#### Indicators on the accuracy of the data transmission processes

- rate of realised data transmissions;
- rate of successfully realised data transmissions;
- number of erroneous data takeovers;
- number and rate of missing data transmissions;
- number and rate of resent data transmissions.

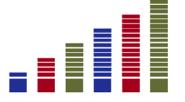
#### Indicators on the timeliness of data transmissions

- number and rate of data takeovers until the deadlines;
- number and rate of data takeovers after the first urging message;
- number and rate of data takeovers after the second urging message.



## Indicators on the respondent burden

- Number of datasets to be transmitted;
- Channel of data transmission;
- Documentation to be transmitted.



#### Conclusions







Standardised documentation system

Secure channel Standardised processes

Monitoring functions



## Thank you for your attention!

#### Ildikó Szűcs

Hungarian Central Statistical Office Methodology Department <u>Ildiko.Szucs@ksh.hu</u>

