EUROPEAN CONFERENCE ON QUALITY IN OFFICIAL STATISTICS

2024 ESTORIL - PORTUGAL

INSTITUTO NACIONAL DE ESTATÍSTICA
Statistics Portugal

eurostat

The conference is partly financed by the European Union

Artificial intelligence as a support for survey respondents: defining the process of Istat's new AI service

Paola Bosso, Gabriella Fazzi, Paolo Francescangeli

Istat | Central Directorate for Data Collection

Assistance service in Istat

Service

Centralized Contact Center - utsourcing of operators and CRM platform

Service

The new system will be online (July 2024)

2016... **2023** **2024**

RE-Design

Project for a new assistance service - ownership of CRM platform
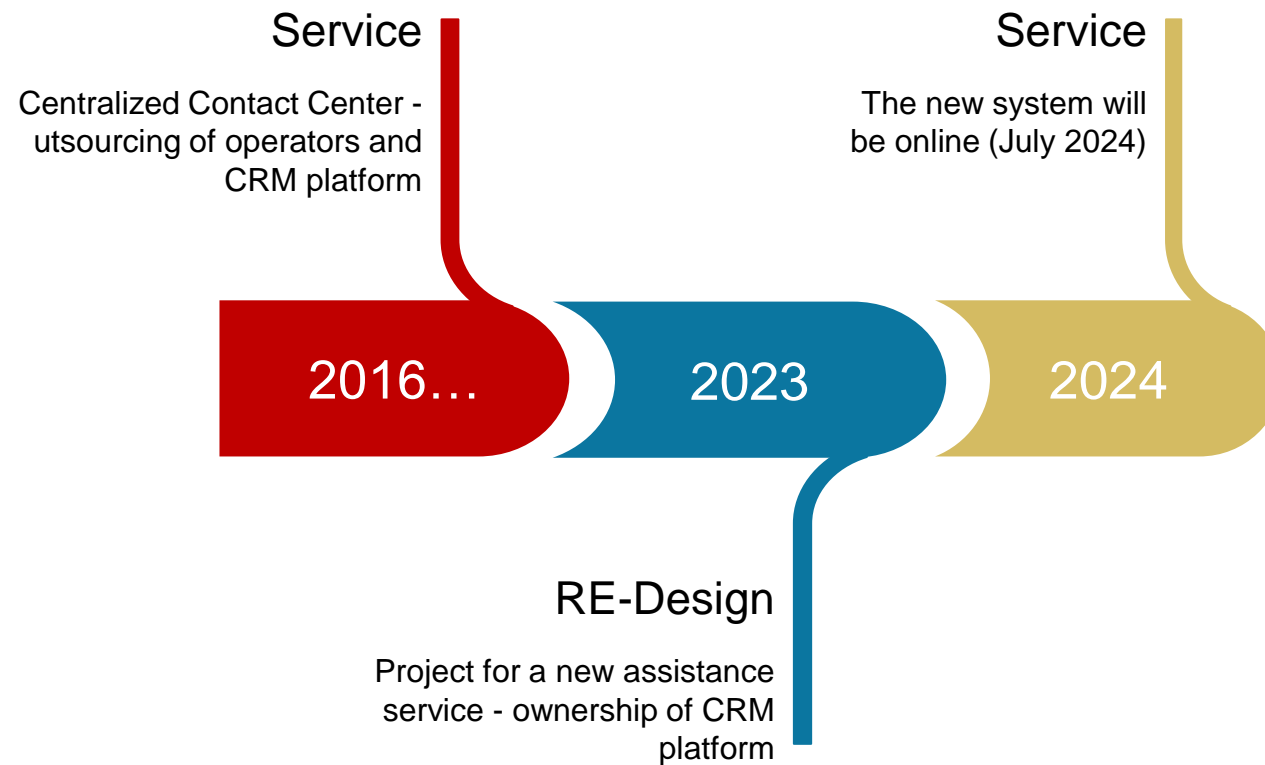
Features of the current service:

- **Outsourcing of operators and CRM platform** to external supplier

- **80 surveys supported**, with target enterprises and households

- Access for respondents by **telephone and e-mail**

- **2 levels of specialization** for managing the service requests: External operators and internal Istat experts
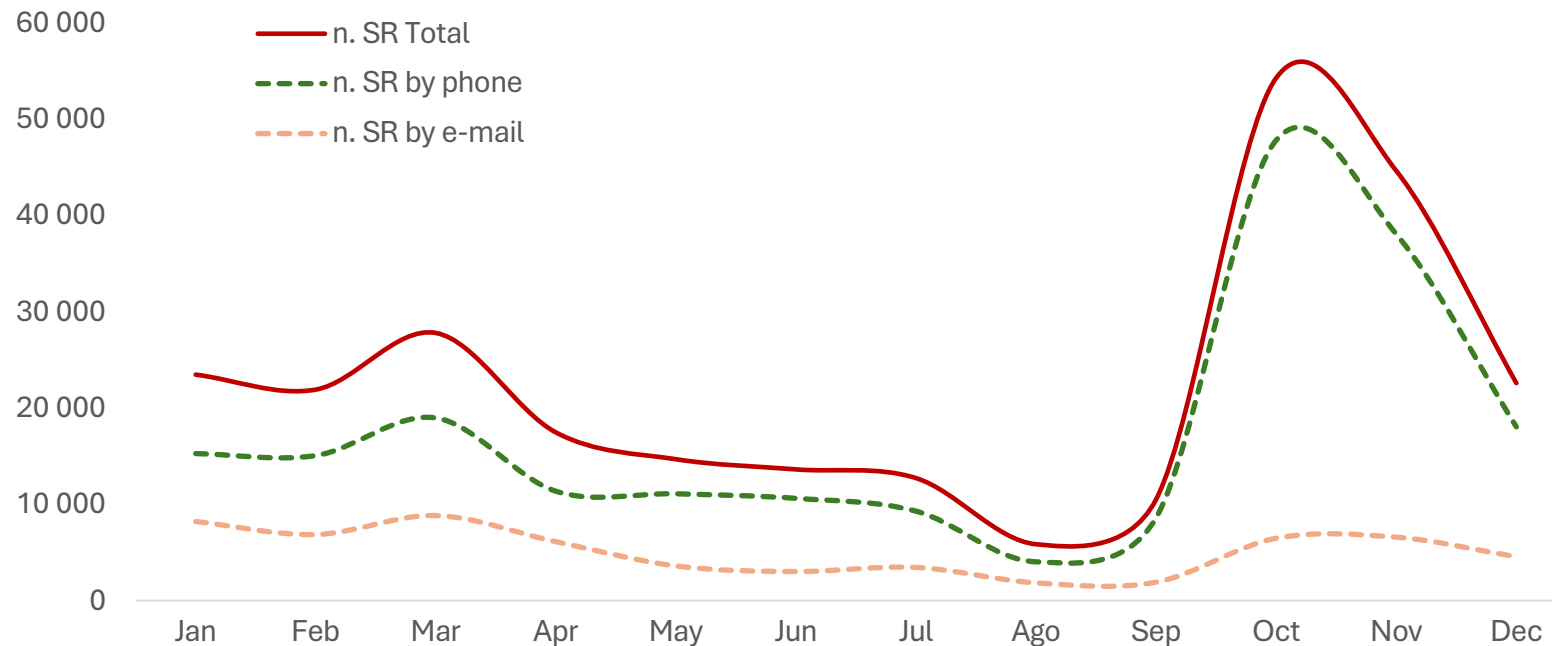
- **No automated process:** operators collect all information

Performance 2023:

269,359 Service Requests managed **1,435,047** Minutes of assistance

77.2 % by phone

22.8 % by e-mail

Service Requests - Distribution for months, 2023 year

EUROPEAN CONFERENCE ON QUALITY IN OFFICIAL STATISTICS
2024 ESTORIL - PORTUGAL

INSTITUTO NACIONAL DE ESTATÍSTICA
Statistics Portugal

eurostat

The conference is partly financed by the European Union
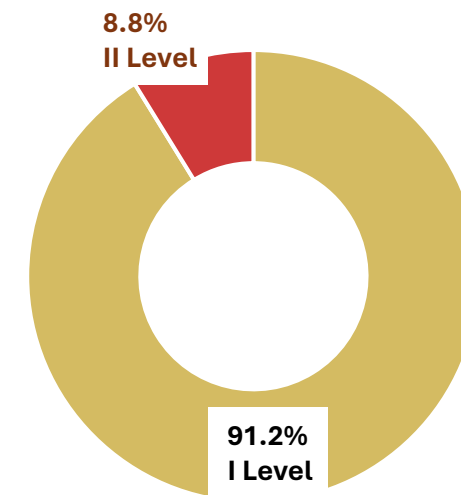
Performance 2023:

269,359 Service Requests managed **1,435,047** Minutes of assistance

*84.8 percent of **access problems** and **general information** requests:*

Access problem — 60.3%
General information — 24.5%
Variation of status of... — 3.8%
Mandatory and penalty — 3.0%
Data collection mode — 2.8%
Usability — 2.7%
Thematic assistance — 2.5%
Refuse — 0.4%
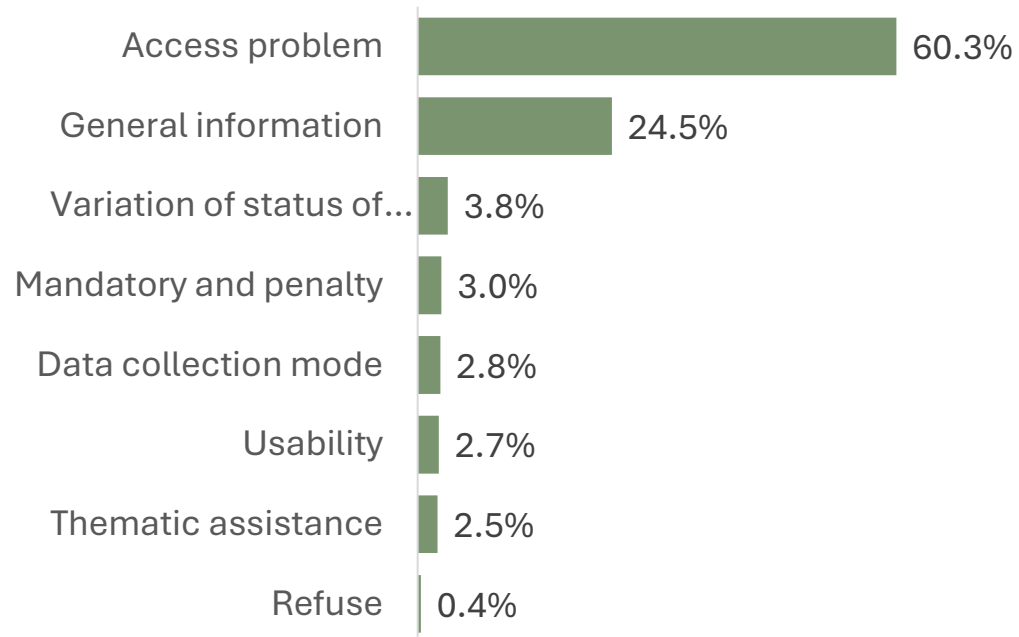
*Only **8.8%** of cases is transmitted to Istat experts:*

8.8%
II Level

91.2%
I Level

**Service Requests motivation and Resolution Level - 2023 year**

Performance 2023:

Most *access problem* and *general information* issues contain recurring tasks and are easily resolved at the first level

Thematic and *usability questions* concern questionnaire variables and compilation path, so they require the intervention of Istat experts for resolution

Correspondence-analysis (SR motivation and Resolution Level)
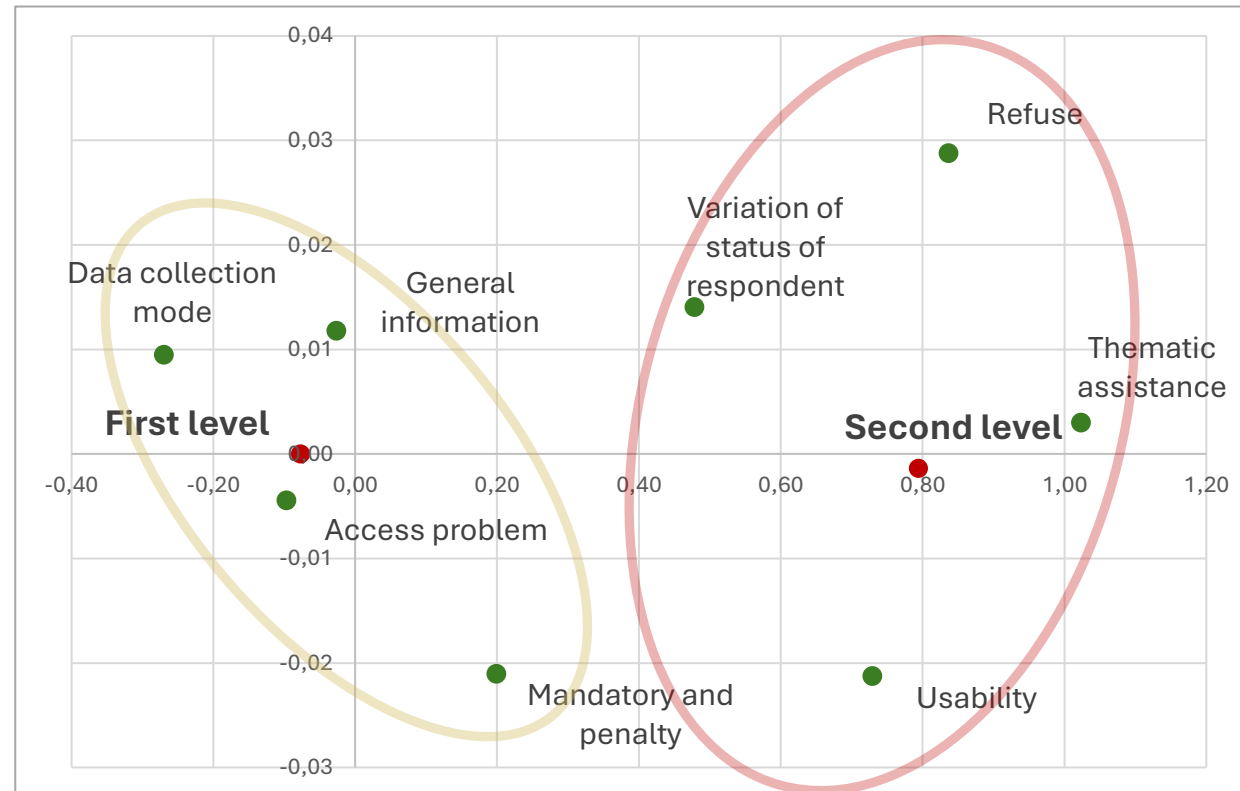
Assistance service towards the future

2016... **2024...**

	2016...	2024...
CRM PLATFORM	Outsourcing of operators and CRM platform	Outsourcing of operators - **ownership of CRM platform**
Contact Channels	Phone and email interaction	**Multichannel interaction**: phone, email, legal mail, web, chatbot
Automation	Operators collect all the information	**Automated approach** collecting information
Resolution	2 resolution levels: external operator and Istat	3 resolution levels: **Artificial Intelligence**, external operator, Istat

CRM PLATFORM

Contact Channels

2016...

2024

2024...

EUROPEAN CONFERENCE ON
QUALITY IN OFFICIAL STATISTICS
2024 ESTORIL - PORTUGAL

INSTITUTO NACIONAL DE ESTATÍSTICA
Statistics Portugal

eurostat
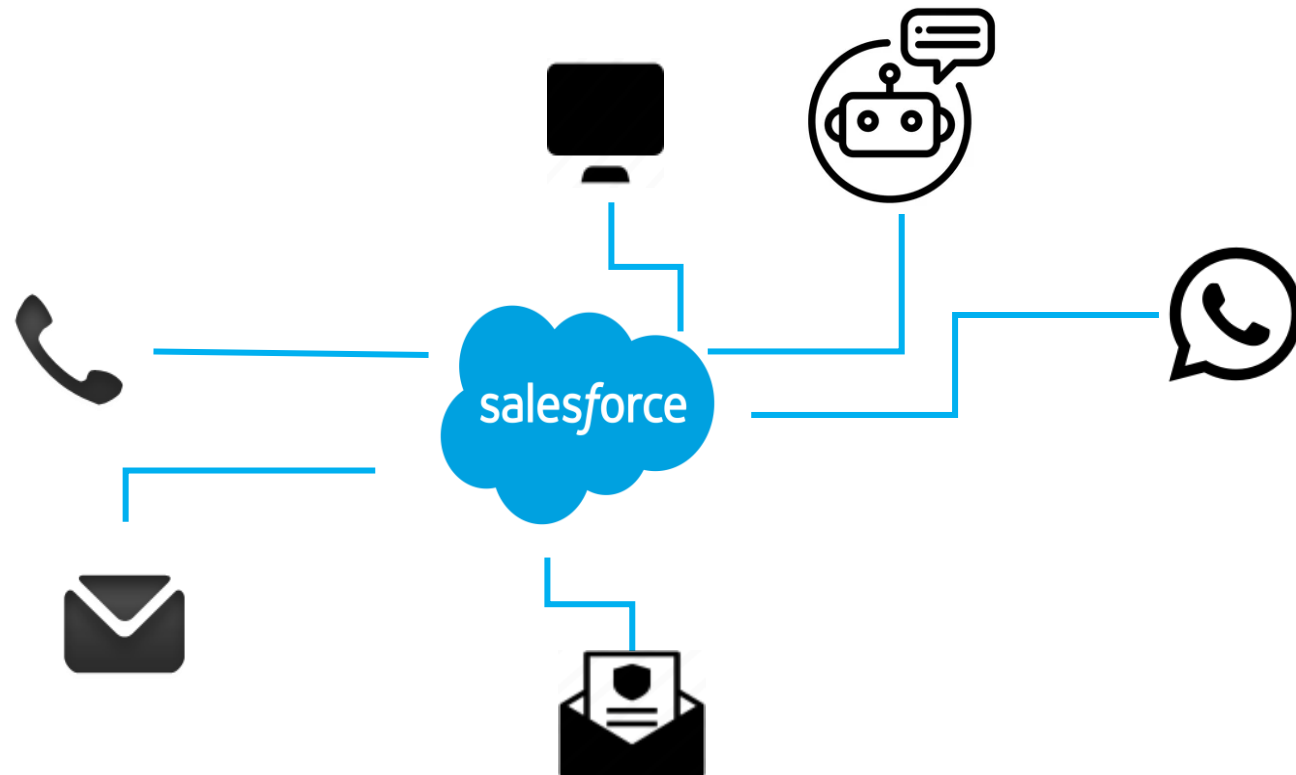
The conference is partly
financed by the European Union

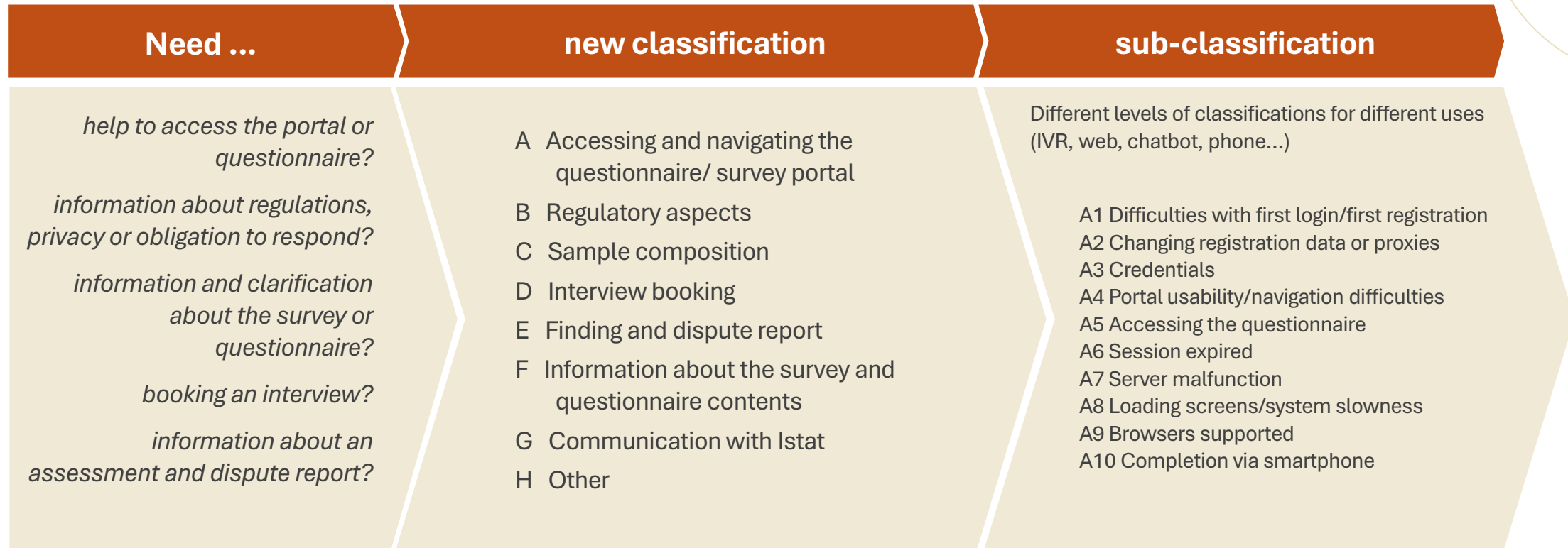# Classification

A pattern based assistance requests classification

Need ...	new classification	sub-classification
help to access the portal or questionnaire? *information about regulations, privacy or obligation to respond?* *information and clarification about the survey or questionnaire?* *booking an interview?* *information about an assessment and dispute report?*	A Accessing and navigating the questionnaire/ survey portal B Regulatory aspects C Sample composition D Interview booking E Finding and dispute report F Information about the survey and questionnaire contents G Communication with Istat H Other	Different levels of classifications for different uses (IVR, web, chatbot, phone...) A1 Difficulties with first login/first registration A2 Changing registration data or proxies A3 Credentials A4 Portal usability/navigation difficulties A5 Accessing the questionnaire A6 Session expired A7 Server malfunction A8 Loading screens/system slowness A9 Browsers supported A10 Completion via smartphone

Automation

Automated Multichannel Requests Management

Resolution — New automated process based on three- levels of assistance

Green lines represent solution paths

Black lines represent evaluation paths across multiple levels of assistance

EUROPEAN CONFERENCE ON
QUALITY IN OFFICIAL STATISTICS
2024 ESTORIL - PORTUGAL

INSTITUTO NACIONAL DE ESTATÍSTICA
Statistics Portugal

eurostat

The conference is partly
financed by the European Union
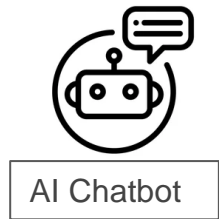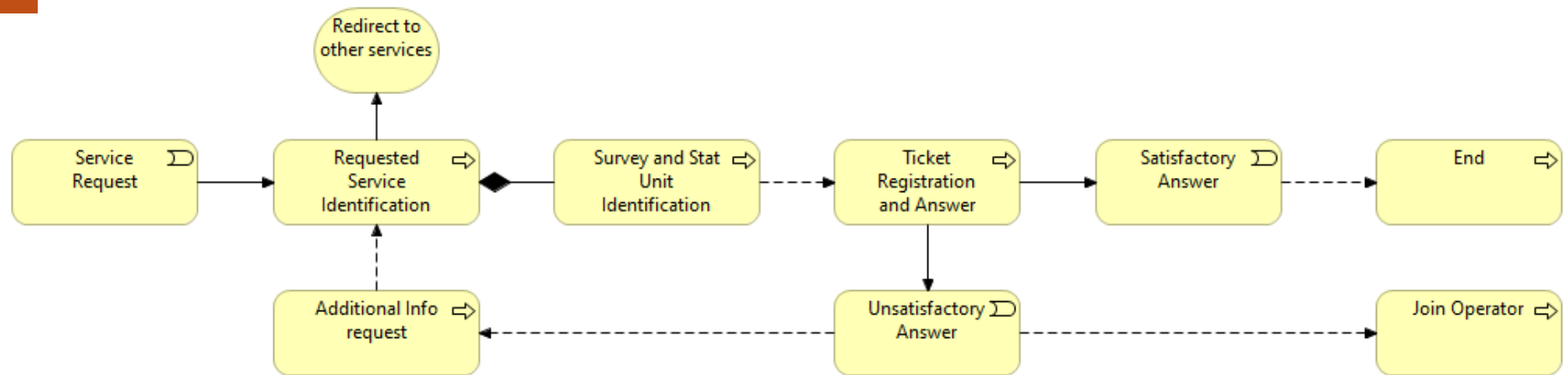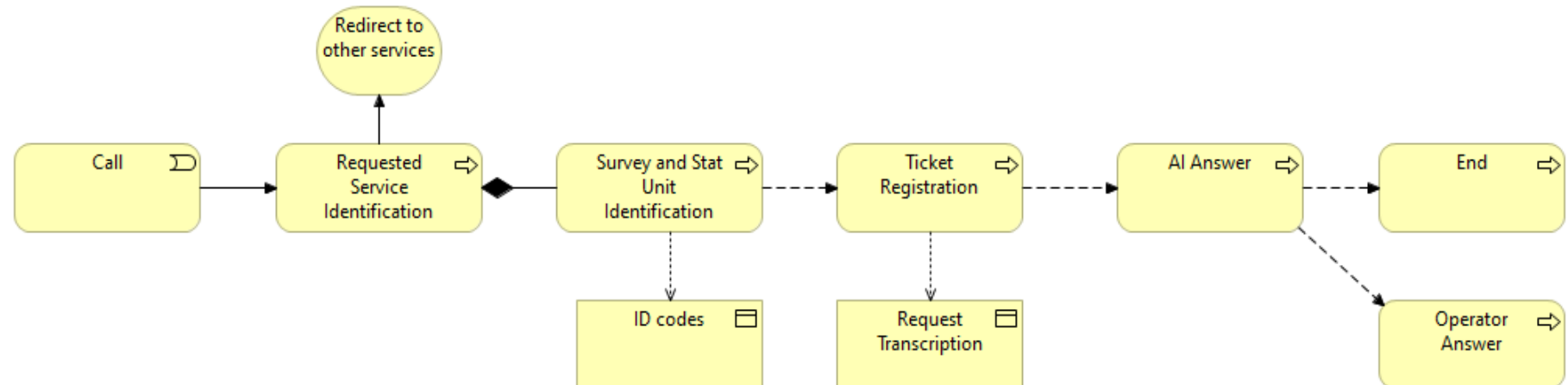
Estimates expected from the new three-levels process

Literature reports:

- AI solutions can process **40-50%** of service recurrent requests **[DEFLECTION RATE]**
- Automated process allows a saving time in operative tasks of **15-20**% **[TIME SAVING RATE]**
- These performance will be reached gradually

Applying the reduction rates (with a conservative hypothesis of defection rate: 40%) is estimated a potential time and costs saving of 50% at full capacity

Thank you for your attention

PAOLA BOSSO | paola.bosso@istat.it