DESIGNING A MULTICHANNEL ASSISTANCE SERVICE INTEGRATED WITH AI SOLUTIONS FOR RESPONDENTS

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Istat | Central Directorate for Data Collection

Assistance service in Istat

Service

Specialized Contact Center - outsourcing of agents and CRM platform

Service

The new system will be online

2016...

2023

2024

Design

Project for a new assistance service - ownership of CRM platform
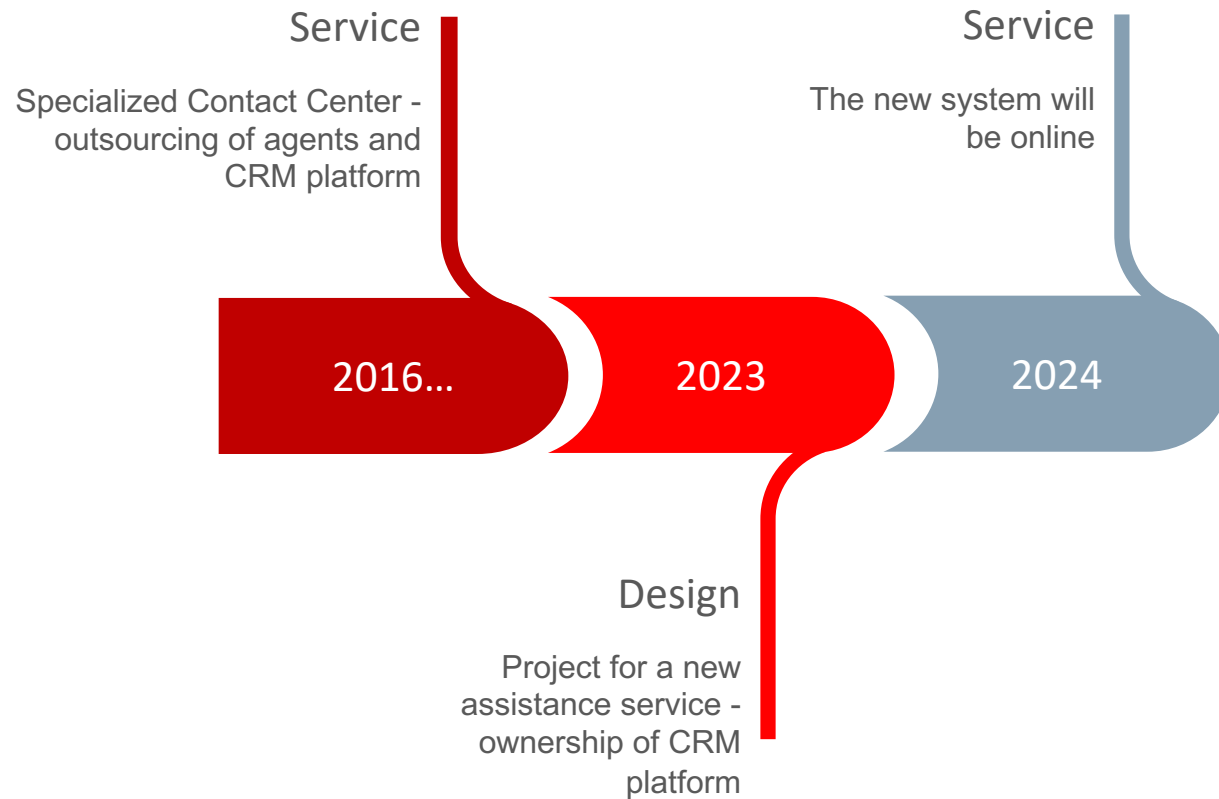
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Assistance service towards the future

2016...

- Outsourcing of operators and CRM platform

- E-mail and phone interaction

- Operators collect all the information

- 2 resolution levels: external operators (CC) and Istat

2023...

- Outsourcing of op. - ownership of CRM platform

- Multichannel interaction: web, chat, email, phone

- Automated approach collecting information

- 3 resolution levels: AI, external operators (CC) and Istat

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Features of the current service

- Outsourcing of operators and CRM platform to **one external specialized CC supplier (centralized CC)**

- 80 surveys supported, with target enterprises and households

- Data Collection Directorate as a unique client

- Access for respondents by telephone and e-mail

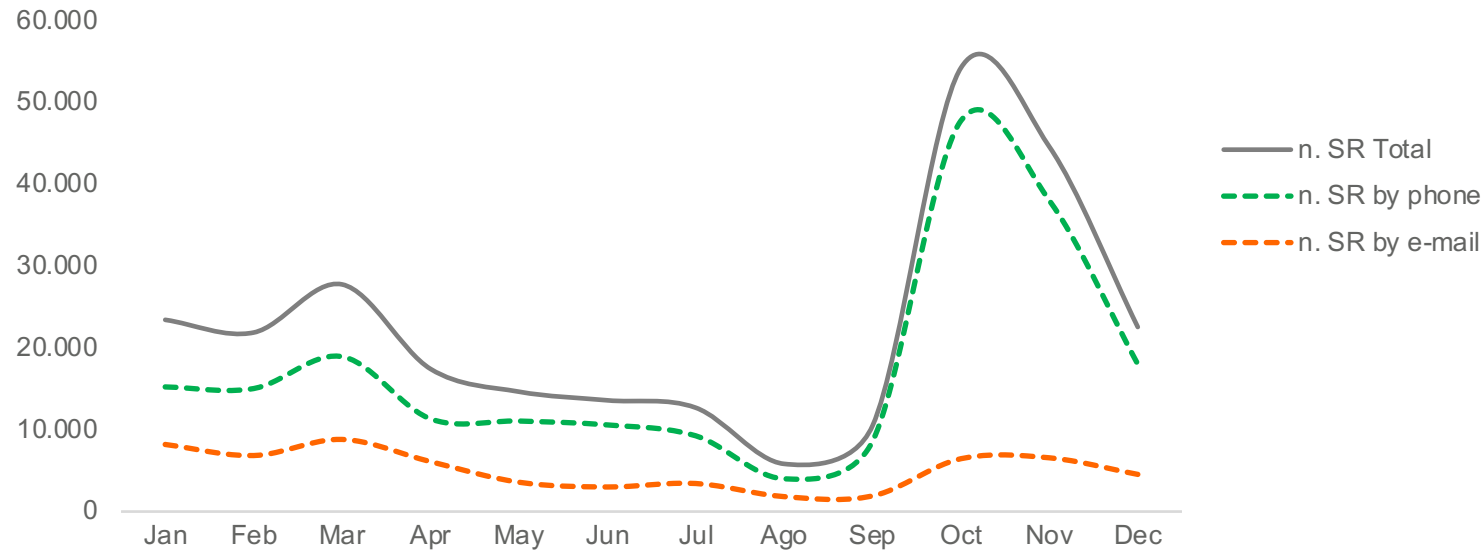- 2 levels of specialization for managing the service requests:

  External CC operator: for recurrent and simple cases

  Internal Istat experts: for specific and complex cases

Volume of Service Requests in 2023

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

Service Requests distribution for months, 2023 year

- n. SR Total
- n. SR by phone
- n. SR by e-mail

| 77.2 % | by phone |
| 22.8 % | by e-mail |

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Volume of Service Requests in 2023

269,359 Service Requests managed
1,435,047 Minutes of assistance
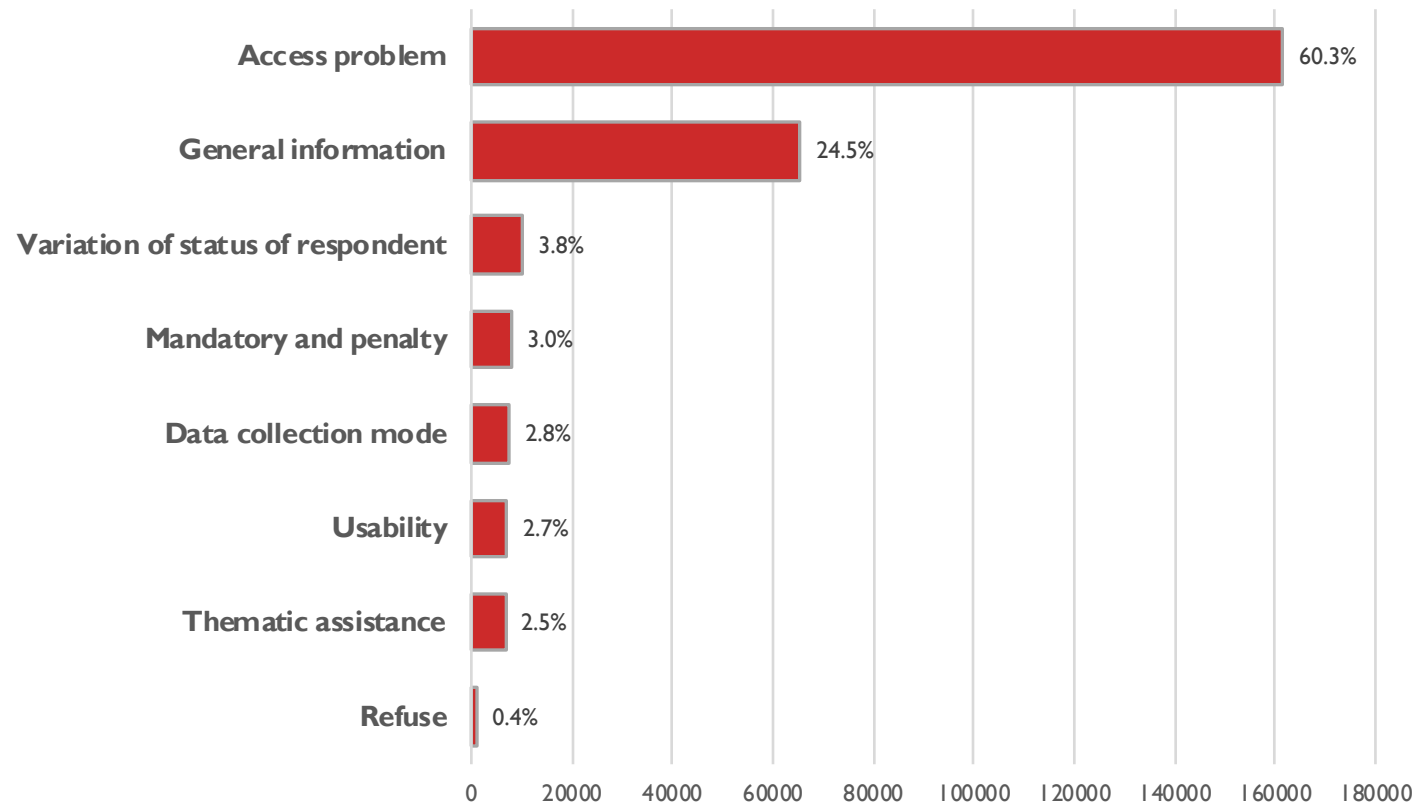
Service Requests distribution for months, 2023 year

— n. SR
--- businesses
···· households
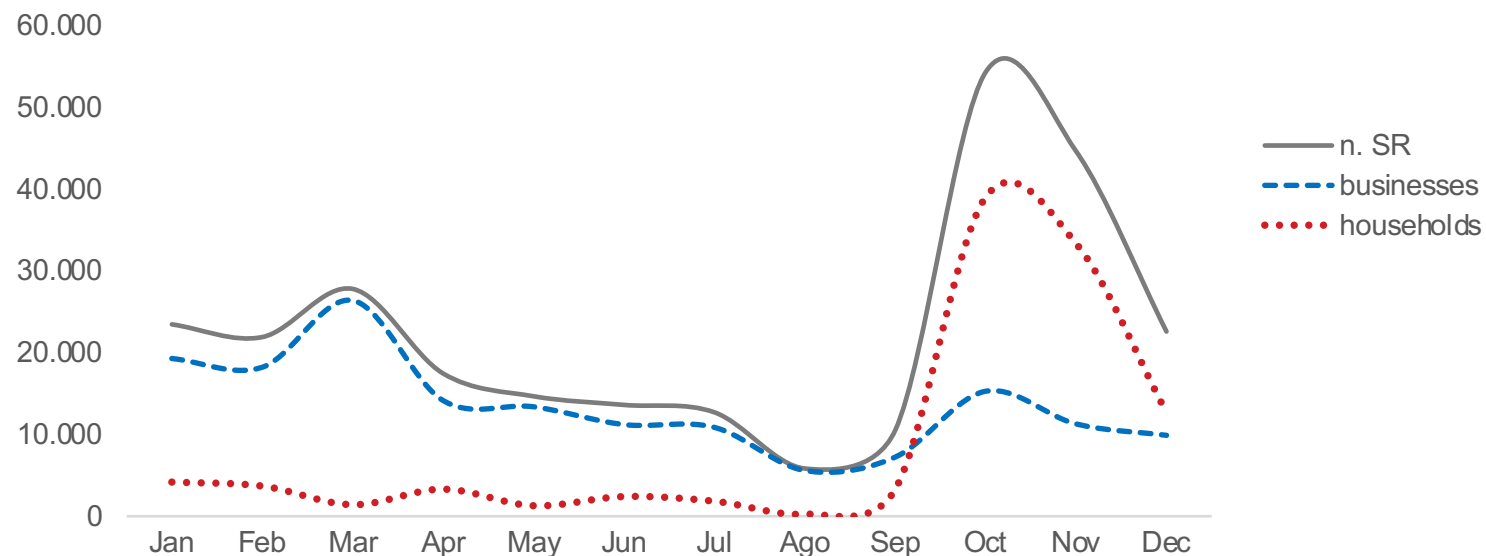
60.4 % *enterprises*
38.6 % *households*

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Categories of Service Request in 2023

84.8 percent of SR concerned access problems and general information

SR motivation - 2023 year

Category	Value
Access problem	60.3%
General information	24.5%
Variation of status of respondent	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
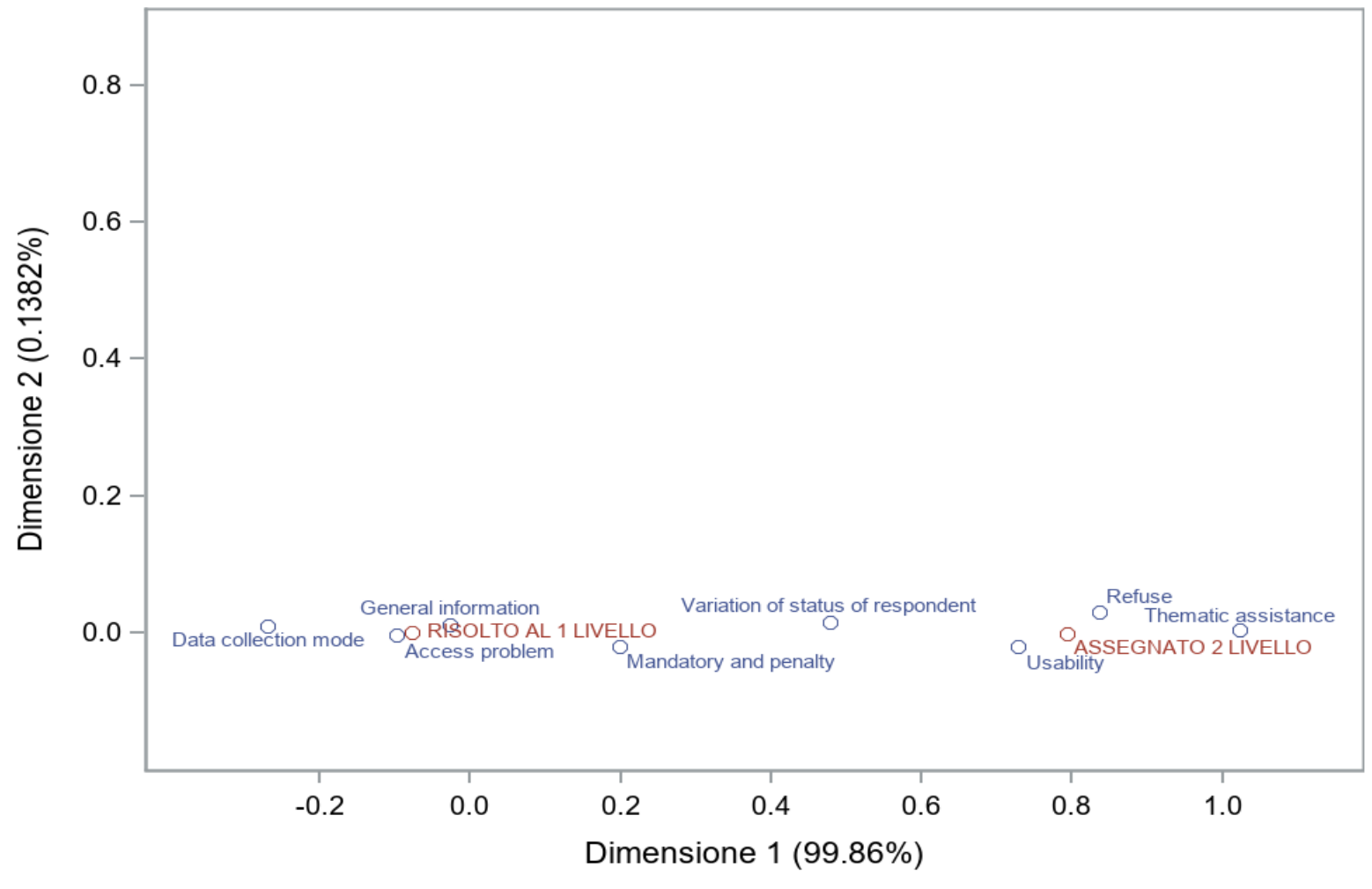
Resolution level - 2023 year

91.2% first level

8.8%

Istat
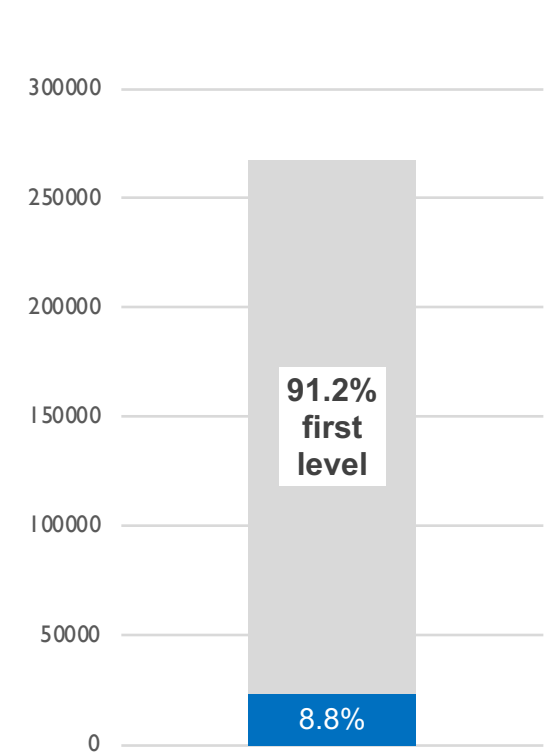
Categories and resolution level

Correspondence-analysis (SR motivation and Resolution Level)

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

The *thematic* and *usability questions* concern questionnaire variables and compilation path, therefore they require the intervention of Istat experts for resolution

Benefits of current service

- Optimize human resources for frequent manual tasks to reduce costs and errors

- Simplify request processing to minimize ticket resolution times and costs

- Ensure consistency and quality in communication

- Enhanced oversight of all platform users

- Improve the usability and functionality of data acquisition systems

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Weakness of the current service

- Supplier turnover (every 2-3 years) involves

  - long implementation time for a new software platform
  - training activities for Istat employees on the use of new platform
  - An agent collects all the data
  - An agent answers even to more simple and recurring issues

- The current classification for the motivation of SR is ambiguous (and does not allow a clear identification of the type of request).

A new classification system

Need …

- 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

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A new classification system

A - Accessing and navigating the questionnaire/survey portal

B - Regulatory aspects

C - Sample composition

D - Interview booking

E - Finding and dispute report

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H - Other

Different levels of classifications for different uses (IVR, web, chatbot, phone…)

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A new classification system

A - Accessing and navigating the questionnaire/survey portal

B - Regulatory aspects

C - Sample composition

D - Interview reservations

E - Finding and dispute report

F - Information about the survey and questionnaire contents

G - Communication with Istat

H - Other

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

Assistance service towards the future

2016...

- outsourcing of agents and CRM platform

- Email and phone interaction

- Agents collect all the information

- 2 resolution levels: external agent (CC) and Istat

2023...

- outsourcing of agents - ownership of CRM platform

- Multichannel interaction: web, chat, email, legal mail, phone

- Automated approach collecting information

- 3 resolution levels: AI, external agent (CC) and Istat

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A multi-channel system

2016-2023

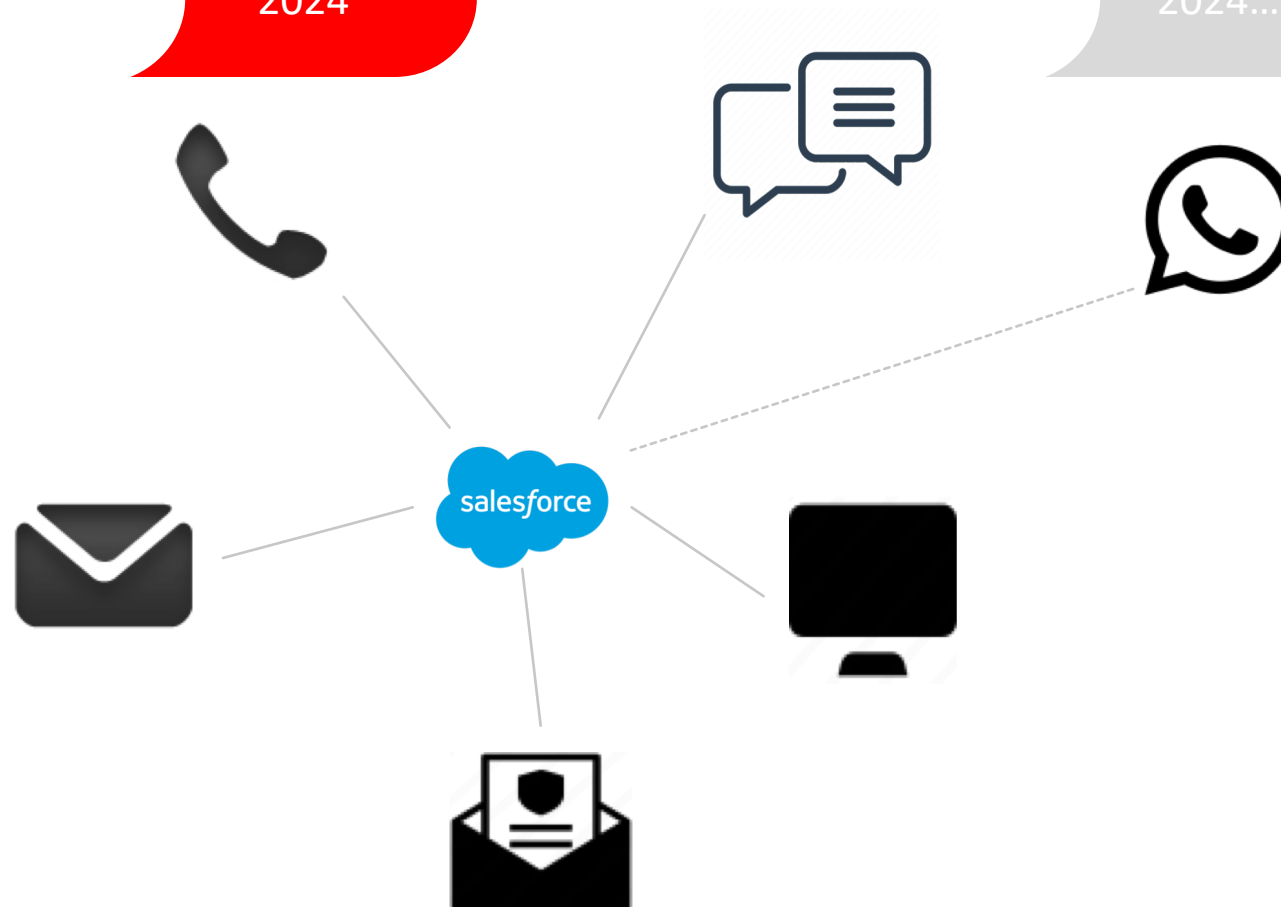# A multi-channel system

2016-2023
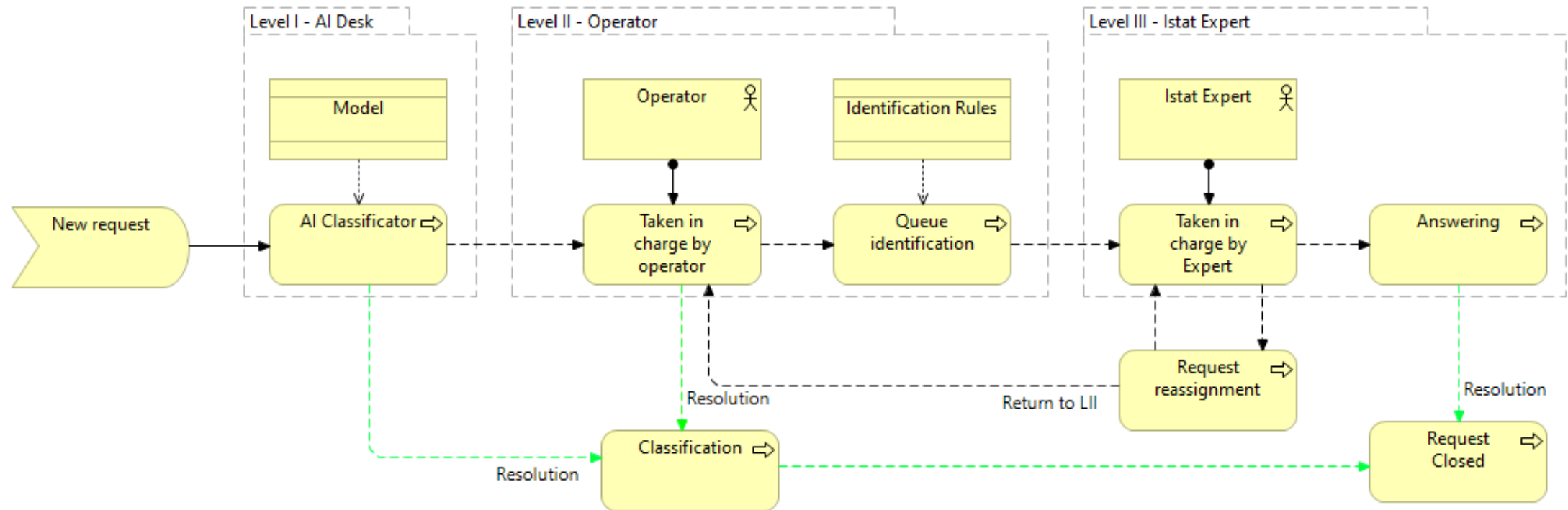
2024

A multi-channel system
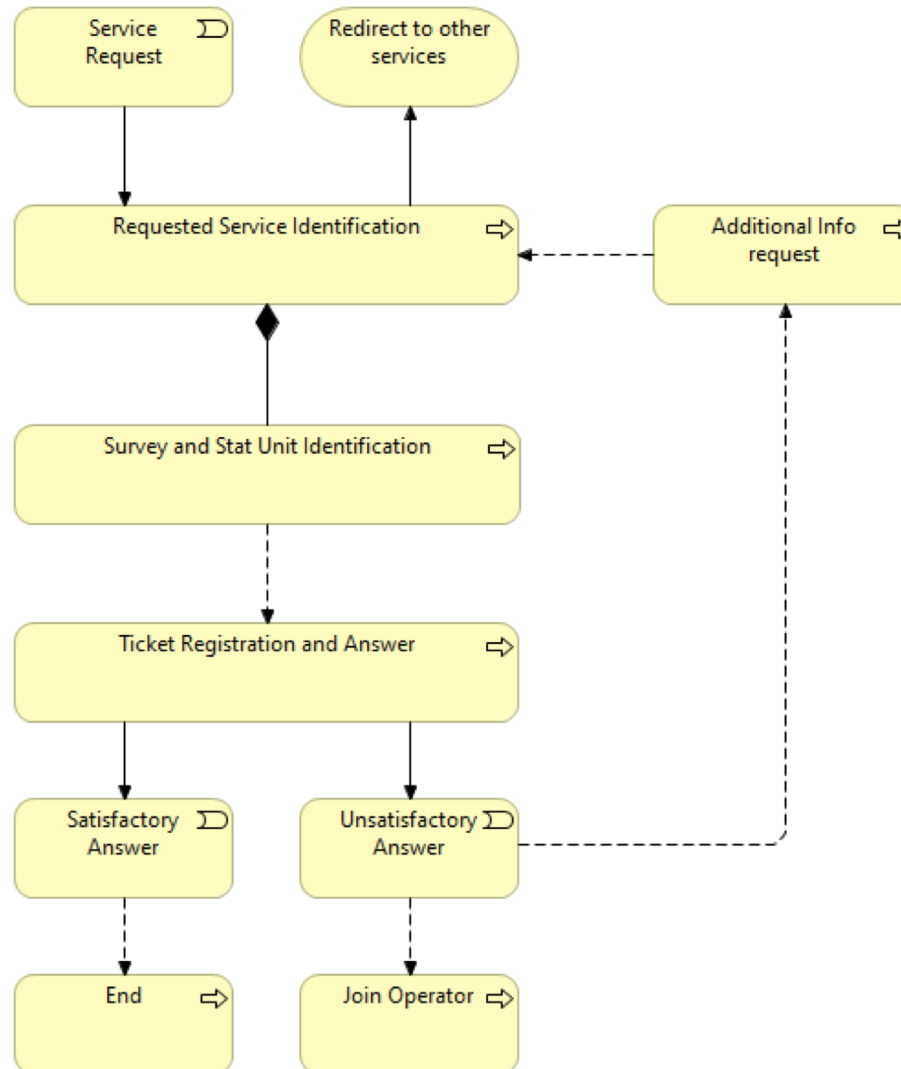
2016-2023

2024

2024...

17

New automated process based on 3 assistance levels

Green lines represent solution paths

Black lines represent evaluation paths across multiple levels of assistance

AI: question answering (chatbot)


```
Service Request  →  Requested Service Identification
Redirect to other services
Additional Info request
Requested Service Identification  →  Survey and Stat Unit Identification
Survey and Stat Unit Identification  →  Ticket Registration and Answer
Ticket Registration and Answer  →  Satisfactory Answer / Unsatisfactory Answer
Satisfactory Answer  →  End
Unsatisfactory Answer  →  Join Operator
```

On request system needs to identify the requested service
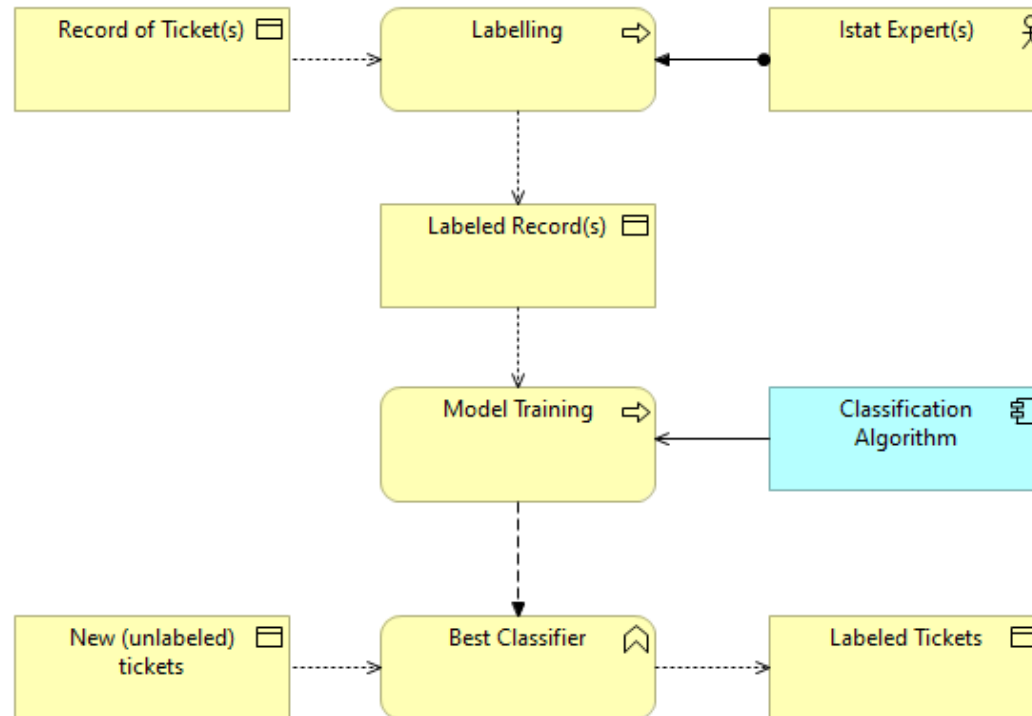
For data collection assistance, survey and statistic unit must be identify

Open ticket and attempt an answer

Depending on the user feed back the answer can be solved or not

If it is unsolved, additional information are necessary and the process iterates

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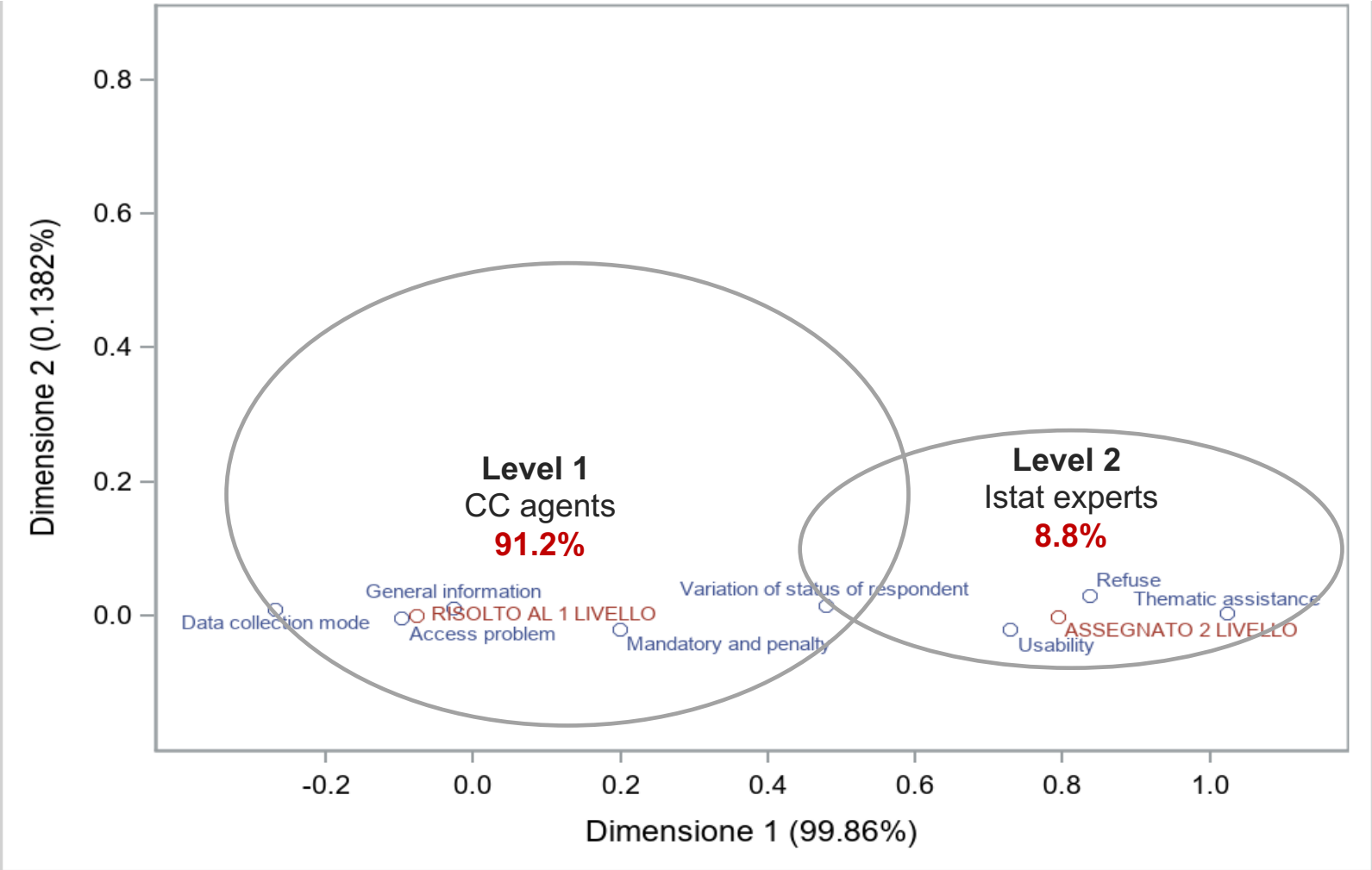# AI: Classification for request routing

Ticket labelling by Istat experts

Model training and optimization with Natural Language Processing Algorithms

Incoming ticket classification

Further insights on 2023 resolution levels
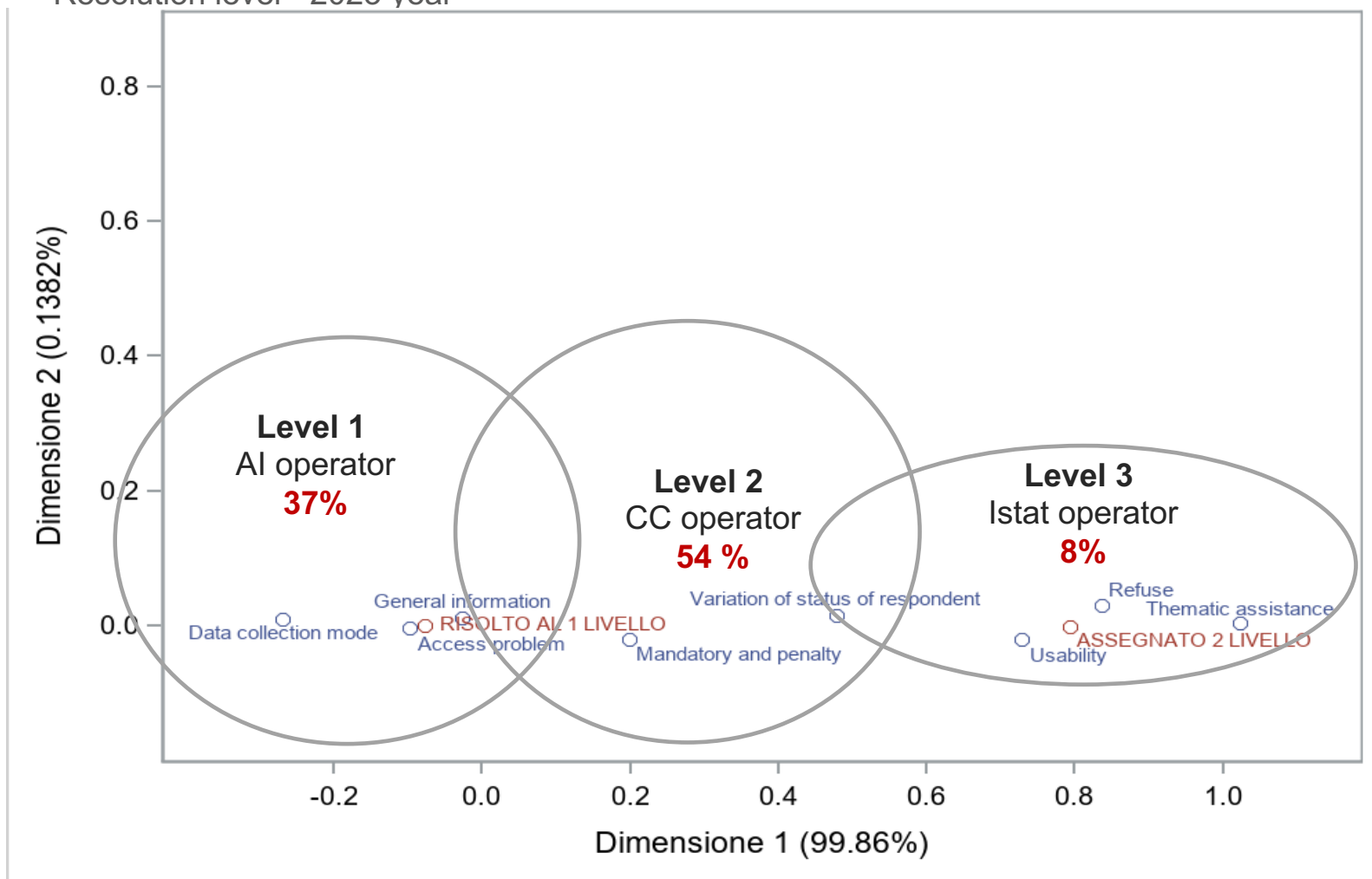
Resolution level - 2023 year

In the current service 91.2% of requests are solved by external operators

Issues at this levels concern mostly access and general information requests, easily solved by AI solutions

Estimates expected from the new three-levels process

Resolution level - 2023 year

Literature on this subject reports that AI solutions can process 50% of service recurrent requests (40% with additional conservative assumption).

Full operational savings come from AI operator (level 1) with 37% of requests processed

Thank you for your attention

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