



INSTITUTO NACIONAL DE ESTATÍSTICA
STATISTICS PORTUGAL

» Data Collection Dashboard a step towards more consistent data

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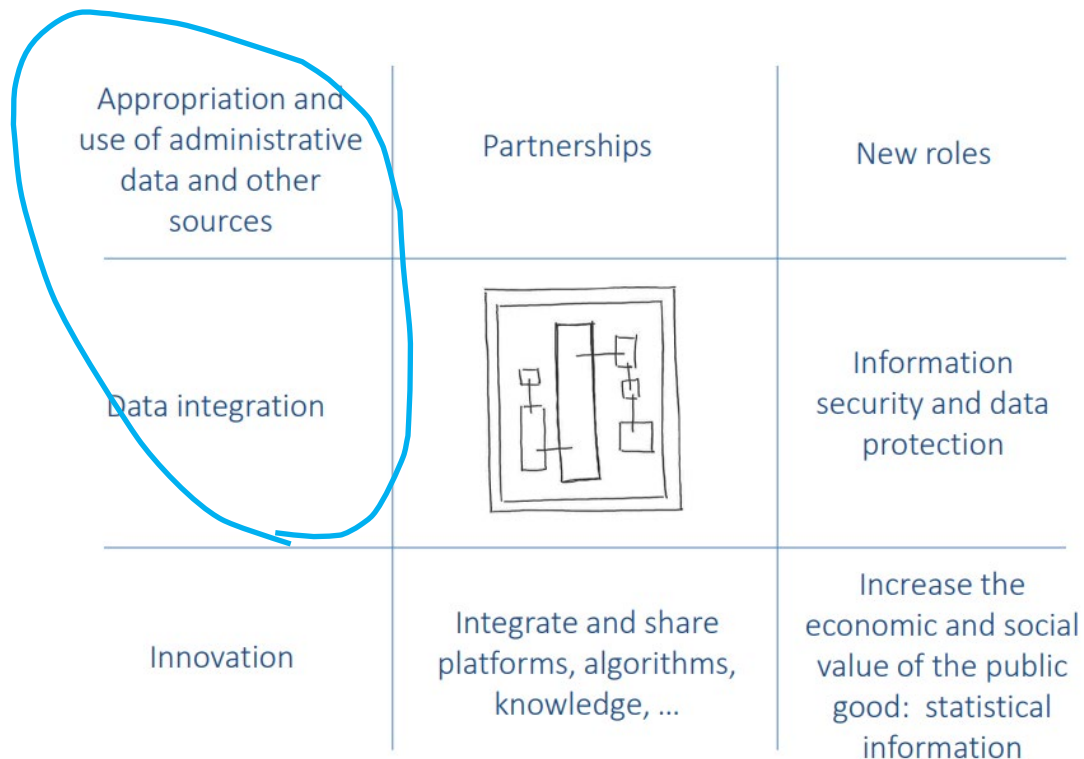
UNECE Expert Meeting on Statistical Data Collection
26-28 october 2022



1. Collecting data from different sources
2. Issues when integrating different sources
3. The creation of the Data Collection Dashboard
4. Dashboard contributions to overcome inconsistencies
5. Conclusions (and next steps)

1. Collecting data from different sources

- From 2018 onwards, the development of National Data Infrastructure (NDI) is ongoing:
- Single point access to several types of data and make it available to multiple purposes and users



1. Collecting data from different sources

For all types of data, independently of collection mode (survey or admin)

Key elements: standardization, integration, consistency

Strong and
centralized
infrastructure

Dedicated Unit

Top-down
approach

One consolidated data base for different users/purposes

2. Issues when integrating different sources

- The use of data from different sources always presents new challenges:
 - identifying and validating the most accurate data and thus eliminating possible inconsistencies.
 - faster analysis and evaluation of inconsistencies makes it possible to improve data quality, speeding up statistical production and, at the same time, reducing possible contacts with respondents (and therefore reducing the statistical burden).

2. Issues when integrating different sources

Our strategy

**top-down
approach**

to data analysis
and processing,
both for survey and
administrative data
that leads to



More consistency

Less time

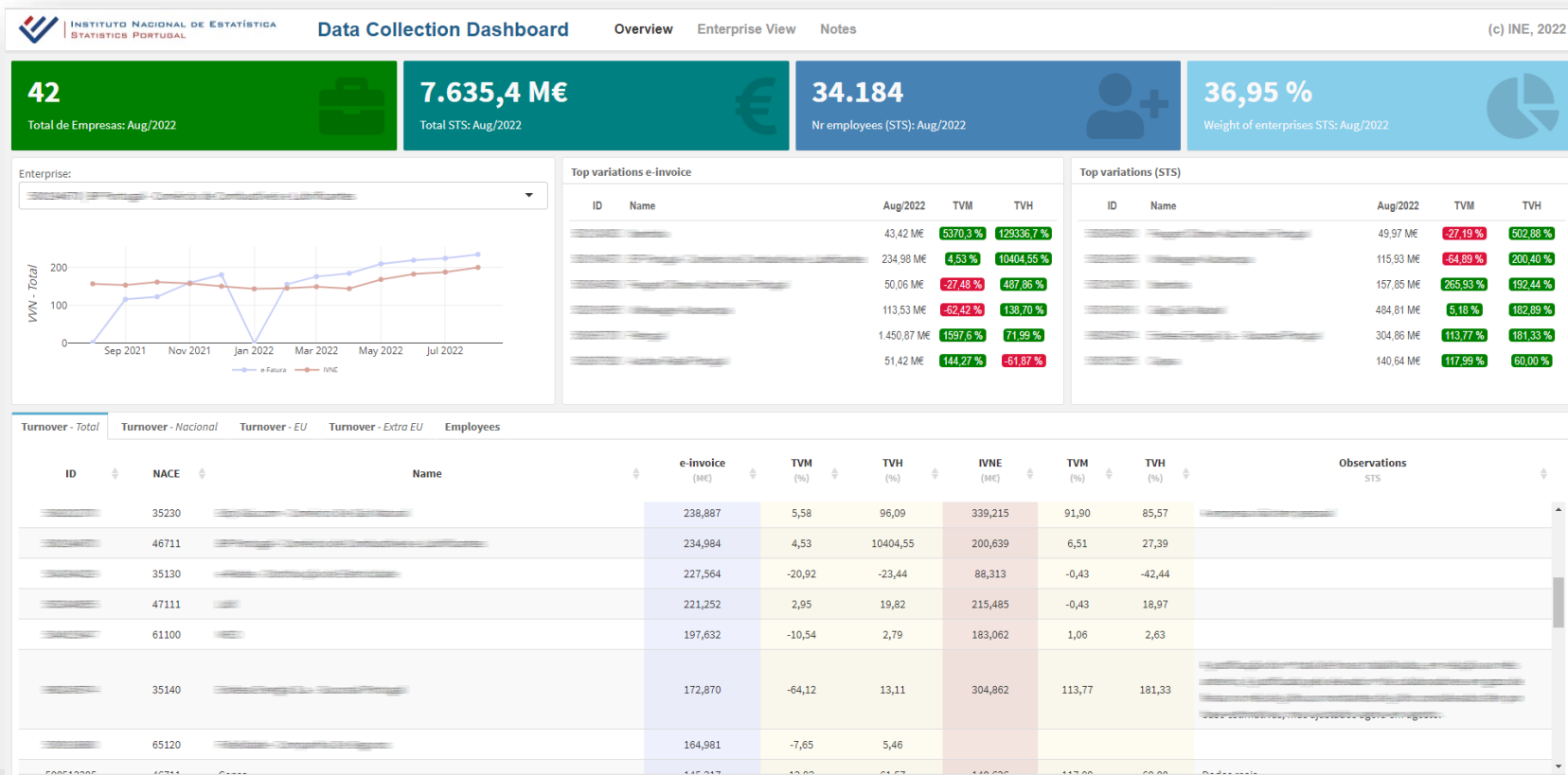
More quality

3. The creation of the Data Collection Dashboard

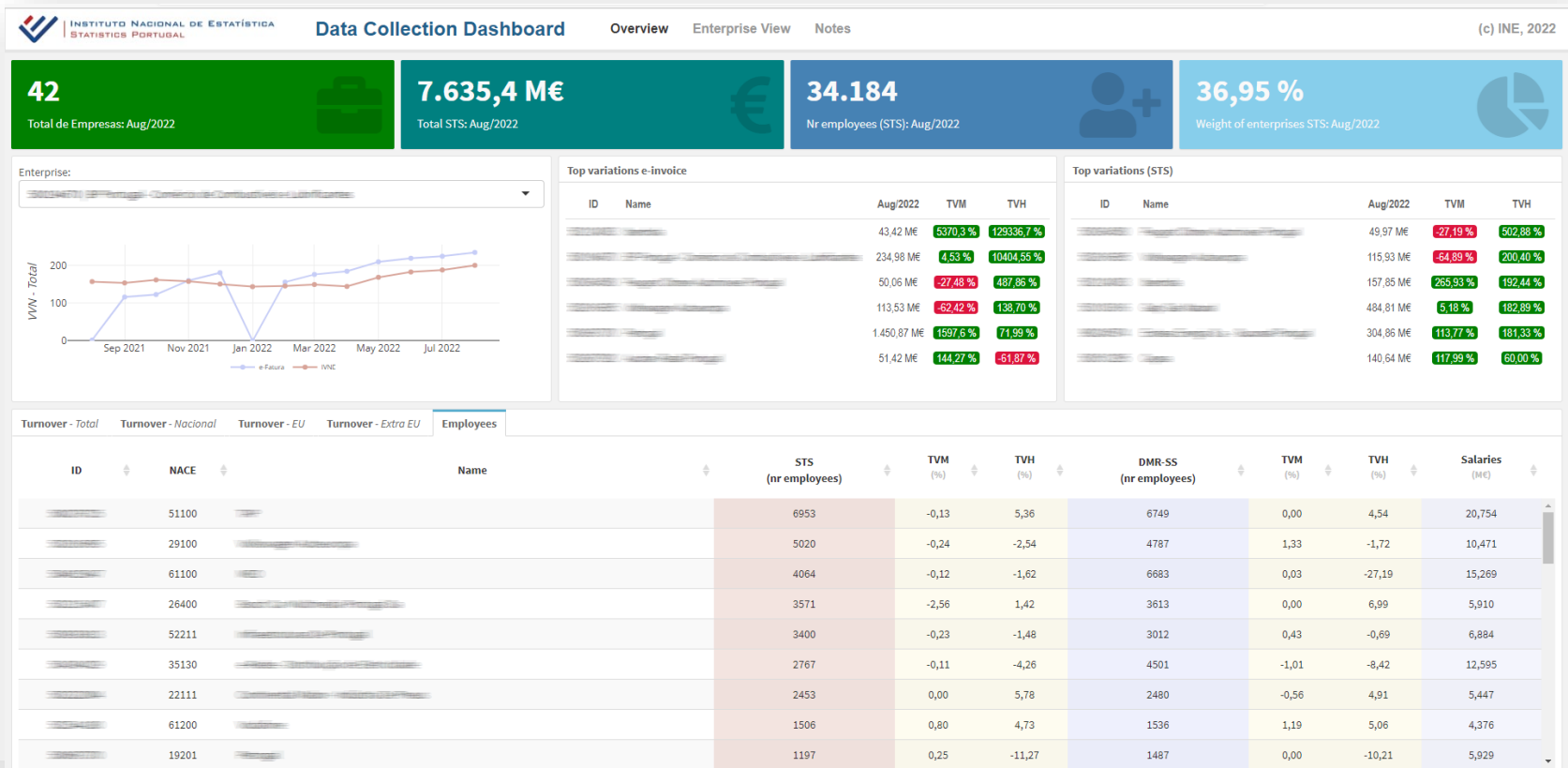
- Ease and speed of analysis are essential factors for a higher quality and faster statistical production
- The idea was to develop a tool combining indicators available in various data sources, whether internal or external, with the highest possible timeliness:
 - Produced using R language (Flexdashboard technology)
 - Output in HTML: simple, easy & Fast



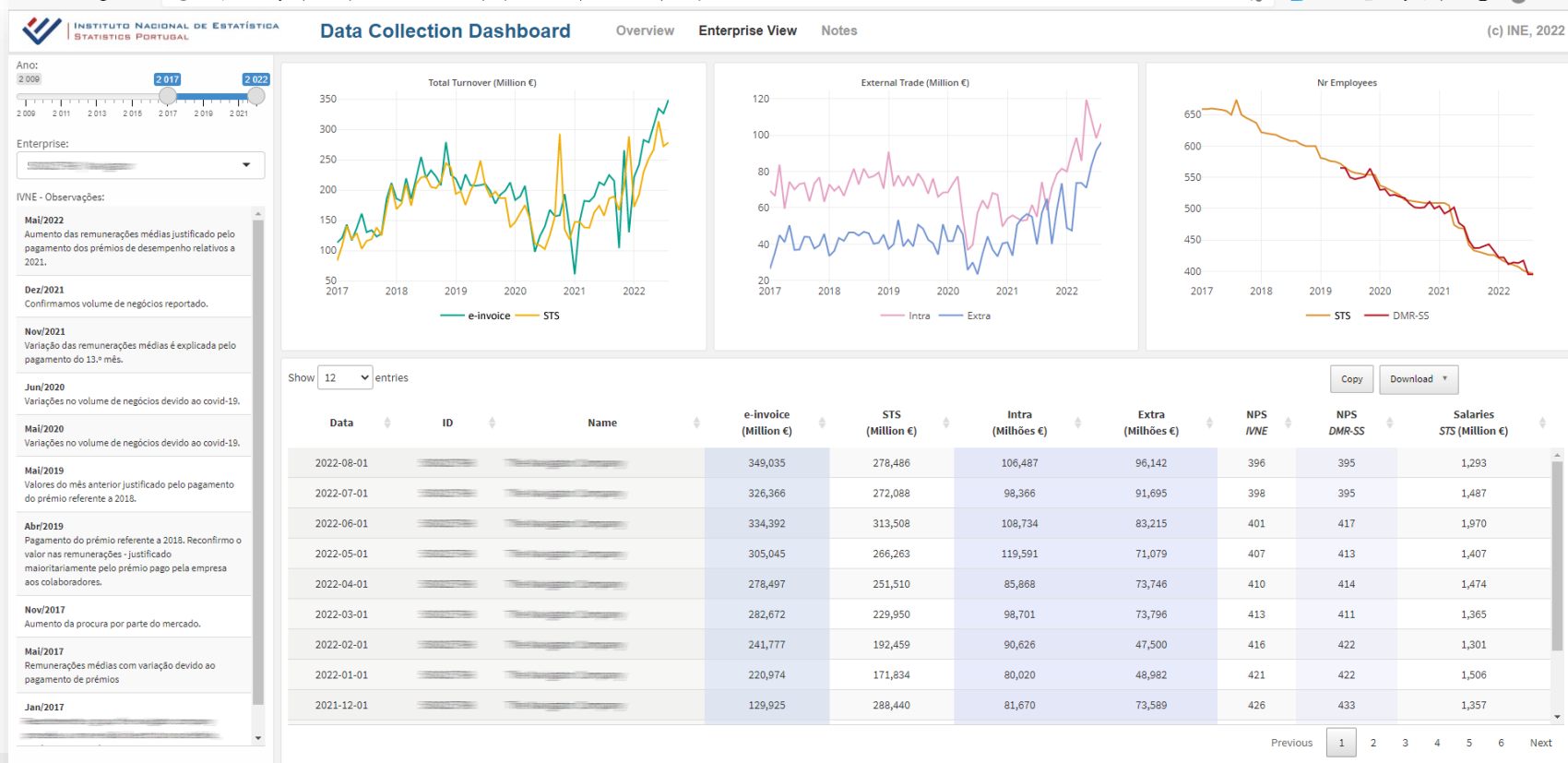
3. The creation of the Data Collection Dashboard



3. The creation of the Data Collection Dashboard



3. The creation of the Data Collection Dashboard



4. Dashboard contributions to overcome inconsistencies

- This Dashboard is an up-to-date overview,
 - for a relevant set of economic statistical units,
 - on the current reporting of some key indicators,
 - from different data sources (surveys and administrative data)
- Aggregates other elements that may explain certain behaviours in the indicators
 - Observations/comments of both respondents or colleagues from the analysis of the survey data collection
 - Avoid more detailed and time-consuming analyses with eventual contacts with respondents
- Top-down analysis of the data to take the best decision about data:
 - Comparison of data from administrative sources and from different survey data
 - Identification of inconsistencies
 - Time-series analysis

5. Conclusions (and next steps)

- The implementation of this Dashboard plays an important role:
 - helping to collect and treat data in a more consistent way
 - enhancing the improvement of its quality
 - promoting collaboration among the various teams of the statistical process.

- Next steps:
 - develop this dashboard for other time periods and other data sources
 - design other dashboards for specific analysis, for instance SPE (special purpose entities)



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Obrigado | Thank You «

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