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EUROPEAN CONFERENCE ON
QUALITY IN OFFICIAL STATISTICS
2024 ESTORIL - PORTUGAL

Quality assurance and user centred design in dissemination

EUROPEAN CONFERENCE ON QUALITY IN OFFICIAL STATISTICS 2024 ESTORIL - PORTUGAL

Q2024 - European Conference on Quality in Official Statistics

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Quality in dissemination
General principles of good communication

General journalistic approach in terms of determining the message you want to pass, finding your angle, and structuring your information.

5 Cs of communication	
Clear	Simple language, free of any dual meaning and of too much complexity
Complete	With regard to the message you want to pass (beware of the tendency to overload)
Correct	Attention to detail and consistency!
Concise	Enough information to engage and prompt understanding, but not too much to overload and overwhelm
Compassionate	Compassionate communication involves active listening to users, and understanding of their needs and expectations

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General principles: Communication is two-way

One-way

Simple dissemination of statistics

Two-way process

Including: a sender, clear message, (appropriate) channel(s), receiver, and response/feedback (though challenging)

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Dissemination of statistics as a two-way process

- ✓ Away from a producer-oriented approach to a user-oriented approach
- ✓ Consider your target audience and their needs when developing dissemination products
- ✓ Be aware on which channels you reach your target audience, and what products are suitable for which target audience
- ✓ « One size fits all » doesn't work → differentiate products for different channels
- ✓ Obtain user feedback (and act on it)

Knowledge of your users is key!

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Specificities of disseminating statistics

- Importance of developing a coherent brand
- Importance of attractive visuals to catch attention and foster understanding
- Interactive tools to engage with users

- **Need for statisticians and dissemination experts to work hand in hand!**

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Quality assurance mechanisms

- Quality as a systematic process
- Cover all stages of the dissemination process from conception, design to implementation
- Importance of feedback loops/quality reviews
- An update of a dissemination product is an opportunity to improve, taking into account user feedback
- Statisticians produce a lot of dissemination content → need for clear dissemination guidelines

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Eurostat's user-centred design approach: What is user centered design (UCD)?

User-centered design is an approach to design products that puts users' needs at the center. It is all about **giving users <u>what they need</u>, <u>not what we think</u> they need**.

It follows an **iterative** design process that focuses on the user's needs every step of the way.

- Users are involved in the design from the beginning
- Iterative design process
- Organisation goals are aligned with users' needs
- Continuous feedback loops

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Designing for usability

Design is not about trends, but rather principles, i.e. underlying rules that govern ‘what makes a good user experience’.

Our dissemination products are centered around the following principles:

- **learnability**: How easy is it for users to accomplish basic tasks the first time they encounter the design?
- **efficiency**: Once users have learned the design, how quickly can they perform tasks?
- **memorability**: When users return to the design after a period of not using it, how easily can they reestablish proficiency?
- **errors**: How many errors do users make, how severe are these errors, and how easily can they recover from the errors?
- **satisfaction**: How pleasant is it to use the design?

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Strategy and objective

- Eurostat's communication and dissemination strategy 2021-24:
  - related strategic principles:
    Promoting understanding of our data among all users
    Our communication is adapted to user needs
- remaining attractive, interesting, and relevant for users
  - providing products offering a positive user experience and help them achieve their tasks
  - user-centered approach is based on 2 'connected' pillars:
    user research and usability testing

→ putting your users at the center requires a **sound knowledge** about them

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Opportunities – the 'why'?

- guidance for designing + validation of our ‘internal’ business choices
- gain in-depth insights into the use of our statistics, dissemination products
- avoid the creation of products no one understands, uses, or needs
- ROI (return on investment): reduce development cost and time, increase traffic and use

Methods – the 'how'?

- qualitative and quantitative user research
- identify **key user segments** of users of European statistics, their needs, pain points, expectations to create personas / user profiles (**user research**)
- complemented by **usability testing** and user feedback surveys of Eurostat products and tools

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User research: User profiling study

- **Objective**: The user profiling study aims at improving Eurostat products and dissemination of statistics by:
  - identifying the key user segments of European statistics by Eurostat
  - identifying key needs
  - identifying pain points
  - identifying opportunities for improving the overall user experience
  - mapping tasks, activities, and flows

The **1st phase** of the study was conducted from February 2023 to August 2023. The **2nd phase** (update and refinement of Phase 1 outcomes) started in January 2024.

This study was built upon previous profiling initiatives, like the one of the DIGICOM study.

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User research: User profiling study - outline

Research scope framing
- Stakeholder alignment
- Why do we need user profiles?
- Research question
- What's the approach to user profiling?

Segment definition
- Segment definition strategy

Study preparation
- Research plan
- Research protocol
- Recruitment
- Session planning logistics

User Interviews (Qualitative)
- Speaking with users
- Identification of key characteristics, attributes & habits of Eurostat users

Survey (Quantitative)
- Validating the qualitative findings of the user interviews

Analysis and reporting
- Session analysis
- Study report

Identifying and explaining how user profiles can be used in Eurostat context

Making user research accessible to everyone in Eurostat

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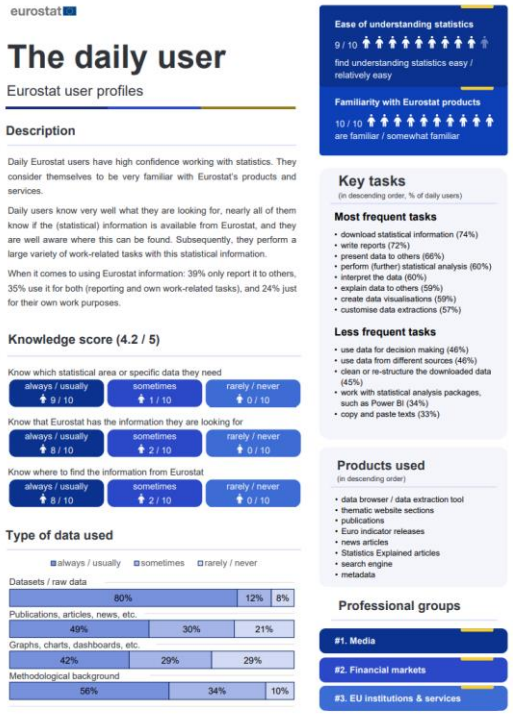
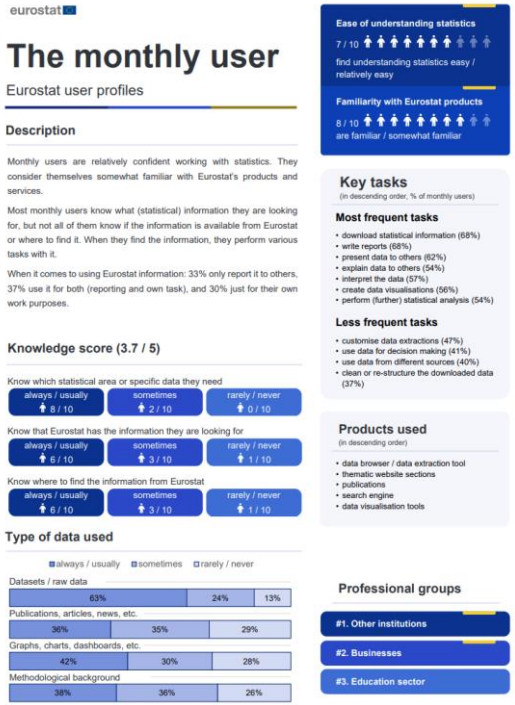
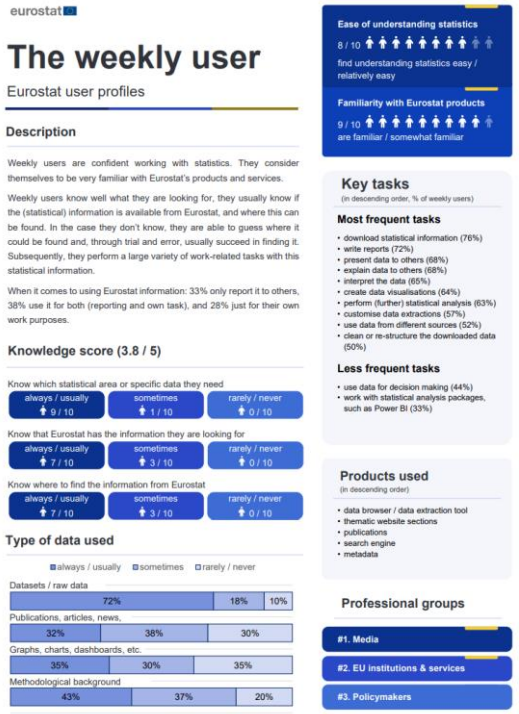
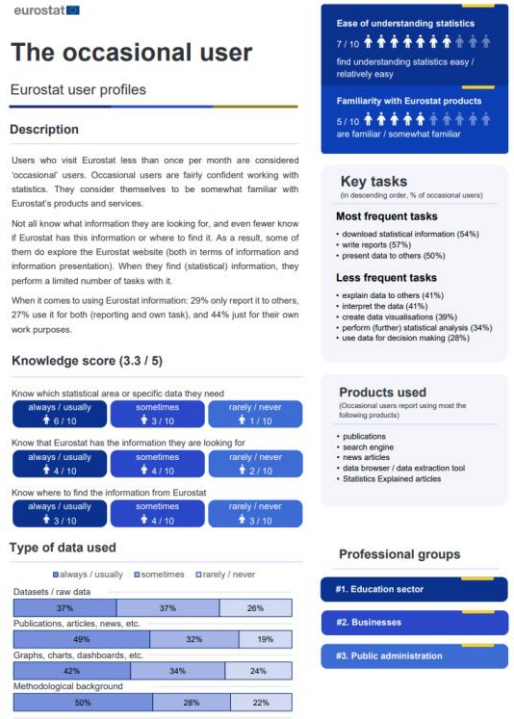
User research: User profiling study - outcome









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User research: Reflections and on-going steps

- There are **various interesting ways to profile** Eurostat users, based on variables such as attributes, tasks, products used, statistical literacy, professions.
- Profiling approach is based on **various statistical analyses** to uncover relations between user variables and to decide / choose the best profiling approach
- User research has a **moving target**: Users' needs, behaviors, and ways to approach Eurostat statistics are not static, but they evolve + new developments (e.g. AI) arise
- Eurostat's user research always needs to **evolve** as well to capture and understand the actual reality of users

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Usability testing – Opportunities

- To ensure that a product is usable for our users and helps them succeed in achieving their tasks
- User do not think like we think
- Users do not have good insight into the reasons for their behaviour
- User performance involves a human, a context and an activity

"Testing with 5 participants in a usability test reveals 85% of usability problems that affect 31% of the population" (Nielsen, 1993)

Usability testing – Methods

We ask participants to complete tasks and observe by means of

- Exploratory study
- Summative study
- Validation study
- Comparison test

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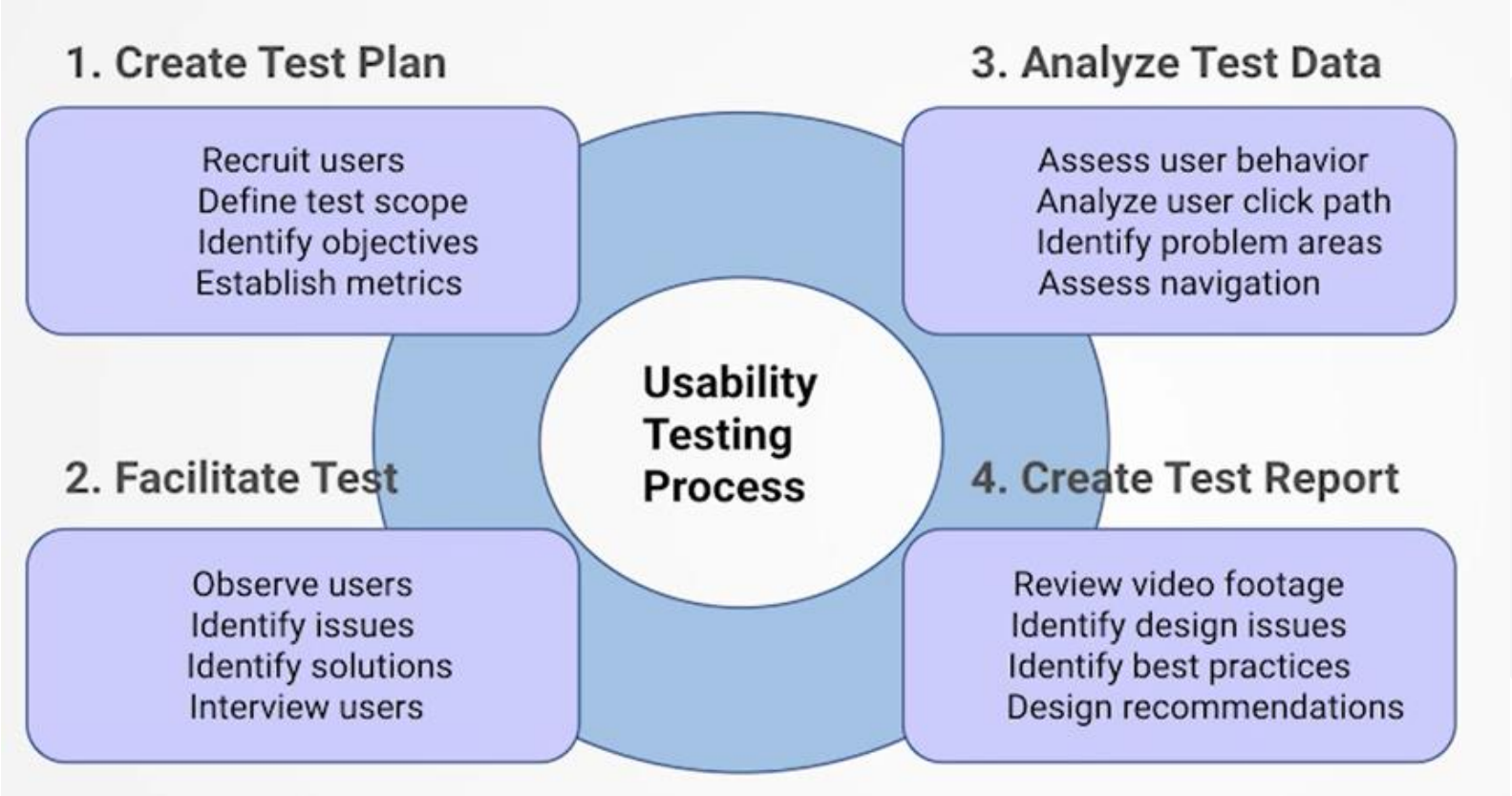
Usability testing – the process



We inform the team about our findings and provide recommendations to help them make informed decisions

Remember, testing does not guaranty success or even prove that a product will be usable

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Usability testing – Studies performed 2022 - today

- Eurostat website revamp (multiple rounds)
- Key figures publications
- Statistics Explained revamp (multiple rounds, different types of tests)
- Eurostatistics (dashboard, visualisation tool, publication)
- Data browser (multiple rounds, different types of tests)
- Interactive publications (2 rounds, different types of tests)
- Dashboards
- New metadata layout (ongoing)

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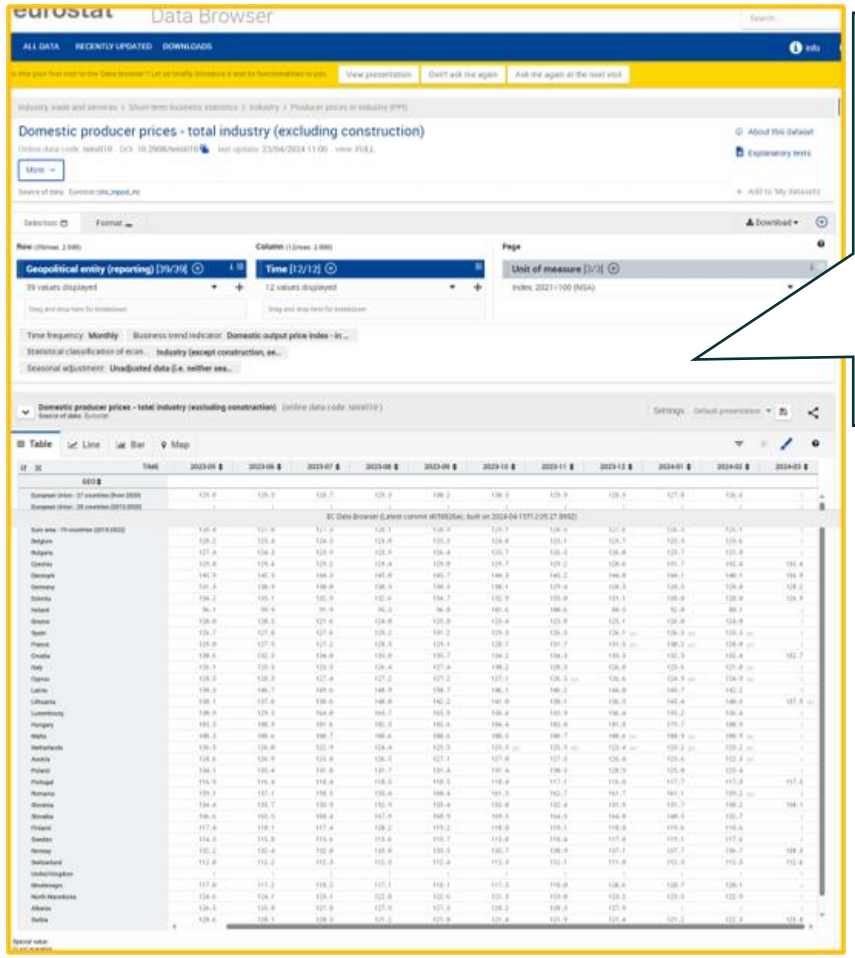
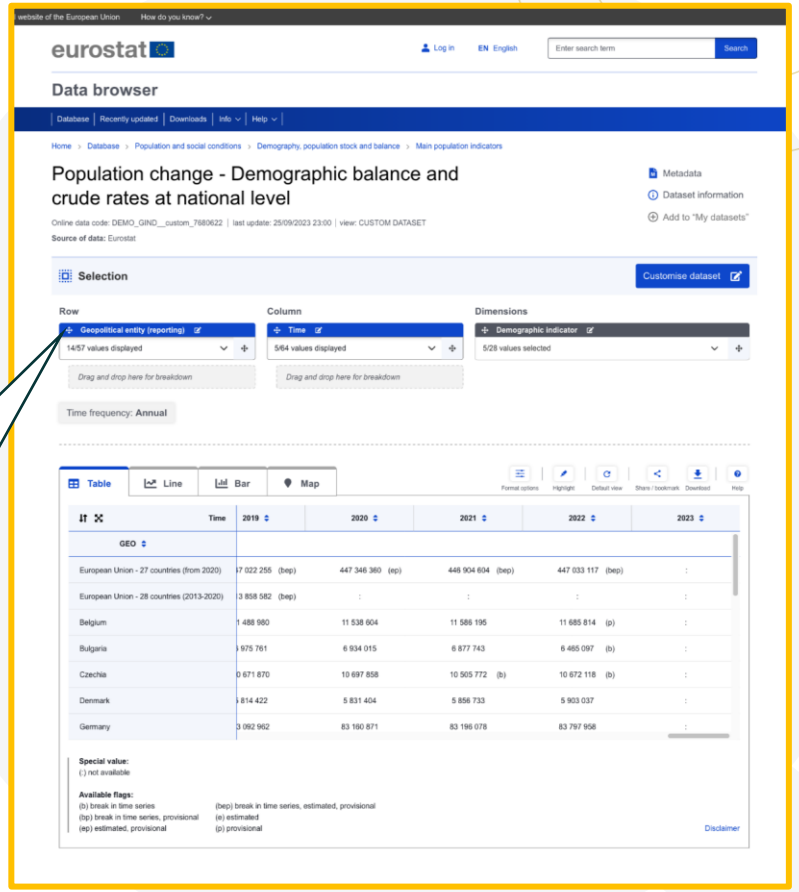
Example: Data Browser before and after



- Cluttered
- Not a clear mental model
- Too many available functionalities at once
- High cognitive load
- Confusing

- Less clutter, clear space
- Reduced functionalities in main view
- Design considering differences: entry level vs advanced users



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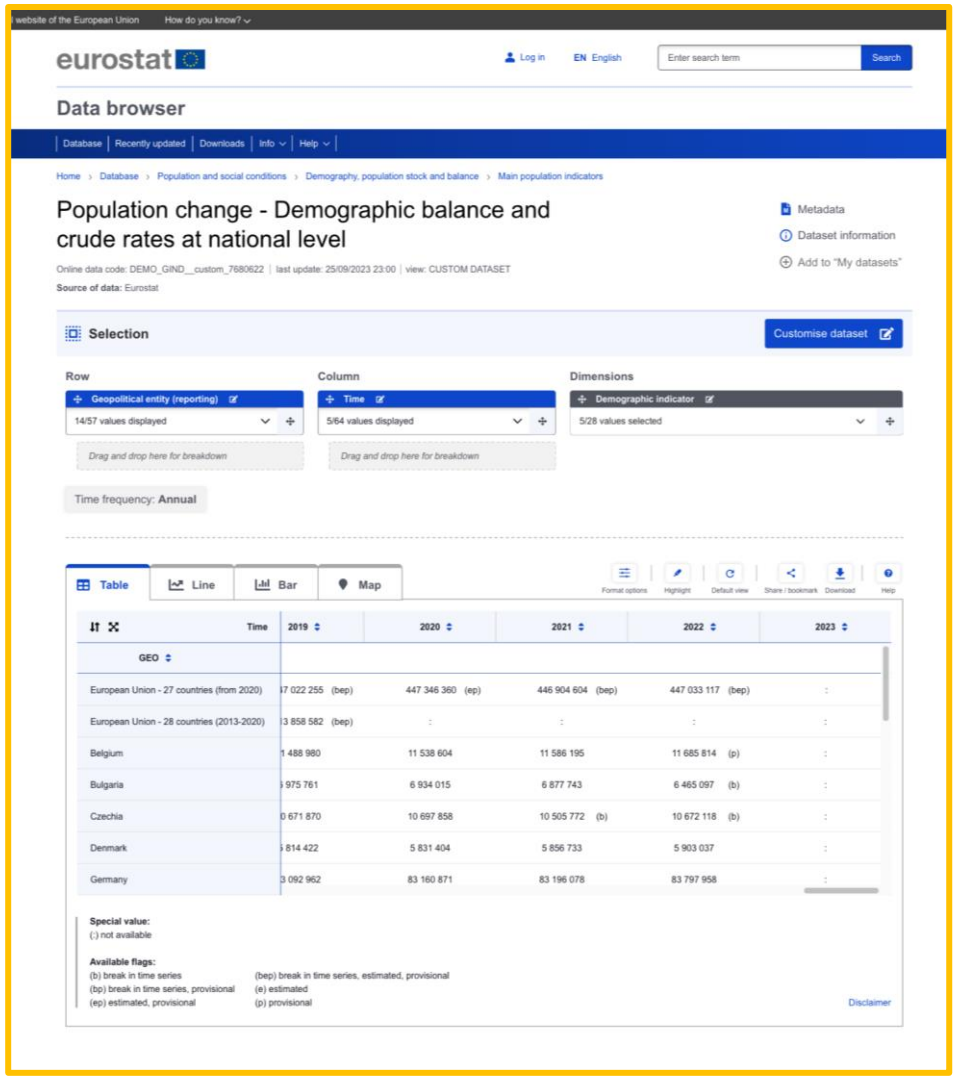

Mock-up

- Reduced number of functionalities in the main view
- Reduced cognitive load
- Clear central stage
- Design considering the differences between entry level and advanced users
- New mental model for data download
- New design for advanced data formatting options

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Thank you

For any questions, please contact:
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