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How a strong community and user-centered design approach is key to .Stat Suite product excellence

Community Chronicles: Overview of SIS-CC

The Statistical Information System Collaboration Community (SIS-CC) came together for the first time in 2011, officially launching the Community, building on earlier experiences of software sharing and co-investment. As the community membership steadily grew, they worked on building products out of the data, like the first open data API, and creating a clear framework for collaborating, leading to a first strategy in 2014. With an increased interest in the community and its products, members made the decision to go open, creating what we know the Community as today, an open-source community for official statistics, focusing on product excellence and delivering concrete solutions to common problems through co-investment and co-innovation.

In 2017, the Community reached an important milestone, with the initial .Stat Suite concept emerging as an environment to manage the data lifecycle for official stats (GSBPM: design, collect, process, disseminate). Today, the community offers the .Stat Suite a free standard-based, open-source tool for the efficient production and dissemination of high-quality statistical data supporting the modernisation of official statistics worldwide. It is formed by 22 members/partners around the world, and is organised in 3-levels of governance with the OECD secretariat chairing:

1. *Strategic level group (SLG)* chaired by OECD Director of the Statistics and Data Directorate: comprises senior executives (often Chief Statisticians) from each SIS-CC member organisation steering the community along the strategic directions and confirming the priorities and resourcing.
2. *Management level group (MLG)* chaired by OECD Head of Smart Data Practices and Solutions Division: comprises senior managers appointed by member organisations to monitor progress made on a regular basis (~monthly), signs off on annual work plans (including flight planner), and ensures alignment with the strategic directions.
3. *Architecture Task Force (ATF)* chaired by OECD Head of Smart Data Solutions Team: comprises experts appointed by member organisations (business analysts and technical architects) to drive the business and technical architecture of the .Stat Suite.

A Community Manager oversees and coordinate all activities.

With the move to open-source and the birth of the .Stat Suite, a new 5-year strategy was put in place in 2020 to help guide the Community and the way it works through to 2025. The Community is now in the early stages of identifying key directions for the next strategy including user research in support of user-centred design.

Building-up Happy Journeys in .Stat Suite: The User-Centered Design (UCD) approach

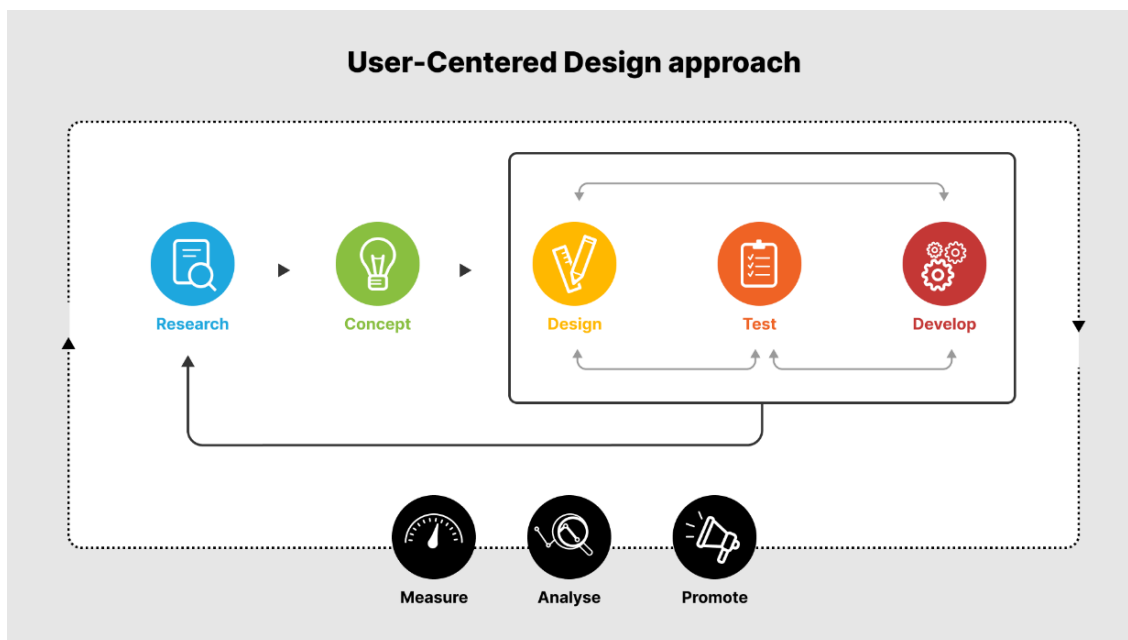
The .Stat Suite is composed by the following main modules:

- *.Stat Data Explorer* which is the front-office user interface that offers end-user features to find, understand and use data on different topics or other categorisations through an easy-to-use and consistent graphical experience.
- *.Stat Core* which is a reusable, highly performing, secure SDMX Data Base and API based on standard protocols, to store and retrieve statistical data, structural and reference metadata, data process information and security settings.
- *.Stat Data Lifecycle Manager* which is the back-office user interface that supports data practitioners to manage the (macro)data lifecycle for official statistics (design, collect, process, disseminate).

As you can tell, for these modules we have a diverse range of users. They can be statisticians, data scientists, researchers, students, policy analysts, policy advisors, journalists, engaged citizens, government officials, web developers, any kind of person who works with data frequently.

But how can we confirm these users' profiles? Who are really our users? Why are they using the .Stat Suite modules? How can we make sure that what we are offering is satisfying their needs?

To be able to answer these questions and assure a highly user focused .Stat Suite product, this year we introduced a new systematic User-Centered Design approach that uses a variety of research and design techniques and tools to involve users throughout the whole process so that we can take better informed decisions and prioritise our efforts accordingly.



Research: To understand who the users really are, what they need and expect, how they interact, which issues they have, what they do with the data.

Concept: To generate ideas, identify user needs and current problems, specify requirements, define real use cases and stories. These serve as foundation for the design process.

Design: To mock-up the requirements, design wireframes, create interactive prototypes and refine specifications according to test outcomes, through an iterative process.

Test: To demonstrate that the solution fits the needs, that it is accessible and inclusive; to observe how users interact, get their feedback to accept, improve, reject, or redefine the problem.

Develop: To build the solution and/or test live and/or test automatically with end-to-end and API tests.

Measure: To constantly monitor the performance of the user experiences as well as the UCD techniques and tools.

Analyse – To constantly analyse results, report, confirm positive results and identify new issues.

Promote – To create a stronger online presence with a user campaign, to raise awareness, attract users, and encourage adoption.

Enhancing features: The UCD practical case

Successfully integrating the UCD approach is essential for the understanding and selection of the right type of techniques and tool combinations that work for each step and for measuring the related level of satisfaction to continue improving the process. Having also a well-skilled team that knows the product is very important as we can efficiently tackle challenges, make informed decisions, and deliver high-quality results. Finally, the collaboration within the Community is crucial to leverage each other's strengths, resources, and expertise bringing fresh perspectives and ideas.

Our UCD experience begun with the research technique called 'focus group' where community members of the ATF and data practitioners were invited to discuss live with the goal to understand the needs and enhancements of a specific functionality. The chosen technique for this step was successful. We confirmed the real need and identified the use cases. People attending the session were very satisfied leaving positive comments in the satisfaction survey and being mostly promoters of it.

The concept step happened next with a couple of short brainstorm sessions to generate ideas where we finished writing a couple of use cases for the potential solution. Well-written use cases that are clear and understood by everyone involved in the design phase is key. A mock-up in PowerPoint for each use step and designing navigation flows can help a lot to visually organise the requirements.

We continued the experience with the design phase, we prototyped the designs and navigation flows to simulate the use cases interactively on Figma. This was done with the guidance of our junior Figma expert who also trained the team and shared best practices to facilitate the build. We first designed all the elements and main interactions until we had the real experience.

We tested the real experience with a few community members and data practitioners to make sure that we meet the stakeholder expectations. We prepared the tasks, the instructions and a template to evaluate the observations of the live user testing. We recorded each session and asked to fill in a survey to analyse more in-depth comments. We identified issues in the user flow as well as in the testing process that we improved for the next user testing.

Once the design was validated, we moved to the develop phase by creating an Epic broken down into smaller user stories. We included the navigation flows as well as the recordings of the interactive prototypes, which can serve as a reference for the developers to understand how the user interactions should be implemented. Developers might be involved early on, e.g., at the concept step. They can also bring ideas, confirm that the chosen ideas are technically feasible, and make a timely estimation of the cost.

The implementation is deployed, tested again and monitored by the team in our quality assurance environment. For the monitoring, we use tools that record random sessions of real users to observe the experience and even complete the user behaviour flows. It is important to keep analysing in a dashboard the key performance indicators on user engagement (number of unique visitors, time on site, page views, bounce rates, returning visitors), usage (search queries, click-through rate, data downloads, mobile) and performance (load time, errors).

It is also vital to measure frequently the user satisfaction. We suggest using pop-up surveys as totally integrated experience. First, this allow us to know who really our users are, to confirm the user personas, to grow the user testing community, and to identify new needs for the next UCD cycle.

To foster even more the collaboration with the community, we opened a collaborative hub, where we share our experience in this UCD exercise, open virtual discussions, and identify opportunities to synchronise future user testing exercises and even create a common list of users to test including different cultural backgrounds and visually impaired people.

We are currently building a strategic marketing plan to promote our work on the .Stat Suite products with UCD approach through different channels; and consider metrics like referral traffic and social media engagements.

Innovating together: the User research Task Force (UTF)

In September 2023, we will establish a User research Task Force with the objective of setting up the joint user-centered practice making .Stat Suite products accessible and inclusive to a diverse range of users. We will identify multiple strategic questions, including the leverage of existing innovation, and most probably outline a clear 2025-2023 vision and a mission statement.

We will also organise the first community workshop in November 2023. It could be an opportunity to propose a series of user-centric activities that will focus on what adds massive value to users and identify organisations interested in co-investing toward a truly user-centric product design cycle.