

Innovating Statistical Communication in Europe: the DIGICOM Project

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Abstract

In the thick of a number of ongoing global changes – the digital transformation, data revolution, resource constraints in statistical production – statistics producers in the ESS (European Statistical System) have devised a common strategic response to the challenges that have coincidentally arisen. This response is the ESS Vision 2020, a portfolio of eight projects which enable the producers of official European statistics to keep pace with change in an innovative and agile way. Each of the ESS projects addresses a different aspect of the production process of official statistics. One of these projects is DIGICOM – project for Digital Communication, User Analytics and Innovative Products – which will run from 2016 until the end of 2019. The objective of the DIGICOM project is two-fold: modernising communication and dissemination of European statistics, and building capacity within the ESS. In developing new methods to communicate and disseminate statistics, a user-centric approach will be assumed, deepening the understanding of the users of European statistics and their needs. The aim of this paper is to show how DIGICOM will tap into the expertise within the ESS by developing shareable and customisable tools and products. We describe how DIGICOM ventures into open data dissemination by facilitating automated access to European aggregate data and improving access to micro-data. Finally, we illustrate how the communication and promotion strategy underlining the value of official statistics will be implemented, including innovative methods like hackathons, gamification and statistical literacy initiatives.

Keywords: change, innovative, communication, official statistics, ESS, dissemination, DIGICOM

1. Background

Official statistics are currently facing a number of changes. These changes have brought about opportunities, such as new sources that can improve the timeliness and relevance of our statistics, but also challenges, such as competition from new data producers. National statistical institutes in Europe and Eurostat recognized the need to modernise their ways of producing and disseminating statistics in this time of severe resource constraints.

As a response, in 2014, the European Statistical System (ESS), i.e. Eurostat and national statistical institutes in Europe, agreed on a common vision to build the future of European statistics and on a modernisation agenda, the "ESS Vision 2020"¹. In particular, the agenda will consist in the following initiatives:

- harnessing new data sources to produce meaningful statistics,
- developing new ways to exchange data to become more efficient and to reduce burden on our respondents,
- intensifying collaboration and building partnerships for developing new methods, tools, technological infrastructure and also human resources,
- engaging with users and improving responsiveness to their needs,
- increasing value by communicating on products and services in an interactive and easily comprehensible way.

The project for Digital communication, User analytics and Innovative products (DIGICOM)² is one of the eight projects from the ESS Vision 2020 implementation portfolio³. The project aims to modernise the communication and dissemination of European statistics.

This project's importance primarily lies in the growing trend towards instant information that users are experiencing – the so-called data deluge – which is increasing their expectations in terms of speed of access to statistics. At the same time, users are maybe unable to differentiate between official statistics and other sources, which often lack “proof of quality”. Secondly, the ESS has to address new needs and expectations, such as those of data journalists and younger users. Finally, national statistical institutes in Europe are called to seize the opportunities offered by modern technologies such as visualisation tools, user analytics and the semantic web.

² DIGICOM website <http://bit.ly/2d5k8B8>

³ ESS Vision 2020 implementation portfolio <http://bit.ly/2da9uoH>

2. The project framework

The project aims to explore and develop innovative dissemination products and services, based on experiences within the ESS and concrete needs of European statistics users. Its main goals are:

- engaging proactively with users and meeting their demands in a cost-efficient and responsive way;
- working together, in sharing and developing innovative methods and tools;
- improving the statistical literacy of European citizens and institutions, by guiding them through the deluge of data and information from numerous sources;
- communicating products and services in an active and coordinated way.

DIGICOM was launched in January 2016 for a duration of four years. The idea is that, across Europe, Eurostat and national statistical institutes work together to develop solutions and build their capacities. The DIGICOM Steering Group was set up in December 2015 with representatives from 13 Member States (AT, CH, DE, ES, FI, FR, IE, IT, NL, PL, PT, SE, UK), mostly middle or senior managers in national statistical institutes.

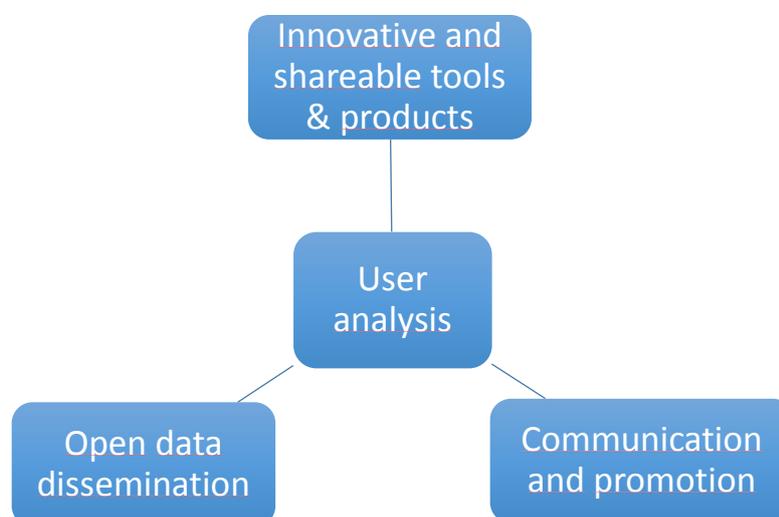


Figure 1. The four work packages of the DIGICOM project

The DIGICOM project is implemented by around 50 experts from national statistical institutes from 18 European national statistical institutes (BG, CH, DE, DK, EE, ES, FR, GR, HU, IE, IT, LT, NL, NO, PL, PT, SE and UK). It is divided into 4 work packages (WPs): User analysis, Innovative products, Open data, and Communication and promotion. The experts who

volunteered to participate in the implementation of the actions foreseen in DIGICOM chose one or more Work Packages on which they wanted to focus.

3. A new framework for dissemination centred around users

In order to gain an overview of the practices that are already in place within the ESS, a survey was distributed to national statistical institutes inquiring about their experiences in the areas that concern different stages of the dissemination process and that are addressed in DIGICOM: customer relationship management (CRM), user satisfaction and user needs assessment, user profiling, user interaction via social media, web analysis, statistical literacy, communication strategies, outreach activities and open data dissemination. A wide range of practices and experiences has been identified in this exercise, with a clear potential to implement them in different national statistical institutes as well as to create new shareable tools and products. The outcomes of this inventory will be described in the following paragraphs along with the concrete steps of the project that have been defined based on these outcomes.

3.1 Focus on users

The first step in adapting the dissemination framework to a new data environment is to gain a deeper insight into users and their needs. In line with this idea, the actions foreseen in the first work package of the project are mainly concerned with user research and engagement with users via social networks, which should yield a better understanding of European statistics users. In particular, the ESS social networks will be used to test innovative products and elicit user feedback that will in turn allow the ESS to continue improving its dissemination and to keep up with users' needs.

More than half of the ESS inventory of experiences and shareable practices addressed users and their needs, with questions related to customer relations management, user satisfaction, user needs and user profiling, user interaction via social media and web analysis. The results of the inventory showed that awareness of users' needs and levels of engagement are well-developed in the ESS. All NSIs have some kind of customer relationship management system in place, ranging from systems for user support requests to tailor-made CRM software solutions. To measure user satisfaction, the most commonly employed methods in the ESS are surveys, focus groups, interviews, web- and social media analytics. In addition to these methods, NSIs obtain information on users and their needs in meetings and consultations with users and stakeholders and from interactions on social media. Most national statistical institutes in Europe have Twitter accounts (21), more than half have Facebook pages (13), and some have YouTube (6), LinkedIn (5), Slideshare (4) and Instagram (2) accounts.

The experience in national statistical institutes informed the user analysis and profiling exercise that is the first step in the DIGICOM project. A detailed analysis of existing information on users of European statistics is currently underway in Eurostat. One of the goals of this exercise is to find out who the current users of European statistics are and what are their needs. However, it is also expected that during this analysis, potential users will be identified. Their needs will be investigated in further user research work (survey and focus groups) in 2017. The objectives of the ESS social networks are to allow targeted communication to and with a group of potential users of European statistics in order to identify their needs, and to enable the creation of virtual communities where advanced users can have focused discussions with producers of statistics. Keeping in mind these objectives and on the basis of the inventory, it was decided to set up two ESS social networks: an ESS page on Facebook and an ESS forum. The ESS Facebook page will be used to engage with a group of potential users of European statistics, mainly youth aged 16-34, while the ESS forum will allow advanced users to have focused discussions with producers of statistics by creating a space where virtual communities can be hosted. The knowledge on users obtained in this part of the project will feed into the rest of the work.

3.2 Sharing innovative products and tools

The list of members of the ESS is long: it includes 342 authorities, out of which 32 are national statistical institutes and the rest are other national statistical authorities. Each of these authorities creates its own dissemination and communication tools and products. Such a pool of expertise and experience represents a huge potential for the ESS in terms of creating efficiencies by sharing. Therefore, one of the key objectives of the DIGICOM project is to tap into this potential by encouraging the sharing of dissemination tools and innovative products as well as developing new products that can easily be shared and customized within the ESS.

The first shareability pilot exercise has been carried out, focusing on tools developed by Eurostat. Nine national statistics institutes have translated and disseminated on their websites three interactive infographics designed by Eurostat "[Economic trends](#)", "[Young Europeans](#)" and "[Quality of Life](#)". The next steps in the project are sharing new visualisations ("[You in the EU](#)", "[Government Expenditure](#)", flow maps "[Shipments of Waste](#)" and smart maps), as well as developing common guidelines facilitating the sharing of visualisation tools.

Furthermore, the participants will develop together a digital ESS flagship publication on the topic "Women and men in the EU" that is to be released in 2017. The concept is one of a "connected" publication designed to include a mix of text, interactive elements and embedded features such

as graphics, infographics, videos and photo-visualisations. The idea is to enable users of statistics to immediately and interactively explore the statistical data described in the text. The tool will be shareable, either in its entirety, by individual building blocks or as a single interactive graphical element. In order to improve the impact of national promotional actions, it was also agreed that the digital publication should be translated into multiple European languages.

3.3 Addressing advanced users – open data dissemination

While the data revolution has brought about certain challenges, especially for users who are facing an information overload due to the data deluge, for statistics producers it presents an opportunity to take advantage of new sources of information and develop new statistical products and services. One of the objectives of the DIGICOM project is to translate this wealth of data into statistical products that are useful to users and at the same time enhance the service provided to advanced users of European statistics. This will be done, among other things, by facilitating automated access to European aggregate data and developing services that allow users to create their own products using official statistics.

The first step toward delivering this access was to analyse the inventory of practices that exist in this area in the ESS. The inventory exposes a marked difference in the open data maturity of the participating national statistical institutes. Most institutes have a clear intent and direction of travel on open data. Although the majority of participants do provide data in an open format, there is a definite gap between those providing users with access to data programmatically through an Application Programming Interface (API) and those that are not. It seems that only around half of the respondents have active APIs. Out of 29 countries, less than a third have taken part in linked-open-data (LOD) pilot activities. However, nearly a fifth of all inventory participants are actively publishing to the LOD standard. Four countries – IT, FR, IE and CH – have definitive strategies for moving entirely to the release of data using semantic web technologies.

The two ends of the spectrum are far apart, and it is clear that the broad adoption of Linked Data is some way off. Two main issues have been identified:

- Several national statistical institutes do not have LOD plans and they are questioning its real utility, due to the lack of tangible services built using these formats.
- For national statistical institutes with an interest in moving towards LOD, there is an indication that a lack of standards is hindering the adoption of Linked Data.

Several staff members from NSIs who are involved in the implementation of open data dissemination in DIGICOM are also involved in the work of the HLG Linked Statistical Metadata/Implementing Modernstats Standards project, which allows a good coordination between the two projects.

The next foreseen activities related to this part of the project will include a more detailed stock-taking exercise and an ESS conference on LOD that will be held in January 2017 in Malta. The goal of the detailed stock-taking exercise will be to identify and develop proofs of concept that clearly show the added value of LOD for users and the type of services built on LOD, to define an open data strategy for the European Statistical System, to publish official statistics in LOD portals, and to develop standards such as agreed ontologies and Uniform Resource Identifier (URI) structures.

3.4 Ensuring trust in official statistics through communication and promotion

The competition in the data market is increasing, with more and more statistics producers making their data available to the public. As a result, differentiating between official statistics and other sources, which often lack “proof of quality”, is becoming an increasingly difficult task. Promoting the value of European statistics in order to ensure public trust in official statistics is the final of the four core areas of action of the DIGICOM project. This will be achieved by increasing the emphasis on quality as a driving force for all our activities and by developing new meaningful and transparent ways of communicating the user-oriented quality assurance mechanisms that are applied to our statistics. Activities aiming to increase statistical literacy of users will also be carried out, in particular to mitigate the risk of improper and unjustified use of ESS statistical products and services.

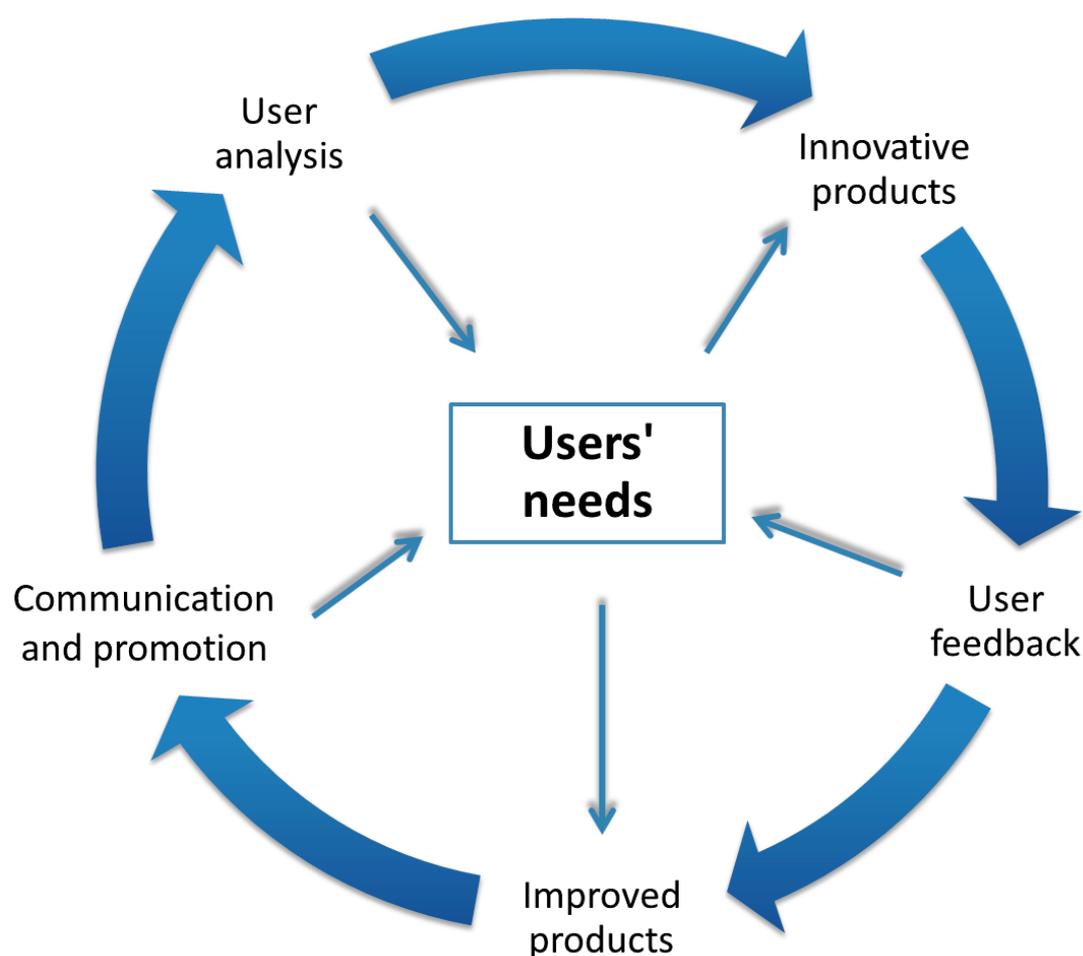


Figure 2. Revisiting the dissemination cycle

The inventory of statistical literacy practices, outreach activities and communication strategies showed that most national statistical institutes have some experience in these areas. In the case of statistical literacy, the target groups are universities and schools, but some countries also target other groups, like journalists, stakeholders, enterprises, NGOs, political entities, potential users, the general public, respondents, the unemployed. Most national statistical institutes focus on students and teachers, but in some cases, teachers are a target group, whilst in others they act as multipliers, spreading statistical knowledge to scholars. The staff participating in the implementation of this part of DIGICOM is currently working on proposals that identify ways of communicating experimental/innovative statistics to users that emphasize the innovation aspect and do not jeopardize the image of official statistics. Based on the analysis of the inventory, the possibility to share statistical literacy tools and create new ones has emerged. In particular, Eurostat will launch “Statistics for beginners”, a product that aims to educate users on statistics, targeting pupils in upper secondary education (15-18 year-olds), as

well as adults with a very basic knowledge of statistics. Six national statistical institutes are part of the editorial group. The first proposal includes ten concepts explaining statistical fields (e.g. demography, the labour market, energy, etc.).

In addition to this, a marketing study will be launched to assess how users perceive the brands “official statistics” and “European statistics”, and to obtain professional recommendations on promoting the value of official statistics in the EU. This will be done mainly in focus groups in several Member States. Results are expected in the second half of 2017.

As an outreach event, an ESS hackathon is planned in coordination with the “big data” project. It will take place in March 2017 in Brussels, concurrently with the NTTS 2017 conference (www.NTTS2017.eu).

4. Conclusion

As DIGICOM is still at an early stage of implementation, the conclusions are limited to those that could be drawn from the first deliverable of the DIGICOM project; the ESS inventory of shareable practices. From the inventory, it could be concluded that there is already a wide range of activities in the national statistical institutes that are contributing to the objectives of the ESS Vision 2020 in terms of communication and dissemination. On the other hand, there is clearly scope for further sharing tools; the next steps of the project’s implementation will support this sharing as well as the creation of new tools.

In addition to the inventory, another significant outcome of the experience so far were the new relations between NSI staff at technical/expert level, which were established as they worked together to analyse and draft common inventory reports, and as they reached out to each other to obtain more information on practices that they found interesting. The inventory and the newly established relations will form the basis for capacity building within the ESS.