

THE COUNCIL OF THE EUROPEAN UNION



the conferences on
Statistics

ROMANIAN PRESIDENCY



romania2019.eu



THREE EVENTS, A MAJOR LEARNING OPPORTUNITY

Today, official statistics produces public goods that respond to the needs of many categories of users. It is our mission to make sure that we deliver the best products, at the lowest possible costs. In order to achieve this mission, it is critical to maintain the confidence of national and international users. However, there are many challenges that official statistics has to overcome.

The first is globalization. Our world has changed under the increasing interaction between companies, people and governments worldwide. It is the duty of the official statistics to capture this, new, complex reality that emerged.

The second challenge is the data revolution. Technology is shaping the future of our lives. With regard to official statistics, one must note that digital transformations across the globe offer new data sources that can significantly improve timeliness and relevance of our indicators. However, in order to harness these new data sources, it is vital for us to incorporate the latest IT tools into our production.

We considered all these aspects when we designed our programme for the Presidency. The three major events hosted by the Romanian National Institute of Statistics under the Romanian Presidency aimed at addressing these challenges.

The first event concerned **the next population census**. For each national institute census is a crucial milestone. Today we perform it using administrative sources and classic enumeration. However, we will, shortly have to use big data. Today it might be a dream but tomorrow it will be the reality. Following the conclusions of the conference, one might notice that European countries are ready to cooperate and exchange best practices so that the 2021 Census Round will be successful.

The second event concerning **applying R in official statistics** was organised together with our colleagues from the Netherlands. It was a great opportunity to enhance our cooperation with the academia.

The third event was dedicated **to our users**. We understood



their needs and we designed together new ways to improve our communication.

To conclude, I would like to point out that all the events organised under the Romanian Presidency were a major learning opportunity for our organisations. We learned from our colleagues, from our users and from the academia. I would like to thank all the participants as well as my colleagues who organised these events for providing the NIS this opportunity.

Tudorel ANDREI,
President National Institute of Statistics
Romania



POPULATION CENSUS

POPULATION CENSUS, 2020 ROUND AND POST 2020 FROM TRADITIONS TO MODERNISM, 8-9 APRIL 2019



POPULATION CENSUS

The two-day conference was a good opportunity for the specialists in the field to meet and share their experience gained with the occasion of the previous rounds of population census.

The novelties that will be experimented for the first time in the 2021 round were debated, considering that most EU countries are currently in an advanced stage of its preparation.

The event brought together about 100 professionals from Eurostat, Spain, Luxembourg, Austria, France, Estonia, Lithuania, Hungary and Romania.

The conference included five scientific sessions and a panel session. The sessions focused on the following themes:

- General strategies to conduct population censuses for 2021 round;
- Specific elements on drafting the national census legislative package;
- Organizational arrangements and good practices for a successful census promotion, including best practices for census promotion;
- New methods of organizing the collection and processing of census data such as the use of administrative sources or sample surveys;
- Using multi-modal methods for enumeration, such as the use of intelligent web forms and scanning questionnaires as methods of data entry into databases;
- Use of innovative technologies such as buildings Geo-referencing;
- Role of the post-enumeration survey and methods for correcting / improving the census results by applying the results of post enumeration survey and other census aspects;
- Technical aspects regarding the application of statistical methods for estimating certain indicators;
- Methods and ways to insure the data confidentiality (statistical disclosure control),
- Methods of organization and measures taken under the conditions of compliance with GDPR regulation etc.

All the keynote speakers joined together in the final panel session, to discuss about „Is there a need for population and housing census in the future and if so, how will it look like?“.

Population is reluctant to statistical surveys.



As part of the activities within the year in which Romania is holding the EU Presidency, National Institute for Statistics of Romania has organized, in Bucharest, on April 8th – 9th 2019, the Conference on **“Population Census, 2020 round and post 2020: from traditions to modernism”**.

The Conference was a good opportunity for the specialists to share their experience gained with the occasion of the previous rounds. It made room for interesting discussion on the novelties that will be experimented for the first time in the 2020-2021 round. Policy makers need faster and more detailed statistics from the censuses.

Population is more and more reluctant in participating to statistical surveys. Consequently, NSOs are facing challenges in preparing and organizing next population census in best way so that to overcome the difficulties already known as well as any new ones that may occur.

Conference debates have mainly concluded that:

- For 2021 round MSs will use different approaches – some only administrative sources, others a combination of methods, but with focus on “digital census” where web questionnaire will play a major role
- Census promoting campaign has a crucial role and several ideas were expressed for motivating population to self-register; a successful promoting campaign has to be flexible, dynamic, customized;
- Geocoded data (GIS) have an increasing role and the users are strongly requested it.

Quality is very important in all steps.

Silvia PISICĂ
National Institute of Statistics

Andoria IONIȚĂ
National Institute of Statistics

Socio-economic research of excellence can only be achieved through the proper use of statistical data. The conference highlighted the good cooperation between experts in terms of methodological developments, new surveys design, substantiating of analysis and specific impact studies in social sciences.

Population census has a special place in the research field; its results have been met with actual multidimensional research requirements and allows the application of small area estimation techniques for decomposing statistics at detailed levels of disaggregation, endorsing complex and novel researches in areas of maximum interest for future economic and social progress i.e. employment, population incomes, education, poverty and social exclusion.

Thus, the event revealed throughout the interesting papers presented by specialist around EU new dimensions and challenges for research areas.

Valentina VASILE
Institute of National Economy

TESTIMONIALS



Statistical data with very accurate location information are needed to carry out analyses showing the territorial dimension and changes in various phenomena. Only official statistics collect all the necessary micro-data for the points (X, Y coordinates) that are necessary to obtain reliable geospatial analyses.

Such analyses are increasingly important, both for citizens, academics, entrepreneurs and the government responsible for policy making. It was a great pleasure to attend the conference in Bucharest, where the importance of making new, better and more comprehensive information available for research and decision making was discussed.

Janusz DYGASZEWICZ, Ph.D Eng.



Many countries face demands for more frequent, timely, flexible and geographically detailed population statistics. National statistical institutes are constrained though by resource limitations and declining public compliance with traditional data collection methods.

An increased use of administrative data sources is widely seen as the solution. Countries differ greatly in terms of data source availability and in how these sources will be used.

The Bucharest conference was a valuable and well-timed opportunity for experts to share their ideas and experiences in this field.

Adam WRONSKI



It was a great opportunity for me to attend this conference.

I enjoyed all the presentations and the wealth of information shared, the interesting and beneficial solutions suggested to solve the complex problems of the interconnections between the administrative and statistical databases.

I am convinced that these solutions will be valuable for the collaboration between the Romanian Government institutions and the National Institute of Statistics census team, for the first mixed census in 2020.

Prof. Constanța MIHĂESCU, Ph.D.
Department of Statistics and Econometrics, The Bucharest University of Economic Studies



uRos2019

THE INTERNATIONAL CONFERENCE USE OF R IN OFFICIAL STATISTICS



uRos2019

The International Conference Use of R in Official Statistics - uRos2019 was the seventh of a series of events, organised at Romanian National Institute of Statistics, dedicated to the use of R Project in Romanian official statistics, as well as of the software that integrates the packages and functions of R.

This year, the uRos conference was organized under the aegis of the Presidency of the Council of the European Union.

The purpose of the conference is to provide a public forum where academics and statistical institutes they represent can exchange ideas and discuss the evolution of software commonly used in the economy and applied statistics.

The conference took place between May 20-21, 2019 and brought together 105 participants from 30 countries, statisticians and specialists from the statistical offices and academia and representatives of international organizations that produce official statistics (International Labor Organization and Food and Agriculture Organization of the United Nations).

As every year, the conference was coordinated by Nicoleta Caragea, senior expert at the National Institute of Statistics, Department of Population and External Migration Statistics and Associate Professor at the Faculty of Economics, Ecological University of Bucharest.

The conference was attended by two keynote speak-

ers - two of the most well-known R community experts. Julie Josse is a member of RFoundation and Rforwards, and Professor of Statistics at Ecole Polytechnique in France, and presented "A missing value tour in R". Giulio Barcaroli, expert of the Institute of Statistics of Italy between 1977 and 2018, presented the twenty-year history of R in Istat.

The conference included one day of tutorial sessions, one day of scientific sessions and one day dedicated to un-Conf satellite event.

The five tutorials lectured by prestigious professionals from the R community were as follows:

1. Statistical data cleaning for

official statistics with R

Lecturers: Edwin de Jonge and Mark van der Loo (CBS, Olanda)

2. Modern package development in R

Lecturers: Alexander Kowarik and Bernhard Meindl (Statistics Austria)

3. Use of R package Sampling Strata for the Optimal Stratification of Sampling Frames for Multipurpose Sampling Surveys

Lecturers: Marco Ballin and Giulio Barcaroli, Italian National Institute of Statistics (Istat)

4. Integration of data sources in R through statistical matching

Lecturer: Marcello D'Orazio (Istat & Food and Agriculture Organization of the UN)

The conference included the following parallel sessions: Sampling and estimation, R in organization, Data cleaning, R in production: data analysis, Methods for official statistics, Shiny applications, Time series, Report and GUI programming, R in production: automation, Big data și Dissemination and visualization.

They focused on the following themes:

- Examples of applying R in statistical production.
- Examples of applying R in dissemination of statistics (visualisation, apps, reporting).
- Analyses of big data and/or application of machine learning for official statistics.
- R packages implementing statistical methodology
- R packages connecting R to other standard tools/technical standards
- Organisational and technical

aspects of introducing R to the statistical office.

- Examples of accessing or using official statistics publications with R in other fields

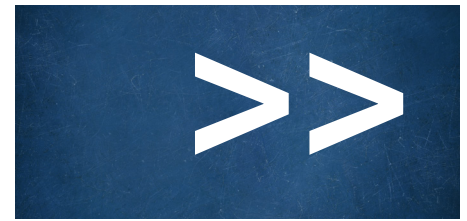
A hackaton satellite event, called unConf, took place at the end of the uRos2019 conference. Five international teams of statisticians from around the world, who developed software products with direct applicability in official statistics, participated in the event.

The slides of the uRos2019 conference will be available at the following website: <http://r-project.ro/conference2019.html#presentations>

Starting this year, the conference has a dedicated logo that can be updated every year and aligns with the R community standards: A maximum of ten selected research papers will be published in a special issue of the Romanian Statistical Review and additionally a maximum of five papers will be published in a special issue of Austrian Journal of Statistics.

Quality of the works presented, high research activity carried out by the authors, and the results may be as many strong points of reference, to conclude that Romania is on the map of useRs. uRos2020 will be held in Vienna (Austria), and will be organized by Statistics Austria.

Special thanks for support are addressed to the Romanian Team, the scientific secretariat of the conference, the scientific committee and the organizing committee.



Since its first edition, the Use of R in Official Statistics conference grew constantly, year after year.

While at the beginning we were just a few enthusiast colleagues, this year the conference recorded over 100 participants from official statistics bureaus and academia from all over the world.

The success of the conference is strongly related to the spread of R in all fields of statistics: from data collection to data analysis and dissemination.

We had interesting presentations and tutorials where R users shared their experience and exchange opinions, ideas that can lead to new applications that can contribute to the development and modernization of the official statistics production.

Bogdan OANCEA,
National Institute of Statistics Romania

TESTIMONIALS



Back from 7th uRos conference in Bucharest, an intense two-days conference with tutorials, keynote speeches and, as usual, many presentations.

An occasion to meet old friends, know new ones and talk about our experiences with R and the future challenges, which very well summarized by the G. Barcaroli speech.

A high number of presentations from many different countries provided many examples of projects and well established practices of using R in modern statistical production processes. As usual, organization and hospitality were perfect.

Marcello D'ORAZIO,
Italian National Institute of Statistics



The Conference „the Use of R in Official Statistics 2019” was a great success with over 100 participants from more than 30 countries. It was founded in 2013 on initiative by the Romanian R team and since then has grown substantially.

Two high profile keynote speakers (Julie Josse and Giulio Barcaroli) presented interesting insights into their work, several tutorials presented a concrete use of R and many interesting presentations accompanied by fruitful discussions completed the great event.

We are looking forward to host the next incarnation of this event in May 2020 in Vienna.

Alexander KOWARIK,
Statistics Austria



I have attended uRos since 2017 to meet and discuss with colleagues in different countries working for modernization of statistical production and services in the era of Big Data. R users in my office is not large in number, and may sometimes have problems to be solved.

Informal conversations in the conference are precious help to find a way and needless to say about the formal speeches and presentations.

I greatly appreciate the organisers and thank all the participants who kindly shared their knowledge and experiences. See you next year in Vienna.

Kazumi WADA,
National Statistics Center, Japan

TESTIMONIALS



With R as a global phenomenon, the uRos conference grew just as amazing, and the fact it already reached its seventh edition with participants from over 30 countries, underlines the importance that official statistics demonstrate for modern data processing and data distribution procedures.

This is only the beginning of what lies ahead, in a future society where the same software environment can merge, in an unprecedented way, the production and use of the administrative and official microdata.

Adrian DUSA,
University of Bucharest, Romania



The uRos conference keeps growing and keeps getting better.

For me, uRos is an excellent opportunity to learn about new tools and new methods and to meet old and new friends.

A conference like uRos and the attached unconfUROS hackathon strongly inspires me to push the state of software for Official Statistics even further.

Mark van der Loo,
Statistics Netherlands, The Hague.

What do conferences organizers say?



The National Statistics Institute of Romania, holding the Presidency of the EU Council Working Party on Statistics, demonstrated that it could assume the role of an honest and neutral mediator, taking over the responsibility for advancing the work of the Council on EU legislation, ensuring the continuity of the EU agenda, well-organized legislative processes and cooperation between Member States.

We have thus succeeded in closing two important files of statistics: " Proposal for a REGULATION OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL on European business statistics amending Regulation (EC) No 184/2005 and repealing 10 legal acts in the field of business statistics, (Proposal for a FRIBS Regulation) and the Proposal for a REGULATION OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL establishing a common framework for European statistics relating to persons and households, based on data at individual level collected from samples (the IESS Regulation proposal) ", also making progress on the migration and international protection statistics file.

PRES RO also had an important mission to organize in Bucharest, on the premises of the National Institute of Statistics, three international conferences on highly topical issues for the European and international agenda with a large and extremely selective participation.

1. "Population Census Conference: Round 2020 and post 2020 – From Traditions to Modernism" (April 2019)

2. "The Use of R in Official Statistics – uRos2019" (May)

3. " National Conference of statistical data users" (June)

... with guests from EU Member States or beyond EU borders (as uRos 2019, where participants from Japan, Canada, Mexico, Israel, Colombia joined us) or with a wide national participation, as in the case of the last event, of which Eurostat's purpose was precisely to bring all categories of national statistical data users into the same place in order to provoke intensive debates.

Hosting, our colleagues from the national institutes of statistics, academia and research environment, other ministries and institutions of public administration, sectoral partners of the INS, or territorial statistical directorates, we have succeeded, together, during the conferences, to transform the subjects of statistics, which, for the most part, would seem to some extent arid, into real scientific challenges, in valuable brainstorming, that will certainly have a major impact on the modernization of Romanian official statistics, as a whole.

One has to admit that the professional satisfaction of participation has been multiplied by the perfect organization of

the three events, appreciated by all those who have been in some way close to "action." All three working teams involved in organization process, such as a clock, of the logistics for the three conferences have shown the dedication and the joy of a job well done, because that is the only way to turn everything into a generalized success of which we are all proud.

What remains to be done by the end of the PRES RO mandate? We are still waiting for another challenge, the organization in Sinaia, on June 17-18, 2019 the hand-over meeting of Presidency to the colleagues from Finland (Mr Timo Koskmäki, Ms Anita Heinonen, Ms Johanna Ekberg and Ms Johanna Rantanen) and Croatia (Ms Lidija Brković and Ms Marija Kamenski). On this occasion, the Commission (Eurostat) team will join us, led by its Director General, Mrs. Mariana Kotzeva. Together with her, we will have as guests in Sinaia Mr. Gallo Gueye, Director of Eurostat's Social Statistics and Mr. Guillermo Davila Muro, Advisor to the Director General for International Relations.

Let us wish success and good luck until the end of the PRES RO mandate!

Daniela ȘTEFĂNESCU,
Director, International Cooperation



**EUROPEAN
STATISTICAL DATA USERS**

NATIONAL CONFERENCE OF EUROPEAN STATISTICAL DATA USERS



EUROPEAN STATISTICAL DATA USERS

The event was organized under Romanian Presidency of the Council of the European Union in partnership with the statistical office of the European Union.

The national conference was a good opportunity for the specialists in the field to debate the challenges of data dissemination as well as their experience as users of statistical data produced by the European Statistical System.

The purpose of this conference is both to promote the national and European official statistics, their use, increase of trust in the official statistics and in the producing institutions, the increase of statistical culture and in the same time, being known the interest stated by the users themselves towards the European and Romanian official statistics.

The conference included two scientific sessions: „Statisticians working for their country

and citizens” and „Benefits of using statistical information from the European Statistical System”.

The event brought together 120 professionals from Eurostat and important institutes and organizations from Romania, mainly different categories of users, such as universities, research institutes, private companies, media, civil society, which are requesting frequently, from National Institute of Statistics Romania, statistical data for their current activity.

EUROPEAN STATISTICAL DATA USERS

TESTIMONIALS



"I very much appreciated the opportunity to speak at the NSI Romania Users' Conference. It is vital to both national offices and Eurostat that we maintain a dialogue with our users and it was inspiring to hear about the ways in which our data is being used. I will reflect on what I heard and will see how to feed the needs expressed into our future planning."

Timothy ALLEN,
Eurostat



"The Users Conference held in Bucharest was a great opportunity to meet and listen to national Users of European statistics. A lot of useful inputs and impressions were received and the Eurostat and the NSI Romania's Publications, available for the participants via the Eurostat stand, were very much sought after. Congratulations to a very well-organized conference."

Henric ANSELM.
European Commission Eurostat

ROMANIA



NATIONAL INSTITUTE OF
STATISTICS

2019

Department of Communication