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From challenges to opportunities: The Romanian Case of Use R in Official Statistics

Presentation · September 2018

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National Institute of Statistics

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Ana-Maria Ciuhu (Dobre)

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Some of the authors of this publication are also working on these related projects:



6th Conference on the Use of R in Official Statistics (uRos2018) [View project](#)



The 5th International Joint Conference New Challenges for Statistical Software - The Use of R in Official Statistics - uRos2017 [View project](#)

From challenges to opportunities: The Romanian Case of Use R in Official Statistics

Ana-Maria Ciuhu; Nicoleta Caragea; Raluca Dragoescu

National Institute of Statistics, Romania

The 6th International Conference
uRos2018

Den Haag, Netherlands
September 12-14, 2018

Summary

1 Organizational and technical aspects

Reasons for R @ NIS Romania
Building R infrastructure


2 Training and conferences

Training of statisticians
Conferences

Reasons for @ NIS Romania

- Cost-related competitive advantage on other software
 - only training and infrastructure (especially migration from SAS)
- Being a **challenge** for every user to involve himself and to exchange knowledge
- Continuous **development and release**, growing list of packages, print books and e-books
- ouR **friends**: authors of R packages and a lot of users.

Building infrastructure

- Core/starting point:
 - R-omanian Team (voluntary based) working in official statistics and academia
www.r-project.ro
- Departments implementing R in NIS:
 - Social statistics
 - Business statistics
 - Department for Innovative Tools in Statistics (hiring young statisticians dedicated to develop )

@NIS Challenges

From
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opportunities:
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Raluca
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Organizational
and technical
aspects

Reasons for R @
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conferences

Training of
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- R is used by enthusiastic people: 40% successful rate for trained people
- A system architecture of R use is in progress

Activities @NIS Romania (1)

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- Internal projects
 - Data cleaning, outliers detection, data validation
 - Data hashing anonymisation techniques
 - SAE (international migration and poverty indicators)
 - Web Scrapping (price index)
 - rTempo package (access Romanian NIS database)

Activities @NIS Romania (2)

- International projects/Eurostat Grants
 - Data-matching, Record Linkage, Imputation (EU-SILC)
 - Algorithm to estimate resident population from administrative sources (StatPop)
 - Mobile phone data - developing pEstim package - population estimations using mobile phone data (ESSNet Big Data Pilot I)
 - Online job vacancies (ESSNet Big Data II 2018-2020)
 - Access Survey Solutions (World bank) API with R (from CAPI to CAWI preparing 2021 Population Census)
 - Reproducible Research (knitr, Sweave, R Markdown)

Establishing collaboration with other official statistics offices

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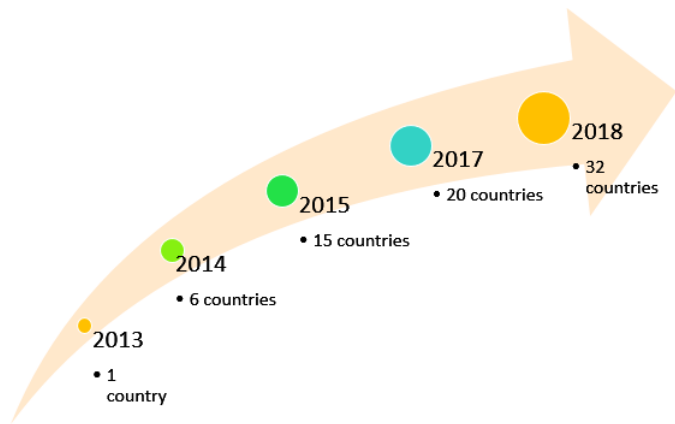
- European countries
 - Netherlands
 - Austria
 - Italy
- International collaboration
 - Malaysia
 - Japan
 - Canada
 - New Zealand
- ...and open to new!

Training of statisticians

Beginners & advanced courses

- 6 months training-on-the-job sessions (starting 2016)
- 3 to 5 days courses:
 - "Statistics with applications in R"
 - "Data analysis in statistics with R"
 - "Introduction to statistics - applications in R"
- one day courses:
 - "R statistical software – presenting advantages of its use for data analysis"
 - "Introducing statistics, the need of R for official statistics"
 - "Statistical analysis with R – from theory to practice"

Insights by uRos



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Next uRos conferences

- 2019: Romania (21-22th of May)
- 2020: Austria (?)

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Thank you!

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