# R consortium Sustainable community investment in action

A look at some of the R Consortium Funded Grant Projects and Working Groups

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R Consortium Director

#### R Consortium Momentum

3

years since launch

\$650k+

Grant dollars awarded

28

Supported Projects

8

Launched Working Groups

150+

Sponsored R Meetups **15+** 

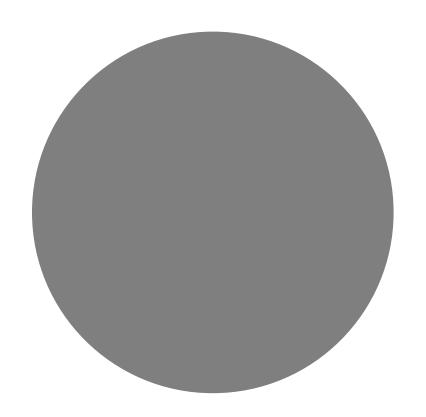
Supported R
Community
Events

40k+

R users members of supported meetups 3

useR! events sponsored

### New 2018 Projects



#### DBI Project -Kirill Müller

- DBI, R's database interface, is a set of methods declared in the DBI R package.
- Communication with the database is implemented by DBI backends, packages that import DBI and implement its methods.
- A common interface is helpful for both users and backend implementers.

- The "Maintaining DBI" is a follow-up project is mostly about providing ongoing maintenance and support for:
  - DBI
  - The DBItest test suite
  - The three backends to open-source databases
    - RSQLite,
    - RMariaDB
    - RPostgres

#### Infrastructure Development - Jeroen Ooms

This project seeks to improve and maintain tools for providing binaries

- On Windows: upgrade the Rtools compiler toolchain, and provide up-to-date Windows builds for the many external C/C++ libraries used by CRAN packages.
- For MacOS: expand the r-hub "homebrew-cran" tap with formulas that are needed by CRAN packages but not available from upstream homebrew-core.
- Eventually: lay the foundation for a reproducible build system that is low maintenance, automated as much as possible.

- This project will develop tools to facilitate the development of consistent teaching resources
- Provide a technical framework to encourage collaborative lesson development

#### Tools and Templates for Teaching Materials - François Michonneau

Teaching tools will be constructed from the many R resources for literate programming including:

- Sweave
- knitr
- Rmarkdown

## PSI Collaboration Project - Lyn Taylor (on behalf of PSI AIMS SIG)

Statisticians from the Pharmaceutical Industry (PSI) Application and Implementation of Methodologies in Statistics (AIMS) Special Interest Group (SIG) will collaborate with the R-Consortium and representatives from pharmaceutical companies to set up of an online repository.

- The repository will:
  - Provide the tools to conduct the regulatory standard validation for R packages.
  - Serve as a portal for sharing existing regulatory standard validation documentation.
  - Store packages and make them freely available.
- Companies (or individual R users) would still need to make their own assessment on whether the validation is suitable for their own use.

#### A Unified Platform for Missing Values – Julie Josse and Nick Tierney

The objective is to create a reference platform the management of missing data management that will facilitate collaboration.

#### The platform will:

- List the existing packages, the available literature and tutorials.
- Provide a platform for integrating new work on the subject.
- Contain examples of analysis workflows.

#### histoRicalg – A Project to Preserve and Transfer Algorithmic Knowledge -John C Nash

- Many of the algorithms underlying R code were written several decades ago in languages such as Fortran and C in which only a modest proportion of R users are fluent.
- Many original authors are no longer active.

#### The histoRicalg project aims to:

- Document and test codes older non-R code that are still part of R
- Possibly creating all-R reference codes.
- Teaming older and younger workers Facilitate knowledge transfer.
- The initial task is to establish a working group on Algorithms Used in R.
- See https://gitlab.com/nashjc/histoRi calg

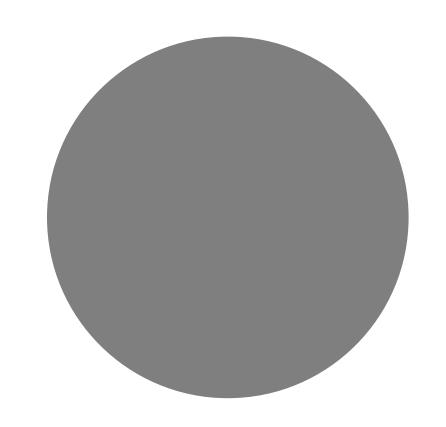
## Working Group on US Census Data – Ari Lamstein

The working group aims to make life easier for R programmers who work with data from the US Census Bureau.

#### The Census Data working group will:

- Operate as a forum for working with census data under the guidance of the Census Bureau.
- Facilitate cooperation.
- Publish a guide to working with Census data in R.
- Help R programmers
  - Select packages that meet their needs.
  - Navigate the various Census Bureau datasets.

## Top Level Projects

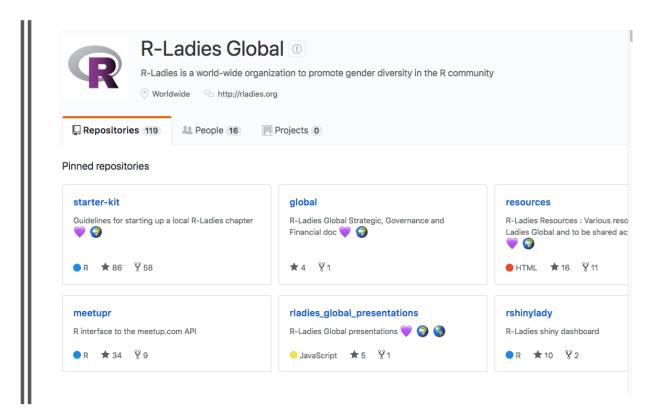


#### RC RUGS 2018 Sponsorship Program

- 10 Conferences
- 94 User Groups
- \$39k in Grants







75 + R-Ladies Groups Worldwide

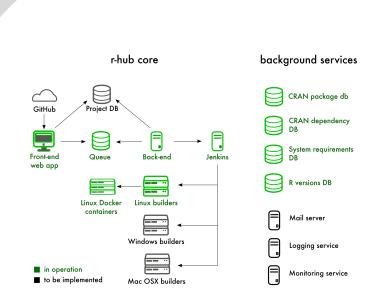


#### R-Hub

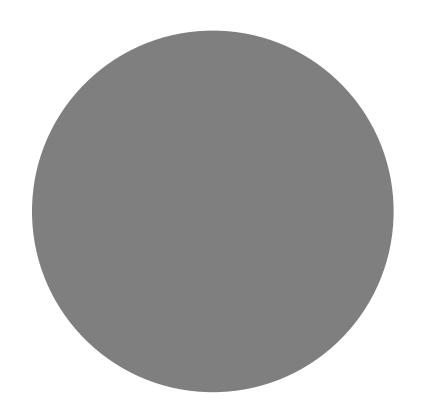
#### A service for:

- Developing, building, testing and validating R packages
- Simplifying the R package development process

https://builder.r-hub.io/



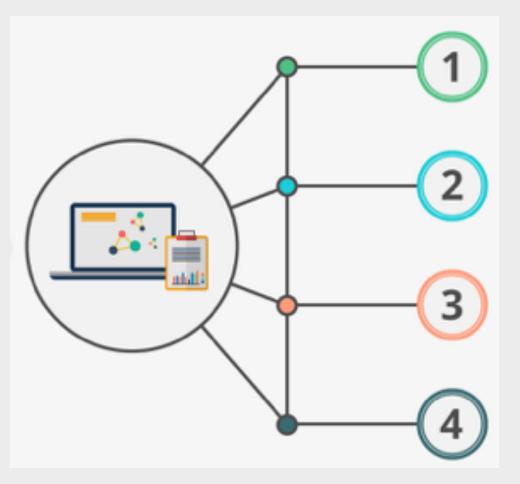
### Working Groups



## Active ISC Working Groups

- <u>Future-proof native APIs for R</u>: This working groups will assess current native API usage, gather community input, and work towards an easy-to-understand, consistent and verifiable API that will drive R language adoption.
- <u>Code Coverage Tool for R</u>: Helping to improve software quality, the code coverage tool will address feature and platform limitations of existing tools while also promoting the use of code coverage more systematically within the R ecosystem.
- A Unified Framework for Distributed Computing in R: Develop a common framework to simplify and standardize how users program distributed applications in R
- R Certification: Working to establish a common certification program for proficiency in R
- R in Medicine: A community of R users in the medical industry collaborating on events and advocacy of R.
- R in Pharma: A community of R users in the pharmaceutical industry collaborating on events and advocacy of R.
- R Community Diversity and Inclusion Working Group: A group broadly consider how the R Consortium can best encourage and support diverse and inclusion in the R Community
- Working Group on US Census Data: a forum for working with census data under the guidance of the Census Bureau.

#### Get Involved!!



Visit R Consortium website <a href="https://www.r-consortium.org/">https://www.r-consortium.org/</a>

Learn about ISC funded and sponsored work <a href="https://www.r-consortium.org/projects/">https://www.r-consortium.org/projects/</a>

Learn about the RUGS program

https://www.r-consortium.org/projects/r-user-group-support-program

Ask your company to join the R Consortium <a href="https://www.r-consortium.org/about/join">https://www.r-consortium.org/about/join</a>