EU-RAA Manual (version 0.2.1)

Open Analytics

2021-04-02

Contents

1 INTRODUCTION

1.1 Application Access

The web application is available at https://shiny-efsa.openanalytics.eu/app/euraa, provided you have an account and a role assigned that grants access to the application.

1.2 About and Report new issue

The user is given a summary of the application's functionalities when clicking on the link "About" at the right top. New issues can be reported via "Report new issue". You are then redirected to the EFSA Model Manager website and invited to describe the issue.

2 GETTING STARTED

2.1 Modules

The application is divided into four modules:

- The **View Module** presents an overview of the database of project ideas and allows for expression of interest.
- The **Edit Module** allows to create and manage project ideas.
- The **Visualization Module** offers several graphs and charts to visualize the database of project ideas.
- The **Admin Module** allows to import/export the database of project ideas and change the user level

Refer to the relevant sections in this manual for detailed info on their features.

2.2 User Levels

Users are assigned a level of control based on previously assigned roles:

1. **Advisory Forum & Focal Point (Country) Level**
    - able to edit / add / project ideas only for their own country dataset, when on the edit module
    - able to view (i.e. read-only) and generate reports (output formats: Excel / PDF) from the whole master table when on the view and visualization modules;
2. **EFSA Manager Level**
    - able to edit / add / project ideas when on the edit module
    - able to view (i.e. read-only) and generate reports (to Excel / PDF) from the whole master table when on view and visualization modules
    - able to import (DB import)/export (DB export) the database of project ideas (Download Project File) and list of expression of interest (Download Project Interest File) in .CSV format.
    - able to view the database at all 3 User Levels
3. **EFSA User Level**
    - able to view (i.e. read-only) and generate reports (formats: Excel / PDF) from the whole master table on visualization module.
    - does not have access to the edit and admin modules.

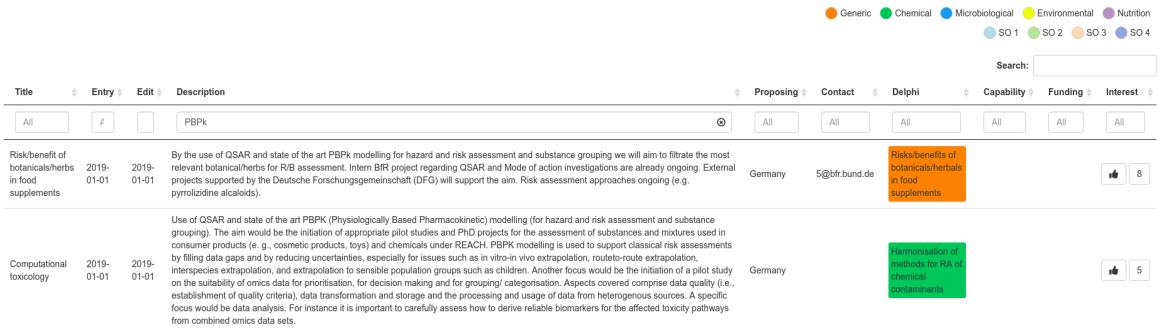

Figure 1: Project ideas

3 VIEW MODULE

3.1 Viewing project ideas

The view module shows a table overview of the project ideas. Each row corresponds with one project idea.

The column headers can be used to search for any matching text in that column. Any column can be sorted in ascending or descending order by using the small arrows. Additionally, the **Interest** column can be searched by country name to show project ideas for which that country has expressed interest.

3.2 Viewing project interest

For each project idea row, the **Interest** column shows a pair of buttons: 

. The right button shows the number of institutions/organisations that have expressed interest in this project. For a detailed view, click on the number button: this will open a dialog with a table that lists each expression of interest.

3.3 Expressing project interest

To express project interest, use the *thumbs-up* button to open up a dialog with a form. After filling out the form, use the **Confirm** button to register your expression of interest.

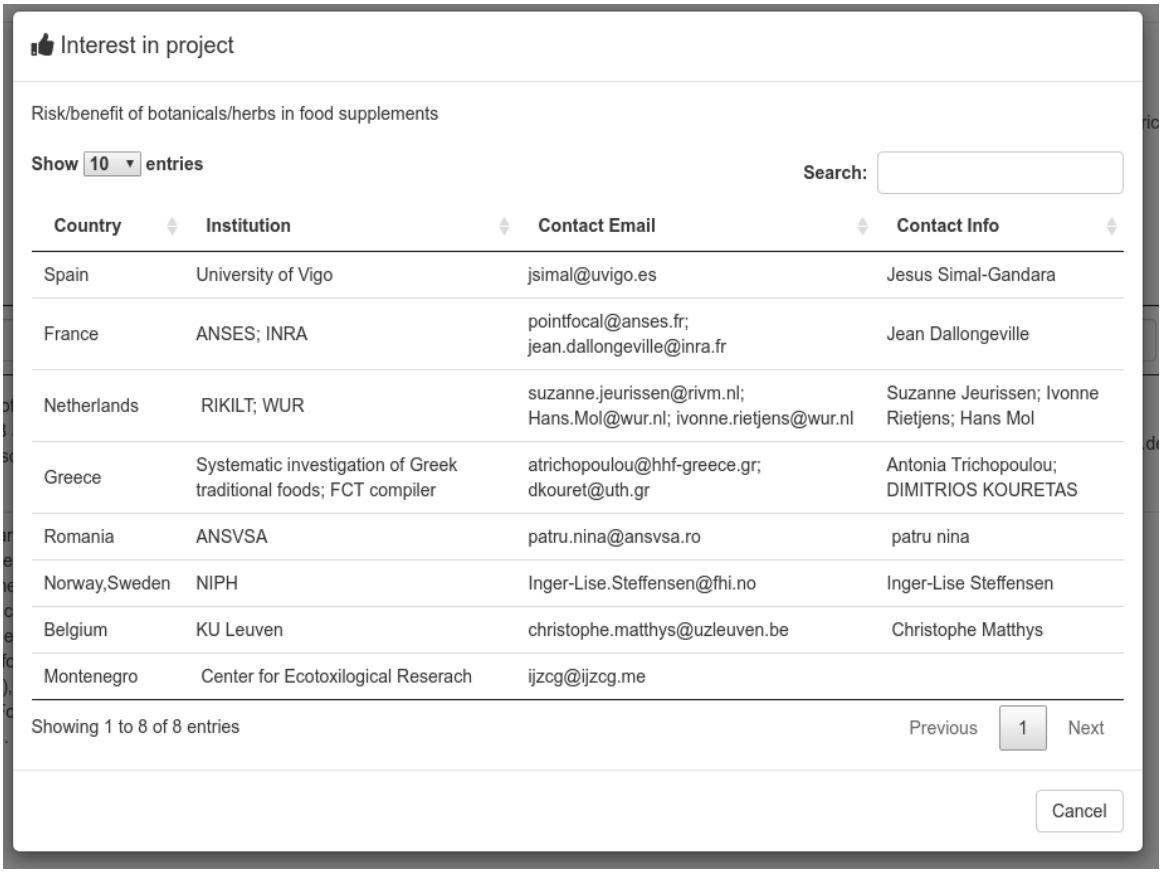

Figure 2: Detailed interest view

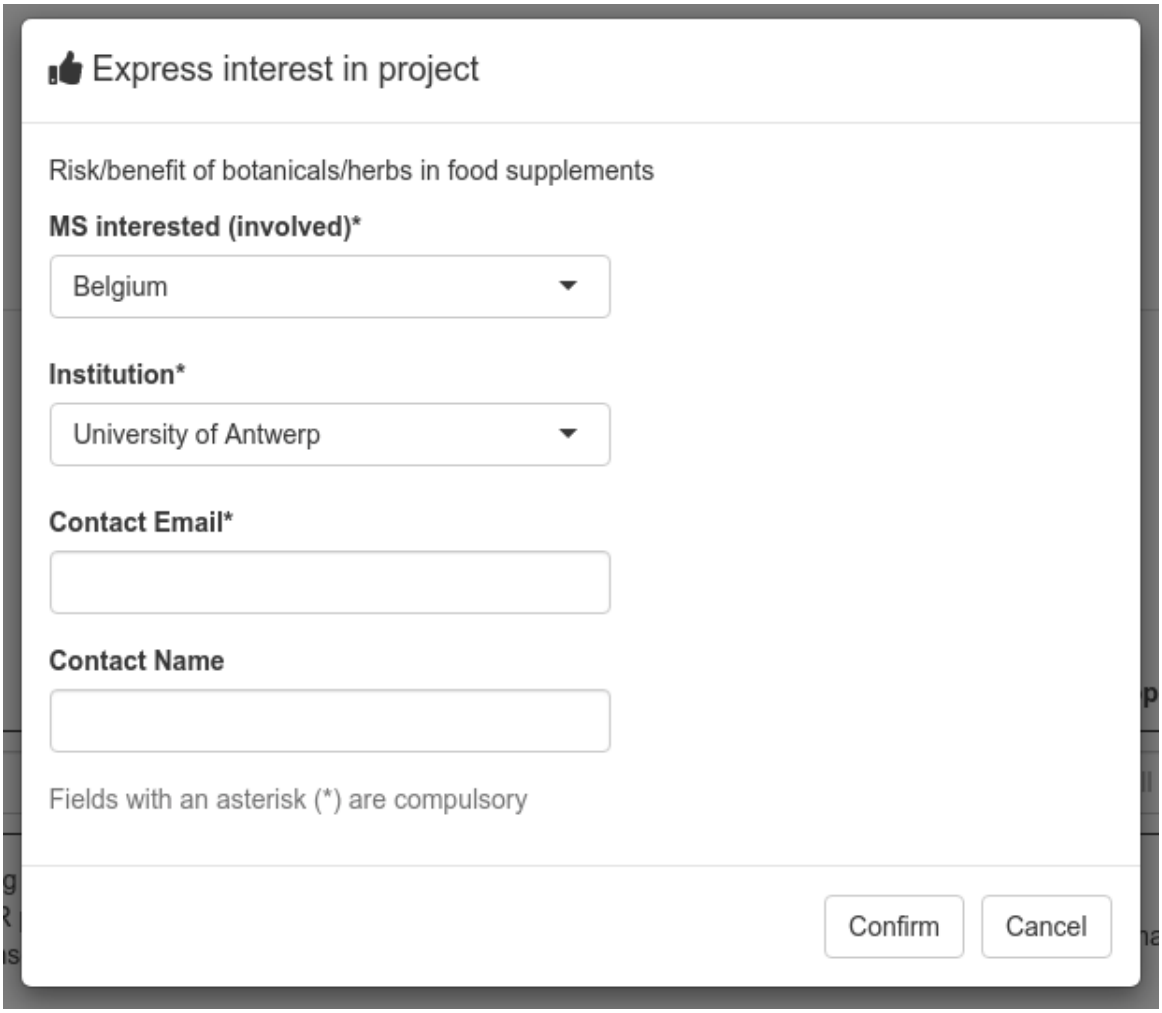

Figure 3: Form to express project interest

4 EDIT MODULE

4.1 Editing project ideas

The edit module shows a table overview of project ideas that is similar to the table overview in the view module. Depending on your user level, this table will show only your own country dataset.

Project ideas can be managed by using the action buttons above the table, optionally after first selecting a project by left-clicking the relevant row in table: 

4.1.1 New project idea

The **New project** button opens a dialog with a form to enter information about the new project idea. After filling out the form, use the **Add** button to register the new project or **Cancel** to abort the process.

4.1.2 Edit an existing project idea

After selecting a project idea, clicking the **Edit selected** button opens a dialog with a form similar to the one used to add new projects but prefilled with the existing project information. After making the necessary modifications use the **Apply** button to confirm your changes or **Cancel** to discard them.

When the edit dialog is opened for a specific project idea it will be locked and not editable by other users until:

- The edit dialog is closed (either via **Apply** or **Cancel**)
- The edit session times out. This will happen after a set amount of minutes of inactivity (not making any changes to the form input). Once the edit session times out, the dialog will close automatically and the lock will be removed. A warning will be shown a few minutes before this happens, allowing the editing user to extend the session.

4.1.3 Deleting a project idea

After selecting a project idea, clicking the **Remove selected** button will remove that project idea from the database. This is an irreversible action: the project information cannot be recovered after removal. A confirmation dialog is shown to require explicit user confirmation and prevent accidental removal.

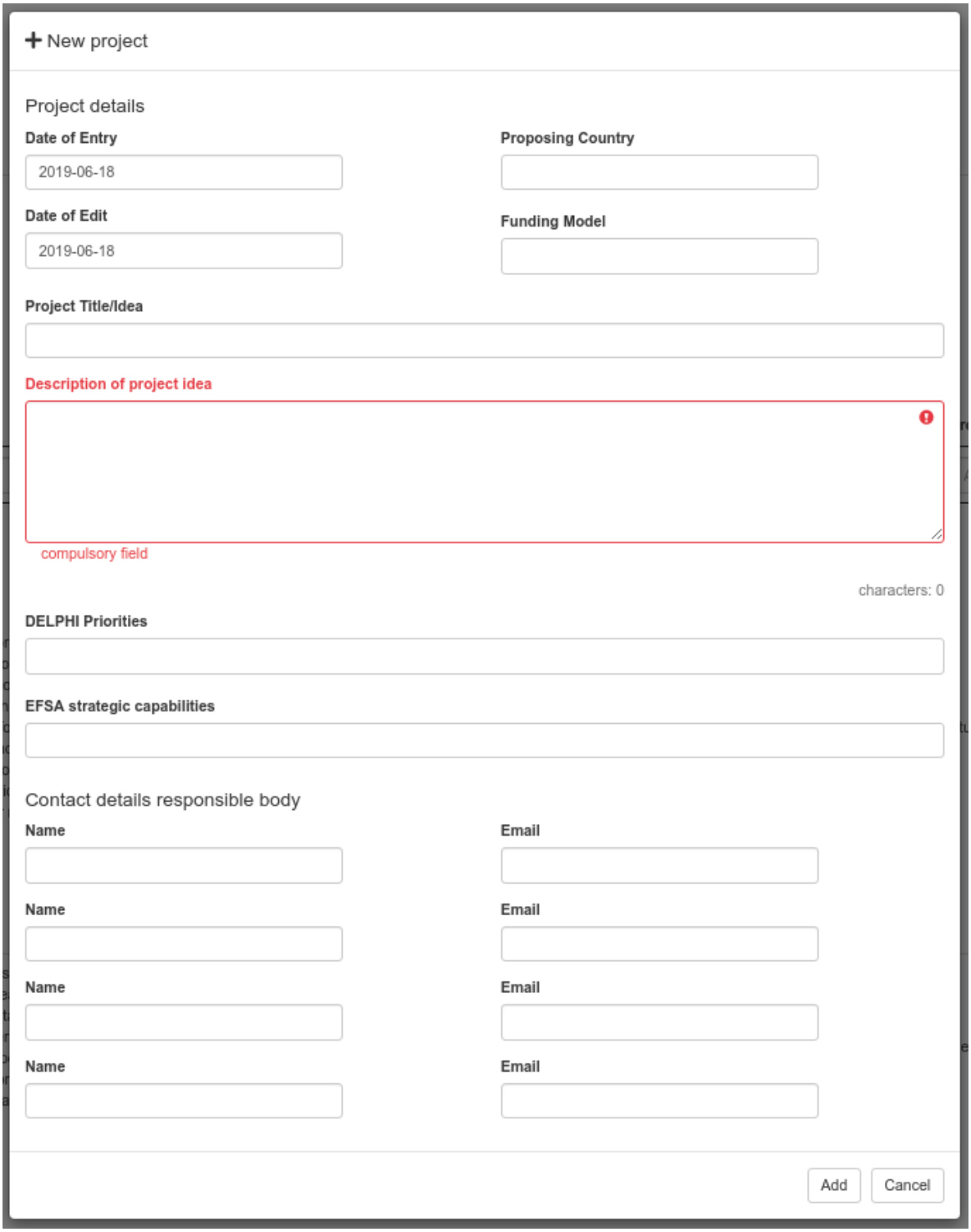

Figure 4: Form to enter project idea information

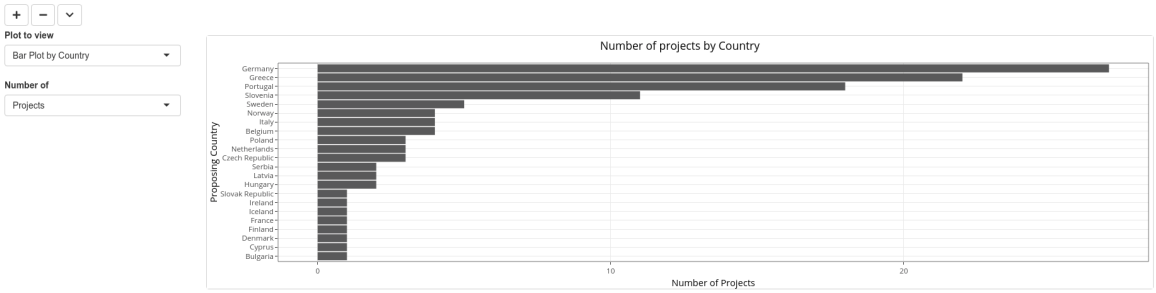

Figure 5: Visualization Module Example

5 VISUALIZATION MODULE

The visualization module can be used to browse the database using several types of visualizations:

- Bar chart to show the unique number of project ideas or relevant *DELPHI* priorities by country.
- Bar charts to show which *DELPHI* priorities are adressed most frequently in project ideas proposed by which countries
- A geographical map where each country is colored by the number of proposed project ideas
- An interactive network visualization showing the tree hierarchy *Country > DELPHI Priority Category > DELPHI Priority > Project Idea* with aggregate statistics at each level.

Any number of visualizations can be added to the page by using the buttons + − ⌄

- the **plus sign** button inserts a visualization at the position of the button
- the **minus sign** button removes the visualization below the position of the button
- the **arrow signs** re-order the visualizations on the page

6 APPENDIX

6.1 Countries

Countries considered in the application:

Austria, *Belgium*, *Bulgaria*, *Croatia*, *Cyprus*, *Czech Republic*, *Denmark*, *Estonia*, *Finland*, *France*, *Germany*, *Greece*, *Hungary*, *Ireland*, *Italy*, *Latvia*, *Lithuania*, *Luxembourg*, *Malta*, *Netherlands*, *Poland*, *Portugal*, *Romania*, *Slovakia*, *Slovenia*, *Spain*, *Sweden*, *UK*, *Norway*, *Iceland*, *Switzerland*, *Albania*, *Bosnia and Herzegovina*, *Macedonia*, *Kosovo*, *Montenegro*, *Serbia* and *Turkey*

6.2 Delphi Priorities

The following is an overview of the member state priorities identified in the *DELPHI* study.

```
#> Warning: replacing previous import 'data.table::last' by 'dplyr::last' when
#> loading 'euraa'
#> Warning: replacing previous import 'data.table::first' by 'dplyr::first' when
#> loading 'euraa'
#> Warning: replacing previous import 'data.table::between' by 'dplyr::between'
#> when loading 'euraa'
```

priorityNr	category	priority
1	Generic	Methods and systems for identifying emerging food risks (e.g. new food-borne diseases)
2	Generic	Development of standard RBA methods (risk-benefit assessment of foods)
3	Generic	Common data collection /surveillance scheme
4	Generic	Multiple contaminant impacts on the risk profile of foods
5	Generic	Risks/benefits of botanicals/herbals in food supplements
6	Generic	Allergenicity/ food allergens in general (risk assessment and management)
7	Generic	Aggregated exposure (as per cocktail effects, but including environmental as well as food exposures)
8	Chemical	Harmonisation of methods for RA of chemical contaminants (RA = risk assessment)
9	Chemical	Cumulative exposure assessment (e.g. for pesticide residues / PAHs)
10	Chemical	Infant and baby food
11	Chemical	Emerging contaminants
12	Microbiological	Systems for monitoring and characterising microbes (isolated from food, environment and human illness cases)
13	Microbiological	Improve the use of genetic data e.g. from WGS (WGS = whole genome sequencing) for RA (RA = risk assessment) of microbiological contaminants

priorityNr	category	priority
14	Microbiological	Antimicrobial/ antibiotic resistance
15	Microbiological	Microbial food pathogens (in general)
16	Microbiological	Food-borne viruses (in general) (e.g. Hepatitis A and Norovirus in fruit and vegetables)
17	Microbiological	Campylobacter (e.g. in poultry and ready to eat foods)
18	Microbiological	Zoonoses (in general, including biohazards, MRSA etc.)
19	Environmental	Improving information on the occurrence and spread of harmful organisms
20	Environmental	RNAi applied to food producing organisms (as pesticide, veterinary medicine or newly expressed trait in genetically modified crops; RNAi = Ribonucleic acid interference)
21	Environmental	Better understand biological organisms and plant substances used in crop protection (so reducing need for chemicals e.g. pesticides)
22	Environmental	The impact of chemicals on the ecosystem (release of chemicals to the environment)
23	Environmental	Presence/detection of environmental contaminants in food (e.g. from agricultural, industrial or household sources)
24	Environmental	Cocktail effects (the health risk assessment of chemical mixtures e.g. food additives)
25	Nutrition	Indirect effects on human health due to modified agricultural practices (e.g. via reduction of pesticide use, changed content of mycotoxins)
26	Nutrition	Developing standard biomarkers of intake and/or exposure to contaminants
27	Nutrition	Food supplements risk/benefits (generally)
28	Nutrition	Determination of allergen thresholds (clinical studies, in conjunction with immunochemical measurements of allergens in foods)

6.3 Strategic Objectives & Strategic Capability Clusters

The following is an overview of the strategic objective clustering and the relation to the *DELPHI* priorities.

Table 2: Table continues below

strategic objective	strategic capability cluster
SO1. Prioritise public and stakeholder engagement in the process of scientific assessment	Promote enhanced dialogue with stakeholders (on EFSA's mandates in collaboration with risk managers)
SO1. Prioritise public and stakeholder engagement in the process of scientific assessment	Make documentation on information gathering and the evaluation process available

strategic objective	strategic capability cluster
SO1. Prioritise public and stakeholder engagement in the process of scientific assessment	Foster engagement throughout the development of scientific assessments
SO1. Prioritise public and stakeholder engagement in the process of scientific assessment	Contribute to ensure clarity and accessibility/usability of findings (through proper communication)
SO2. Widen EFSA's evidence base and optimise access to its data	Having an open data approach
SO2. Widen EFSA's evidence base and optimise access to its data	Migrating towards structured scientific data
SO2. Widen EFSA's evidence base and optimise access to its data	Promoting data exchange & improving interoperability
SO3. Build the EU's scientific assessment capacity and knowledge community	Capacity building and capacity sharing
SO3. Build the EU's scientific assessment capacity and knowledge community	Growing the EU and international RA community
SO3. Build the EU's scientific assessment capacity and knowledge community	Contribute to reviewing and develop EFSA's scientific assessment model
SO4. Prepare for future risk assessment challenges	Contribute to strengthen EFSA's resilience and ability to anticipate and respond effectively (to food safety risks in cooperation with EU and international partners)
SO4. Prepare for future risk assessment challenges	Develop and implement harmonised methodologies and guidance documents (for risk assessment across the EU and internationally)
SO4. Prepare for future risk assessment challenges	Become a hub in methodologies, tools and guidance documents for RA
SO5. Create an environment and culture that reflect EFSA's values	People: build a culture that puts EFSA's values into practice
SO5. Create an environment and culture that reflect EFSA's values	Organisation and processes: develop an environment focused on improving organisational performance and capabilities

priorities
1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28
1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28
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1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28

priorities
1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28
1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28
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1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28

6.4 Session Info

R version 3.6.3 (2020-02-29)

Platform: x86_64-pc-linux-gnu (64-bit)

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attached base packages: *stats*, *graphics*, *grDevices*, *utils*, *datasets*, *methods* and *base*

loaded via a namespace (and not attached): *tidyselect(v.1.1.0)*, *xfun(v.0.19)*, *remotes(v.2.2.0)*, *pander(v.0.6.3)*, *purrr(v.0.3.4)*, *vctrs(v.0.3.4)*, *generics(v.0.0.2)*, *testthat(v.2.3.2)*, *usethis(v.1.6.3)*, *htmltools(v.0.5.1.1)*, *yaml(v.2.2.1)*, *rlang(v.0.4.9)*, *pkgbuild(v.1.1.0)*, *pillar(v.1.4.6)*, *later(v.1.1.0.1)*, *glue(v.1.4.2)*, *withr(v.2.3.0)*, *sessioninfo(v.1.1.1)*, *lifecycle(v.0.2.0)*, *stringr(v.1.4.0)*, *zip(v.2.1.1)*, *oaStyle(v.0.4.4)*, *devtools(v.2.3.2)*, *evaluate(v.0.14)*, *memoise(v.1.1.0)*, *knitr(v.1.30)*, *fastmap(v.1.0.1)*, *callr(v.3.5.1)*, *httpuv(v.1.5.4)*, *ps(v.1.4.0)*, *fansi(v.0.4.1)*, *Rcpp(v.1.0.5)*, *xtable(v.1.8-4)*, *backports(v.1.1.10)*, *promises(v.1.1.1)*, *desc(v.1.2.0)*, *pkgload(v.1.1.0)*, *jsonlite(v.1.7.2)*, *mime(v.0.9)*, *fs(v.1.5.0)*, *digest(v.0.6.27)*, *euraa(v.0.2.1)*, *stringi(v.1.5.3)*, *openxlsx(v.4.2.3)*, *bookdown(v.0.21)*, *processx(v.3.4.4)*, *dplyr(v.1.0.2)*, *shiny(v.1.5.0)*, *rprojroot(v.1.3-2)*, *cli(v.2.1.0)*, *tools(v.3.6.3)*, *magrittr(v.2.0.1)*, *tibble(v.3.0.4)*, *crayon(v.1.3.4)*, *pkgconfig(v.2.0.3)*, *ellipsis(v.0.3.1)*, *data.table(v.1.13.4)*, *prettyunits(v.1.1.1)*, *assertthat(v.0.2.1)*, *rmarkdown(v.2.5)*, *R6(v.2.5.0)* and *compiler(v.3.6.3)*