The BioData.pt impact assessment matrix

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A group exercise to assess the impact of research activities

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Goal:

- Collectively fill the impact assessment matrix of the provided project.

Methodology:

- Follow the guidelines provided with information from the project description.
- Write the required information in virtual post-its and place them in the virtual matrix.
- Help will be provided in exchange for a "help token".

Guidelines

1. Project/Pathway:

Name the project or activity that is going to be assessed and make it correspond to one of the impact pathways in table A.

2. Description:

Executive summary of the project/activity.

3. Objectives/Mission:

Strategic objectives of the organization that will progress with this pathway (e.g. Become the reference long-term research infrastructure (RI) for bioinformatics and data management support for the academic system and the industrial sector, at the national level.)

General Information   10'

Activities

Outcomes

Impact

Indicators

Impact areas
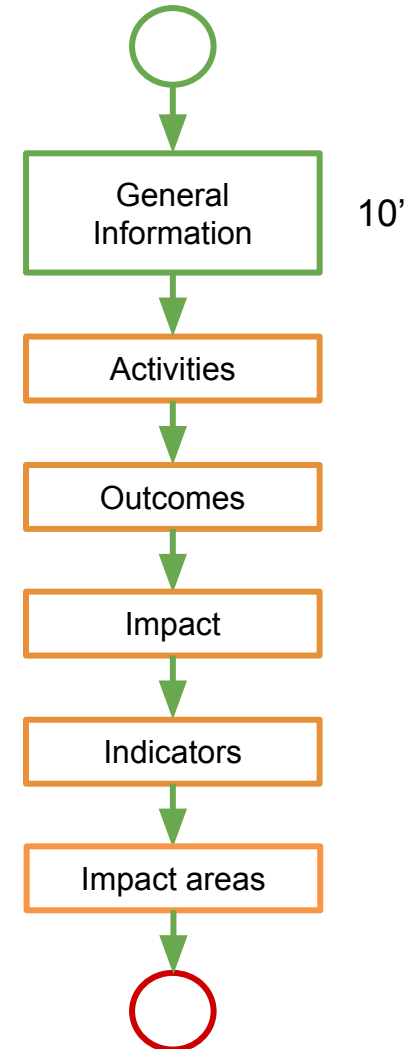
Guidelines

4. Activities:

The actions carried out within the scope of the project/activity, over which the organizers have direct control.

e.g.: "Data management course" is a good activity from the perspective of this exercise, "Planning data management course" is not, because it is invisible to the public.

Note: Number the activities, and correspondent outcomes and impact to facilitate correlation in later steps of the exercise.

5. Outcomes:

The short-term direct results of each activity identified in the previous point, over which the organizers have no direct control.

e.g.: "Course attendance" and "Participants acquire data management skills" are reasonable outcomes from the "Data management course" activity.

General Information — 10'

Activities — 10'

Outcomes — 10'

Impact

Indicators

Impact areas
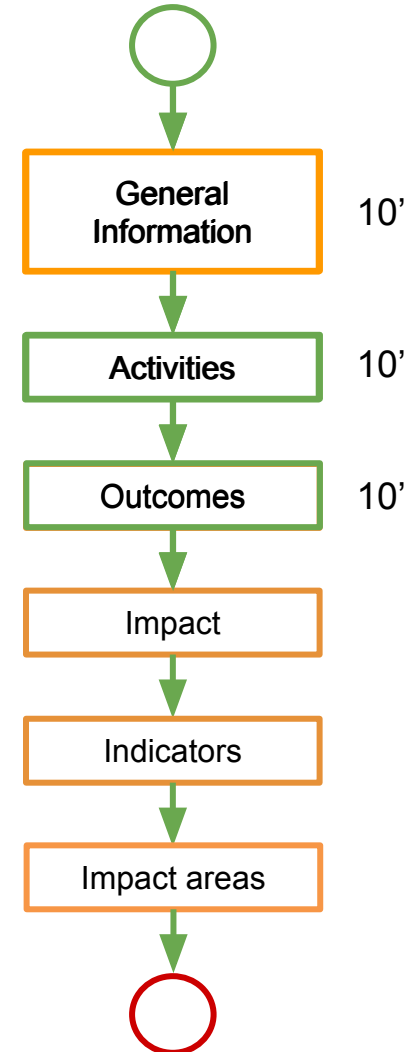
Guidelines

6. Impact:

The transformative effects of the activity on its target and beyond, in the short, mid and long term.

e.g.: "Increased adoption of the FAIR principles among Portuguese researchers" and "More Portuguese datasets published" are reasonable impacts from a "Data management course" activity.

7. Indicators:

Concrete measurable things that reflect the activities, outcomes, or impact, organized by impact areas.

e.g.: "Number of courses delivered" is a reasonable indicator for the activity "Data management course".

General Information — 10'

Activities — 10'

Outcomes — 10'

Impact — 10'

Indicators — 30'
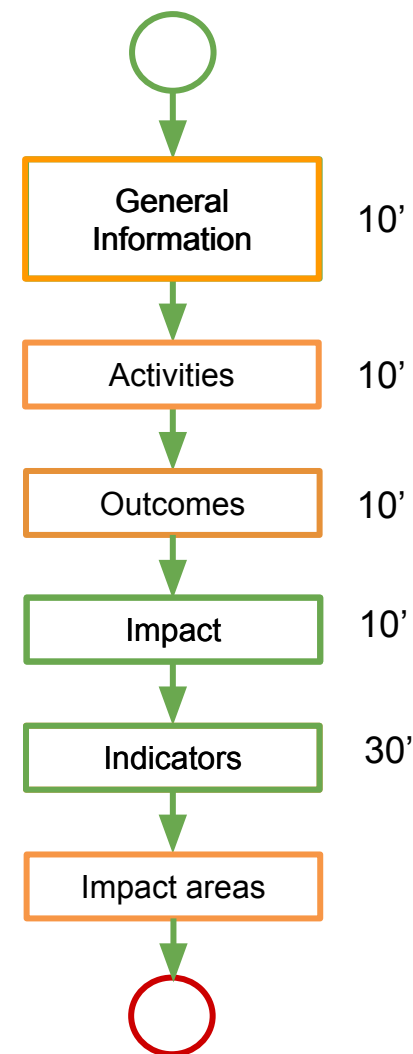
Impact areas

Guidelines

7. Indicators:

For each Activity/Outcome/Impact topic identified, try to select one or more indicators. If necessary, proxies can be developed.

8. Impact areas:

Are defined in the socio-economics indicators table - Human Resources, Economy and Innovation, Social/Societal, and Policy.

Distribute the indicators by the corresponding area of impact.

General Information	10'
Activities	10'
Outcomes	10'
Impact	10'
Indicators	30'
Impact areas	10'
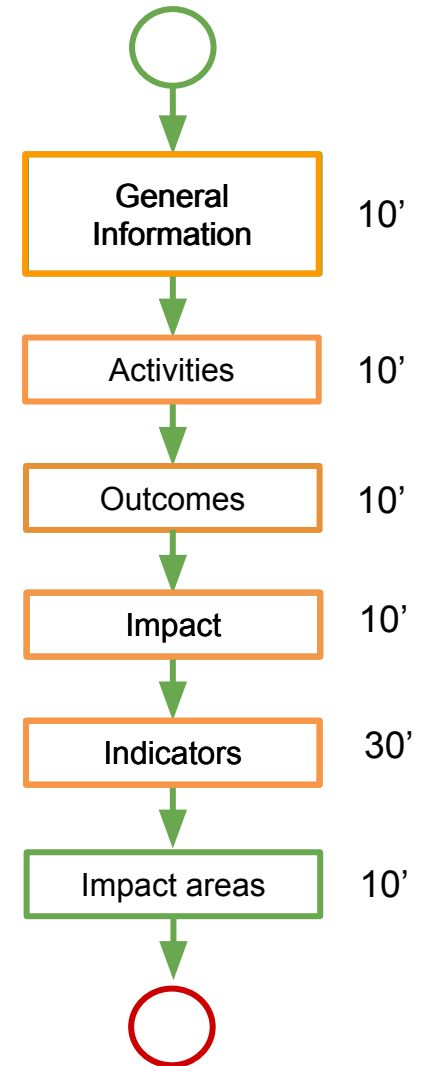
Guidelines

A few examples considering the Data Management Course

Impact Area	Indicator	Type of Indicator
Human Resources	Number of higher education students trained within RI	Activity
	Satisfaction of people trained	Outcome
	Career advances through technical qualification	Outcome
	Increased Prestige as Training Facility	Impact
	Improved job opportunities in the region/nation	Impact

Guidelines

A few examples considering a RI that organizes research results

Impact Area	Indicator	Type of Indicator
Economy & Innovation	Research results fed into shared data sets/repositories	Activity
	Uptake of accessible data sets/instruments/tools outside RI (in science)	Outcome
	Uptake of accessible data sets/instruments/tools outside RI (by firms)	Outcome
	Business usage of RI information (e.g. via browser)	Outcome
	Corporate efficiency gains through use/application of RI data	Impact

In this case we could establish another impact indicator: Research organizations attracting more funding.

Guidelines

A few examples considering a RI

Impact Area	Indicator	Type of Indicator
Social/ Societal	Public awareness: visitors on website and followers on social media	Activity
	Public awareness: engagement of RI in social media/press/online media	Outcome
	Public awareness about taxes going to RI	Outcome
	Contribution to social sustainability: CSR, Social Inclusion, Culture	Impact

Guidelines

A few examples considering a RI

Impact Area	Indicator	Type of Indicator
Policy	Provision of expert advice in public policy	Activity
	Uptake of RI input in political discussions	Outcome
	Uptake of new topics proposed by RI as funding sections	Outcome
	Increased trust in science	Impact
	Notable changes in relevant regulations	Impact
	Notable changes in funding decisions	Impact
	Notable changes in policy decisions	Impact

Guidelines

After a more reflective part of this exercise, let us be practical:

9. Evidence: 10'

Show us what you will collect as physical proof of the evidence (e.g. "screenshot", "report", "graph").

10. Methods: 10'

Tell us how you will obtain the selected indicators - measured (quantitative) or narrated (qualitative) -, including both instruments (e.g. "attendance sheet", "questionnaire", "grey literature review") and techniques (e.g. "counting" or narratives).

11. Report 10'

Prepare a 4 slides (1. Major outcomes; 2. Major impact; 3. Suggestions to the project, based on the assessment; 4. Plus and Minus of the exercise) to add to your filled BioData.pt Impact Assessment Matrix to share with the others the result of your work (no longer than 5').

Mock project

Title: The national Platform of Biological Information

Summary:

BioData.pt will organize and add value to the biological data generated by Portuguese organizations, enhancing investment and value creation through a national Platform of Biological Information, applicable to different scientific domains.

In the next 5 years, we will prioritize growing in the areas of health and plant sciences, according to national trends and the skills and interests of the organizations that currently integrate the consortium.

Computing resources, bioinformatics and data management services, as well as training will be available to capacitate platform users'.

Activities:

Data Management Portal

Capacity building programmes

BioData.pt Service Hub

Dissemination

In detail

Data Management Portal

A digital repository open to all research domains for depositing, annotating, sharing and publishing research data in accordance with the FAIR principles, as well as for collecting public data for reuse.

BioData.pt Service Hub

A digital hub that aggregates BioData.pt tailored services in bioinformatics, computing, data management and capacity building supported by a users' forum.
Additional ready-to-use Community and ELIXIR Node Services are provided.

Capacity building programmes

Crash Courses in Bioinformatics and *Ready for BioData Management?* programmes to empower researchers in state-of-the-art data science topics.

Dissemination

Data science domain-specific events for the research community plus a regular presence in FB, In, Twitter, and a dedicated website.

The BioData.pt impact assessment matrix

Instructions:

- Take 10' to read the BioData.pt impact assessment matrix guidelines + the mock project.
- You will be attributed a group and enter the respective break-out room. Note: Each break-out room will have an assigned facilitator.
- You will be provided with a link to edit the virtual BioData.pt impact assessment matrix.

Good luck!

Acknowledgements