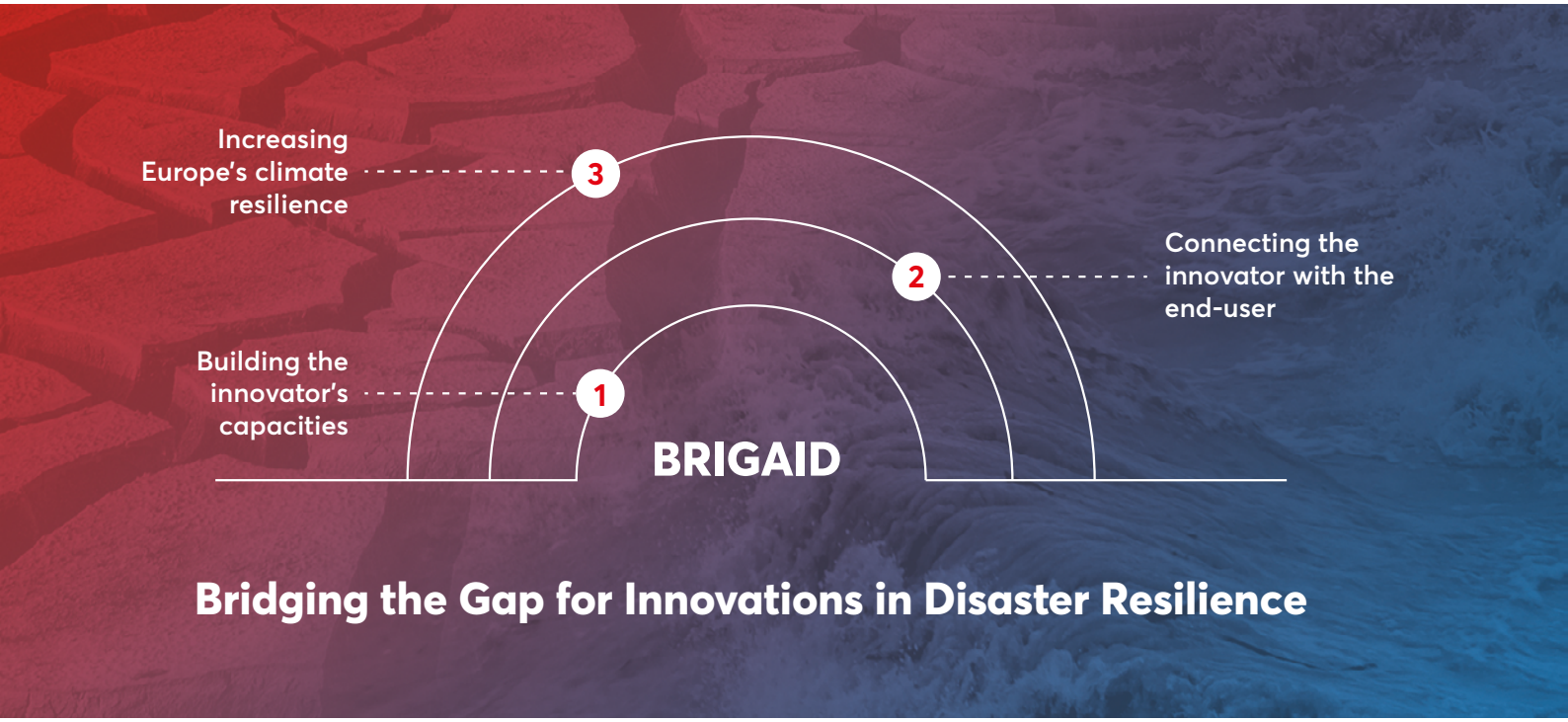
BRIGAID
BRIDGING THE GAP FOR INNOVATIONS IN DISASTER RESILIENCE

TOWARDS A EUROPEAN CLIMATE DISASTER RESILIENT FUTURE:

building the socio-technical acceptance levels for innovations



The BRIGAID project created impact by improving the technological and market readiness of innovative solutions to droughts, floods and extreme weather. **The BRIGAID Test and Implementation Framework (TIF)** was developed in close cooperation with 120 innovators (climateinnovationwindow.eu), and consists of a general methodology and a set of practical tools, supporting in effective development of technical and social accepted innovations.

In response to the demand for an internationally accepted framework for assessing the readiness of innovations that reduce disaster risk, BRIGAID has developed a standard, comprehensive Testing and Implementation Framework (TIF).

The TIF has been designed to provide innovators with a framework for innovation and guidelines for assessing an innovation's technical effectiveness, its social acceptance, and its impact on key socio-economic and environmental sectors.

The EU is pledging public investment to trigger breakthrough innovations in climate adaptation and disaster risk reduction. It recognises that while innovations could significantly increase Europe's climate resilience, most fail to reach the market. Often, this is due to insufficient consideration of social acceptability, wider environmental impacts, and end-user needs.

BRIGAID bridged this gap by demonstrating an integrated innovation support program for SMEs and university spinoffs who work on new technologies, sustainable solutions and disruptive innovation for climate adaptation.

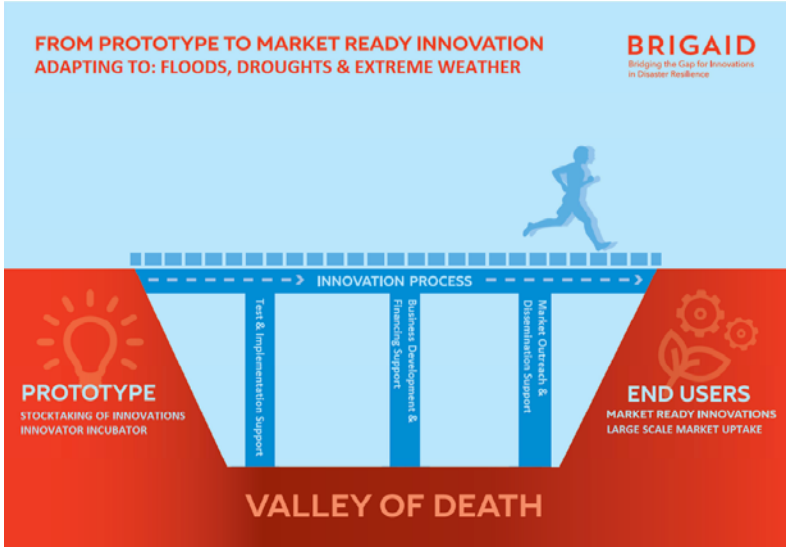
On the technical end, this entailed expert guidance, funding and infrastructure for prototyping and testing their ideas.

On the strategic planning end, it included personalized training and info products to help innovators translate science into positive social, environmental and economic impact.

BRIGAID also hosted eight Communities of Innovation where innovators, end-users, and potential funders engaged in the co-design of solutions that were customized to local contexts.

Building the socio-technical skills of climate-adaptation innovators:
the Test and Implementation Framework (TIF)

A report has been written, covering the methodological development of the testing and implementation framework (TIF) for increasing the socio-technical readiness of climate adaptation innovations and assessing their impact on different socio-economic and environmental sectors. It is designed to be read primarily by innovators as a supporting document for the application of different toolboxes made available through BRIGAID, but is also relevant for end-users of innovations and other stakeholders. The application of the methodology has been demonstrated by elaboration of several innovations as inspiring examples.



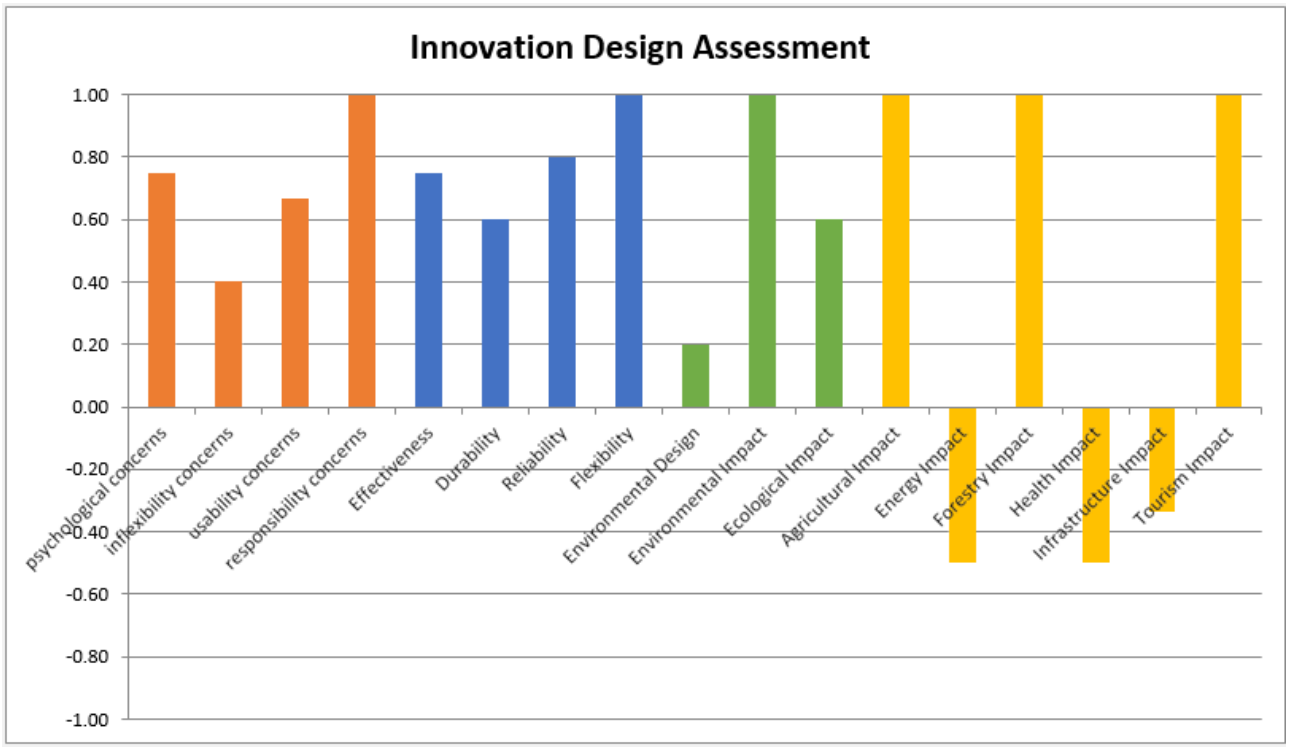
For the Tube Barrier, a temporary flood barrier, a test programme has been developed and implemented demonstrating effectiveness, reliability, maintainability and flexibility of this innovation under different load conditions.

For the prescribed burning method, an innovation to reduce bush fire impacts, a detailed impact assessment is presented, comprising both the environment as well as diffferent economic sectors.

Support tool for assessing socio-technical readiness at the end of each testing phase: TIF-Tool

The TIF Tool is designed to help innovators identify possible societal, technical, environmental and sectoral concerns that their innovations may raise early on – and iteratively throughout the development – so that they may modify their designs and not become locked into those that are less likely to appeal to end users. The Tool should be applied at three 'stage-gates' – critical points in development at which innovators should pause to identify and address social, technical, environmental and sectoral concerns.

The self-assessment consists of twenty (20) questions related to societal acceptance, nineteen (19) questions related to technical design, twenty-one (21) questions related to environmental impacts, and twenty-four (24) questions related to sectoral impacts. If relevant, questions also appear related to cyber-security. The results and recommendations are summarized in a chart as shown below.



The table below summarizes the results of the TIF screening.

1	Your innovation raises	few	societal concerns overall, having scored	10	out of a possible	16	and is	close	from/to societal readiness.
1.1	Your innovation raises	few	psychological concerns, having scored	3	out of a possible	4	and is	close	from/to societal readiness.
1.2	Your innovation raises	many	inflexibility concerns, having scored	2	out of a possible	5	and is	far	from/to societal readiness.
1.3	Your innovation raises	few	usability concerns, having scored	4	out of a possible	6	and is	close	from/to societal readiness.
1.4	Your innovation raises	few	responsibility concerns, having scored	1	out of a possible	1	and is	close	from/to societal readiness.
2	Your innovation raises	few	technical concerns overall, having scored	15	out of a possible	18	and is	close	from/to being ready in terms of its technical design.
2.1	Your innovation raises	few	concerns related to its technical effectiveness, having scored	3	out of a possible	4	and is	close	from/to being ready/effective in terms of its technical design.
2.2	Your innovation raises	few	concerns related to its durability, having scored	3	out of a possible	5	and is	close	from/to being ready/effective in terms of its technical design.
2.3	Your innovation raises	few	concerns related to its reliability, having scored	4	out of a possible	5	and is	close	from/to being ready/effective in terms of its technical design.
2.4	Your innovation raises	few	concerns related to its flexibility, having scored	5	out of a possible	5	and is	close	from/to being ready/effective in terms of its technical design.
3	Your innovation raises	some	environmental concerns overall, having scored	13	out of a possible	21	and is	close	from/to being ready in terms of its environmental design.
3.1	Your innovation raises	some	concerns related to its Environmental Design having scored	1	out of a possible	5	criteria. Your innovation may have a	positive	on the environment.
3.2	Your innovation raises	many	concerns related to its Environmental impact, having scored	6	out of a possible	6	criteria. Your innovation is may have a	positive	on the environment.
3.3	Your innovation raises	no	concerns related to its Ecological impact, having scored	6	out of a possible	10	criteria. Your innovation is may have a	positive	on the environment.
4	Your innovation raises	no	concerns related to Agricultural impacts, having scored positively on	4	out of	4	criteria. Your innovation may have a	positive	impact on the Agricultural Sector
5	Your innovation raises	many	concerns related to Energy impacts, having scored positively on	-2	out of	4	criteria. Your innovation may have a	negative	impact on the Energy Sector
6	Your innovation raises	no	concerns related to Forestry impacts, having scored positively on	4	out of	4	criteria. Your innovation may have a	positive	impact on the Forestry Sector
7	Your innovation raises	many	concerns related to Health impacts, having scored positively on	-2	out of	4	criteria. Your innovation may have a	negative	impact on the Health Sector
8	Your innovation raises	many	concerns related to Infrastructure impacts, having scored positively on	-2	out of	4	criteria. Your innovation may have a	negative	impact on the Infrastructure Sector
9	Your innovation raises	no	concerns related to Tourism impacts, having scored positively on	1	out of	1	criteria. Your innovation may have a	undetermined	impact on the Tourism Sector

Refer to the accompanying TIF Tool guidance document for detailed help on interpreting your results from these societal testing questions and to the TIF method document for detailed background on the theory and method that underpins them.

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