

# **KNOWLEDGE BASE GUIDE** BETA VERSION V1.0

## Introduction to the FUTURESILIENCE Knowledge Base

The FUTURESILIENCE project aims to enhance the economic and social resilience of Europe. FUTURESILIENCE will achieve this goal by facilitating the rapid and effective utilisation of policy-relevant Research and Innovation (R&I) findings at the national, regional, and local levels. The project includes ten pilot cases referred to as "**FutuResilience Labs**".

The FUTURESILIENCE project has identified and mapped **policy-relevant outcomes** from projects funded under Horizon 2020 and Horizon Europe as well as policy recommendations developed by international organisations. These outcomes contribute to the development of capacity in various areas related to resilience building and future preparedness. Additionally, the project has mapped existing **best practices of policy-relevant resilience actions** among cities and regions participating in resilience initiatives, campaigns, and networks, particularly those linked to the Sustainable Development Goals (SDGs). All relevant documents are collected into an online database, **the "Knowledge Base" (KB)**, integrated into a protected area of the project website.

The KB is a dynamic database where stakeholders and policymakers may have easy access to research and innovation (R&I) resources and findings (i.e. documents as research findings or results from labs). The KB collects **projects**, **innovative solutions** and **best practices** categorised by "Type of document"; "Area of interest"; "Type of intervention"; "Societal Readiness Level (SRL)"; "Intensity of change" and "Shock phase".





## **Directions for use**

This **Knowledge Base Guide** serves as your compass, providing step-by-step instructions on how to navigate and harness the full potential of this database. This guide is designed to streamline your journey through the FUTURESLIENCE website, ensuring seamless access to the KB as a wealth of resources and findings.

You can access the KB by clicking on the top bar menu of the FUTURESILIENCE website or directly by following this link: <u>https://futuresilience.eu/knowledge-base</u>. The main page of the KB will appear as follow:

Home / Knowledge base **KNOWLEDGE BASE** Sort by: Title Asc Knowledge Base Search: 21 results Search.. Type of document 5G-XCast - RAT Protocols and Radio Resource Management Area of interest 苗 23 Jan 2024 The 5G-Xcast project focuses on developing broadcast and multicast communication enablers for 5G ► Type of intervention wireless systems. Its primary objective is to design a highly efficient and flexible 5G-Xcast Radio Access Network (RAN) protocol and Radio Resource Management (RRM) that fulfills the requirements of various use cases within the project's scope. The project aims to provide a comprehensive solution to Societal Readiness Level support the requirements of vertical sectors such as multimedia and entertainment, automotive, (SRL) public warning systems, and the Internet of Things. The project attempts to develop a highly flexible and efficient RRM for embedding broadcast/multicast into 3GPP's 5G NR, as well as proof-of-concept Intensity of change performance evaluations of 5G-Xcast RRM solutions. 2 (Digitalization) (Regulatory/standards/targets measures) (Knowledge creation) (Preparedness) Shock phase





### **1. Search function**

To start searching for documents, you can freely type words related to your search (e.g. migration, floods, finance, mobility, etc.) in the search box. The system will search for your word in the title and the description from the list of policy documents. Once you start typing, the page will automatically update the number of results matching the proposed search. The final number of results is displayed on the top part of the search.

You can order the results by alphabetical order (ascending-descending) or by date (referring to the date when the entry was included in the KB, from recent to older ones).

### 2. Applying filters

From the main page of the website, you **may apply filters** for a more efficient search. The filters can be found as: "Type of document"; "Area of interest"; "Type of intervention"; "Societal Readiness Level (SRL)"; "Intensity of change" and "Shock phase". You can find an explanation of those filters below.

#### 2.1. "Type of document"

The first filter allows you to select diverse documents based on the main purpose and type of information contained in the document, ranging from research findings including policy actions, to good practices, results from the project labs or policy recommendations:

#### ▼ Type of document

Select All

- Research findings
- Policy recommendations

- Good practices
- Results from labs

- Research findings: results from scientific research (notably H2020 and Horizon Europe), including policy actions and solutions.
- Policy recommendations: policy brief and/or policy documents directly recommended for policymakers; guides for addressing crises underlying factors;
- Good practices: examples of different approaches to face crises;
- *Results from labs*: results from case studies.



#### 2.2. "Area of interest"

The classification of solutions adopted by FUTURESILIENCE builds on the idea of breaking down 'silos' of understanding crises as standalone events and widen the analytical perspective to the set of capacities and vulnerabilities at the societal level that makes crises have a smaller or larger impact. Therefore, we have proposed a classification of research findings and policy recommendations in multiple categories, all areas typically hit by crises.

Indeed, we understand that policy mixes in one or multiple areas could reinforce the societal fabric and provide a greater capacity to absorb, adapt and transform in face of different crises, independently of its nature and with no time constraints.

Thus, the second filter allows the user to navigate different "Area(s) of interest", focusing on concrete categories of topics directly related to the societal fabric intended to be reinforced to increase preparedness and build resilience in the long term.

#### Area of interest

#### <u>Select All</u>

Environment and Biodiversity

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- Agriculture and Food
- Materials and Energy
- Industries
- Local business
- Labour Market
- Finance
- Mobility and Transport
- Digitalization
- Education and Training
- Health and Well-Being
- Housing
- Services of Public Interest
- Good Governance

#### Planet

- *Environment ad Biodiversity:* solutions in this area will help to mitigate the environmental impact and biodiversity protection, including measures to reduce pollution, protect water basins and forests, reduce land degradation, etc.
- Agriculture and Food: this category includes agricultural, farming and fisheries solutions, including planning in rural areas, land use planning, and technology for efficient and low carbon emission production. It includes measures from the supply side of food production (including industrial processes) and the demand for food.
- Materials and Energy: solutions in this area will support the extraction or import of raw materials as a basic part of developing key industrial sectors and technological innovation. Relevant solutions also include proposals that reinforce the production, distribution and appropriate regulation of energy consumption, considering both supply and demand for energy.



#### Prosperity

 Industries: this area includes solutions that allow industries to keep running during critical periods through market-oriented measures that allow the maintenance of a threshold of productivity and increased competitiveness;

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- Local business: this area includes solutions that support and protect small and medium enterprises to navigate challenging periods and recover from adverse events. Solutions include adopting sustainable business models, practices and technologies, market access, and value chain integration;
- *Labour Market:* in this area, solutions aim to support stability and growth in the labour market, such as unemployment insurance and developing skills for market inclusion;
- *Finance:* this category refers to solutions that will facilitate access to finance for different key stakeholders of the financial system; it includes solutions in the banking sector. It also includes management of public accounts, public debt and monetary management;
- *Mobility and Transport:* solutions in this area include managing transport networks and options that guarantee people's mobility through affordable and sustainable means. Relevant solutions also include measures to guarantee continuity in the supply chain.

#### People

- *Digitalization:* solutions in this area aim at ensuring access, continuity and integration of digital technologies. Relevant solutions address the digital infrastructure set-up, market dynamics and investments in digitalization and skills for digital integration;
- *Education and Training:* solutions in this area aim at ensuring the continuity and improvement of the education system, including solutions related to access to education and training opportunities and education infrastructure;
- *Health and Well-Being:* this area includes solutions geared towards ensuring access to healthcare and health services, promoting well-being, managing health data and ensuring access to critical material for the functioning of the health system;
- *Housing:* this category refers to solutions that guarantee access to affordable and sustainable housing. It includes solutions in urban planning and economics, such as housing market, housing conditions and affordability;
- Services of Public interest: solutions in this area are related to the effective provision of basic services during crises, including water, waste management, basic sanitation provision, and access to electricity (see Energy). It includes appropriate urban and territorial planning and market solutions.
- Good Governance: this is a cross-cutting area for societal resilience and includes solutions concerning effective governance models as well as solutions that facilitate administrative and policy capacity and access to civil rights. Relevant themes include open government, access to political participation, inclusive voting, an open policy-making system, transparency, government accountability, and the ability to redress government.



#### 2.3. "Type of intervention"

The third filter refers to the **"Type of intervention**", which specifically indicates the type of solutions and actions recommended in the document. The same document could contain a diversity of interventions, with the idea that robust and effective policy mixes could increase preparedness for future crises.

- Regulatory/standard/target measures encompasses policies and regulations designed to enhance resilience, focusing on setting standards and targets to achieve this goal.
- Market-base mechanism refers to strategies that utilize market forces and incentives to foster social resilience. They leverage economic mechanisms to address challenges and promote resilience within communities.
- Resource allocation involves managing budgetary and other resources to address vulnerabilities and build capacity to withstand crises
- Awareness raising involves activities aimed at increasing understanding and consciousness of key issues related to resilience. It includes efforts to generate knowledge, inform stakeholders, and transfer information to empower individuals and organizations to respond effectively to crises.
- Knowledge transfer refers to projects or documents that aim to disseminate information and best practices to facilitate communication, data sharing, and collaboration among various stakeholders. It emphasizes the exchange of knowledge to enhance collective resilience efforts.
- Building relationships: entails fostering networks, partnerships, and connections as essential components of enhancing social resilience. It emphasizes the importance of cultivating strong relationships among diverse actors to effectively address and respond to crises and disasters.

#### Type of intervention

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#### <u>Select All</u>

- Regulatory/standards/targets measures
- Market-based mechanisms
- Resource allocation
- Awareness raising
- Knowledge creation
- Knowledge transfer
- Building relationships



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#### 2.4. "Societal Readiness Level (SRL)"

## Societal Readiness Level (SRL)

#### Select All

- SRL 1-3 Research phase
- SRL 4-5 Demonstration
- SRL 6-7 Validation
- SRL 8-9 Deployment

The fourth filter is "**Societal Readiness Level (SRL)**". SRL is a way of assessing how well thought out a policy tool is ahead of its adoption and implementation: has it been tested? Has it been revised? Have stakeholders been included in this process? The KB includes most documents with a minimum of SRL 4, which means that solutions have been at least tested in pilot cases (e.g. pilots funded through European research projects).

SRL 1-3 Research phase	<ul> <li>SRL 1 – identifying problems and identifying societal readiness.</li> <li>SRL 2 – formulation of a problem, proposed solution(s) and potential impact, expected societal readiness; identifying relevant stakeholders for the project</li> <li>SRL 3 – initial testing of proposed solution(s) together with relevant stakeholders.</li> </ul>
SRL 4-5 Demonstration	<ul> <li>SRL 4 – problem validated through pilot testing in a relevant environment to substantiate proposed impact and societal readiness.</li> <li>SRL 5 – proposed solution(s) validated, now by relevant stakeholders in the area.</li> </ul>
SRL 6-7 Validation	<ul> <li>SRL 6 – solution(s) demonstrated in a relevant environment and in cooperation with relevant stakeholders to gain initial feedback on potential impact.</li> <li>SRL 7 – refinement of project and/or solution and, if needed, retesting in relevant environments with relevant stakeholders.</li> </ul>
SRL 8-9 Deployment	<ul> <li>SRL 8 – proposed solution(s) as well as a plan for societal adaptation complete and qualified.</li> <li>SRL 9 – actual project solution(s) proven in a relevant environment.</li> </ul>





#### 2.5. "Intensity of change"

The fifth filter is the "**Intensity of change**" which indicates the degree of change that the proposed solution will more likely have at societal level:

- Absorption, which represents the capacity of a community to cope with the impacts of a crisis situation.
- *Adaptation,* which refers to the capacity of a society to adjust and be flexible facing uncertain new situations.
- *Transformation, which* refers to the ability to learn from experience and make intentional and positive changes to reduce vulnerability and enhance overall resilience.

Intensity of change	

#### Select All

- Absorption
- Adaptation
- Transformation

#### 2.5. "Shock phase"

The sixth filter is the "**Shock phase**" which indicates the kind of response the document is aimed to achieve based on the stage of a crisis. Three different shock phases are presented:

▼ Shock phase	
Select All	
Preparedness	
Response	
Recovery	

• *Preparedness* is a series of actions that could be deployed to prevent and mitigate potential impacts of crisis.

• *Response* is the group of policy strategies and actions implemented to address and mitigate the impacts of a hazardous event once this happens.

• *Recovery*, that refers to the series of policy measures undertaken to rebuild communities, infrastructures and systems that may have been affected or damaged by the impact of the crises.



2

#### 3. Download documents

By clicking on the link to a document, the database **automatically** will show you the download page. The download is automatic, you may select the download folder (or a different folder) to save the document. All the documents are <u>in pdf</u>. Multiple documents will lead to a download page of CORDIS or Zenodo, while other links may redirect you to documents stored on pages of international organisations (e.g. OECD, World Bank, etc.)

## **BuildERS - Building European Communities' Resilience and Social Capital - Innovation policy recommendations**

#### 苗 14 Dec 2023

This report, a key deliverable of Work Package 5 in the BuildERS project, provides an overview of innovations aimed at enhancing the resilience of European communities to disasters. Focusing on three types of innovations—process, market, and research—it offers practical policy strategies and tools. The document details seven process innovations, three market innovations, and one research innovation, providing policy recommendations to support their effective utilization. The aim is to contribute to societal resilience by improving risk awareness, reducing vulnerabilities, and building social capital.

Environment and Biodiversity Good Governance

(Regulatory/standards/targets measures) (Awareness raising) (Building relationships) (Preparedness)



## Commission Documents download module

Document download

Dear user, the requested document **Attachment\_0** is being prepared for download. Once the download is completed you may close this window by clicking on the close button.

CLOSE

The file is now downloaded to your device and ready for use!





## Feedback

This is a **beta version of the KB** and the guideline also reflects the building process of the database. If you encounter any bug or would like to provide feedback to enhance the knowledge base or would you like to share on how improve this navigation guide, you can write to us using the contact form of the website.

## Get in touch with us!







/futuresilience

