

Disaster Risk Management and Civil Resilience

DRM-FRAME

Activity 3.2

Work Package:	WP3- Development of the theoretical content and technical specifications of the DRM-FRAME programme		
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0.4	30/05/2025	Final version – this version encompasses the improvements that have been suggested by the external evaluators. Final formatting corrections have been made.

The DRM-FRAME project

The project "Disaster risk management and civil resilience DRM-FRAME" is an ERASMUS+ co-funded EU project of action type KA220-VET-"Cooperation partnerships in vocational education and training" and has a duration of 2 years. The scope of the project is to enhance the capacity, skills building and preparedness in the area of Disaster Risk Management (DRM), including prevention, effective response and recovery and to promote local development opportunities. This will be achieved through the development of an interactive learning and training tool which will integrate a training curriculum in the area of DRM. The training audience is primarily composed by civil protection professionals at local, regional and national level, vocational trainers, volunteer associations, etc.

The consortium, composed by Higher Education Institutions, Research Institutes and Vocational Educational Providers, will jointly create an integrated curriculum which inter alia will train professionals in the basic concepts for Disaster Risk Reduction (DRR) and relevant policy issues, basic steps for Vulnerability and Capacity Assessment, enrichment of strategic plans for DRR and management at local level, etc.

In this framework an interactive multilingual platform will be developed with the following features: (i) an e-learning space, including the topics of the training curriculum, supported by a web-GIS platform which will allow the illustration of the evolution of scenarios at the areas of interest; (ii) a double assessment tool, which will enable the customization of the training path and the evaluation of the acquired skills; (iii) communication and networking capabilities among users. The outcome of the project will be validated by a number of external experts and during multiplier events in all partner countries.

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Abbreviations

Abbreviation	Description
DRM	Disaster Risk Management
DRMP	Disaster Risk Management Planning
DRR	Disaster Risk Reduction
DSS	Decision Support System
WP	Work Package

1. Executive Summary

This document focuses on the development of the theoretical content and technical specifications of the DRM-FRAME programme (WP3.A2). It derives from findings from the WP2 Primary Research and Situation Analysis activities, concerning the Survey on current practices for disaster risk management (DRM) and civil resilience, the focus groups with professionals in the DRM sectors collecting their experiences, opinions and areas of improvement of training programmes on the DRM field, the desk research on existing educational and training programmes at EU level as well as the DRM-FRAME proposal as part of the previous project activity in WP3.A2.

The document outlines the thematic topics that form the modules and the structure of the curriculum with the involvement of all DRM-FRAME consortium members. The thematic topics reflected herein, align with the identified needs from the previous WP that have been conjugated in a WP2 Report and are linked to the Proposal for a Disaster Risk Management Framework as part of WP3.A1.

The aim of this document is to provide the basis for the training material based on the needs identified in WP2 and the curricula proposed in WP3.A1, as well as to provide the specific framework in which the modules and sub-modules of the training material will be categorized for the purpose of producing the training material and for further work in WP3.A3 regarding the teaching methodologies, tools and methods to be used within the pedagogical approach and training activities.

Ultimately, the theoretical content and technical specifications derived from the thematic areas chosen, aim to provide practical, relevant, and up-to-date training opportunities for professionals who work in disaster and risk management areas to improve their skills and capacities on the prevention, preparedness, rehabilitation areas thus to better respond to natural and man-made disasters.

The modules per se, are available in a different document and to the e-learning platform.

2. Guidelines for the Theoretical Content Preparation

Target Groups

The target audience of the DRM-FRAME curricula is diverse, including various individuals and organizations that can contribute to disaster risk management. The DRM-FRAME curricula should satisfy various needs that differ between the audiences.

A. Primary Target Audience

1. Disaster risk managers and staff in the public sector: there is a need for coordination and communication at all levels of government when implementing a policy so it is vital to gain knowledge in the field and get familiar with the terminology, theoretical context, best practices, tools and processes that can reduce risk and improve emergency preparedness and community resiliency.

2. Policy makers at local, regional, national level: training will help in creating effective strategies that promote cooperation at different levels to prioritize community resilience and long-term sustainability while informing the legislative and administrative framework both existing and future. It is important for policymakers to be educated about the scientific aspects and practices of disaster risk management to have the proper knowledge when deciding on budget allocation, government priorities, legislative decisions, and overall resources governance.

3. Volunteers: Volunteers involved in community activities, as well as volunteers dealing with emergency situations exclusively, need to be trained to enhance their knowledge and skills, as well as their attitudes and behaviors, in order to ensure their safety, their efficiency and effectiveness, as well as meaningful cooperation with local authorities even under adversity or during the time of crisis. Findings of the research, highlighted in great intensity the need for educating and empowering volunteers to continue their involvement and keep up with the developments in the field of Disaster and Risk Management. Educating and maintaining volunteers is essential in order to increase capacity for crisis and disaster management even in situations where the hiring and permanent staff is not an option due to budgetary or other constraints.

4. Emergency Services: people working in the protection such as firefighters and police officers and first responders, in general, are in the front line need to be trained to face any challenge that occurs, ensuring effective emergency response, while also enhancing their skills, on a practical level and theoretical level allowing them to contribute further to the design, implementation and assessment of emergency response, develop professionally, engage more effectively with the local audience and cooperate better due to a further understanding of the needs and scope of other branches of emergency response. In the research findings, a significant amount of responders, identify issues with collaboration, communication, and cooperation with other branches that hinders the efficiency of the emergency response, part of the solution for this issue, could be attributed to an acknowledgment of the role and duties of the other branches, more information, and highlighting of best practices and case studies.

5. Education and training experts, VET providers, Researchers: there is a need to arouse interest in the field and encourage future initiatives. Especially early training from a young age can help in public awareness and improve the effectiveness of DRM policies in the future. In addition, other areas such as Health and Safety, Public Administration, Community Management and more, could benefit from components related to Disaster and Risk Management, as well as Emergency Response. This would allow the VET sector develop synergies between related fields, promoting further awareness and collaboration, as well as policy shifts.

6. Experts in the fields of infrastructure, economy, environment, health, law: there is a need to integrate DRM into different sectors to safeguard assets and create resilient strategies with reduced risk. Although they are not traditionally associated with the disaster and risk management sector, a variety of professions are nonetheless impacted by natural or man-made incidents on a large scale. Examples include financial investors, architects, engineers and legislators, who would benefit from the knowledge and skills to perceive and assess risk and vulnerability, promote preparedness, and take concrete measures to increase resilience in all the above mentioned sectors.

B. Secondary Target Audience

1. Media professionals: journalists, social media managers that need to be trained because of their activity, to disseminate news reliably and raise public awareness while also maintaining high professional and ethical standards before, during, and after major incidents (crisis and/or disaster).

2. NGOs: NGOs in the field of health, social rights, cultural integration and youth that need training in order to be able to provide help in emergencies especially when vulnerable populations are involved.

3. General Public: anyone interested in DRM either because of their work or because of their desire to delve deeper into the subject of personal motives and pursuits, or as part of their individual, family or community preparedness.

Training Needs Assessment

The following key research findings were gathered through the work that has been carried out in WP2. Respective results can be found in WP2 report, which summarizes the findings corresponding to the Survey and Data Collection research activities, the organization of focus groups with professionals and the literature review on existing educational and training opportunities:

- **Main Gaps in Existing Training Programs:** The research identified significant gaps in current DRM training programs, particularly in integrating advanced technologies, engaging communities, and cross-sectoral policy integration. It indicates that mastery of fundamental DRM principles is critical for professionals in the field. This includes a deep understanding of risk assessment, hazard identification, and vulnerability analysis. However, traditional training often falls short in integrating these principles with modern technologies and cross-sectoral policy-making, areas that are increasingly crucial as disaster scenarios become more complex. This is particularly derived from focus group discussions with professionals across all partner countries, that highlighted that current training programmes cover in a limited extent, areas of community engagement, tech and skills shortage and cross-sectoral policy integration.
- **Need for Community Engagement:** A significant finding from the research is the importance of community involvement in DRM. Effective disaster management cannot be achieved without the active participation of local communities. The WP2 report highlights a need for training programs to better equip professionals with the skills necessary to engage communities in participatory planning processes. The research highlighted the necessity of equipping professionals with skills in participatory planning and community readiness activities. Particularly strengthened, a majority of survey respondents emphasised that training should include more content on citizen's participation and community readiness activities to succeed a local and regional involvement in disaster management situations. Additionally, focus groups findings indicate recent disaster management situations where engagement was lacking and respond was inadequate.

- **Importance of Policy Integration:** It is found that existing training programs often treat DRM as a standalone discipline, isolated from other policy areas such as urban planning, environmental management, and public health. The research emphasized the importance of integrating DRM principles across various policy-making areas to ensure comprehensive risk reduction. Specifically, survey respondents highlighted that current training programs often lack content on how to incorporate DRM principles into broader policy frameworks.
- **Technological Advancements:** There is a strong need for DRM professionals to be proficient in using advanced technologies, such as decision support systems and simulation tools, to enhance disaster preparedness and response. The research emphasizes the importance of scenario building and the use of innovative simulation technologies in preparing for disasters. Traditional training methods often lack the dynamism needed to simulate real-world disaster scenarios, leaving professionals unprepared for the complexities they may face. A review of the educational offerings across partner countries, also depicts that there are few opportunities that address topics of advanced technologies usage and community engagement. For example, respondents across all partner countries highlighted a lack of training in leveraging advanced tools.
- **Context-Specific Approaches based on each country:** The research stressed the importance of tailoring DRM strategies to the unique geographical, social, cultural and economic characteristics of different countries. This is particularly attributed to the various needs, usual disaster situations, and management structures in responding to disaster situations across partner countries. For this reason, training materials that also include case studies of disaster scenarios based on each country's needs can be extremely useful. Additionally, different social and cultural aspects should be taken into account according to each country. For example, focus group responses in Belgium highlighted the need for the improvement of mental health and well-being of professionals working across all DRM sectors; in Cyprus likewise in Slovakia and Greece, there is a strong need for enhancing awareness of collaboration systems between professionals, authorities, and volunteer groups, equipping professionals with problem-solving skills including decision-making and communication skills during an occurrence of a crisis before a disaster escalates, and promoting a sense of involvement by professionals; in Greece, there is a need for training on the current legislation, operational actions and responsibilities as well as building trust to the authorities; in Italy, the research found a lack of disaster management strategies especially in urban and rural contexts which leads into the necessity to provide information on supportive plans and efficient collaboration plans.
- **Logistics Management:** The research also highlights the need for specialised knowledge in areas such as emergency logistics management, the protection of cultural heritage in disasters, and the management of complex disasters with cascading effects. The curricula address these needs by providing targeted training in each of these areas, ensuring that professionals have the expertise required to manage specific challenges within the DRM field. For example, the curricula include modules on emergency logistics, focusing on the efficient distribution and availability of resources during disasters.
- **Raising awareness and developing action plans for community engagement:** A strong emphasis is placed on the need to enhance public awareness and community engagement in DRM strategies, as founded by the research analysis across all partner countries. Participants in surveys and focus groups emphasized the need to build foundational awareness about preventing man-made disasters and coping with stress and uncertainty during such events.

Enhancing public understanding in these areas is essential for fostering resilient communities and more effective disaster preparedness and response.

- **Boosting motivation for professional development:** An important aspect of the training material is considered to be the need to motivate first-line responders to natural disasters, in order to boost preparedness and effective management of different disaster scenarios. Focus group and survey respondents highlighted the importance of addressing ethical concerns such as environmental protection, human rights, and fairness.

The main aim of the curriculum is to provide training tools and activities for professionals to gain skills on:

1. **Core Competencies in Disaster Risk Management (DRM):** Mastery of fundamental DRM principles, with a focus on leveraging cooperation techniques and advanced technologies.
2. **Participatory Planning and Emergency Preparedness:** Proficiency in engaging communities in participatory planning processes and readiness activities to enhance emergency preparedness.
3. **Policy Integration for DRM:** Ability to integrate DRM into various policy-making areas, facilitating the creation of cross-sectoral policies that address diverse risk factors.
4. **Tailored DRM Planning:** Skills in customizing DRM tools and approaches to suit the unique spatial, social, and economic characteristics of different regions.
5. **Problem-Solving and Implementation of DRM Measures:** Expertise in identifying and addressing challenges in DRM and applying practical solutions to effectively implement risk management measures.
6. **Preparedness for Natural, Technological, and Anthropogenic Disasters:** Specialised knowledge in managing preparedness and response to various disaster types, including natural, technological, and human-made hazards.
7. **Scenario Building for Disaster Preparedness and Management:** Capability to design realistic and challenging scenarios that simulate potential disaster events for enhanced preparedness and management.
8. **Innovative Training and Simulation Technologies:** Proficiency in utilizing novel technologies for training and simulating disaster scenarios to improve preparedness and response efforts.
9. **Decision Support and Optimisation Technologies:** Skills in applying advanced technologies to optimize decision-making processes and support systems during disaster management.
10. **Safety and Care for First Responders:** Techniques to ensure the safety, health, and post-event care of first responders, along with best practices for their well-being.
11. **Inclusive DRM for Vulnerable Populations:** Competence in working with people with disabilities during disasters, ensuring inclusive DRM strategies that address the needs of all community members.
12. **Media Relations in DRM:** Strategies for effective media engagement in disaster risk management, including communication before, during, and after a disaster.

13. **Citizen Training for Disaster Readiness:** Best practices for educating and training citizens on disaster preparedness, fostering a community culture of readiness.
14. **Emergency Logistics Management:** Expertise in managing emergency logistics, ensuring efficient distribution and availability of resources during disaster events.
15. **Protection of Cultural Heritage in Disasters:** Skills in safeguarding cultural heritage monuments and artifacts from disaster impacts, including risk assessment and mitigation strategies.
16. **Understanding Complex Disasters:** Knowledge of complex disaster dynamics, such as earthquakes and their cascading effects (e.g., tsunamis, landslides), and strategies for managing these multifaceted risks.
17. **Community Building Through Participatory DRM:** Ability to develop a strong, informed community that actively participates in and supports the outcomes of DRM projects.

3. Objectives of the theoretical content and technical specifications

Based on the project proposal the training contents will aim at equipping and training professionals on:

- Special topics on preparedness and management of natural, technological and anthropogenic disasters.
- Building realistic and challenging scenarios for disaster preparedness and management.
- Novel training and simulating technologies for disaster preparedness and management.
- Technologies for optimizing decision making and decision support systems.
- First responders' safety, health, and after event care – Technologies and procedures.
- Working with people with disabilities in disasters.
- Media and Disaster Risk Management.
- Optimum methods for training citizens in advance of a disaster.
- Emergency logistics.
- Protecting Cultural Heritage Monuments and Artifacts from disasters.
- Focusing on complex disasters such as earthquakes, triggering and cascading effects (e.g. tsunamis, landslides).
- Develop a community that will expect the results of our project.

Added to the above, the research findings from WP2 indicate an increased need to design a practical, relevant, and up-to-date professional training programme to enhance skills and capacities in the areas of prevention, preparedness, restoration and adaptation which will include the following aspects:

- Strengthening the fundamental DRM principles, with a focus on collaboration and the use of advanced technologies.
- Improving skills in engaging communities in planning and preparedness, fostering resilience at the local level.
- Promoting the integration of DRM into various sectors, ensuring a cross-sectoral approach to disaster management.
- Providing professionals with technological skills in scenario building and the use of innovative simulation technologies to prepare professionals for real-world disaster events.
- Equipping professionals with skills and capacities across specialised areas including emergency logistics, protection of cultural heritage, and managing complex disasters.
- Training professionals on current legislation, operational actions and responsibilities.
- Tailoring professional development opportunities based on each country's context-specific approaches, considering the unique geographical, social, cultural and economic aspects.
- Promoting soft skills for managing disaster scenarios and hazards such as communication, collaboration, problem-solving, decision-making and empathy, based on management and legislative structures of each country.
- Improving mental wellbeing as a rehabilitation process for individuals working as first-line respondents.
- Ensuring comprehensive professional development.
- Equipping professionals with inclusive DRM practices and citizen education, promoting a culture of preparedness within communities.

4. Structure of the content and technical specifications

In this section some important considerations about the curriculum are provided.

This curriculum is addressed to a wide range of audiences, from professionals in disaster risk management to the general public (persons that have never been educated about DRM). For this reason, a simple language has been kept to most of the text. Moreover, this document should not be considered as an academic course but as a vocational and educational training material to an audience that may have not acquire an academic degree.

It is structured into nine interconnected modules centered around the core themes of DRM. These modules are thoughtfully selected based on a comprehensive understanding of the complex, multifaceted nature of disasters and the vital need for both professionals and citizens to be well-informed and actively engaged in resilience-building efforts. By incorporating foundational concepts such as hazard identification, risk assessment, and the DRM cycle, the curriculum ensures that learners develop a common language and understanding essential for effective communication and coordinated action.

Alongside theoretical knowledge, the curriculum emphasizes practical skills, including emergency preparedness, response planning, community engagement and the application of advanced technologies. This equips learners with the tools necessary to anticipate, mitigate and respond to disasters efficiently. This balanced approach aims to foster a proactive mindset and operational competence across different sectors and community levels.

It follows a modular approach to help the reader to either follow the sequence of the modules. In this way, the modules can be used independently but at the same time are connected between them. In Table 1 the modules and sub-modules are presented in terms of the intended audience. Intended audience is simplified to experts and non-experts.

Furthermore, the curriculum recognizes the importance of inclusivity, long-term resilience, and the integration of innovative technologies in modern disaster management. Modules focusing on vulnerable populations, cultural heritage protection, and complex cascading disasters address critical gaps that often exacerbate disaster impacts on marginalized groups and infrastructure. Including lessons learned from recent major disasters and best practices ensures that learners can adapt successful strategies to diverse regional contexts. Overall, these topics were chosen to create a holistic educational framework that empowers professionals and citizens alike to understand, participate in, and enhance disaster risk reduction efforts, ultimately fostering safer, more resilient communities worldwide.

In addition, the curriculum is strongly connected to the DRM-FRAME technological platform which is the practical tool that introduces the reader to disaster risk management. The theoretical context of the curriculum presented herein is transformed into a practical application with specific examples through the DRM-FRAME e-platform enhancing the learning process. For each module (and sub-module) a different training methodology is followed as this is depicted in WP3 Activity A3 deliverable.

Table 1. Targeted audience per module and sub-module.

Module	Sub-module	Target audience
Module 1: Introduction to Disaster Risk Management	<i>Submodule 1.1: DRM Terminology</i>	Mainly non-experts
	<i>Submodule 1.2: Understanding the DRM Cycle</i>	Experts and non-experts
	<i>Submodule 1.3: The importance of Risk Assessment</i>	Experts and non-experts
Module 2: Emergency Preparedness and Response	<i>Submodule 2.1: Preparedness and Response – The Core Concept</i>	Experts
	<i>Submodule 2.2: Community Preparedness and Response</i>	Non-experts
	<i>Submodule 2.3: Emergency and Response Plan</i>	Experts and non-experts
Module 3: Community Engagement and Participation	<i>Submodule 3.1: Participatory Planning</i>	Experts and non-experts
	<i>Submodule 3.2: Community Engagement in Emergency Preparedness</i>	Experts and non-experts
	<i>Submodule 3.3: The impact of Disasters on Communities and mitigation strategies</i>	Experts and non-experts
Module 4: Advanced Technologies in DRM	<i>Submodule 4.1: Decision Support Systems (DSS)</i>	Experts and non-experts
	<i>Submodule 4.2: Use of Simulation Technologies</i>	Experts and non-experts
Module 5: Inclusive DRM and Vulnerable Populations	<i>Submodule 5.1: DRM for Vulnerable Groups</i>	Experts and non-experts
	<i>Submodule 5.2: Safeguarding Cultural Heritage</i>	Experts and non-experts
Module 6: Logistics and Resource Management in Disasters	<i>Submodule 6.1: Understanding Logistics in Disaster management</i>	Experts
	<i>Submodule 6.2: Logistics of Governmental, Local Community, Volunteer and Foreign Aid resources</i>	Experts
	<i>Submodule 6.3: Logistics for moving resources in Times of crisis</i>	Experts
	<i>Submodule 6.4: Resource Types and Interrelations</i>	Experts and non experts
	<i>Submodule 6.5: Challenges in Logistics and Resource management</i>	Experts
	<i>Submodule 6.6: Strategies for Improving Disaster Logistics</i>	Experts
	<i>Submodule 6.7: Practical applications of disaster logistics and Lessons Learned</i>	Experts and non-experts
Module 7: Major Disasters of the 21st Century	<i>(No sub-modules – entire module content)</i>	Experts and non-experts

Module 8: Good Practices and Lessons Learnt	<i>(No sub-modules – entire module content)</i>	Experts
Module 9: Practical Considerations for Risk and Disaster Management	<i>Submodule 9.1: Implementing Risk Management Plans</i>	Experts
	<i>Submodule 9.2: Field Operations in Disaster Response</i>	Experts
	<i>Submodule 9.3: Managing the Emotional and Social Dimensions of Disasters</i>	Experts

Disaster Risk Management and Civil Resilience (DRM-FRAME) curriculum structure and main content

Module 1: Introduction to Disaster Risk Management

- *Content Outline:* This introductory section provides the definitions of the essential terms used in Disaster Risk Management (DRM), such as hazard, vulnerability, resilience, mitigation, preparedness, recovery etc. It also covers commonly used acronyms and abbreviations (e.g., DRR, DSS, VCA), ensuring that learners are familiar with the foundational language of the field. It also delves into the disaster management phases and policy instruments for effective disaster management planning. Finally, it provides the principles behind risk assessment, including hazard identification, vulnerability analysis, and risk evaluation. Learners will be introduced to tools such as Geographic Information Systems (GIS) for mapping risks and assessing vulnerabilities in different regions. A focused section on how to assess vulnerabilities within communities, infrastructures, and ecosystems is also presented. Practical guidance is provided on applying these assessments to build comprehensive risk management plans that address both short-term risks and long-term vulnerabilities
- *Purpose:* This module aims to establish a common understanding of critical terminology, facilitating smoother communication and learning throughout the program. It establishes a basic (for non-experts) and common understanding of the Disaster Risk Management Cycle. Finally, it creates an understanding of risk assessment methodologies, key functions and tools.

This module is divided into the following three sub-modules:

- **Submodule 1.1: DRM Terminology**
- **Submodule 1.2: Understanding the DRM Cycle**
- **Submodule 1.3: The Significance of Risk Assessment**

Module 2: Emergency Preparedness and Response

- *Content Outline:* This submodule focuses on emergency preparedness and response providing the key information including immediate actions to safeguard lives, the role of response teams, the significance of training, the collaboration and communication among the stakeholders, the key elements of an emergency and response plan and guidelines on how to create realistic disaster scenarios. This submodule will explore strategies for inter-agency cooperation, community outreach, and media engagement during disasters. It includes real-world examples of successful and failed communication strategies in disaster scenarios.
- *Purpose:* This module aims to establish a common understanding of emergency and response operations. The goal of the module is to provide non-experts with the basic understanding of these operations, while for the professionals to gain the

necessary knowledge on creating realistic scenarios and develop their own emergency response plans.

This module is divided into the following three sub-modules:

- **Submodule 2.1: Preparedness and Response – The core concept**
- **Submodule 2.2: Public Preparedness and Response**
- **Submodule 2.3: Emergency Preparedness and Response plans**

Module 3: Community Engagement and Participation

- *Concept:* The module trains learners in participatory planning techniques, enabling communities to actively contribute to disaster preparedness and risk reduction. Examples of successful community engagement programs are analyzed. Practical strategies for involving local communities in emergency preparedness activities are described. It highlights the role of public education campaigns, community drills, and participatory mapping in building resilient communities. This section explores the lingering effects of disasters on communities, including economic disruption, social fragmentation, and psychological impacts. It provides strategies for mitigating these long-term effects through sustainable recovery and resilience-building programs.
- *Purpose:* This module equips learners with the essential knowledge in a) Participatory Planning, b) Community Engagement in Emergency Preparedness and c) Long-Term Effects of Disasters on Communities.

This module is divided into the following three sub-modules:

- **Submodule 3.1: Participatory Planning**
- **Submodule 3.2: Community Engagement in Emergency Preparedness**
- **Submodule 3.3: Long-Term Effects of Disasters on Communities**

Module 4: Innovative Technologies in DRM

- *Content Outline:* This module introduces new technological solutions that are currently available in the topic of disaster risk management such as decision support systems (DSS). It provides an overview of the latest technologies and their applications in real-time disaster response and recovery decision-making. A detailed look at how cutting-edge simulation technologies, including AI and machine learning models, are transforming disaster preparedness and management. This section highlights key tools for creating dynamic disaster scenarios and training professionals in adaptive responses.
- *Purpose:* The purpose of the module is to provide trainees with basic knowledge on existing technologies in the disaster risk management domain.

This module is divided into the following two sub-modules:

- **Submodule 4.1: Technology in Disaster Risk Management**
- **Submodule 4.2: Use of Simulation Technologies**

Module 5: Inclusive DRM and Vulnerable Populations

- *Content Outline:* This module explores how DRM strategies can be tailored to meet the needs of vulnerable populations, such as the elderly, people with disabilities, and marginalized communities. Learners are being provided with tools to ensure equity and inclusiveness in DRM planning. Practical guidance is given on protecting cultural heritage from disaster impacts. This section highlights risk assessment methodologies for cultural heritage sites and discusses strategies for safeguarding artifacts and monuments in disaster-prone regions.
- *Purpose:* This module targets to enhance the knowledge of the trainees on strategies being followed for vulnerable populations, to provide basic knowledge on how to ensure equity and inclusivity, to provide practical guidance on how to protect and conduct risk assessment to cultural heritage monuments and sites.

This module is divided into the following two sub-modules:

- **Submodule 5.1: DRM for Vulnerable Groups**
- **Submodule 5.2: Safeguarding Cultural Heritage**

Module 6: Logistics and Resource Management in Disasters

- *Content Outline:* This module provides an understanding of the logistical challenges of disaster management, including resource allocation, supply chain management, and coordination between agencies. It targets on progressing learners from a general knowledge and awareness of disaster risk management (DRM) to an understanding of the critical processes involved in the logistics and resource management necessary for effective disaster response. Learners explore tools and best practices for ensuring the efficient distribution of aid and resources during disasters. The module focuses on the essential elements of logistics, emphasizing their importance in disaster preparedness, response, and recovery. It examines the interconnected roles of governmental resources, local community assets, and volunteer contributions, offering actionable insights for policymakers, responders, and the general public. An advanced module on managing complex disaster scenarios, such as earthquakes triggering tsunamis or landslides is also described. It emphasizes the importance of interdisciplinary coordination and advanced planning for cascading effects.
- *Purpose:* to provide an understanding of logistics in DRM, the challenges that may occur and to enhance skills and competencies of the trainees in this field. Learners

will have a comprehensive understanding of how logistical frameworks support disaster response operations. Practical strategies for overcoming challenges, including disruptions and contingencies inherent in disasters, will equip participants to optimize resource allocation and movement under adverse circumstances.

This module is divided into the following two sub-modules:

- **Submodule 6.1: Understanding logistics in disaster management**
- **Submodule 6.2: Logistics of Governmental, Local Community, Volunteer and Foreign Aid resources**
- **Submodule 6.3: Logistics for moving resources in Times of crisis**
- **Submodule 6.4: Resource Types and Interrelations**
- **Submodule 6.5: Challenges in Logistics and Resource management**
- **Submodule 6.6: Strategies for Improving Disaster Logistics**
- **Submodule 6.7: Practical applications of disaster logistics and Lessons Learned**

Module 7: Major Disasters of the 21st Century

- *Content Outline:* A review of recent significant disasters (e.g., Hurricane Katrina, the 2004 Indian Ocean tsunami, and the 2020 Australian bushfires). This module presents briefly what went wrong, what worked well, and how these lessons can be applied to future disaster preparedness and response.
- *Purpose:* This module aims to provide the reader with an understanding of the complex nature of disaster management, their potential impacts and existing problems through real case studies.

Module 8: Best Practices and Lessons learnt

- *Content Outline:* A summary of best practices in disaster risk management, focusing on strategies that have been successfully implemented in various global contexts. This submodule provides a framework for adapting these practices to different regional and sectoral needs.
- *Purpose:* to provide knowledge in various aspects of disaster risk management, practices that have worked well in the past and means and tools to mitigate risk through real case-studies.

Module 9: Practical Considerations for Risk and Disaster Management

- *Content Outline:* Practical steps for translating risk assessments into actionable risk management plans. This submodule includes guidelines on establishing response teams, securing resources, and coordinating with governmental and non-

governmental organizations. Hands-on strategies for managing disaster response in the field. This submodule covers essential topics such as rapid needs assessments, resource allocation, and the management of emergency shelters, medical services, and relief efforts. This section covers strategies for addressing the emotional and social impacts of disasters on individuals and communities, including psychological first aid, trauma-informed care, and community rebuilding initiatives.

- *Purpose:* to provide foundational knowledge to the practical application of Disaster Risk Management (DRM) strategies (from theory to practice). This module equips the learner to understand and contribute towards DRM practices effectively in real-world scenarios offering essential skills needed for responding to disaster events with confidence, caution, and preparedness. The module targets on enhancing the understanding of risk management, through awareness.

This module is divided into the following three sub-modules:

- **Submodule 9.1: Implementing Risk Management Plans**
- **Submodule 9.2: Field Operations in Disaster Response**
- **Submodule 9.3: Managing the Emotional and Social Dimensions of Disasters**

5. From theory to practice

This curriculum is designed to provide the basic knowledge of disaster risk management to non-experts and the potential to disaster risk management professionals to delve deeper into it, at their own pace. The document enables readers to examine carefully and study more thoroughly specific topics that are of interest to them.

This document is not intended to be a university lesson and cannot substitute one. It does not get into much detail of a specific disaster risk management topic. It addresses Vocational and Educational Training on a large and diverse target group.

Moreover, the curriculum is designed to provide a theoretical background in disaster risk management enhanced with some examples and a few case studies, followed by best practices and lessons learned as well as the problems that emergency responders face to their daily work.

The main target for the DRM-FRAME consortium is to encourage the reader to move from traditional educational practices (e.g., reading of a book) to modern ones by using the technological platform of the DRM-FRAME project to put into action and understand easier the content of this document. Thus, this document provides only the objectives, the structure and the main topics of the curriculum. The main educational material will be available in the e-learning platform.

The DRM-FRAME project platform is an easy, open-access platform based on open-source code, that can be used by anyone with free access to it. The users have the capability to overview data from specific characteristic events that happened in the past and impacted society. These events come across Europe and the users can read the modules independently, have the capacity to study the events on a web-GIS environment and test themselves through online quizzes.



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