

## Disaster Risk Management and Civil Resilience

### DRM-FRAME

**Work Package:** WP3-Proposal for a Disaster Risk Management framework

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## The DRM-FRAME project

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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 of civil protection professionals at local, regional and national level, vocational trainers, volunteer associations and other stakeholders.

The consortium composed of 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, national and EU level.

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 the multiplier events in all partner countries.

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## Abbreviations

*Table 1. List of Abbreviations.*

Abbreviation	Explanation
DRM	Disaster Risk Management
Copernicus EMS	Copernicus Emergency Management Service
WebEOC	Australia's Department of Health's crisis information management system
ADAM	Automated Disaster Analysis and Mapping Program
VET	Vocational Education and Training
WP	Work Package

## 1. Introduction

The current report presents and summarizes the major findings and answers that resulted from the evaluation of the curriculum developed in WP3. Results of the evaluation will be used for improvements of the curriculum. The aim was to gather comprehensive criticism and constructive feedback from a diverse range of respondents across all participating countries. This deliberate inclusion of geographically dispersed respondents from varied backgrounds was crucial for ensuring an objective and thorough evaluation of the curriculum's strengths and weaknesses. The diverse perspectives aimed to foster insightful suggestions for enhancing the curriculum's content, making it more responsive to the practical needs of professionals in the field and the broader societal demands related to disaster risk management.

To achieve this comprehensive evaluation, four key stakeholders groups were identified and engaged:

- Experts in Disaster Risk Management with extensive knowledge and experience in the field.
- Human Resources Managers, i.e. individuals responsible for workforce development and training needs assessment within organizations offering insights into employer expectations.
- VET Educators/Trainers involved in vocational education and training, providing perspectives on the curriculum's suitability for practical application and skills development.
- Citizens representing the needs and concerns of the community at large.

From the initial project proposal, experts in Disaster Risk Management, Human Resources managers and VET Educators/Trainers were designated as the primary evaluation group for quality check. The Key Performance Indicator (KPI) was set at a minimum of two (2) external evaluators of the above three first categories per participating country. During the implementation, it was deemed necessary to expand the evaluation of the curriculum to citizens as well.

In total, 36 independent evaluations were collected from the five participating countries represented by the consortium partners. More specifically, 9 experts in the DRM field, 9 human resources, 11 VET educators/trainers and 7 citizens, thus covering also the respective KPI.

During the evaluation, instead of 30 external evaluators, it was managed to collect 29 answers. This slight shortfall was more than compensated for by the addition of 7 responses from citizens. Therefore, the project team considers the quality KPI to have been successfully achieved.

To facilitate the evaluation process and ensure that the feedback gathered was relevant and targeted, four distinct online questionnaires were designed.

- Questionnaire for Experts in Disaster Risk Management (<https://forms.office.com/e/pE5ayH92jL>).
- Questionnaire for Human Resources Managers (<https://forms.office.com/e/5qgF4xigLp>).
- Questionnaire for VET Educators/Trainers (<https://forms.office.com/e/ecA88cSrhq>).
- Questionnaire for Citizens (<https://forms.office.com/e/wVy3nrLEQp>).

Led by the University of Thessaly (UTH) and carefully reviewed by all project partners, these questionnaires were tailored to the specific roles and perspectives of each stakeholder group. This ensured that the evaluation process yielded meaningful and actionable insights for curriculum improvement.

The questionnaires were composed of some descriptive questions and multiple-choice questions that expressed the respondents' opinion and satisfaction with the curriculum. The goal was to create a questionnaire that is easy to be answered by the external evaluators.

The evaluation process adheres to the rules that arise from GDPR and ethics, as the questionnaire and the proposed curriculum were sent to each respondent with an accompanying Information Sheet providing important information about the project and the process of evaluation. Finally, the beginning of the evaluation encompassed necessary questions related to their consent.

All questionnaires consist of a generic section that is related to the consent of the evaluators with the following questions:

- I have carefully read and understood the Information Sheet for Processing of Personal Data related to the Online Questionnaire regarding the evaluation of the questionnaire.
- I wish to participate in the DRM-FRAME online questionnaire.
- I am aware of my rights, I have been given the contact details of the responsible person and I consent to the processing of my personal data for the purpose and under the conditions explained above.

Following, some generic questions about the evaluators have been asked such as the country they work, their expertise and personal data. The personal data were asked for research purposes: a) the need to monitor the fulfillment of the KPI, and b) to communicate the evaluator in case some clarifications were needed. No further contact has been made as there was no need for further clarifications.

At this point it must be noted that the questionnaire related to citizens was fully anonymous without the collection of personal data.

This document is structured in the following way:

- Section 2 of this document provides the analysis related to the evaluation of experts in disaster management.
- Section 3 of this document provides the analysis related to human resources.
- Section 4 of this document provides the analysis related to VET educators and trainers.
- Section 5 of this document provides the analysis related to citizens.
- Section 6 provides overall conclusions and recommendations.
- Annexes with the questions set to the four types of stakeholders.

## 2. Experts in Disaster Risk Management evaluation results

The Questionnaire for Experts in Disaster Risk Management has been answered by 9 respondents. The respondents were carefully chosen by each partner. The aim was to distribute the developed material to experts in the field that are familiar with disaster risk management procedures and priorities. The way the questionnaire was structured is the following: initially, there were general questions regarding the profile of the respondents, followed by questions regarding the evaluation of the curriculum.

### Analysis

The analysis of the core questions concerned their level of satisfaction with the curriculum and suggestions for its improvement follows.

In relation to the question “*How many years of experience do you have in Disaster Risk Management?*” the survey results indicate a high level of expertise among respondents, as seen in Figure 1. A significant the majority possess over 10 years of experience in the field, In addition to this experienced core, one respondent reported 3-5 years of experience, while two others have 5-10 years of experience. The collective experience demonstrated by these figures suggests a strong understanding of DRM principles, practices, and challenges. This substantial and varied background makes the respondents particularly well-suited to participate in the curriculum evaluation process. Their insights are likely to be informed by practical, real-world considerations, leading to accurate and nuanced feedback that can be effectively tailored to meet the current and future needs of DRM professionals(Figure 1).

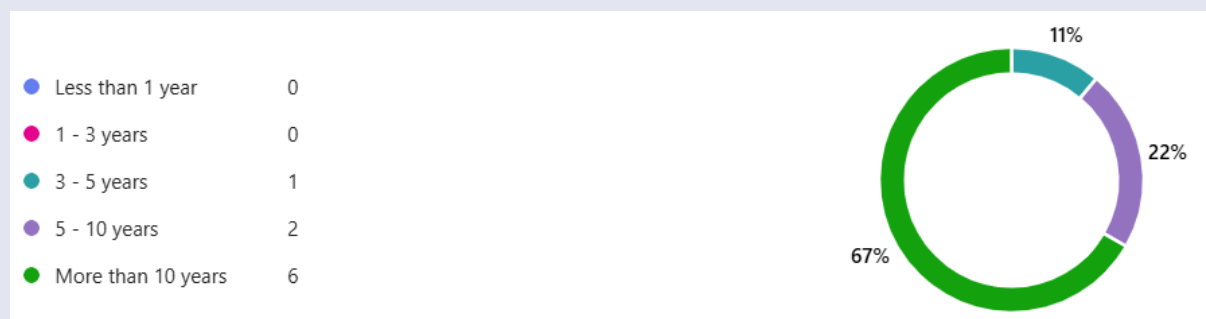


Figure 1. Classes of experience in terms of years for “Experts” class of evaluators.

Regarding the geographical distribution of the evaluators and their working country, the survey reveals a diverse representation from across Europe. 4 respondents are based in Greece, 2 in Slovakia, 2 in Belgium, and 1 each in Cyprus and Italy, respectively.

This geographical spread of respondents is valuable as it offers a multi-faceted perspective on disaster risk management. Understanding DRM practices and challenges in different countries allows for a more objective and nuanced assessment of its impact and potential areas for change. The experiences of evaluators in diverse regulatory and cultural contexts can provide valuable insights into the effectiveness and fairness of DRM implementation across various European nations. This breadth of experience can help identify best practices and areas where improvements are needed to ensure DRM is implemented effectively and ethically.

Regarding the question of how relevant the overall curriculum is to current disaster risk management practices, the data indicates a strong positive perception (Figure 2). A significant majority of respondents find the curriculum to be **highly relevant**, suggesting a direct connection between the content taught and the practical application in the field. Further bolstering this positive assessment, an additional 33% of respondents believe the curriculum is **relevant**. The concurrence of these figures – a substantial majority finding the curriculum very relevant and a significant portion considering it simply relevant – strongly suggests that the curriculum content has been developed on a realistic basis, likely incorporating current best practices and addressing the actual challenges faced in contemporary disaster risk management. This indicates that the curriculum effectively prepares students for real-world scenarios and contributes meaningfully to their understanding and application of disaster risk management principles (Figure 2).

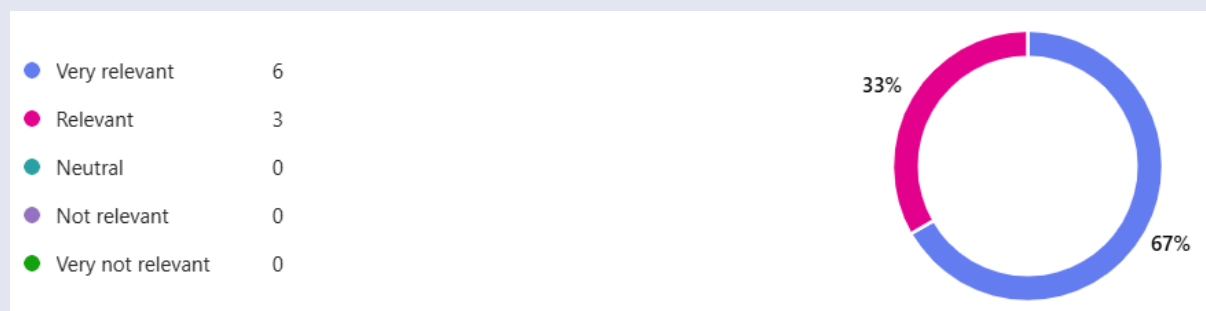


Figure 2. Relevance of the curriculum to current disaster risk management practices according to “Experts in DRM”.

Regarding the question of “Which modules do you think are the most relevant?” (Figure 3) Module 3 (Community Engagement) is the most frequently selected answer, appearing 8 times. This underscores the perceived crucial role of community involvement in DRM. Following closely are Module 2 (Emergency Preparedness and Response) and Module 9 (Practical Considerations) both cited 7 times, highlighting the significance of proactive planning and real-world application of knowledge. Advanced Technologies in DRM (Module 4) and Best Practices and Lessons learnt (Module 8) each appear 6 times, indicating a strong interest in leveraging technological advancements and learning from past experiences. Module 5 (Inclusive DRM and Vulnerable Populations) and 6 (Logistics and Resource Management in Disasters) while appearing slightly less frequently at 5 times each, still demonstrate a considerable emphasis on equitable approaches and efficient resource allocation. Module 1 (Introduction to DRM) and Module 7 (Major Disasters) are mentioned fewest times (4 times each), possibly suggesting a foundational understanding of these topics or a perceived need for more specialized knowledge. Analyzing the selected responses reveals a clear emphasis on emergency preparedness, community participation, and practical operations. This preference underscores the need for training programs that incorporate hands-on practices, foster operational preparedness, and promote participatory approaches. In essence, the responses highlight that the foundation of successful disaster management for experts is comprised of the engagement of the community, emergency preparedness and response, practical considerations, best practices, advanced tools, logistics and inclusivity. These modules are not merely academic; they are closely related to the practical requirements of planners, crisis responders, and impacted communities (Figure 3).



Figure 3. Relevance of curriculum modules to DRM based on experts' opinion.

Furthermore, the study reveals a high level of satisfaction with the content and structure of the modules, further reinforcing the positive feedback received. Specifically, 5 of them believe that the clarity of the module objectives and learning outcomes are excellent while 4 rated them as good, as shown in Figure 4.

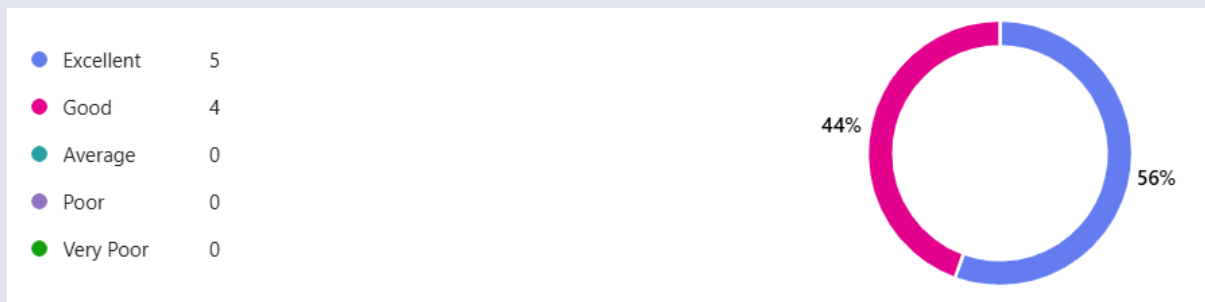


Figure 4. Clarity of modules objectives and learning outcomes based on experts' opinions.

In an effort to identify potential points for improvements, the experts were asked to highlight any modules they found confusing or difficult to follow. Analysis of the responses revealed a perception that some modules present a greater challenge than others. Specifically, Module 4 - Advanced Technologies in DRM, Module 7 - Major Disasters of the 21st Century, and Module 8 - Best Practices and Lessons Learnt, were each cited twice as being potentially problematic. In addition, Module 1, Module 2, Module 5, and Module 9 were each mentioned once as areas where students experienced some difficulty (Figure 5). Based on the answers given, some characteristic answers of the respondents are given:

*“The modules are not confusing and they are easy to follow.”* (indicating a positive experience for some learners)

*“There is the need for presenting extra types of disasters.”* (suggesting a desire for broader coverage)

*“In Module 4 more examples need to be added, because the terminology used, combined with the required background knowledge, makes the chapter difficult to understand.”* (highlighting a need for clearer explanation and contextualization of complex concepts)

*“Module 7 focuses on major disasters in a descriptive way and lacks the presentation of the disaster in combination with previous lessons learnt.”* (indicating a preference for integrating practical application and analysis with descriptive content)

*“Module 8 focuses on best practices by presenting many examples which could confuse learners.”* (suggesting a need for more focused and organized presentation of information)

These answers indicate that the overall concept and modules are well defined. Nevertheless, targeted improvements, such as the incorporation of more concrete examples, relevant case studies, and enhanced contextualization, could significantly improve the clarity and accessibility of specific modules, ultimately leading to a more effective and engaging learning experience for all students.

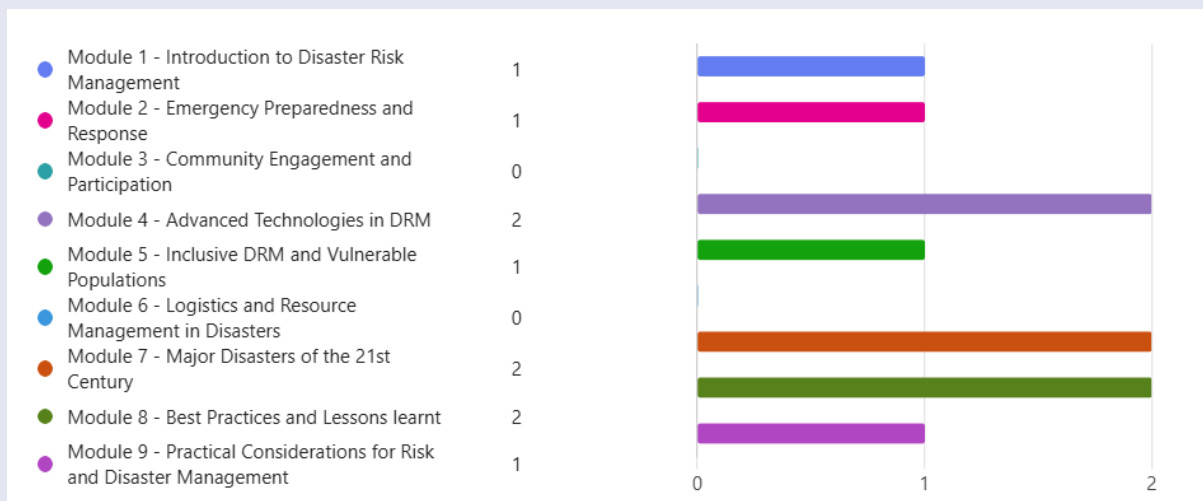


Figure 5. Modules which are difficult to be followed based on the opinion of experts in DRM.

Regarding the question *“Do you believe the content prepares professionals for real-world applications in DRM?”* the feedback received is extremely positive as all respondents answered positively (“Yes”). All respondents believe that the content prepares professionals for real-world applications (Figure 6). This unanimous agreement strongly suggests the project's success in curating and delivering impactful content. The positive response underscores the effectiveness of the chosen materials, the presentation of diverse case studies, the incorporation of best practices, and the sharing of valuable lessons learned. The content appears to successfully bridge the gap between theoretical understanding and practical application, instilling confidence in professionals facing real-world DRM challenges.

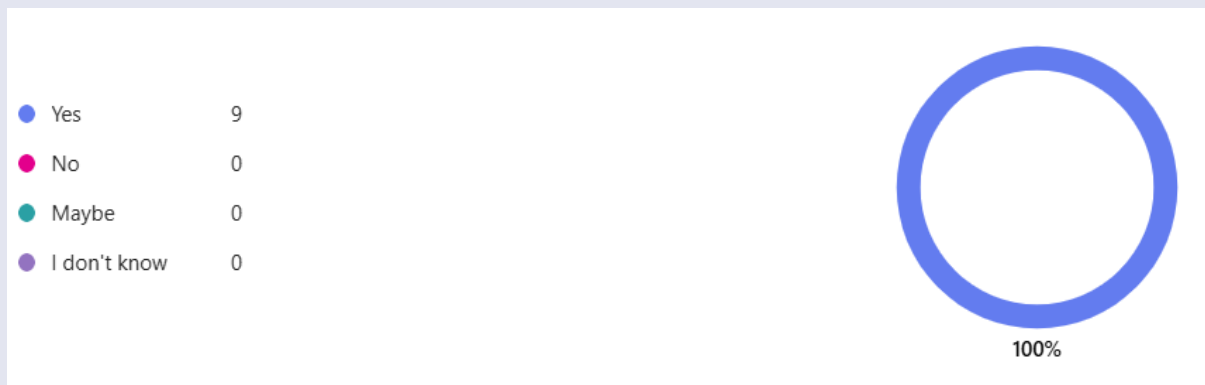


Figure 6. The experts' opinions on whether the content prepared professionals for real-world applications.

Figure 7 Based on the expert's validation questionnaire, a clear hierarchy of module prioritization emerged for enhancement. Modules 4 (Advanced Technologies in DRM), 5 (Inclusive DRM and Vulnerable Populations), and 6 (Logistics and Resource Management in Disasters) were identified as requiring the most attention, each cited four times by experts. This suggests a significant need to strengthen these modules. Module 9 (Practical Considerations for Risk and Disaster Management) was also highlighted as important, receiving two mentions. The rest of the modules, Module 2 (Emergency Preparedness and Response), Module 7 (Major Disasters of the 21st Century), Module 8 (Best Practices and Lessons Learned), Module 1 (Introduction to DRM), and Module 3 (Community Engagement and Participation), each received only one mention, indicating a lesser perceived need for immediate revision. Consequently, the analysis strongly suggests that Modules 4, 5, and 6 should be prioritized for enrichment with real-world case studies and practical examples (as illustrated in Figure 7). Incorporating such concrete illustrations is expected to significantly improve the clarity, comprehensibility, and overall effectiveness of these modules for learners. This focused approach will allow for a more efficient allocation of resources towards enhancing the most critical areas of the DRM curriculum.



Figure 7. Modules that need to be enriched with real-world examples.

The most beneficial, for practitioners in the field, modules according to the opinion of the experts are the following: *Module 2-Emergency Preparedness and Response, Module 9-Practical Considerations for Risk and Disaster Management.*

Also highly beneficial are considered the following: *Module 3-Community Engagement and Participation, Module 5- Inclusive DRM and Vulnerable Populations, Module 6- Logistics and Resource Management in Disasters and Module 8- Best Practices and Lessons Learnt* (Figure 8). These module selections highlight the importance of operational planning for real-world scenarios, as well as the significance of participatory planning and decision-making processes within the field.



Figure 8. Most beneficial modules for practitioners in the field according to experts.

Experts in DRM identified the following gaps in the curriculum, in relation to their organization’s practices:

- limited coverage of technological disaster scenarios.
- insufficient emphasis on real-time coordination.
- underdeveloped content related to psychosocial support.
- absence of operational case studies in logistics and emergency coordination.
- absence of the latest policy changes.

Despite these identified gaps, there is a strong indication of interest among respondents in leveraging the curriculum within their respective organizations. A majority of the respondents (5) expressed a willingness to implement the curriculum, highlighting its potential value. Two respondents expressed uncertainty, potentially due to the need for customization or adaptation to meet specific organizational requirements. Conversely, two respondents indicated that the decision to adopt the curriculum lies outside their purview, suggesting that decision-making authority resides with other individuals within their organizations (Figure 9).



Figure 9. Answers to the question: "Are you willing to use the curriculum in your organization in the framework of continuous training of your personnel?"

The feedback regarding the integration of new technologies into the disaster management curriculum is overwhelmingly positive. All respondents agree that the curriculum effectively incorporates the latest technological advancements in the field. Specifically, 3 respondents rated the incorporation of these technologies as "excellent," while six rated it as "good." This consensus suggests a strong foundation in keeping the curriculum relevant and up-to-date with current industry practices. However, the presence of "good" ratings also implies room for enhancement. While the existing curriculum performs well, incorporating emerging and cutting-edge trends could further elevate its effectiveness and prepare students for the evolving landscape of disaster management. This indicates that with targeted adaptations and a focus on integrating these cutting-edge trends, the curriculum can be further refined to achieve an even higher level of excellence (Figure 10).

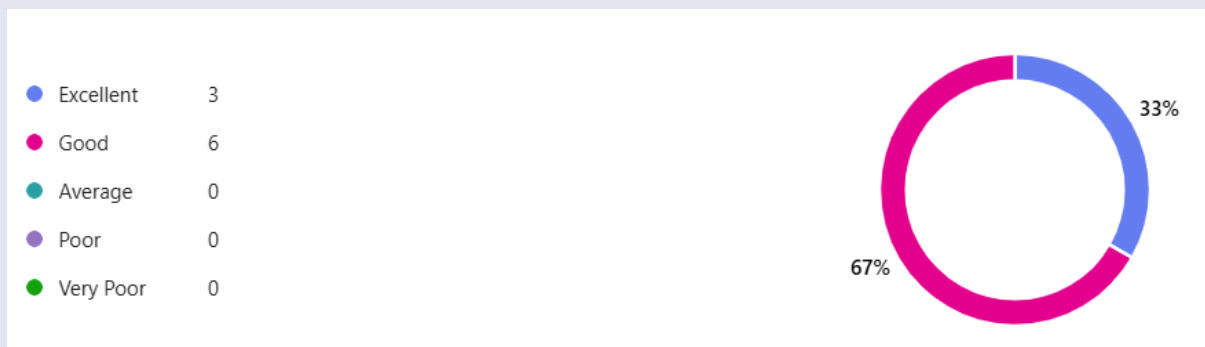


Figure 10. Answers from experts on how well the curriculum incorporates new technologies in DRM field.

Finally, experts mentioned the following technologies that could be included and described in the curriculum: Copernicus EMS, WebEOC, Databases, ADAM, high performance computing techniques for scenario development, digital twins and simulations at a territorial scale, simulation exercises for crowd psychosis management. The respondents indicate the need for tool-specific tutorials or demos and simulation-based learning activities that can improve the effectiveness of the modules and the smooth understanding of the processes. The latter suggestions have been considered for the e-learning environment of DRM-FRAME.

### 3. Human Resources Managers evaluation results

The questionnaire for Human Resources Managers was answered by 9 respondents. The respondents were carefully chosen by each partner. The aim was to distribute the developed material to personnel being responsible for Human Resources in their organizations, as these are somehow involved in DRM procedures if an event (e.g., a natural disaster, a technological accident or even a terrorist event occurs and affects their organizations). As in the case of the experts questionnaire, this questionnaire was also structured in a similar way: initially, there were general questions regarding the profile of the respondents, followed by questions regarding the evaluation of the curriculum.

#### Analysis

The core questions related to the validation and evaluation of the curriculum, and potential improvements follow with their specific analysis.

In terms of the geographic distribution of the respondents from whom we received answers, we had representations from various countries. More specifically, 2 answers from Greece, 2 from Slovakia, 2 from Belgium, 2 from Cyprus and 1 from Italy, reaching, without significant difference, the KPI set out in the proposal phase of 10 people (2 from each partner country). The geographical distribution of the respondents provides insight into DRM, in different countries which can give various perspectives about needed changes in DRM. This diversity is crucial for ensuring that the evaluation of the modules is objective and takes into account various viewpoints from different regions and countries.

In addition to the geographic diversity, the respondents also varied in terms of their potential experience related to disaster risk management, the answers varying to all the available categories. 1 respondent has experience of more than 10 years in DRM, 2 respondents less than 1 year, 2 respondents 1-3 years, 2 respondents 3-5 years and 2 respondents 5-10 years. This enables them to provide an objective approach to the evaluation of the modules, by prioritizing different topics in DRM. This diversity is crucial for ensuring that the evaluation of the modules is objective and takes into account various viewpoints from different regions and countries.

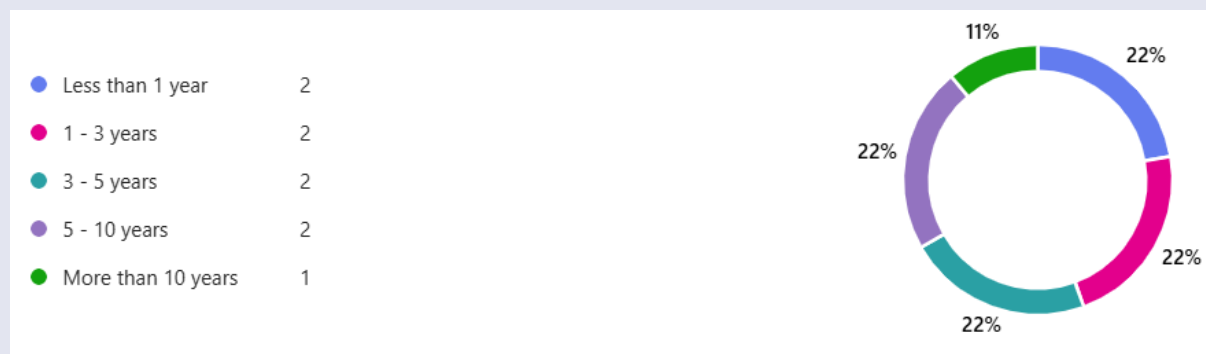


Figure 11. Years of experience related to disaster risk management for the human resources evaluator type.

Most of the respondents, 5 of them, believe that the curriculum is relevant and 4 respondents believe it is very relevant. The general feedback is positive, and these numbers prove that the curriculum development considered realistic needs that are met by human resources managers. These figures demonstrate a successful alignment between the curriculum's content and the practical skills and knowledge required in the field, confirming that the curriculum adequately prepares individuals for their roles as HR professionals.

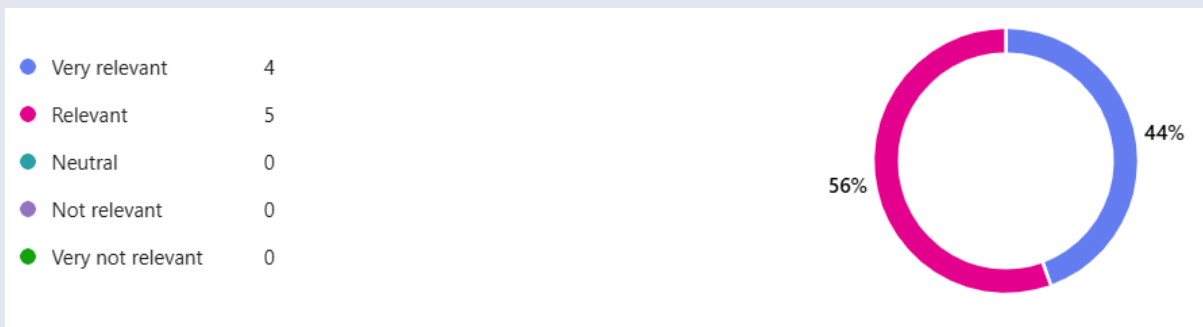


Figure 12. Relevance of the curriculum to DRM practices based on the human resources managers category.

*Module 2 (Emergency Preparedness and Response)* is the most frequently selected answer, appearing 8 times. This highlights a strong interest, and perhaps a perceived need, for knowledge and skills related to immediate actions and proactive measures during and after a disaster. Just behind *Module 1 (Introduction to DRM)* follows closely appearing 6 times, indicating a fundamental understanding of the importance of foundational knowledge in the field. *Logistics and Resource Management in Disasters (Module 6)* appears 5 times, reflecting the critical role of efficient resource allocation and management in effective disaster response. *Module 3 (Community Engagement)*, *Module 7 (Major Disasters)* and *Module 8 (Best Practices and Lessons learnt)* appear 4 times each. *Module 5 (Inclusive DRM and Vulnerable Populations)* and *Module 9 (Practical Considerations)* appear 3 times each, underscoring the value placed on community involvement, understanding the impacts of significant disasters, and learning from past experiences. Finally, *Module 4 (Advanced Technologies in DRM)* appears 1 time, underscoring the value placed on community involvement, understanding the impacts of significant disasters, and learning from past experiences. Overall, the distribution of selections reveals a clear pattern: emergency preparedness and response are perceived as paramount, complemented by a solid grasp of basic DRM concepts. The emphasis on logistics, community engagement, learning from past disasters, and considering vulnerable populations further suggests a focus on practical, people-centered approaches to disaster risk management. These preferences indicate a strong foundation for effective DRM training and implementation, particularly in preparing individuals and communities to respond effectively to emergencies and to educate others in these crucial aspects of DRM.

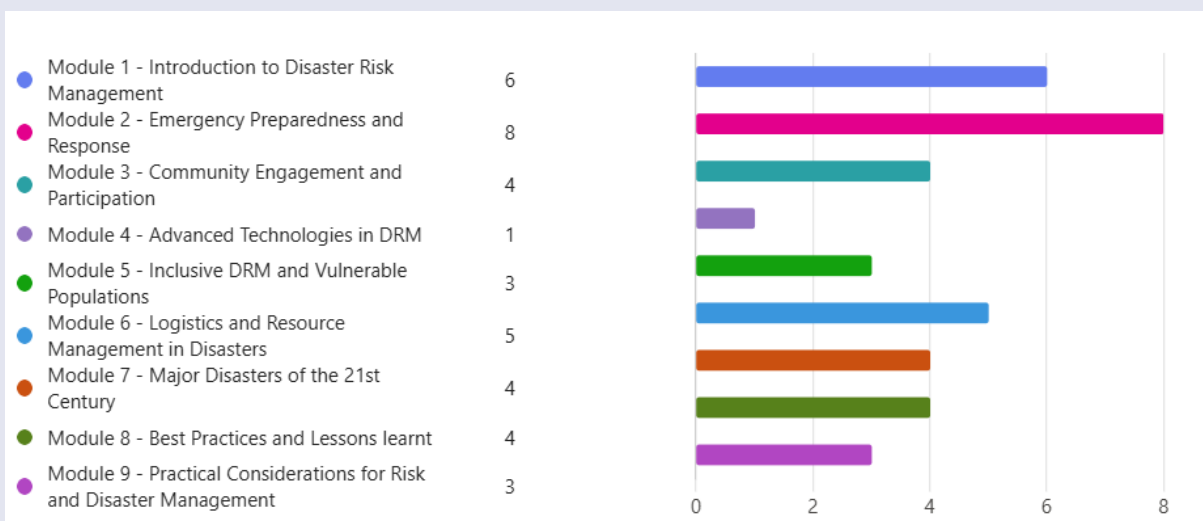


Figure 13. Most relevant to DRM modules, according to human resources managers' needs.

The respondents' choices for modules, as indicated in the preceding question, are grounded in the perceived practicality and crucial elements each offers for effective Disaster Risk Management (DRM). Specifically, Module 1 is deemed relevant due to its emphasis on foundational DRM knowledge. Respondents believe a shared understanding of these fundamental principles is essential for all stakeholders to effectively implement policies and adhere to established procedures within the field. Without this baseline knowledge, the efficacy of subsequent efforts could be compromised.

Module 2's focus on response actions and communication is also considered critically important. The respondents highlight its direct relevance to the successful execution of DRM procedures. Effective communication and well-coordinated response actions are seen as indispensable for mitigating the impact of disasters and ensuring a timely and appropriate reaction to evolving situations.

The importance of Module 3 stems from its focus on participatory planning. Respondents emphasize that a collaborative approach to DRM, involving diverse stakeholders, has been repeatedly validated over time. This participatory element ensures that plans are comprehensive, contextually appropriate, and enjoy broader community ownership, ultimately leading to more effective implementation and greater resilience.

Finally, Module 6 is considered relevant due to its spotlight on the often-neglected aspects of human resource coordination and resource allocation. Respondents recognize that these elements are vital for successful DRM yet frequently overlooked in traditional planning. By addressing these logistical and organizational challenges, Module 6 promises to improve the efficient deployment of resources and personnel, ultimately enhancing the overall effectiveness of DRM efforts. The inclusion of this module highlights a desire to move beyond theoretical frameworks and address the practical realities of implementation.

Furthermore, the perceived clarity of the modules' objectives and learning outcomes is overwhelmingly positive. The vast majority of respondents (7 out of 9) rated the clarity as "excellent", while the remaining 2 rated it as "good." This strong positive feedback indicates a high level of satisfaction with the way the modules are structured and the ease with which participants can understand the intended learning goals. In essence, the respondents express a strong consensus that the modules are well-defined, clearly articulated, and directly applicable to their needs and professional development in the field of DRM.

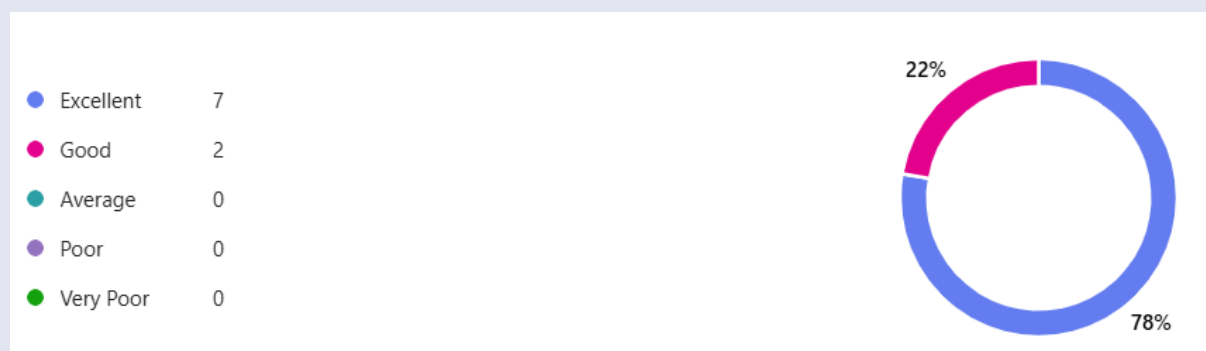


Figure 14. Clarity of modules objectives and learning outcomes according to human resources managers opinion.

Following the analysis, *Module 4 – Advanced Technologies in DRM*, stands out as the most challenging for participants, being mentioned 4 times as the most confusing to follow. *Module 7* and *Module 5* were mentioned 2 times. *Modules 2, 3, 6* and *9* were mentioned 1 time each. Clearly there is a need to improve the understanding of Module 4, specifically, the content of Module 4 may benefit from

simplification, clearer explanations of complex concepts, and potentially a restructuring of the information flow. Furthermore, *Module 5* and *Module 7* while not as problematic as *Module 4*, require attention to improve learner understanding. To address the specific issues identified in these modules, it is recommended to incorporate more case studies to illustrate the practical application of these concepts. Additionally, strengthening the concept definitions within these modules will provide a more solid foundation for learners to make them the material easier to understand. This combination of practical examples and clear definitions should contribute to a significantly improved learning experience for these modules.

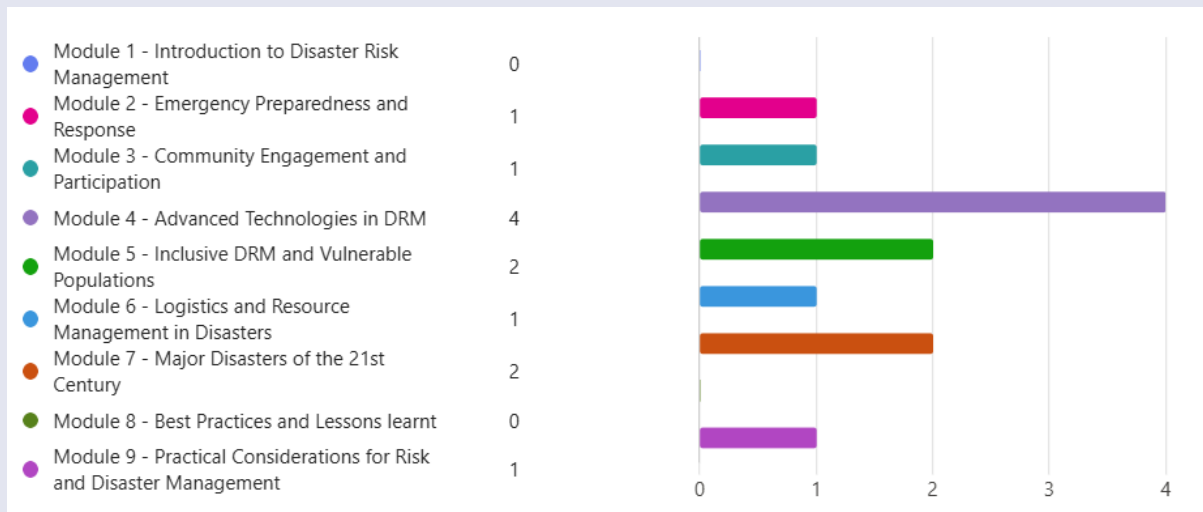


Figure 15. Modules difficult to follow according to human resources managers evaluators.

Module 4 presents a significant challenge for learners due to its reliance on pre-existing technical knowledge. The complex concepts and terminology can be difficult to grasp without a solid foundation in the relevant technical areas. To improve comprehension and engagement, the module should incorporate real-world case studies that demonstrate the practical application and tangible benefits of the presented tools in disaster scenarios. This could involve analyzing past disasters and showcasing how specific tools were effectively utilized to mitigate damage, improve response times, or save lives.

Furthermore, simplifying the content is crucial. Instead of overwhelming learners with a vast array of tools, the module should focus on a select few of the most widely used and impactful solutions. These core tools should be thoroughly explained with clear, concise definitions and illustrative examples. By focusing on a smaller, more manageable set of tools and providing context through real-world applications, Module 4 can become more accessible and easier for learners to follow, even without an extensive technical background.

Regarding the skills outlined in the curriculum about the hiring needs in disaster management, the feedback is positive. The majority of the respondents found that the skills outlined in the curriculum are very relevant to the hiring needs in DRM. It is also mentioned that the topics covered are various and meet contemporary needs in the field.

In addition to this, the majority of participants believe that most skills are covered in the curriculum. Some gaps focus on critical thinking, digital skills and decisiveness. Also, other suggestions include the following to be added: psychosocial support, cross-border collaboration, intercultural communication, digital crisis communication.

Key skills identified as essential for professionals working in DRM are the following:

- decision-making
- critical thinking
- effective communication under pressure
- technical skills like data analysis and digital skills
- teamwork and leadership
- calmness and adaptability

The majority of respondents believe that the curriculum addresses these skills very well (5 respondents) and 3 respondents believe that the current curriculum addresses these skills well. These answers are very positive and prove that the modules cover a great range of topics.

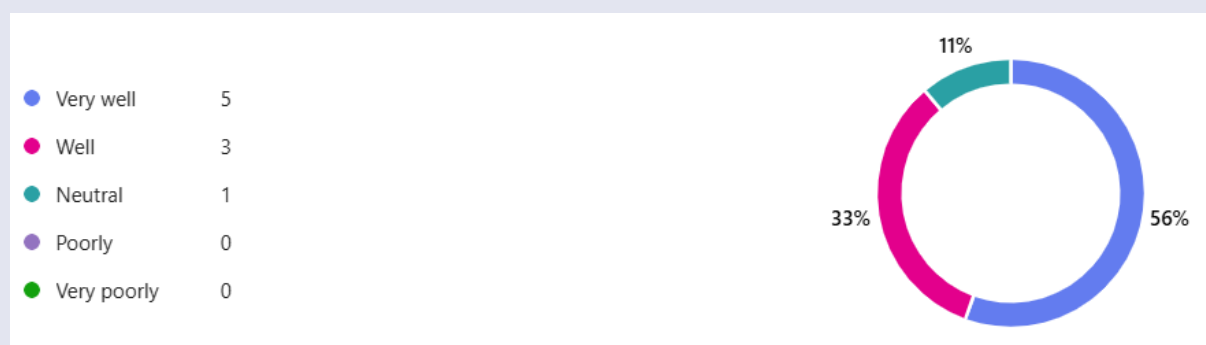


Figure 16. Opinion of human resources managers on how well the curriculum addresses various skills.

In most cases there is no need to change the content, because the skills are included. There is enough explanation in the modules with many definitions and examples that cover various topics, including skills and competences needed in the field.

Based on the answers of human resources managers the following competencies are not well covered in the current workforce:

- technical and digital skills
- soft skills
- real-time decision-making experience
- skills for working with vulnerable communities
- stress management
- mental health awareness
- community engagement
- crisis budgeting and financial planning under pressure.

Potential approaches to fill this gap to improve the curriculum could include:

- more hands-on training-including simulations
- scenario-based exercises
- real-world examples
- focus on mental health
- stress management
- staff wellbeing during disasters
- practices on working with vulnerable populations and intercultural collaboration

- practical training on digital tools
- crisis communication
- emergency financial procedures.

In the question “Do you believe that the curriculum provides sufficient opportunities for professional development?”, the majority of the respondents believe that the curriculum provides sufficient opportunities for professional development, which is very positive and makes us understand its importance for human resources field. This strong affirmation highlights the perceived value and significance of the curriculum in nurturing skills and competencies within the human resources field. However, one of them does not agree. The respondent that believes that the curriculum does not provide sufficient opportunities for professional development, suggests that a “*module for HR and finance*” people would be really helpful. It is suggested to include practical tools for emergency hiring, contracts during crisis, staff safety and quick procurement rules. Also, emphasis is given to training on how to coordinate with other sectors fast. These suggestions point to a desire for a more specialized and practical approach to professional development, equipping individuals with the skills to effectively manage HR and finance challenges in dynamic and often unpredictable circumstances.

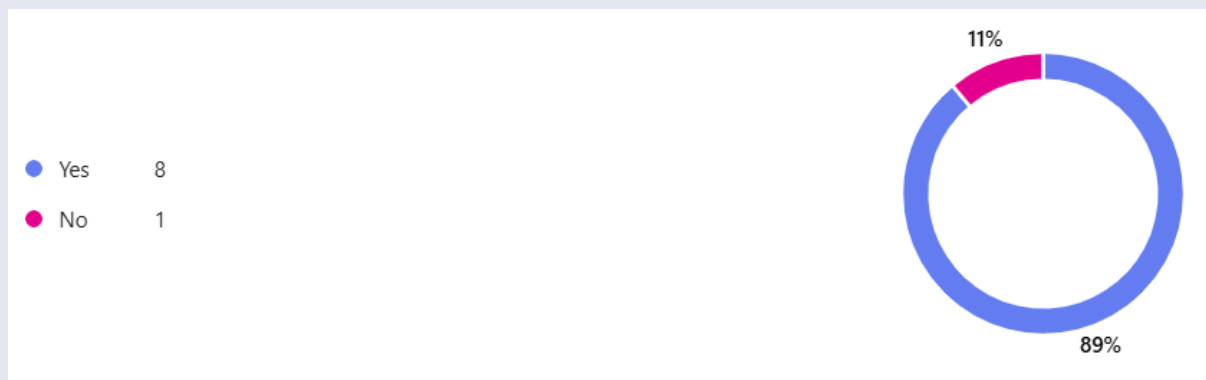


Figure 17. Answers to the question “Do you believe that the curriculum provides sufficient opportunities for professional development?”

Finally, in the question “How can organizations like yours collaborate with educational institutions to enhance the training of DRM professionals?”, according to the answers given, to enhance the training of DRM professionals, the organizations of the respondents can collaborate with educational institutions in the following ways: career guidance, workshops for professional development, long-term cooperation and international projects, practical training modules and joint simulation exercises, real world case studies. No additional comments have been made by the evaluators.

## 4. VET Educators/Trainers evaluation results

The Questionnaire for VET Educators/Trainers designed to gather feedback on the newly developed curriculum, was answered by 11 respondents. The respondents were strategically selected by each project partner to ensure a diverse representation of perspectives. The aim was to distribute the developed material to VET Educators/Trainers with or without experience in DRM procedures. As in the previous cases, the questionnaire is structured in two main parts: a) the first part focused on collecting general information regarding the profile of the respondents, including their background, experience, and current role within VET and b) the second part comprised of the core questions directly related to the evaluation of the curriculum’s content, structure, and overall effectiveness in equipping VET educators with the necessary skills and knowledge in DRM.

### Analysis

The core questions for the VET educators are related to the validation and evaluation of the curriculum, and potential improvements follow with their specific analysis.

In terms of geographic distribution of the respondents we received 2 answers from Greece, 2 from Slovakia, 2 from Belgium, 3 from Cyprus and 2 from Italy, fulfilling the KPI set out in the proposal phase of 10 people (2 from each partner country).

Regarding the experience of the respondents related to disaster risk management, four (4) of them poses extensive experience more than 10 years, suggesting a deep understanding of the field. Conversely, four (4) other respondents have experience in DRM less than 1 year potentially bringing fresh perspectives and insights. The remaining respondents fall into 1 to 10 years experience range, representing a balanced mix of established and developing expertise. These elements indicate the respondents' experience and strong background for the effective and comprehensive DRM curriculum evaluation. The combination of seasoned veterans, those with emerging experience, and those in between ensures that the curriculum will be assessed from multiple perspectives, leading to a more robust and insightful analysis.

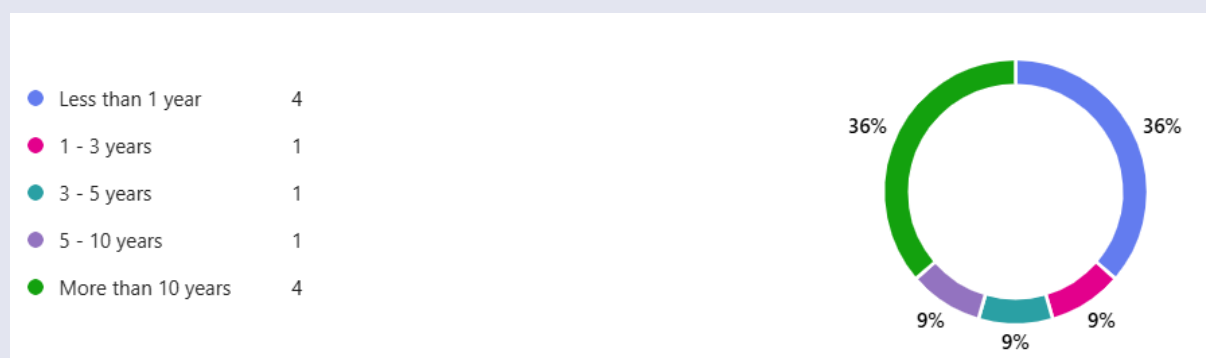


Figure 18. Experience of the respondents in disaster risk management.

The responses gathered indicate a generally positive perception of the curriculum's relevance. A significant majority of respondents, specifically 7 out of the total surveyed, expressed that the curriculum is "very relevant" to their needs or objectives. An additional 4 respondents indicated that the curriculum is simply "relevant." This combined feedback suggests that the curriculum content has been developed with a practical understanding of its application and impact, grounded in a realistic

assessment of what is needed by the end-users. The high proportion of positive responses reinforces the idea that the curriculum designers have successfully aligned the content with real-world requirements and expectations.

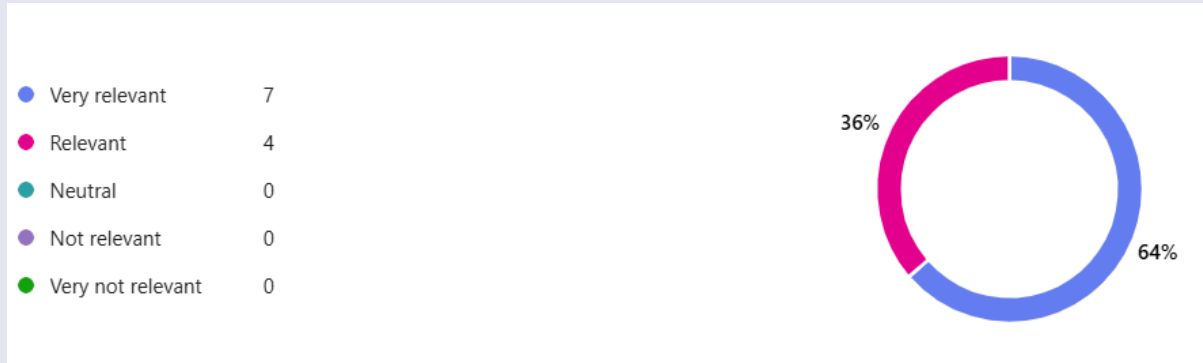


Figure 19. Relevancy of the curriculum to disaster risk management according to VET Educators/trainers.

*Best Practices and Lessons learnt (Module 8)* is the most frequently selected answer (selected 7 times). Professionals clearly value real-world case studies and the actionable insights gleaned from past disasters. This emphasis suggests a desire to avoid repeating mistakes and to leverage successful strategies in future DRM efforts. *Module 2 (Emergency Preparedness and Response)* and *Module 3 (Community Engagement)* appear 6 times. The prominence of Module 2 reflects the critical need to be ready for immediate action in the face of a disaster, covering topics like coordination, resource allocation, and initial rescue operations. The equal weighting of Module 3 emphasizes the shift towards participatory DRM, recognizing that successful disaster management hinges on actively involving and empowering local communities. This highlights the understanding that local knowledge, needs, and resources are crucial components of effective risk reduction and response. *Inclusive DRM and Vulnerable Populations (Module 5)* is also selected 5 times. This module likely provides valuable insights into identifying and addressing the unique needs of vulnerable populations, promoting equity and ensuring no one is left behind in DRM initiatives. *Module 7 and Module 1* are selected 4 times, and the other modules are selected 3 times each, also contribute to a well-rounded understanding of the field. From the selected answers we can understand the importance given to real case studies, the lessons learnt from disasters and the importance of participatory processes in DRM. The highly valued modules include practical applications and real-world disaster scenarios which make them easy to understand. Also, community engagement and practical field considerations are prioritized as important in the field.

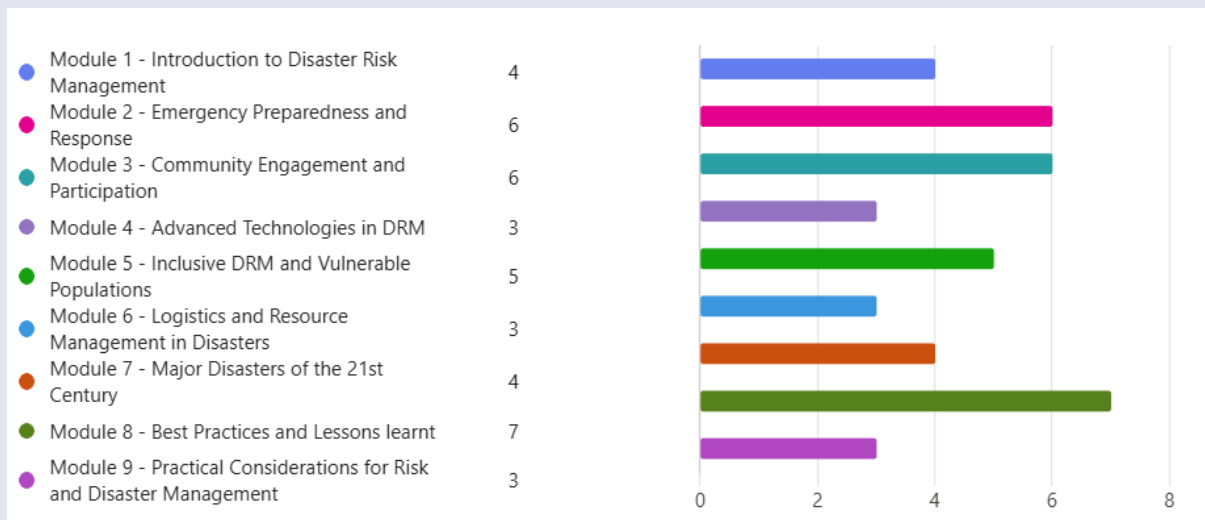


Figure 20. Most relevant modules of the curriculum for the VET Educators/trainers.

The overall feedback on this question is positive. 9 respondents believe that the curriculum is very effective in equipping learners with the necessary skills for disaster risk management. Also, 2 respondents believe that the curriculum is effective. This is positive as we believe that with some changes, we can manage to achieve the maximum success.

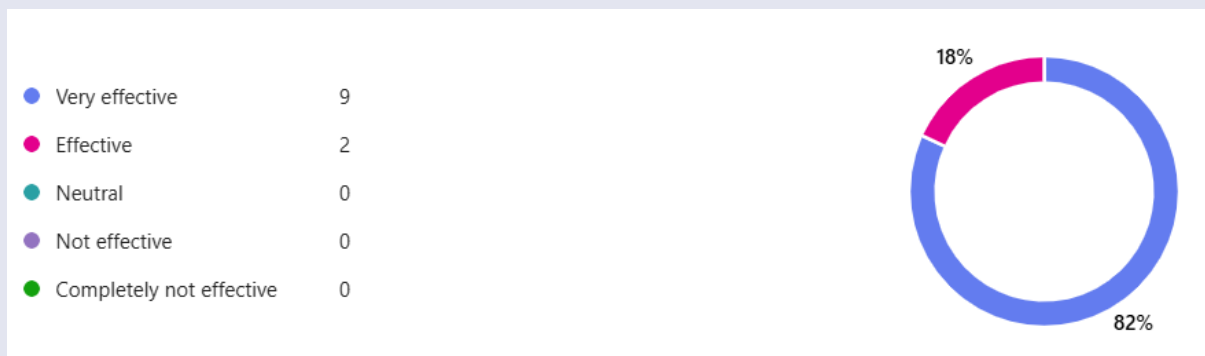


Figure 21. Effectiveness of the curriculum in equipping learners with the necessary skills for disaster risk management according to VET Educators/trainers.



Figure 22. Effectiveness of the modules in terms of pedagogical approaches according to VET Educators/trainers.

In terms of pedagogical approaches, the most effective module is according to the given answers, *Module 3 (Community Engagement)*, which is selected 7 times. *Module 8* and *Module 9* were also selected 5 times. *Module 1*, *Module 5* and *Module 7* were selected 4 times. *Module 2* and *Module 4* were selected 3 times each and *Module 6* was selected 2 times. This data suggests that Community Engagement (Module 3) and the content covered in Modules 8 and 9 are particularly well-received from a teaching and learning perspective. The answers provided, indicate that *Modules 3, 5, 7, and 9* are lauded for their use of case-based learning, which utilizes real-life scenarios and interactive content. Module 4 is considered to have a clear structure and clear explanations which makes it easy to follow. Generally, the feedback received on this question is positive and suggests that the curriculum is well structured and effective in terms of pedagogical approaches.

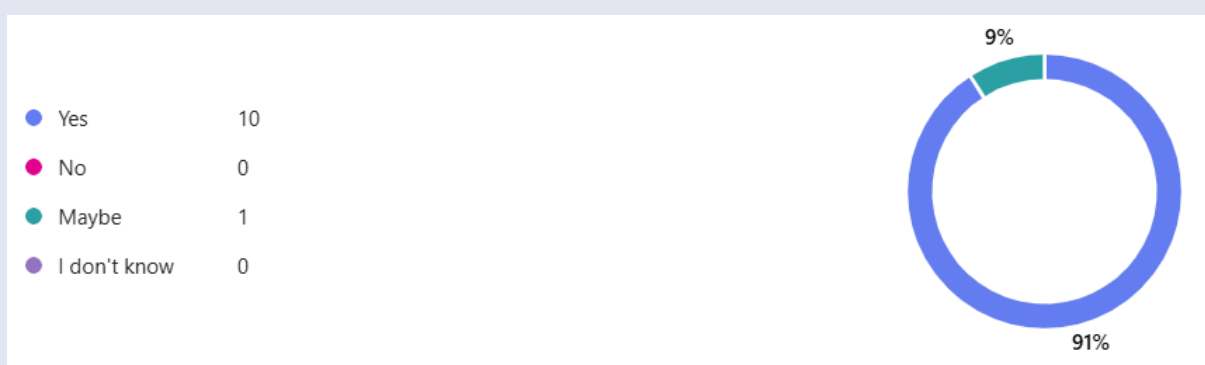


Figure 23. Answers to the question “Do you believe the content prepares professionals for real-world applications in DRM?”.

The feedback related to the question “Do you believe the content prepares professionals for real-world applications in DRM?” were largely positive, 10 of the respondents believe that the content prepares professionals for real-world applications in DRM. One answer suggests that maybe it is true (Figure 23).



Figure 24. Modules that need more practical examples or case studies according to VET Educators/trainers.

Specifically, Module 9 – Practical Considerations for Risk and Disaster Management was highlighted most frequently (8 times), indicating a strong need for real-world scenarios and actionable strategies within this topic. Module 8 – Best Practices and Lessons Learnt was also flagged as needing more practical illustration (6 times), suggesting a desire to understand how theoretical best practices translate into tangible results.

Furthermore, Module 3 – Community Engagement and Participation (5 times) and Modules 5 – Inclusive DRM and Vulnerable Populations, and 6 – Logistics and Resource Management in Disasters (4 times each) were identified as areas where concrete examples and impactful case studies would enhance understanding and application. To a lesser extent, Module 4 – Advanced Technologies in DRM (3 times), Module 1 – Introduction to Disaster Risk Management (2 times), Module 7 – Major Disasters of the 21st Century and Module 2 – Emergency Preparedness and Response (1 time each) also show a demand for more illustrative content.

Overall, the feedback underscores a clear need to enrich the curriculum with practical examples, real-world case studies, and concrete illustrations of best practices and lessons learned from past disasters. This will enable learners to better grasp the complexities of Disaster Risk Management and apply their knowledge effectively in diverse contexts.

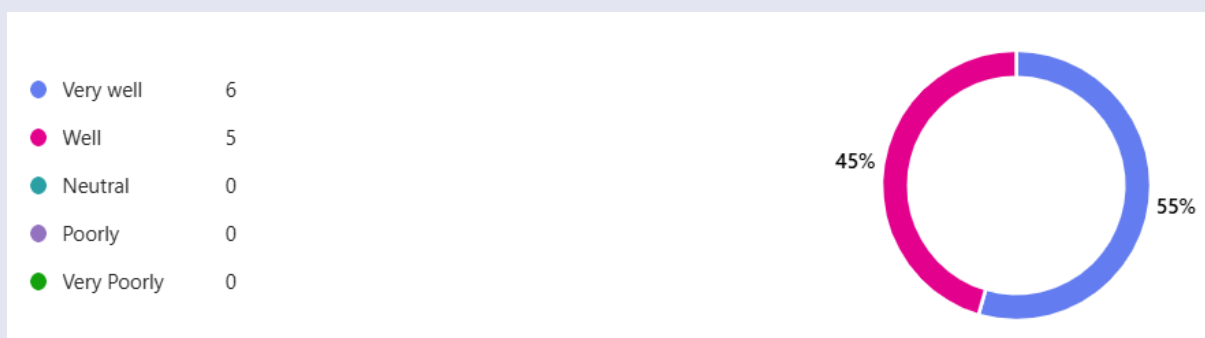


Figure 25. Opinion of the VET Educators/trainers on how well the curriculum incorporates the latest technologies in disaster management.

The feedback received in the question “*How well the curriculum incorporates the latest technologies in disaster management?*” is overwhelmingly positive. Specifically, six (6) respondents believe that the curriculum incorporates very well the latest technologies in DRM, while 5 respondents believe that the curriculum incorporates them well. This positive reception is particularly encouraging, suggesting that the current modules are effectively integrating cutting-edge technological advancements into the training program.

However, VET educators and trainers have also provided valuable suggestions for further enhancing the curriculum's technological focus. They specifically recommend that the curriculum should include technologies such as Digital Twin Technology, AI-Powered Risk Assessment Tools, Mobile Apps for Disaster Communication or national early warning apps that could enhance the preparedness content in Module 2. These additions could significantly improve the curriculum's ability to equip trainees with the skills and knowledge necessary to leverage technology during disaster events.

Building on these specific technological suggestions, the VET educators/trainers made the following suggestions on potential changes or additions to the curriculum:

- the integration of more visual materials
- the addition of more case studies across modules
- strengthening of cross-sector and cross-border collaboration topics
- focus on psychological resilience and well-being content

VET educators suggested additional topics that could be included in the curriculum to improve its relevance and practical application. These suggestions focused on incorporating contemporary challenges and best practices within the disaster risk management (DRM) field:

Specifically, educators recommended bolstering the use of simulation and scenario-based learning tools across all modules. This would provide learners with more opportunities to apply theoretical knowledge in realistic, controlled environments, fostering critical thinking and decision-making skills.

For Module 1, educators suggested enriching the foundational understanding of disaster risk by integrating climate change and the intersectionality of risks. This means exploring how climate change acts as a risk multiplier and how different social vulnerabilities (e.g., gender, race, socioeconomic status) intersect and exacerbate the impact of disasters. A holistic approach to risk assessment, incorporating these elements, would provide a more comprehensive and nuanced perspective for learners.

Module 2, focusing on response or preparedness, could be strengthened by emphasizing the importance of mental health support for affected populations and responders, as well as the effective use of digital communication tools for coordination and information dissemination during emergencies. This reflects the growing awareness of psychological well-being in disaster response and the critical role of technology in modern DRM.

The educators recommended expanding the focus on inclusion in Module 5, specifically by incorporating training on cultural sensitivity to ensure DRM strategies are equitable and respectful of diverse needs. Furthermore, emphasizing child-focused DRM would highlight the unique vulnerabilities and protection needs of children in disaster situations.

For Module 6, which covers logistics and supply chain management, the educators proposed adding content on green logistics practices to promote environmentally sustainable approaches to disaster relief. The curriculum should also explore the role of public-private partnerships in strengthening supply chains and include methodologies for modeling supply chain disruptions to better prepare for potential challenges.

To make Module 7 more comprehensive, educators suggested including examples of slow-onset disasters, such as droughts or sea-level rise, in addition to examples of shock disasters like earthquakes or hurricanes. This would broaden the understanding of the diverse nature of disasters and the long-term impacts of slow-onset events.

Finally, for Module 8, the recommendation was to highlight failure analysis, encouraging learners to critically examine past disaster response efforts to identify shortcomings and learn from mistakes. Integrating adaptive learning principles would promote continuous improvement and ensure that DRM strategies are flexible and responsive to evolving circumstances.

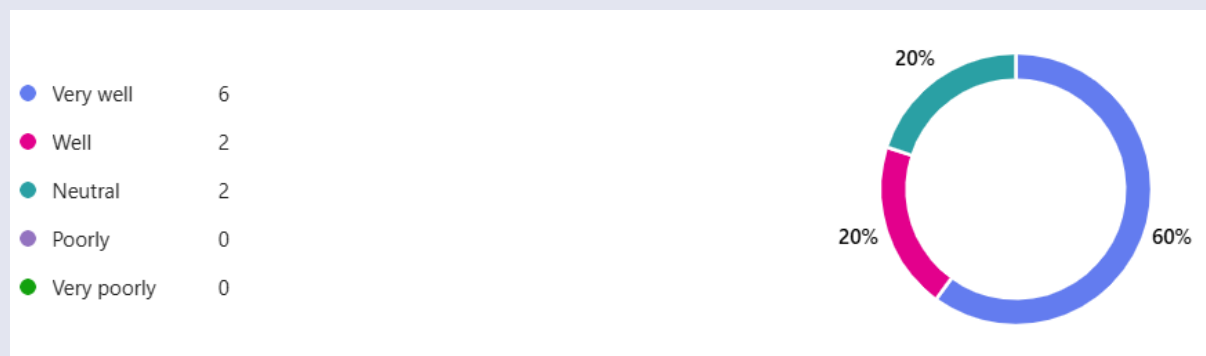


Figure 26. Answers of the Vet educators/trainers to the question “How well do you think the curriculum promotes learner engagement?”.

The responses to the question “How well do you think the curriculum promotes learner engagement?” suggest that the curriculum is effective at engaging learners. 6 of them seem to find the content interesting and effective. The same applies for those 2 that chose the answer “Well”. Those 2 that chose neutral, seem to believe that there is space for improvements.

Additional suggested strategies that could enhance engagement further have been provided by the VET educators such as:

- Integration of scenario-based simulations and role plays which could be implemented in a safe, controlled environment, fostering critical thinking and decision-making skills.
- Incorporating gamification elements, such as points, badges, and leaderboards, could increase motivation and make learning more enjoyable.
- Including different communication systems used in different disaster scenarios would help students be more prepared and understand how to better communicate and coordinate during a disaster.
- Improving the design with colorful themes per chapter, increased use of QR codes, quizzes, and videos can make the content more accessible and memorable.
- Design enhancements like colorful themes per chapter, use of interactive elements like QR codes, quizzes and videos,
- Development of problem-solving workshops, focus on community-based projects and virtual field visits. Focus on community-based projects would allow learners to directly engage with local communities and contribute to disaster preparedness and resilience efforts. Conducting virtual field visits to disaster-affected areas, or to centers of best practice, would provide learners with valuable insights into the realities of disaster management and the challenges faced by practitioners.

Overall, the suggestions from VET educators highlight a clear desire for a more dynamic, relevant, and inclusive curriculum that equips learners with the knowledge, skills, and awareness necessary to effectively address the complex challenges of disaster risk management.

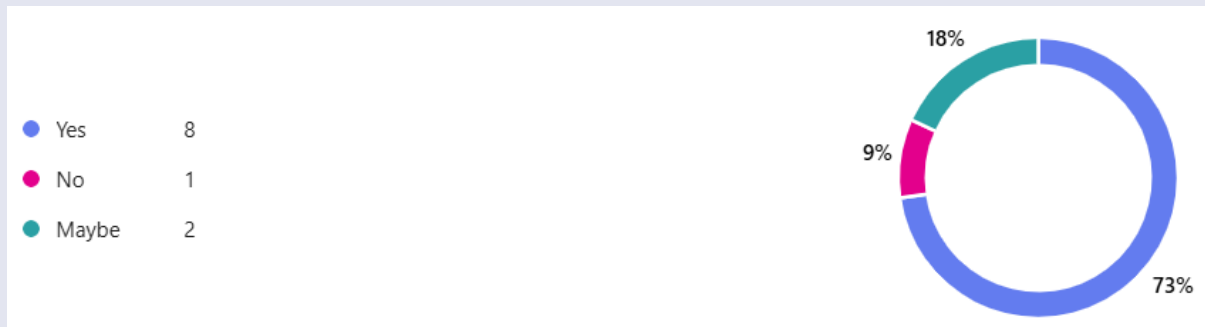


Figure 27. Answer of VET educators on the question “Do you believe the curriculum includes effective assessment methods for evaluating learner competencies?”.

The assessment methods embedded within the curriculum are generally viewed favorably, with a clear majority of respondents (8 out of 11) indicating their effectiveness. However, the presence of a "Maybe" and a "No" response suggests potential areas for refinement. These dissenting viewpoints could reflect a need to enhance clarity, consistency, or variety of assessment strategies employed to evaluate learner competencies. Perhaps some aspects of the curriculum's evaluation process are not fully understood or universally applied. The single "No" response, while representing a small percentage of the overall feedback, is noteworthy. It specifically points to a perceived lack of visible or clearly defined methods for learner evaluation, suggesting that some participants may find the assessment process opaque or insufficiently structured. This highlights a potential need to make the evaluation criteria and processes more explicit and accessible.

Despite these points for consideration regarding assessment, the curriculum received positive overall comments, with several respondents praising its content. This suggests that while fine-tuning of the evaluation methods might be beneficial, the core material and learning objectives are well-received. The positive content feedback provides a strong foundation upon which to build further improvements in the assessment area.

## 5. Citizens evaluation results

The questionnaire distributed to citizens aimed to gather feedback on the developed Disaster Risk Management (DRM) curriculum. A total of seven citizens responded. The primary objective of this feedback collection was to assess the accessibility and perceived effectiveness of the designed material from a citizen's perspective. Similar to previous questionnaires employed with other target groups, this citizen questionnaire was divided into two key sections: (a) general questions designed to capture the demographic and professional profile of the respondents, and (b) core questions focused on evaluating the curriculum's content, structure, and overall suitability.

### Analysis

The core questions specifically tailored for citizens sought to understand their pre-existing knowledge of DRM, allowing for a nuanced assessment of the curriculum's effectiveness. Respondents were asked to rate their level of familiarity with DRM concepts, express their satisfaction with the curriculum's content and presentation, and provide suggestions for its improvement. This feedback mechanism allowed citizens to highlight areas where the curriculum could be more engaging, understandable, or relevant to their needs.

Geographically, the majority of the citizen respondents resided in Slovakia, with only one response originating from Greece. Analysis of the responses revealed that most participants reported being "somewhat familiar" with disaster risk management. This suggests a general awareness of the topic, but not necessarily a deep understanding or specialized knowledge. This finding is particularly significant for future curriculum development. The DRM curriculum should be designed to accommodate a diverse range of understanding levels. This means striking a balance between providing accessible introductory material for those completely unfamiliar with DRM and offering more advanced concepts and techniques for those with existing knowledge. Ensuring this balance will be crucial for maximizing the curriculum's impact and ensuring its relevance to all end-users, from seasoned DRM experts to everyday citizens who may have limited prior exposure to the field.

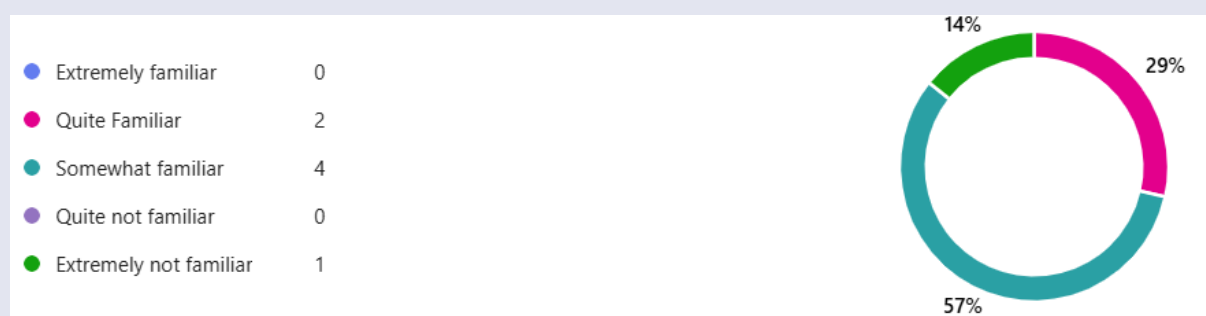


Figure 28. Citizens' degree of familiarity with disaster risk management.

Furthermore, a majority of respondents (4 out of 7) reported having previously participated in disaster preparedness training. This prior exposure likely provided them with a foundational understanding of essential DRM concepts, potentially influencing their evaluation of the curriculum (Figure 29).

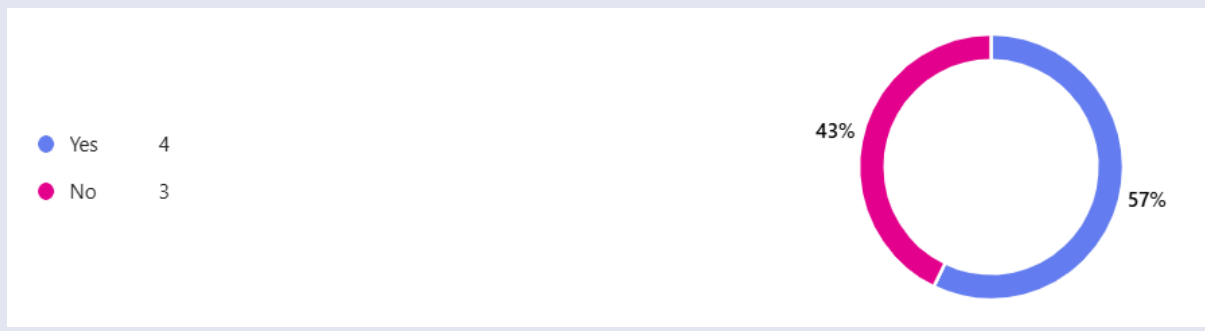


Figure 29. Number of citizens that have participated in disaster preparedness training in the past.

Adding to this, almost all respondents confirmed that they were aware of the specific types of risks likely to impact their local area. This demonstrates a strong sense of local risk awareness, which is a positive indicator. However, the single "No" response serves as a reminder that efforts in risk communication should be continuously reinforced and expanded to ensure broader public awareness (Figure 30).

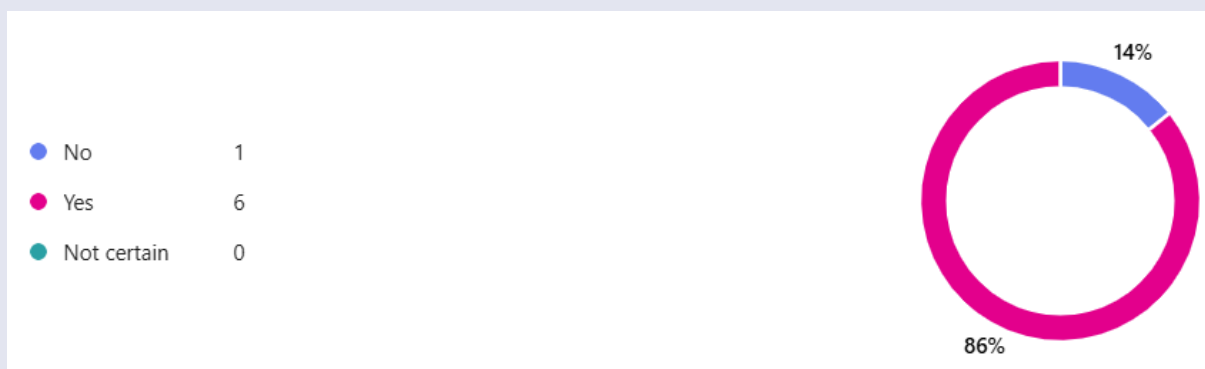


Figure 30. Number of citizens answered the questionnaire that are aware of the risks likely to affect their area.

In addition, the survey revealed that most respondents engage in at least occasional discussions about disaster preparedness within their households, indicating a level of engagement with DRM topics at the family level. While only one respondent reported regular discussions, another indicated plans to initiate such discussions soon. These responses suggest a general intention among citizens to become more aware of DRM issues and integrate them into their daily priorities and family planning (Figure 31).

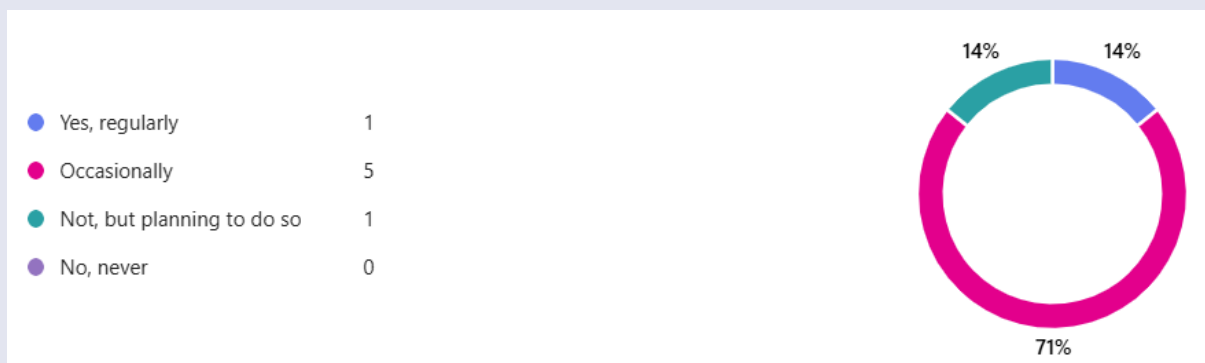


Figure 31. Answers of citizens sample about the extent of discussion of disaster preparedness in their households.

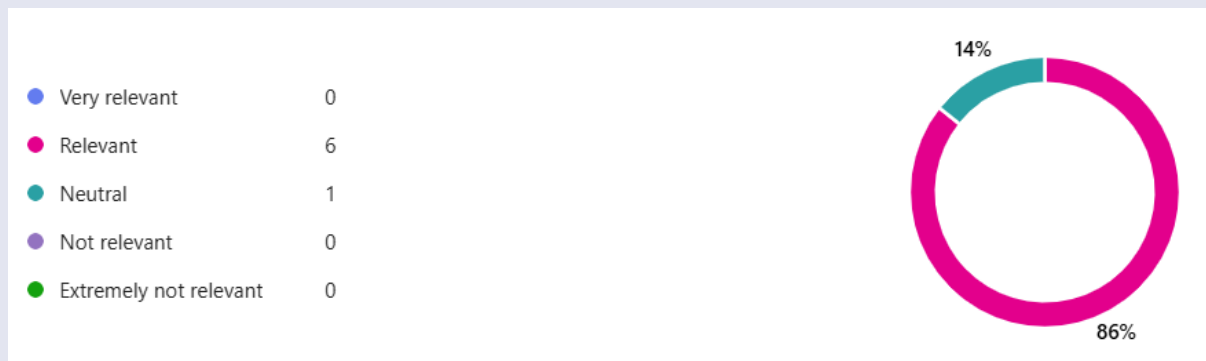


Figure 32. Answer of the citizens to the relevance of the curriculum to the needs of their country or region on disaster risk management.

Overall, the curriculum was perceived as highly relevant to the needs of the participating countries, with six out of seven respondents confirming its alignment with national or regional requirements. The single "Neutral" response, however, warrants further attention, particularly given the respondent's status as a citizen rather than a DRM expert. This neutral stance could indicate potential areas for improvement in citizen engagement and awareness strategies embedded within the curriculum. Therefore, further investigation into the rationale behind this response could yield valuable insights for refining the curriculum and enhancing its impact among the general public.

Most of the respondents (5 out of 7) rated the curriculum as very useful, indicating strong perceived value and effectiveness. The two "Neutral" responses suggest there may be opportunities to enhance usefulness for certain learner groups or contexts (Figure 33).

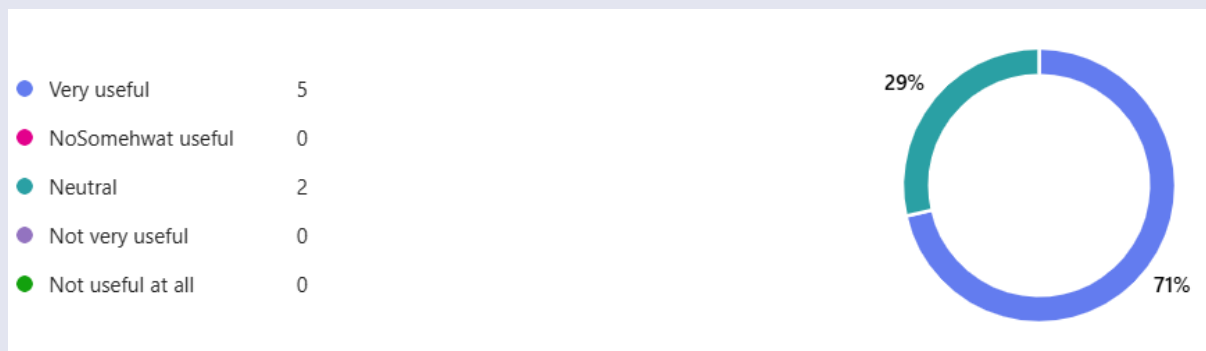


Figure 33. Answer of the citizens category to the question "How would you rate the usefulness of the overall curriculum?".

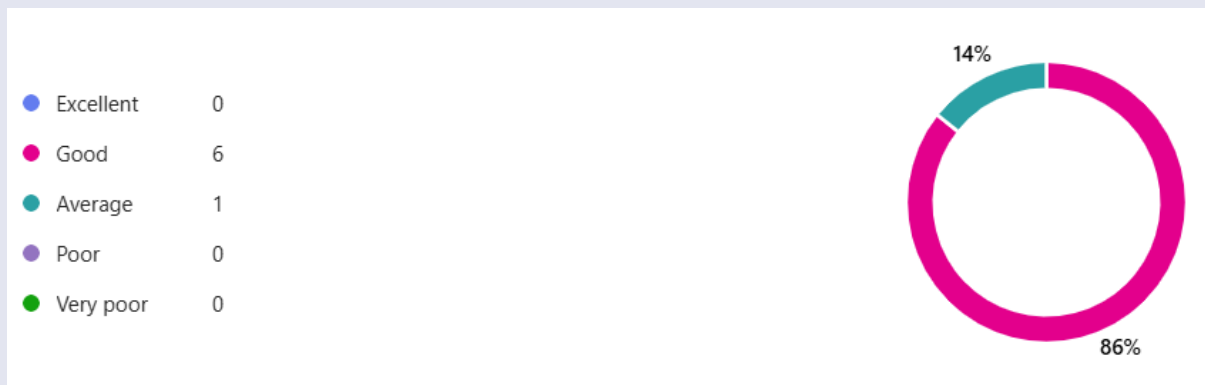


Figure 34. Clarity of the curriculum modules objectives and learning outcomes according to citizens.

The overall feedback received was positive. Six (6) respondents believe that the module objectives and learning outcomes are good, and 1 respondent believes they are average. While the overall sentiment is favorable, these responses also point towards potential areas for improvements and additions that could enhance the modules' effectiveness. This feedback provides valuable insight for refining the curriculum and ensuring it effectively meets the needs of its intended audience (Figure 34).



Figure 35. Modules of the curriculum found confusing or difficult to follow by citizens

**Module 4 – Advanced Technologies in DRM** stands out as the most problematic, frequently cited as confusing and difficult to follow. This suggests the module's content may be excessively technical, potentially lacking sufficient real-world examples or practical application scenarios to illustrate the concepts effectively. This could be addressed by incorporating case studies, simulations, or simplified explanations of complex algorithms and technologies. **Module 6 – Logistics and Resource Management** was also mentioned 2 times, indicating complexity in the presented topics. This might stem from overly dense information, a lack of clear process flow diagrams, or insufficient emphasis on the practical challenges of resource allocation during a disaster. Revisions could involve breaking down complex concepts into smaller, more manageable segments, providing clearer visuals, and incorporating interactive exercises to reinforce the learning. **Module 3 – Community Engagement and Participation** raised some concerns, possibly stemming from an unclear or insufficiently defined framework for effective community engagement. The feedback suggests that the module may need a more structured approach, outlining specific strategies, communication techniques, and best

practices for fostering genuine community involvement in DRM efforts. Including examples of successful community engagement initiatives and tools for assessing community needs would also be beneficial. *Module 2 – Emergency Preparedness and Response* was mentioned once, suggesting isolated comprehension issues. While this doesn't indicate a widespread problem, it warrants a brief review to identify any potential ambiguities or areas where clarification could enhance understanding. Overall, the feedback highlights the need to simplify technical concepts and enhance the practical relevance of the content across several modules. This can be achieved through the incorporation of more real-world examples, case studies, visual aids, interactive elements, and a clearer, more structured presentation of complex information (Figure 35).

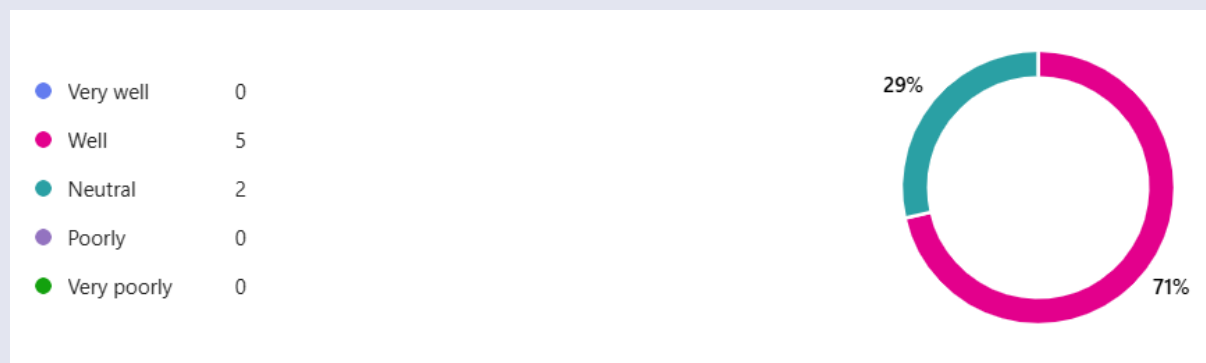


Figure 36. Answers received by citizen category, to the question “How well do you think the curriculum promotes learner engagement?”.

The responses to the question regarding the curriculum's ability to promote learner engagement suggest a generally positive, but not universally enthusiastic, perception. A clear majority of respondents (5 out of 7) rated the curriculum as promoting engagement "Well." This indicates that, for most learners, the curriculum effectively captures their interest and encourages active participation. This positive feedback is encouraging and suggests the curriculum's underlying design principles are generally sound.

However, the presence of two "Neutral" ratings highlights an area for potential improvement. These neutral responses suggest that while the curriculum isn't actively disengaging learners, it's also not fully capturing their attention or fostering a strong sense of involvement. This could be due to a variety of factors, such as perceived lack of relevance to individual needs, insufficient opportunities for interactive learning, or a delivery method that doesn't cater to diverse learning styles. Further investigation into the reasons behind these neutral ratings is warranted to identify specific areas where the curriculum can be enhanced to improve engagement for all learners (Figure 36).

Finally, citizen suggestions for enhancing the content focused specifically on evacuation procedures and participant education. This feedback underscores a perceived need for more practical, realistic, and actionable modules within the curriculum. Participants are signaling a desire for clearer guidance on real-world responses and how to apply the learned information effectively in emergency situations. This implies that augmenting the curriculum with more scenario-based learning, simulation exercises, or case studies based on actual events might significantly improve its impact and relevance. The focus on evacuation procedures also suggests a potential anxiety or uncertainty surrounding these critical situations, highlighting the importance of providing clear, concise, and easily accessible information on how to respond effectively during an evacuation.

## 6. Conclusions-Recommendations

DRM-FRAME's curriculum has been evaluated by 36 individuals belonging to the following categories:

- Experts in DRM
- Human resources managers
- VET educators/trainers
- Citizens

The first three categories were a prerequisite and key performance indicator (quality indicator) of the project. Specifically, the curriculum should have been evaluated by 2 persons from each partner country, belonging in the categories of "Experts in DRM", "Human resources managers" and "VET educators/trainers" with varying level of awareness, knowledge and experience in disaster risk management.

In this evaluation effort, 29 people that have not been involved in the preparation of the curriculum, have been engaged, plus seven (7) citizens (non-experts in DRM). In total 36 people were engaged and thus it is considered that the respective KPI set for the evaluation of the curriculum has been fully completed.

For the evaluation four independent evaluation forms, harmonized with the GDPR rules and ethical consents, have been setup by the project coordinator available in the following links:

- DRM Experts: <https://forms.office.com/e/pE5ayH92jL>
- Human resources managers: <https://forms.office.com/e/5qgF4xjgLP>
- VET educators/trainers: <https://forms.office.com/e/ecA88cSrhq>
- Citizens: <https://forms.office.com/e/wVy3nrLEQp>

As the evaluators have not been engaged in the curriculum writing, their evaluations are characterized by objectivity and can function as a basis for modifications that need to be made to the content.

The curriculum is considered highly relevant to contemporary needs and practices in DRM by all stakeholder groups. Modules that included topics such as emergency preparedness, community engagement, and inclusivity were praised throughout the evaluation process. The content quality and structure were also evaluated positively, as all stakeholders believe they are clear and well-structured.

**The overall result of the evaluation is positive indicating that the curriculum is capable of covering the needs of various types of stakeholders from experts and professionals to non-experts.**

The content quality and structure received positive evaluation, but some improvements should be made in terms of examples that need to be added. More practical examples and real-world case studies should be added to help learners combine knowledge with practical contexts. Those changes were suggested mostly for Advanced Technologies (Module 4), Logistics (Module 6), and Best Practices (Module 8).

Also, the feedback received in terms of skill gaps and competency development pointed out the need for emphasis on digital skills, stress and mental health management, intercultural communication, and decision-making under pressure. In terms of engagement most respondents point out that the modules are engaging but some suggestions have been made in order to improve the interactivity. These suggestions focus mostly on gamification and scenario-based exercises. Respondents also

encouraged more cross-sector collaboration, human resources and finance-specific content and citizen-focused preparedness tools.

It is particularly encouraging that the proposed changes offer a concrete opportunity to improve the quality and the content of the modules.

#### Specific recommendations per category of evaluators:

##### Experts in Disaster Risk Management

- Simplify Module 4 with more case studies.
- Integrate real-world operational case studies in Modules 5 and 6.
- Include simulations exercises and real case studies.
- Add tutorials on tools like Copernicus EMS, and digital twins.
- Integrate psychosocial and well-being topics.

##### Human Resources Managers

- Include human resources topics and finance-specific modules like emergency hiring
- Focus on mental health and staff well-being.
- Include real case studies to improve understanding.
- Focus on intercultural communication and vulnerable population engagement.
- Module 4 requires improvements to avoid confusion.

##### VET Educators/Trainers

- Add interactive elements like gamified learning, virtual field trips, and role-playing exercises.
- Add real life scenarios and case studies.
- Integrate contemporary issues like climate change, child-focused DRM, and green logistics.
- Focus on cross-border disaster coordination and intercultural collaboration.

##### Citizens

- Simplify technical content.
- Focus on practical preparedness topics such as evacuation procedures, risk communication.
- Integrate visuals and interactive elements like QR codes and videos.
- Offer localized workshops and discussions.
- Module 4 can be further improved.

**At this point it is important to point out that the curriculum covers many of the above approaches.** Most importantly, It has to be noted that the goal of DRM-FRAME is not to simply develop a text-based curriculum, but an e-learning platform supported by a curriculum. The platform will have the capacity to host various use cases as examples in a web-GIS environment, quizzes and other tools. **The curriculum developed** can be used as a standalone document, but it **is strongly recommended to be used along with the e-learning platform**, thus, fulfilling many of the improvements suggested by the evaluators.

These **results are being used by the DRM-FRAME consortium to improve** some parts of the document to depict better the needs and difficulties in field of disaster risk management and **are also used for the content of the e-learning platform.**

## ANNEXES

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This section consists of the questions set to each target group of evaluators:

Annex 1 presents the questionnaire of “Experts in Disaster Risk Management”.

Annex 2 presents to the questionnaire of “Human Resources Managers”.

Annex 3 presents to the questionnaire of “VET Educators/Trainers”.

Annex 4 presents to the questionnaire of “Citizens”.

Annex 5 presents the information sheet given to the external evaluators through the online form.

## Annex 1 - Questionnaire for Experts in Disaster Risk Management

### 1. Personal Information

- Name:
- Organization:
- Position:
- Years of experience in DRM:
  - Less than 1 year
  - 1-3 years
  - 3-5 years
  - 5-10 years
  - More than 10 years

### 2. Curriculum Relevance

- How relevant do you find the overall curriculum to current disaster risk management practices?
  - Very Relevant
  - Relevant
  - Neutral
  - Not Relevant
  - Very Not Relevant
  
- Which modules do you think are the most relevant? Please explain

### 3. Clarity and Structure

- How would you rate the clarity of the module objectives and learning outcomes?
  - Excellent
  - Good
  - Average
  - Poor
  - Very Poor

- Are there any specific modules that you found confusing or difficult to follow? If so, please specify.

#### 4. Practical Application

- Do you believe the content prepares professionals for real-world applications in DRM? (Yes/No/Maybe/I don;t know) Please elaborate on your answer.
- Which specific areas or modules do you think require more practical examples or case studies?

#### 5. Content Areas

- Which modules do you find most beneficial for practitioners in the field? (Please select all that apply)
  - Introduction to DRM Principles
  - Emergency Preparedness and Response
  - Community Engagement and Participation
  - Advanced Technologies in DRM
  - Policy Integration and Cross-Sectoral Approaches
  - Inclusive DRM and Vulnerable Populations
  - Logistics and Resource Management in Disasters
  - Best Practices and Lessons from Major Disasters
  - Practical Considerations for Risk and Disaster Management

#### 6. Integration with Current Practices

- What gaps do you see in the current curriculum concerning your organization's practices?
- How could the curriculum better prepare professionals for current challenges in disaster management?

#### 7. Technology Integration

- How well does the curriculum incorporate the latest technologies in disaster management?
  - Excellent
  - Good
  - Average
  - Poor
  - Very Poor

- Are there any technologies or tools that you believe should be included in the curriculum?

## 8. Final Thoughts

- Do you have any additional comments or suggestions for enhancing the curriculum?
- Are there specific topics you feel should be included or expanded upon in the modules?

## Annex 2 - Questionnaire for Human Resources Managers

### 1. Personal Information

- Name:
- Organization:
- Position:
- Years of experience in DRM:
  - Less than 1 year
  - 1-3 years
  - 3-5 years
  - 5-10 years
  - More than 10 years

### 2. Curriculum Relevance

- How relevant do you find the overall curriculum to current disaster risk management practices?
  - Very Relevant
  - Relevant
  - Neutral
  - Not Relevant
  - Very Not Relevant
- Which modules do you think are the most relevant? Please explain

### 3. Clarity and Structure

- How would you rate the clarity of the module objectives and learning outcomes?
  - Excellent
  - Good
  - Average
  - Poor
  - Very Poor
- Are there any specific modules that you found confusing or difficult to follow? If so, please specify.

#### 4. Skill Relevance

- How relevant do you find the skills outlined in the curriculum to the hiring needs in disaster management?
- Which skills or competencies do you think are crucial but currently lacking in the curriculum?

#### 5. Workforce Development

- What skills do you believe are essential for professionals working in Disaster Risk Management?
- How well do you think the current curriculum addresses these skills?
  - Very Well
  - Well
  - Neutral
  - Poorly
  - Very Poorly
- Please provide details:

#### 6. Skill Gaps

- What specific competencies do you think are lacking in the current workforce?
- How can the curriculum be improved to address these gaps?

#### 7. Professional Development

- Do you believe that the curriculum provides sufficient opportunities for professional development?
  - Yes
  - No
- If no, what additional content or skills would you recommend?

#### 8. Collaboration with Organizations

- How can organizations like yours collaborate with educational institutions to enhance the training of DRM professionals?

#### 9. Final Thoughts

- Any additional comments or suggestions regarding the curriculum?

### Annex 3 - Questionnaire for VET Educators/Trainers

#### 1. Personal Information

- Name:
- Organization:
- Position:
- Years of experience in DRM:
  - Less than 1 year
  - 1-3 years
  - 3-5 years
  - 5-10 years
  - More than 10 years

#### 2. Curriculum Relevance

- How relevant do you find the overall curriculum to current practices in disaster risk management?
  - Very Relevant
  - Relevant
  - Neutral
  - Not Relevant
  - Very Not Relevant
- Which modules do you think are the most relevant? Please explain

#### 3. Clarity and Structure

- How would you rate the clarity of the module objectives and learning outcomes?
  - Excellent
  - Good
  - Average
  - Poor
  - Very Poor
- Are there any specific modules that you found confusing or difficult to follow? If so, please specify.

#### 4. Curriculum Effectiveness

- How effective do you believe the curriculum will be in equipping learners with the necessary skills for disaster risk management?
  - Very effective
  - effective
  - Neutral
  - Not effective
  - Completely not effective
- Which modules do you find most effective in terms of pedagogical approaches?
- Do you believe the content prepares professionals for real-world applications in DRM? (Yes/No) Please elaborate on your answer.
- Which specific areas or modules do you think require more practical examples or case studies?

#### 5. Technology Integration

- How well does the curriculum incorporate the latest technologies in disaster management?
  - Very Well
  - Well
  - Neutral
  - Poorly
  - Very Poorly
- Are there any technologies or tools that you believe should be included in the curriculum?

#### 6. Suggestions for Improvement

- What changes or additions would you recommend to improve the curriculum?
- Are there specific topics you feel should be included or expanded upon in the modules?

#### 7. Learner Engagement

- How well do you think the curriculum promotes learner engagement?
  - Very Well
  - Well
  - Neutral
  - Poorly

- Very Poorly
- What strategies could enhance engagement further?
- 8. Assessment Methods**
  - Do you believe the curriculum includes effective assessment methods for evaluating learner competencies?
    - Yes
    - No
  - If no, what assessment strategies would you recommend?
- 9. Final Thoughts**
  - Do you have any additional comments or suggestions for improving the curriculum from an educational perspective?

## Annex 4 - Questionnaire for Citizens

### 1. Personal Information

- a. Name:
- b. Occupation:
- c. Country/Region:

### 2. General Awareness/ Understanding of Disaster Preparedness

- How familiar are you with Disaster Risk Management (DRM)?
  - Very familiar
  - Familiar
  - Neutral
  - Not Familiar
  - Very Not Familiar
- Have you ever participated in any disaster preparedness training in the past?
  - Yes
  - No

If yes, please specify:

- Do you know the types of disasters that are most likely to affect your area?
  - Yes
  - No
  - Not Sure

If yes, please specify:

- Have you discussed disaster preparedness with your family or household members?
  - Yes, regularly
  - Occasionally
  - No, but planning to
  - No, never
- Where do you usually get information about disaster preparedness?
  - Government Agencies
  - Social Media
  - Community Meetings
  - Schools/Workplace

### 3. Curriculum Relevance

- How relevant do you find the overall curriculum to the needs of your country/region?
  - Very Relevant
  - Relevant
  - Neutral
  - Not Relevant
  - Very Not Relevant
- How would you rate the usefulness of the overall curriculum?
  - Very Useful
  - Somewhat Useful
  - Neutral
  - Not Very Useful
  - Not Useful at All

### 4. Clarity and Structure

- How would you rate the clarity of the module objectives and learning outcomes?
  - Excellent
  - Good
  - Average
  - Poor
  - Very Poor
- Are there any specific modules that you found confusing or difficult to follow?
  - Yes
  - No

If so, please specify:

### 5. Learner Engagement

- How well do you think the curriculum promotes learner engagement?
  - Very Well
  - Well
  - Neutral
  - Poorly

- What topics or modules do you think should be added or improved in future training sessions?.....

## Annex 5 – Information sheet

### Disaster risk management and civil resilience DRM-FRAME

#### Information Sheet and Consent Form

Thank you for your participation in the **Activity 3.4** “*Validation of the Core Curriculum*”, conducted as part of the ERASMUS+ co-funded EU project (No. 2023-1-EL01-KA220-VET-000162006). Along with the other project partners, KEMEA acts as the data controller for the information collected through this activity within the DRM-FRAME project.

**WP3** “*Proposal for a Disaster Risk Management framework*” of the project aims to create a curriculum in the field Disaster Risk Management.

**Before you decide to participate**, please, be informed of the following details and, if you agree, you may provide your consent by signing the relevant Informed Consent Form for (a) your participation and (b) the processing of your personal data.

#### **ABOUT YOUR PARTICIPATION**

##### **What is the DRM-FRAME ERASMUS+ co-funded EU project about?**

DRM-FRAME project is a groundbreaking initiative addressing the critical need for comprehensive tools in civil protection and resilience. By focusing on enhancing the skills and capacities of professionals in disaster management, the project also aims to foster local development opportunities while responding to the growing challenges of natural disasters.

##### **How long is the whole DRM-FRAME project likely to last?**

The duration of the project is 2 years as of 1<sup>st</sup> of December 2023.

##### **Why have you been asked to take part?**

Only adults will take part.

You have been asked to take part because of your knowledge, experience and expertise or because of your interest or active involvement in the DRM-FRAME project and its methodology.

##### **What will you need to do?**

If you decide to participate in the activity, you need to read the curriculum and answer the respective questionnaire that will help us evaluate the curriculum of DRM-FRAME and make the necessary improvements.

##### **Where will this take place?**

This activity will be performed online.

##### **How will the DRM-FRAME Consortium deal with incidental findings?**

Any personal data obtained by the data subjects will be processed in accordance with the relevant provisions of the GDPR (Art. 14).

### **How can you find out about the results of the research activity?**

The results of the carried-out activity will be reported by the Lead Beneficiary in the context of Work Package 3 of the DRM-FRAME project. All projects results are public and available online ([Results - DRM Frame Project](#)).

### **Are there any foreseeable risks, discomfort or disadvantages that might ensue?**

There are no foreseeable risks, discomfort or disadvantages.

### **What are the benefits?**

Participating in and being actively involved in this activity and providing your information for the improvement of the DRM-FRAME methodology will give you unique experience and the opportunity to be part of the preparation and validation of the DRM-FRAME methodology.

### **When will you have an opportunity to discuss your participation?**

The present Information Sheet and the relevant Informed Consent Form will be provided to you **prior to** your participation, and you will have time to carefully read them before deciding. If you decide to take part, you shall first sign the Informed Consent Form.

### **What if you do not wish to take part?**

Your participation in this workshop is **totally voluntary**; you have the right to entirely or partially refuse to participate and your refusal will not disadvantage you in any way.

### **What if you change your mind during this study?**

In that case, you are free to **withdraw your consent** to your participation from any part of the present activity at any time, without consequences.

## **ABOUT THE PROCESSING OF YOUR PERSONAL DATA**

**Data Controller:** KEMEA

**Data Protection Officer:** DPO at KEMEA, Vasia Zomenou, [dpo@kemea-research.gr](mailto:dpo@kemea-research.gr)

### **Types of personal data**

- Names, e-mail addresses, roles and signatures of the participants on the Informed Consent Form, as well as their employment agencies and countries.

### **Purposes of the processing**

Personal data will be processed using paper, magnetic, electronic and telematic means, employing only the instruments and methods strictly necessary to achieve the project's purposes. In all cases, the security, integrity and confidentiality of the data will be ensured in

compliance with the organisational, physical and logical measures required by applicable regulations.

Personal data and the Informed Consent Form (names, signatures) will be processed by KEMEA for compliance with the relevant GDPR provisions (Art. 6 par.1 (a)) and for accountability reasons towards the Funding Authority (European Commission).

We will not use personal data for any other purpose, unless a new legal basis exists, in which case you will be notified accordingly or asked for renewed consent.

**Transfer outside the EU/to international organizations:** The personal data are processed in Europe. No transfer to an international organization is foreseen. Personal data will not be transferred to the DRM-FRAME Consortium. All appropriate safeguards have been implemented.

### Legal basis for the processing

Personal data are processed by the controllers based on your consent (see the Informed Consent Form to be signed) according to Art. 6 par.1 (a) GDPR.

Your name and signature on the Informed Consent Form are processed as part of the informed consent procedure **for the processing to be lawful and compliant to the GDPR** and for accountability reasons in case the Funding Authority (European Commission) carries out ethics checks or reviews.

### Recipients

Personal data on the Informed Consent Form will be retained solely by KEMEA.

### Storage period

Personal data on the Informed Consent Form will be retained for a period of 5 years after the end of the DRM-FRAME project, according to Article 15 of the DRM-FRAME Grant Agreement.

After the aforementioned periods the personal data will be permanently deleted without keeping any copy.

### Rights of the data subject

You have the right to:

- Request information about whether we hold personal information about you, and if so, what that information is and why we are holding it (Art.15 GDPR).
- Request access to your personal information. This enables you to receive a copy of the personal information we hold about you and to check that we are lawfully processing it (Art.15 GDPR).
- Request rectification of the personal information that we hold about you. This enables you to have any incomplete or inaccurate information we hold about you corrected (Art.16 GDPR).

- Request erasure of your personal information. This enables you to ask us to delete or remove personal information where there is no good reason for us continuing to process it (Art.17 GDPR)
- Request the restriction of processing of your personal information. This enables you to ask us to suspend the processing of personal information about you (Art.18 GDPR).
- Request transfer of your personal information in an electronic and structured form to you or to another party (right to ‘data portability’). This enables you to take your data from us in an electronically useable format and to be able to transfer your data to another party in an electronically useable format (Art.20 GDPR).
- Lodge a complaint to the competent supervisory authority ([www.dpa.gr](http://www.dpa.gr)) (Art.77).
- Withdraw your consent at any time. Please note that the withdrawal does not affect the processing of your data which is based on the consent you have given before the withdrawal. Once we have received notification that you have withdrawn your consent, we will no longer process your personal information for the purposes you originally agreed to.

### Contact person

In case you have any questions and concerns about the workshop, please contact to Dr Georgios Sakkas on behalf of KEMEA by sending an email to [g.sakkas@kemea-research.gr](mailto:g.sakkas@kemea-research.gr).



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