STRONG

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STRONG - Advanced firST RespONders training

Project Web Site: https://strong-eu.eu/

Start Date: 2020-09-01

End Date: 2023-08-31

IO2-IO4: Report on the theoretical learning contents developed in STRONG

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1. General Information

The forthcoming report centres on the theoretical aspects embedded within the training material developed as part of the STRONG project. In the Strong project, various learning contents for the online learning platform EdApp were developed and uploaded within the framework of IO2-IO4. In total 10 Modules in 5 different languages have been created. This report is intended to provide an overview of the theoretical content of the modules which are accessible on the learning platform.

The EdApp platform is described in our technical report. Further information about the platform, how to register and login etc. provides the technical report "IO2-IO4_Technical Guide for the Strong Training Materials".

2. IO2 - Online courses for first responders: Soft skills for first responders

a. Module 1 Incident response and crisis management

The primary goal of this module is to develop the knowledge and skills required to put in place an effective structure and processes for responding to and managing incidents and crises. This module will focus on abilities such as critical and analytical thinking, decision making, teamwork, and stress resilience.

The module contains the following sections:

Section
The five phases of Emergency Management
Impact (human, economic, environmental, political/social)
Levels of Command
Incident Command System
Hot Zone
Debriefing Phase & Stress Resilience
Critical Tasks
Risk Scenarios
Media and Communication Management
Mass Casualty Incident & Triage
Resource Management
Communication and information management during emergency
Standing Operating Procedures
Ethical aspects of disasters
Effective Communication between rescue and police services

b. Module 2 Effective communication

This module focuses on how to establish an effective communication between first responders and the civil society, paying particular attention on communication with people with special needs, as well as between the different emergency responders at a time of crisis.

The module contains the following sections:

Section
What is (Crisis) Communication?
Importance of Communication
Crisis phases and communication
Communication strategies and channels
Social Media in a Crisis
Communication networks and skills
Safety protocols
Inclusive Communication
Two-way Communication
Case Study: Communications during a fire evacuation
Case Study: Communication during a terrorist attack
Case Study: Communication during a flood
Case Study: Communication in a mass evacuation

c. Module 3 Action protocols for vulnerable population

Besides explaining the overall definition of Psychological First Aid, the module explains who delivers Psychological First Aid, where it should be used and presents the strength of it. It especially focusses on different target groups, e.g., children or elder people. Thus, several serious illnesses are explained, namely post-traumatic stress disorders, the burn-out syndrome. Special attention is paid to Psychological First Aid during CODIV-19 and for Refugees.

The module contains the following sections:

Section
Psychological First Aid
Delivering Psychological First Aid
Psychological First Aid Core Actions
Post-traumatic stress disorder
Burn-out syndrome
Course-Overview
Psychological First Aid for COVID-19
Crisis and reactions

3. IO3 - Online courses for first responders: Weather menaces

a. Module 1 Digital image analysis tools

In the past, storms, floods and drought were considered the work of gods and spirits. It was essential for survival to be able to predict such events. To this day, man tries to arm himself against the power of nature. The tools which help to handle existing crisis are presented in this module. The following tools are explained in particular:

Section
Climate Emergency in Europe
Weather phenomena
Copernicus
Services of Copernicus – EMS
Copernicus – EMS On demand mapping
Copernicus – EMS Exposure mapping
Forest Fire Information (Copernicus)
Flood Awareness System (Copernicus)
Globalfloods
Supplement: Global Flood Awareness Systems (GloFAS)
Drought Observatory (Copernicus)
Optional: Presentation on the Copernicus Programme by Mauro Facchini as summary
Fireweather & flame.meteo
WeatherForcast, MetoAlarm
EumedSat, Windy.com, WeatherUnderground, Weather.gov
Google
ESA & NASA – GWIS
DWD
WMO, ECMWF, ICAO, ECOMET; EUMETNET & EUMETSAT
Other tools

b. Module 2 Extreme weather preparation I

The module not only gives information about effects on the environment by extreme weather, but also effects on humans. Hypothermia is a serious threat for people but they also have to be aware of the altitude, water etc. Icy roads can affect (public) transport and lead to danger. Other winter threats like avalanches or ice storms and injuries which might come along (freezing) are part of the module.

Section
Hypothermia
Avalanches
Black ice and methods of protection against the effects of danger
Ice storm and methods of protection against the effects of the threat
Hailstorm – extreme weather phenomenon
Freezing and no freezing cold injuries

c. Module 3 Extreme weather preparation II

Effective control of the inner and outside zone is essential for maintaining safety during a flood incident. Zoning is necessary to guarantee that the right resources are employed for responses and that responders work in the proper locations. Besides that, signals understood by civilians and professional responders are important. The communication about disasters, too. Other aspects of the module are the 4-step approach of flood risk management or flood rescue teams and the personal protective equipment for responding teams. In total, the following topics are part of Module 3:

Section
Zoning
Signals & Communication
Phases of Rescue
Flood rescue teams	roles
Water and flood risks
Personal Protective Equipment

Best Practice Guidelines
Flood searching
Flash Floods

d. Module 4 Wildfires

The course aims to provide course participants information about the essence and nature of fire that may pose a threat to human health and life both in the individual and collective dimension. Present rules of civil protection and operating procedures in the event of fires. The module offers students systems and programmes for assessing and forecasting fires.

Section
The essence and classification of fires – Introduction to the course
Fire safety – challenges and threats
Social communication during a fire – methods and examples of creating procedures for effective communication part 1-3
IT systems for forecasting and controlling fires – web applications
Modern technical solutions supporting fire protection

4. IO4 - Online courses for first responders: Health risks and personal risks

a. Module 1 Response to health emergencies

The module provides the user more information about health emergencies including learnings from the past but also modern threats. In concrete, the module contains the following:

Section
Concept, nature and classification of biological hazards
Epidemic threats
Pandemic in the modern world
Epizootics, epiphytoses and other biological hazards

Principles of people protection in conditions of epidemic/pandemics
Protection of population against epizootic diseases, epiphytotic diseases and other threats of biological nature
Protection of population against biological threats of anthropogenic origin
Biological threats of anthropogenic origin – historical aspects
Biological threats of anthropogenic origin – modern times

b. Module 2 Rescue and finding operations

Earth observation is the gathering of information about planet Earth's physical, chemical and biological systems. It involves monitoring and assessing the status of, and changes in, the natural and man-made environment. Earth observation supports rescue and finding operations. Different tools can be used:

Section
Introduction – What is Earth observation?
Remote Sensing
Earth Observation Imagery Part 1-3
Search and Rescue: Satellites
Search and Rescue: Cospas-Sarsat
EGNSS & Copernicus

c. Module 3 Response to risks against people

The last module focusses on men-made incidents and trainings based on scenarios- Therefore, the following sections are part of the module:

Section
Understanding Terrorism
Managing the Emergency Consequences of Terrorist Incidents
Scenario-based Training Exercises

5. Conclusion

It can be summarized that the training modules treat men-made and natural disasters. Specific modules explain the threats which might occur and provide a profound understanding of the risks. As you can see in the screenshots in the ANNEX, the online modules are designed for an individual learning process and were set up varied (e.g., videos, quizzes etc.). There is the option to evaluate every module at the end of it. Further information on the technical aspects can be found in the technical report.

6. ANNEX
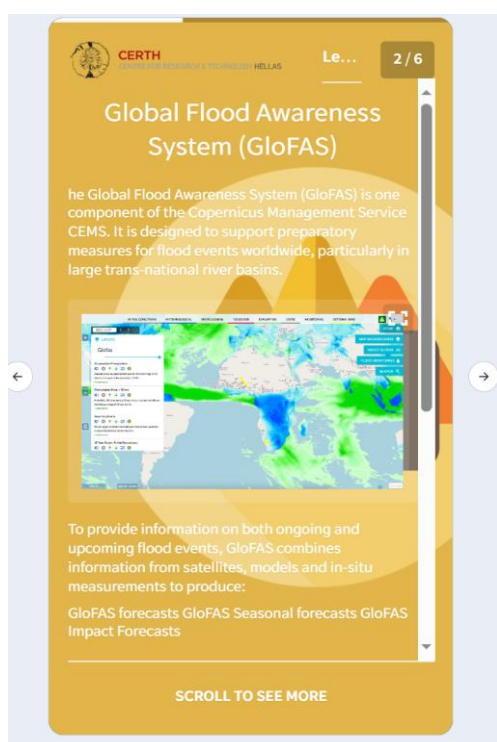
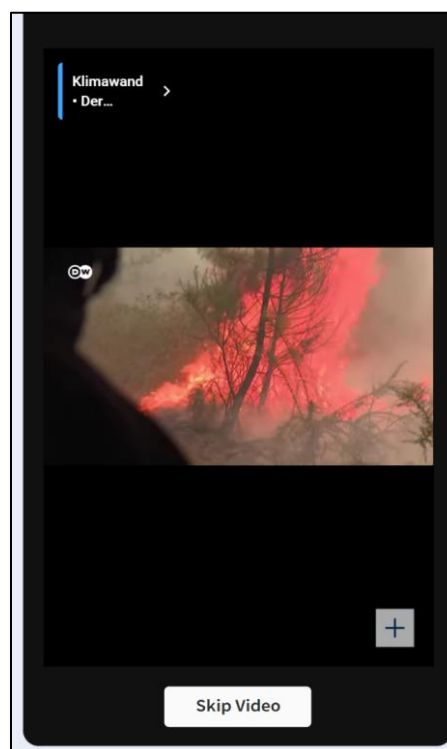*Figure 1 Info text about the Global Flood Awareness System*

Figure 2 Video integrated in Module

Figure 3 Quiz to test knowledge on the topic

Figure 4 Test at the end of a module
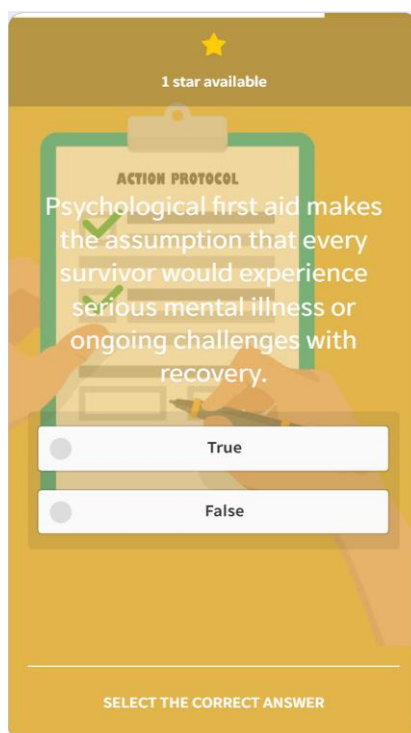
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