



University of Maribor

Faculty of Electrical Engineering
and Computer Science



European Commission

TEMPUS

Enhancement of cyber educational system of Montenegro

EXP. Project Sustainability

SUSTAINABLE STRATEGY v1.0

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Introduction

The main motivation for ECESM dissemination and sustainability, from the point of view of a project, is increasing the awareness of cyber security threats, attacks response, and possibilities for protection among various stakeholders in Montenegro and to increase awareness of government's institutions obligations and public sector obligations for establishing adequate systems of protections and response.

To this end, as a key vehicle at national level is educational system which includes all levels, from primary and secondary education, over universities and companies that are key stakeholders in lifelong learning of workforce. The ECESM activities thus lead to improved and renewed cyber educational system in ME at all level of expertise, ranging from naive users to specialists in different fields of applications. These activities should also help in establishing the system for further conducting of cyber capacities and standards at national level.

Mission

The educational system in cyber security developed and enhanced as the main objective of the ECESM project, should be sustainable for long term period at national level in Montenegro. To this end, all actors in educational process shall recognize the importance of continual activities in teaching (on both, academic and non-academic level), training and research in different fields of cyber security over variety of learners and researchers (different age, background knowledge, professional orientation, etc.).

The ECESM Sustainable Strategy v1.0 is aimed on providing the basis for sustainable national educational system by focusing on: definition of strategic goals, identification of roles and responsibilities and corresponding action plan. The strategy is primarily focused of the period of project duration, while long term sustainability plan will be developed with respect to implemented activities and recent trends at global cyber security space.

Goals

The main goals of sustainability strategy – version 1.0 are:



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1. Continuously inform all educational institutions (from elementary and secondary schools, universities to lifelong education providers) about necessity of continual education in cyber security field
2. Define courses and training curricula with teaching methods appropriate for different kinds of learners
3. Define guidelines and recommendations for realization of proposed courses and training curricula
4. Establish a national center for cyber education
5. Develop open learning platform as a standard at national level for providing education in cyber security, fully supported by Government and labor market
6. Organize a conference about cyber security
7. Establish online journal to support research in the field of cyber security

Implementation plan

In order to achieve defined goals, the following activities are proposed:

- 1a. Organize workshops and promotions for authorities
- 1b. Organize roundtables aimed on integrating forces at national level in the field of cyber security
- 2a. Identify groups of learners at national level (make a systematic review of existing approaches at EU level and establish a comprehensive categorization in respect to ME standards and ICT literacy)
- 2b. Establish a list of recommended training and teaching courses for all groups of learners
- 2c. Make a selection of existing teaching materials at EU level in accordance with established list of courses and curricula, in order to provide a recommended list of teaching materials
3. Define guidelines and recommendations for realization of proposed courses and training curricula
- 4a. Establish a national center for cyber education



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- 4b. Make a promotion of established center as a central non-formal educational provider in cyber security
- 4c. Establish connections of the center with educational institutions aimed on providing sustainable support in modern cyber education

- 5a. Develop e-learning platform (e.g. *Moodle*) with open learning materials
- 5b. Continue with promoting the platform materials at national level

- 6. Organize annual conference about cyber security titled '*Cyber security in the knowledge society: threats, risks and achievements*'

- 7. Establish online journal '*Cyber instructions for all*' to support both, researchers and citizens interested in cyber security trends

All proposed activities shall be implemented by national partner institutions, while planned and coordinated involvement and more active participation of authorities at national, governmental and institutional (public and private companies, banking sector, telecommunication providers, etc.) level is essential.