Training for prevention and fight against cybercrime and digital investigations in Romania

Project proposal vers 20 july 2010

Preliminaries

The Institute for Economic Crime Investigation, IECI, is a training and research institute of the Applied Sciences University, Haute Ecole de Gestion Archive (HEG-ARC) in Neuchâtel. This institution, unique in Switzerland and one of the few in the world was created in 2000.

It offers mainly post-graduate trainings recognized by the Swiss Confederation:
- „Master of Advanced Studies" in economic crime investigation (MAS LCE),
- „Certificate of Advanced Studies" in financial investigation (CAS IF)

MAS LCE addresses to those interested in the private sector (banking, insurance, trust, lawyers, etc) and public area (judges and prosecutors, investigators and analysts from police and justice department, Custom specialists, treasury specialists, responsibles for internal control, etc) and focus on prevention, detection and repression. CAS IF and CAS IN legal investigation option is restricted to the criminal investigation team.

ILCE develops international relations with the purpose of improving the quality of its courses and reserch activities, on one hand, and to share its skills, on the other hand.

The Romanian-Swiss Multimedia Institute - founded by the Jura Canton (Switerland), the Swiss Cofederation and several romanian companies in 2002 - is a high-level training center in the sector of new information technologies. Through its flexible character and the quality of its courses and services, the Romanian-Swiss Multimedia Institute is perfectly inserted in the reality of the Romanian business environment.

The Romanian-Swiss Multimedia Institute recently launched two projects financed from Structural Funds: one for research in the field of mobile technologies (POS CCE), and the second one for development of the Romanian-Swiss Multimedia Institute as a " pilot center for excellence in the Internet and mobile technologies" (POS DRU). Training program was developed using the expertise and cooperation of the specialists from Haute Ecole ARC (Switerland) starting from the model after which was formed and evolved the Institute. The Institute created its first subsidiary in 2009 at Timisoara.

ILCE and **The Romanian-Swiss Multimedia Institute**, in partnership with the **Ministry of Justice**, **National Institute of Magistracy** and the **Ministry of Foreign Affairs,** propose a project whose purpose is to create in Romania specialized training courses in the fight against cybercrime on one hand, and digital investigations on the other hand. The project is supported and approved by several institutions and organizations from public and private sector, like IGPR, ONPCSB, National Association of Internet Service Providers, and the Program declares its opening to other partners. Also, the project is supported financially and with the expertise of VISA, Mastercard and Bitdefender. Originally, the project was initiated in 2008 by Romanian-Swiss Multimedia Institute and ILCE and it was supported by an initiative committee formed by representatives of IPJ Hunedoara, DIICOT and Hunedoara Court.

One of the funding sources identified for this project are **funds from the Swiss Contribution** in favour of Romania to reduce economic and social disparities in an enlarged European Union and/or **European funds** and **private funds**.

Training program projected are design to improve the fight against cybercrime in Romania and to improve the effectiveness of investigations through a high-quality digital investigation, and these trainings meets the needs and interests of both Romanian and Swiss authorities.

Project Summary

The project fits to the general objective of the fight against cybercrime in Romania and its purpose is to ensure a transfer of expertise and methodology from ILCE Switerland, to organize in Romania a trainig of trainers and more specilized training courses certificated by Haute Ecole ARC of Neuchâtel (Switerland), and expert exchanges between Switerland and Romania. Prestigious experts from UE countries will be also invited to contribute to this project.

Pilot trainig courses proposed by the project:

1. **Training of 20 trainers, specialists in the fight against economic crime and cybercrimes**, who will complete their knowledge and skills related to prevention, identification, taking measures for all forms of computer crime, at national and international level.

2. **Pilot training in fight against economic crime and cybercrime for law and technical specialists** from all regions of the country. Courses will be held by trainers who have followed the specialized courses for trainers.

3. **Pilot training in cybercrime prevention for 20 people who are working in prevention and security domain** of public institutions, banks, savings, social services, land office, land register. Courses will be supported by specialized trainers who have followed the training for trainers

4. **Pilot training in digital investigations for 20 investigators from the police department.** This basic training, focused on digital investigations will be supported by foreign and Romanian experts.

5. **Pilot training in digital investigations of 10 to 15 specialists from police investigators**, because they acquire a solid experience in digital investigation and a recognized computer training (from basic training mentioned above).

This training program, highly specialized, will be supported by experts and practitioners in digital investigations from throughout the Francophone area. It will be finalized with a 'Certificate of Advanced Studies " issued by HEG Arc and is recognized by the Swiss Confederation.

Target group:

Trainig 1 and 2 : Specialists in the prevention and fight against economic crime and cybercrime, police personnel, judiciary, banks - specialists in IT Technologies or law;

Training 3: People who work in prevention and security department of public institutions, banks, savings, social services, land office, land registry, etc

Training 4: Investigators from various police departments who desire to specialize in digital investigations

Training 5: Police investigators specialized in digital investigations.

The project will assure acquisition and will make available to Romanian Institutions project parteners: equipment, software licenses and know-how for training activities.

Time period for pilot project: **24 months**

National Project Coordonation Committee:

1. **Professor Dr. Isabelle Augsburger-Bucheli,** professor at Haute Ecole de Gestion (ARC) of Neuchatel, director ILCE
2. **Romain Roubaty,** professor at Haute Ecole de Gestion and digital investigations expert for Swiss Police Forces
3. **Daniela Chrzanovski,** Director at Romanian-Swiss Multimedia Institute
4. **Oana Marinescu,** Public affairs Consultant
5. **Cornel-Virgiliu Calinescu,** CEO, General Directorate of Cooperation, Ministry of Justice
6. **Diana Mihaila**, Head of Continuing Education, National Institute of Magistracy

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Appendix 1 : Training no 1
Training of 20 trainers, specialists in fight against economic crime and cybercrime

Two weeks training - 80 hours of courses provided by Swiss experts

Training program	Periods	Total periods	Trainer
Financial Investigation			
Forensic accounting and audit	8		**CH**
Investigation for Money Laundering	8	**16**	**CH**
Law			
Process of corruption and links with economic crime	8		**CH**
Criminal networks	8	**16**	**CH**
Computer science			
Cryptology, Steganography	8		**CH**
Information Security Management	8		**CH**
Hacking (detection)	8		**CH**
Point of application (detection)	8		**CH**
Traceability	8		**CH**
Human factors in computer security	8	**48**	**CH**
	/		
		80	

Prerequisites for non IT persons:

Types of computers-Internet-Networking - Administration elements and maintenance of a system (min. 40 periods)

Appendix 2: Training no 2
Pilot Training Course in fight against economic crime and cybercrime

Training program	Periods	Total periods	Trainer
Business Administration			
Forensic accounting and audit	8		**CH**
Insurance Fraud; development of detection tools			**CH**
Investigation for Money Laundering	8	**20**	**CH**
Law			
Offshore Companies, Foundations, Trusts	6		**RO**
Process of corruption and links with economic crime	6		**RO**
The Exchange	8		**RO**
Act on Collective Investment	4		**RO**
Contract of Insurance - Insurance Fraud	4		**RO**
Elements of the Criminal Procedure	4		**RO**
International Legal Assistance	4		**CH/RO**
Public Ministry / International Collaboration	4		**CH/RO**
The rights of the defense	2	**42**	**RO**
Computer science			
Cryptology, Steganography	8		**CH**
Electronic signature	8		**CH**
Information security Management	8		**CH**
Hacking (detection)	8		**CH**
Point of application (detection)	8		**CH**
IT Audit (prevention, detection)	8		**CH**
Traceability	8		**CH**
Human factors in computer security	8	**64**	**CH**
Forensics			
Introduction to Forensic Science	2		**CH**
The tools of economic crime, new technologies	2		**CH**
The drugs, money and information	2		**CH**
Operation on a crime sciene, setting the scene (computer based intervention)	4		**CH**
Digital traces, tax and operating	4	**14**	**CH**
Internships		**20**	**RO/CH**
		160	

Notes :
1. The computer module implies that all non IT participants to have the following prerequisites:

Types of computers-Internet-Networking - Elements of management and maintenance of a system (min. 40 periods)

2. The forensic unit should be reanalizedt. we suggest to delete and to add in the computer science module: evidence 16h (8 cours + 8 exercise). That would leave 16 periods for practical exercises / training

Appendix 3: Training no 3
Pilot trainig in cybercrime prevention

Training program	Periods	Total periods	Trainer
Law			
Computer Crime	4		**RO**
Data protection – Protection of worker privacy	4		**RO**
		8	**RO**
Computer science			
Cryptology, Steganography	8		**CH**
Electronic signature	4		**CH**
Information security Management	8		**CH**
Hacking (detection)	8		**CH**
Point of application (detection)	8		**CH**
IT Audit (prevention, detection	8		**CH**
Traceability	8		**CH**
Human factors in computer security	8		**CH**
Corporate investigation	12		**CH**
		80	

Notes:

3. The computer module implies that all non IT participants to have the following prerequisites:

Types of computers-Internet-Networking - Elements of management and maintenance of a system (min. 40 periods)

Appendix 4: Training no 4
Pilot training - basic numerical investigation for 20 romanian police investigators

Training program	Periods	Total periods	Trainer
Investigation of digital basic level			
Type of computers	8		**RO/CH**
Internet	8		**RO/CH**
Networks	8		**RO/CH**
Elements of administration and maintenance of a system – Logging tools and auditing - Disk Organization-Start system	8		**RO/CH**
Cryptology, Steganography- Exercises	16		**CH**
Digital Evidence - Exercises	16		**CH**
Digital Investigation - Exercises	16		**CH**
		80	

Appendix 5: Training no 5
Certified Training - numerical investigation for 10-15 romanian police investigators, experienced and trained in computer science

training program	Periods	Total périodes / Total periods	Formateur/ Trainer
Legal Module			
Criminal Procedure	6		**RO**
Criminal Informatic law	4		**RO**
Search of records and registration	4		**RO**
Sequestration	4		**RO**
Expertise	4		**RO**
International mutual assistance in criminal matters	6	**28**	**RO/CH**
Computer science and practical activities			
Digital Evidence	8		**CH**
File system- practical activities	16		**CH**
Interpretation of digital evidence and its limitations- practical activities	12		**CH**
Preservation of evidence and gathering information - practical activities	16		**CH**
Digital investigation- practical activities	24		**CH**
Digital investigation inside a network- practical activities	16		**CH**
Special digital investigation- practical activities	8		**CH**
Raport of expertise- practical activities	8		
Reconstruction of a machine- practical work	8		
Case studies	16	**108**	
Field activities		**24**	**RO/CH**
		160	

This training course corresponds to the program Certificate of Advanced Studies in Digital Investigation(CAS IN) proposed by ILCE. This postgraduate course is recognized by the Swiss Confederation.

Training Regulation is annexed to this document.

It is also possible the participation of the Romanian investigators organized at CAS IN in Switzerland.