

Erasmus+ KA2 Project

C B R N - P O L

Development of CBRN training programme for police officers



Study visit in Lodz September 25-29th, 2017
Report of the visit

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1. Introduction

The study visit in Lodz (PL) of the ERASMUS+ project “Development of CBRN training programme for police officers” (CBRN-POL) was held on September 25-29, 2017 in Łódź and Szczytno, Poland.

The institution responsible for organizing the study visit was University of Łódź in Łódź.

The study visit was attended by the following participants:

1. Mariusz Grasza (representative of the Bureau of Counter-terrorist Operations of the Polish National Police Headquarters, Poland);
2. Lesław Górniak (representative of the Industrial Chemistry Research Institute in Warsaw, Poland);
3. Michał Bijak (representative of the University of Lodz, Faculty of Biology and Environmental Protection, Poland);
4. Marcin Podogrocki (representative of the University of Lodz, Poland);
5. Peter Anken (representative of the Antwerp Police);
6. Panayiotis Iakovou (representative of the Cyprus Police).

The study visit was conducted to facilitate exchange of good practice between CBRN experts of each partner, present local capacity in producing project’s outputs. During this short term event experts from all partner organizations were acquainted with the capacity, expertise and knowledge of University of Łódź Faculty of Biology, Bionanopark, a science-technology establishment for implementation of innovations and School of Police Cadres in Szczytno (Police Academy in Szczytno).

The study visit had international character and its impact was rising the participants’ awareness, knowledge and skills in the CBRN field. This event was dedicated to good practice exchange and aimed to help to create project outputs and improve all partners competences. The study visit aim was to enable each partner of presentation of its technical background and procedures ruling in its work in the field of CBRN materials and response to the CBRN threats.

The aim of the study visit was to identify the best strategy to how to use presented resources for the benefit of the project’s outputs. It will contribute to will produce more complete programme and design project’s events.

Objectives of the study visit organised by University of Łódź were

1. To learn about and discuss capacity of Faculty of Biology in contributing to the learning programme
2. A pertaining to Police Academy in Szczytno
3. To discuss about possible role of new technologies and nano-science in attaining the Project’s goals
4. To present the role of Polish police in controlling crisis situation

2. Day one, Monday, September 25th 2017, University of Łódź

After welcome the meeting started with the general presentation of the University of Lodz, introduction to Biology part of CBRN protection were performed by Michal Bijak, PhD. He showed presentation about cascade scheme of bio-threat detection, where participant look how implemented biochemical methods to fast diagnosis of bio-threats on terrorist act scene. This scheme has been developed as a the result of an analysis of exercises, procedures, available field tests and cases of service response to biological hazards.

A quick analysis allows for a possible acknowledgment of a threat, and thus excludes a false alarm. Information about the initial determination of whether the dangerous agent has been used and spread, as well as the potential type of factor that could be used during the attack will provide the basis for the onsite incident manager for further action elements, which can be targeted for evacuation, isolation and medically preventive actions (e.g. rapid implementation of antibiotic therapy).



Development of CBRN training programme for police officers

CASCADE SCHEME OF BIOTHREAT DETECTION

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After presentation the participants had practical exercises of in the laboratories of Department of General Biochemistry located in the molecular biology bundling of the Faculty of Biology and



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Environmental Protection, University of Lodz. First exercise was focused on the detection of protein in sampled probes. Proteins are the basic building element of each living cell as well as and it is the main component of the envelope of viruses, which, according to the current concept of biology, is not included in living organisms group. In addition, the protein structure also has a great extent of biological toxins (except for eg T-2 mycotoxins). The fast colorimetric reaction (changing the color of the reagent) is the most popular method to detect the protein presence in the sample.



The next exercise was focused on the use of a pocket immunochromatographic equipment. Lateral flow immunoassays, also known as immunochromatographic assays or strip tests, are unidirectional assays which are used to quickly and easily establish whether a target analyte is present in a test sample. The lateral flow assay is a membrane-based platform for the detection and quantification of analytes in complex mixtures, where the sample is placed on a test device and the results are displayed within 5–30 min.



3. Day two and three, Tuesday, Wednesday September 26-27 2017 – visit to School of Police Cadres (Commissioned Officers) Police Academy in Szczytno

The consortium partners were received by a commander of School Lt. col. Marek Fałdowski who presented history and current status of School and guided the participants through a memory hall dedicated to history of Polish Police beginning from 1918 when Poland regained independence.

During next two days the participants were visiting school premises where facilities and current learning programme of police officers in Poland was presented.

In particular the consortium members visited

- Documentation Centre and library with access to open and restricted publications in all areas pertaining to state's law and order
- Classes and laboratories dedicated to:
 - Fitness and martial arts
 - Proficiency in use of weapons
 - Cyber crime laboratory
 - Forensic sciences department
 - Counter-terrorism department
 - Department of fight against organised crime
 - Public security department
 - State security department
 - Advanced techniques department
 - Department of law
 - Department of social sciences

The facilities of department of fighting organised crime and counter terrorism were found to be particularly useful for participating in creation of the programme. Also scope of public security department includes important aspects to be included in the training programme.







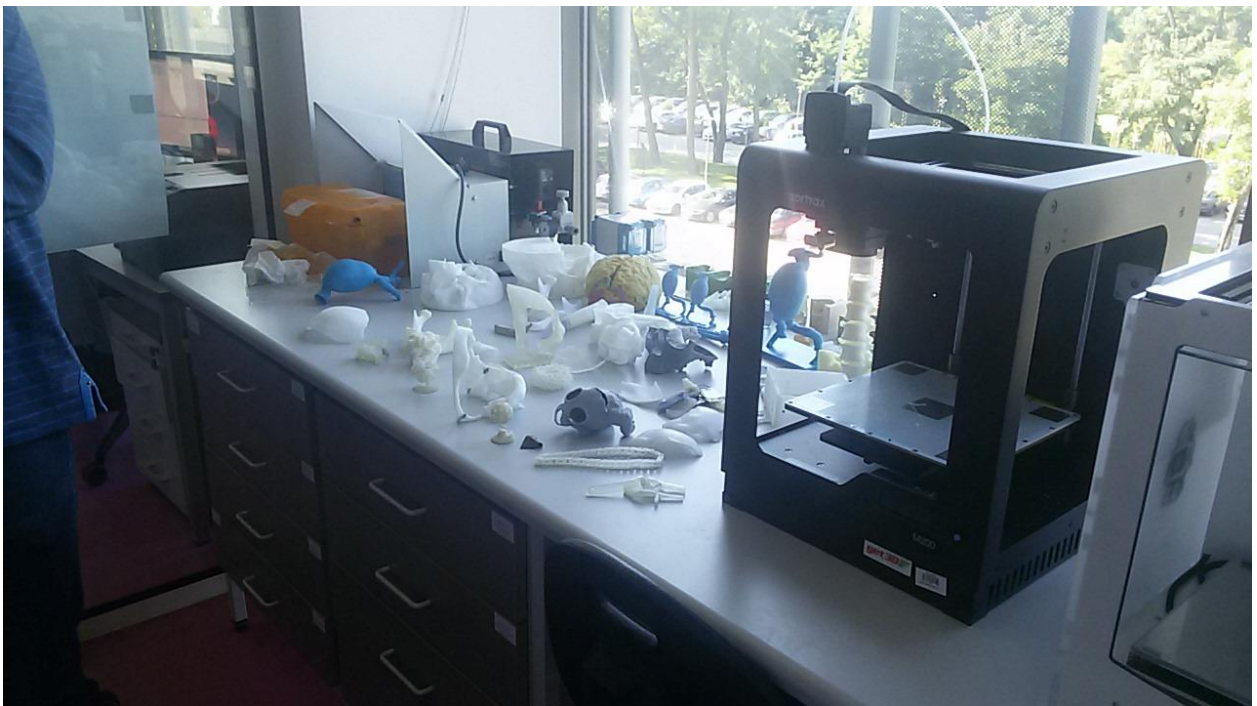
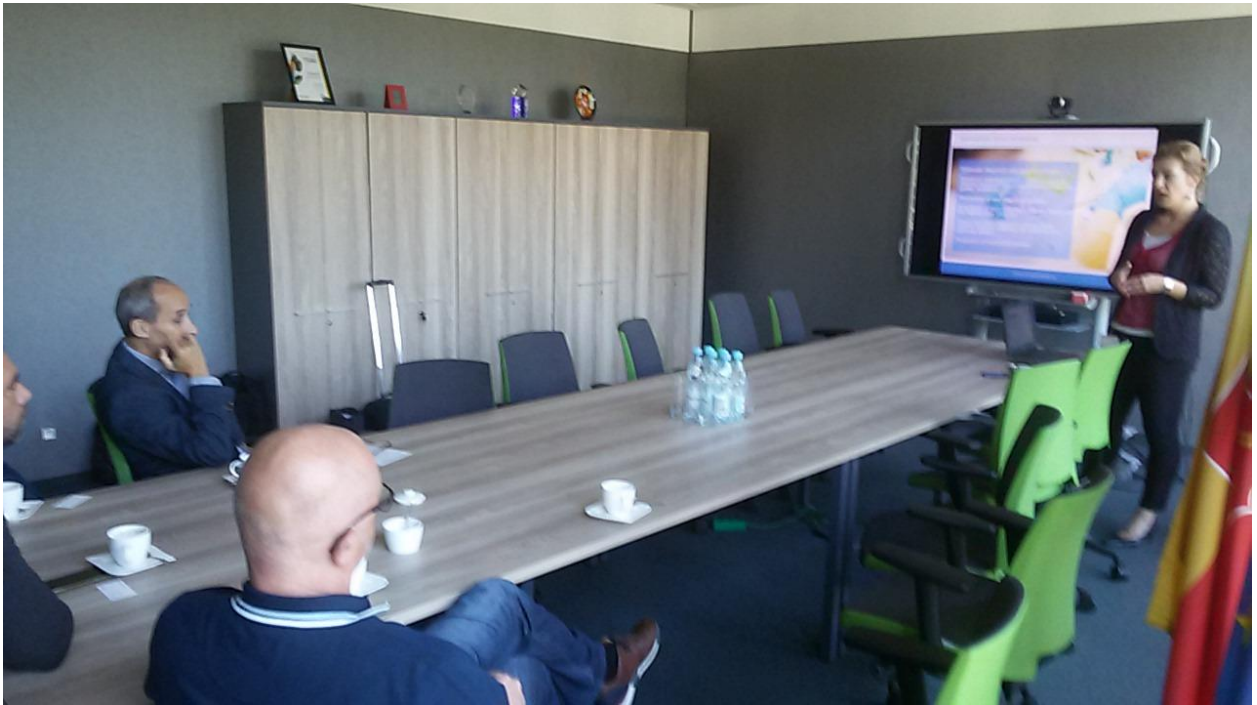
4. Day four Thursday September 28th - visit to Centre for Science and technology BIONANOPARK, Łódź

Bionanopark in Lodz is a science and technology park with an attractive research, investment and incubation offer addressed to companies and institutions operating in the field of advanced technology. University of Lodz closely cooperate with this institution and very often use high technologies equipment located in it laboratories. The main components of Bionanopark are:

- Personal implants
- Optimization of microbiological culture growth
- Analytical and microbiological techniques dedicated to environmental protection; laboratory is authorised to work with GMO
- Analysis and testing of properties, characteristics of new materials
- Cytotoxicity and genotoxicity laboratory

Role of innovative techniques new technologies and materials is not yet seen as a component of developed training programme.

An important conclusion after visit in BIONANOPARK is that a side activity of the Project might be recommendation of areas where new technologies might be applied and indication the most promising applications

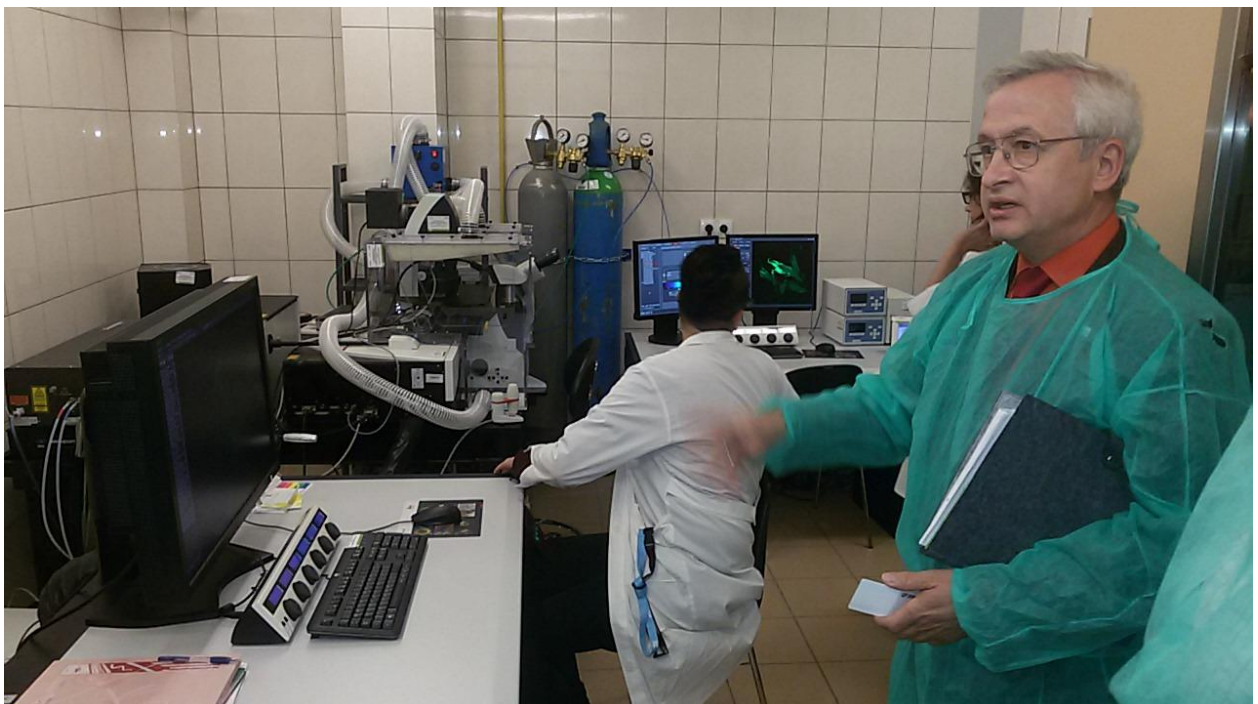




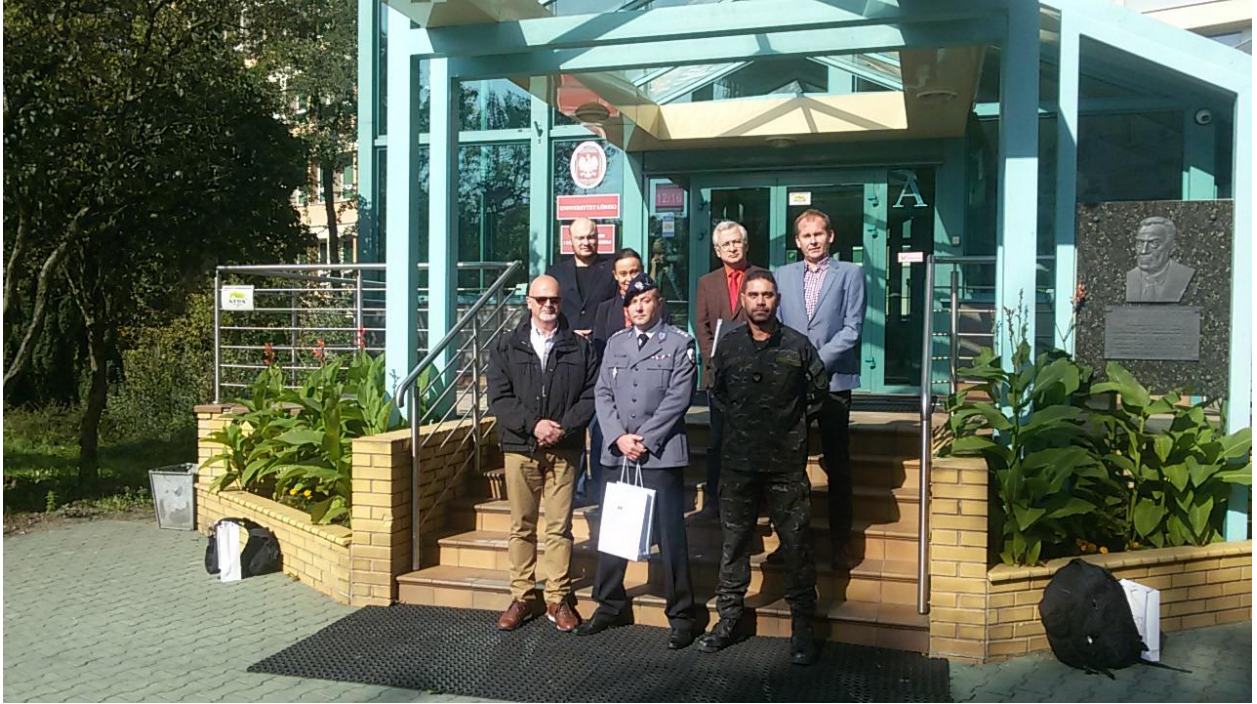
5. Day Five Visit to Faculty of Biology and Environmental Protection, University of Lodz

After welcome by the Deputy Dean Prof. Katarzyna Dzitko the meeting started with the **participants** became acquainted with the modern equipment of Faculty of Biology and Environmental Protection, University of Lodz. The laboratories were presented by Prof Marek Wieczorek and Prof. Pawel Staczek. The Faculty has a modern laboratories in various specialization. Laboratories are dedicated to microbiology (BSL-2), biochemistry, molecular biology as well to analytic chemistry. In laboratories in

addition to the base equipment modern laboratory equipment dedicated to broad spectrum of analysis is available. For example: cell analyzers, real Time PCR thermocyclers, flow cytometers, mass spectrometers, gas and liquid chromatographs, gene analyzers, FTIR spectrometers and various types of microscopes.







At the end of the day the audience took advantage of the opportunity of the presence of the foreign delegation to discuss some current topics on the threat of (CBRN) terrorism in Europe. We believe that useful interpersonal and business contacts have been established with the Polish stakeholders and officers at the seminar.

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