



International Conference

**Chemical security and environmental protection
Challenges and perspectives for enhancing economic, trade, research
and development cooperation**

Chief Inspectorate of Environmental Protection
Warsaw, ul. Wawelska 52/54
12th May 2014

Introduction

With great pleasure we extend our warmest welcome to all of you at the Warsaw Conference on chemical security and environmental protection: challenges and perspectives for enhancing economic, trade, research and development cooperation.

The Conference is organized jointly by the Chief Inspectorate of Environmental Protection and the International Centre for Chemical Safety and Security, a leading international partner to enhance chemical security and promote a global chemical security culture.

A leading objective of the conference is to review the existing capabilities and potential of the Polish and international partners from governments, industry, science and technology in the areas of chemical security and environmental protection. The conference will identify the Poland's comparative advantages in the areas of chemical security and environmental protection. We will consider the different areas of chemical security and their application in the international security, economic and trade cooperation, as well as in science and technology exchanges.

The conference will be an excellent opportunity to strengthen cooperation between the international and Polish partners to explore new ideas and programs to enhance chemical security as well as the environmental protection.

We are deeply convinced that your active participation in the conference will contribute to the enhancement of the global chemical security and environmental protection.

The Warsaw Conference will include a plenary session on chemical security and environmental protection as leading factors of economic development, scientific and research cooperation, strengthening the national security and deepening international cooperation.

The Working Sessions will raise the following topics:

- Chemical safety and security in industry and transport of chemicals and energy carriers;
- Development of the manufacturers' platform for chemical safety and security;
- Chemical safety and security in the process of shale gas search and mining;
- Preventing ecological and chemical threats at the local level;
- Sea dumped chemical weapons;
- Chemical terrorism and ecological bombs.

The Conference will be concluded with a final plenary session which will consider concrete suggestions to enhance chemical security and environmental protection, and promote the international cooperation, including on the development of chemical security programs in the countries of the Eastern Partnership.

Dr. Andrzej Jagusiewicz
Chief Inspector for Environmental
Protection

Amb. Krzysztof Paturej
President
International Centre for Chemical Safety
and Security

About the conference

- I. **Conference assumptions - chemical security and environmental protection as important instruments to enhance economic, trade, research and development cooperation**
 1. In front of worldwide development of chemical industry and trade as well as global access to chemicals, security of manufacturing, infrastructure and supply chain of chemicals and energy sources and carriers becomes a priority for governments, chemical industry and communities where chemical activities are conducted, for the world of science and non-governmental organisations.
 2. A leading challenge is to ensure that within the expanding production and economic activities and growing application of chemicals, the environment is used in compliance with generally adopted acceptable principles and standards. Business activities must be controlled by environmental protection inspection, the condition of the environment must be monitored and assessed **on an ongoing basis**, and the community and public authorities must be regularly informed about the environment.
 3. Chemical safety and security and environmental protection are more and more interlinked with internal and external security, public health protection, economic and trade cooperation, as well as development and humanitarian policies. Taking into account continued threats of misuse of toxic chemicals by non-state actors, use of chemical weapons in Syria and recent chemical catastrophes in several countries, which undermine national and international security, economic and social stability, there is a need to strengthen chemical safety and security at national, regional and global levels.
 4. There have been important international conventions adopted in last years which promote chemical safety and build international cooperation to enhance the environmental protection. There are the Rotterdam Convention (RC) on the Prior Informed Consent Procedure for Certain Hazardous Chemicals and Pesticides in International Trade, the Basel Convention (BC) on the Control of Transboundary Movements of Hazardous Wastes and their Disposal and the Stockholm Convention on Persistent Organic Pollutants, Convention on the Transboundary Effects of Industrial Accidents (TEIA). Under the Convention on the Protection of the Marine Environment of the Baltic Sea Area (the Helsinki Convention) works are being performed to protect the marine environment of the Baltic Sea - water, bottom, living organisms - against pollution from all sources - land, ship and atmospheric pollution and analysis are being carried out of the impact of sea-dumped chemical weapons and munitions.
 5. Ensuring chemical safety and security as well as complying with environmental protection standards become an important condition in the research, manufacturing and trade of chemicals. It also covers the extraction of mineral resources and energy sources, including shale gas, disposal of sea-dumped chemical weapons, and research and development works. Strengthening the chemical safety and security is an important element of critical infrastructure protection.

6. There is a growing global demand for modern technologies, equipment as well as adequate administrative and legal solutions for chemical safety and security and environmental protection, safe disposal of a growing volumes of toxic substances and wastes, protection of chemical facilities, storage and transportation of energy sources. Providers of technology and chemical compounds more and more often ensure that their customers are provided with state-of-the-art chemical safety and security solutions, which leads to minimising the risk of breakdowns and costs reductions. In many countries activities linked to chemical safety and security and environmental protection are becoming a profitable export activity in such areas as science, development, manufacturing and services. In addition, these activities generate scientific and research development as well as scientific and technical cooperation.

II. Existing capacities and comparative Poland's advantages in the strengthening of chemical safety and security and environmental protection

Promoting chemical safety and security and environmental protection as priority area for Poland's economic, trade and research and development cooperation is based on a combination of the following characteristics:

1. Effective national legal measures and operational instruments to provide safety and security and environmental protection are prerequisites to ensure national security and economic and social stability;
2. Due to its growing position in the European Union, Poland is creating more than attractive environment for economic development in Central Europe which includes modern solutions in chemical security and environmental protection;
3. Poland is an active partner in the development of the international security and a leading participant of the efforts to ban chemical weapons, to enhance chemical safety and security worldwide and to strengthen environmental protection. Poland has promoted important international initiatives in these areas;
4. Poland has introduced effective crisis response mechanisms and critical infrastructure protection.
5. Polish government institutions and private companies educated and employ competent staff who is well prepared and equipped to implement chemical safety and security requirements and environmental protection;
6. There is an effective system of supervision of installations that create risks of major accidents to people and the environment in Poland. This supervision is conducted by the organs of the Inspectorate for Environmental Protection and State Fire Service. The national system of prevention of major accidents meets the requirements of Council Directive 96/82/EC of 9 December 1996 on the control of major-accident hazards involving dangerous substances (so-called Seveso II Directive) and Directive 2003/105/EC of the European Parliament and of the Council of 16 December 2003

amending Council Directive 96/82/EC on the control of major-accident hazards involving dangerous substances. Currently, works are underway to adapt national legislation to the Directive of the European Parliament and of the Council 2012/18/UE of 4 July 2012 on the control of major-accident hazards involving dangerous substances (so-called Seveso III) . The relevance of national system of prevention of major accidents as an important element of national security has been confirmed in the official document: "National Environmental Policy for 2009-2012 and towards 2016".

7. Poland has developed and implemented modern solutions for disposal of toxic substances and wastes. Inspection of environmental protection in Poland is a modern and professionally managed public institution with relevant instruments to conduct effective environmental policy and to protect the environment for present and future generations.
8. Polish chemical companies expand their international manufacturing capacities and actively seek new partners and markets.
9. There is a number of Polish research and development entities which provide and offer modern solutions and conduct active international cooperation in the areas of chemical safety and security and environmental protection.
10. Risks of major accidents, threats of terrorism in chemical industry and in transportation of chemicals in the region, call for cooperation among the neighbours and the strengthening of cross-border security. Poland initiated regional cooperation to enhance chemical security and leads with Ukraine joint efforts to implement concrete measures are regional and international measures. Polish solutions and approaches to strengthen chemical safety and security may serve as an example for enhancing chemical security in other countries and at the regional level.
11. The International Centre for Chemical Safety and Security established in Poland offers chemical security solutions based on sustainability, continuity and modern management, in the whole range of chemical activities, including storage, transportation and transmission of chemicals and energy carriers. Leading international partners, governments, organisations and chemical industry have actively supported the Centre and jointly develop and introduce international programs to enhance chemical security at national and regional levels. The Centre actively promotes the global chemical security culture.
12. At the International conference on chemical safety and security, attended by the representatives from 56 countries and several international organisations, chemical industry science and academia, conducted in Tarnow, Poland, in November 2012, a draft of Tarnow Declaration for promoting global chemical security culture was presented. The Tarnow Declaration initiated the international efforts and the multi-stakeholder cooperation to develop the global chemical security culture.

13. The International Board for Chemical Safety and Security, composed of recognized international experts from governments, academia, research, industry, has been established within the International Centre for Chemical Safety and Security to provide technical and scientific advice and promote global chemical security.
14. In a close cooperation with the Polish and international companies the International Centre for Chemical Safety and Security has initiated the **development of the platform of manufacturers of technologies and equipment for the safety of facilities, transmission lines and chemical compounds transportation**. Jointly with manufacturers of specialized equipment, scientific and research centres and chemical industry, integrated solutions aimed at the protection and security of chemical facilities and storage and transportation of chemicals and energy carriers will be developed and offered at international markets.
15. Taking into account a broad interest and growing participation of Polish and international private entities, the areas of chemical safety and security create favourable conditions to establishing and implementing public-private partnerships to promote national and international security, enhance economic cooperation and protect environment.
16. Initiatives to develop chemical safety and security and environmental protection offer an opportunity to access serious programs and international funds in the areas of international development and environmental protection.
17. A new possibilities are open for the Polish entities to participate in the international aid, to enhance economic and trade cooperation with the Eastern European countries within the Eastern Partnership, and in particular with the developing countries.

These characteristics constitute comparative advantages which should be further developed and promoted by the Polish and the international partners nationally and around the world. This would bring concrete benefits from economic, trade, political, security and scientific perspectives. Poland will strengthen its image as an active member of the international community and a co-author of modern global security and development agenda.

III. Conference objectives – enhancing chemical security worldwide and promoting Poland’s specialty in chemical safety and security and sharing experience in environmental protection

1. The conference will consider chemical security for different angles and perspectives, including research and development, production and transportation, of chemicals, export controls, shale gas exploration, security of sea-dumped chemical weapons, preventing misuse of toxic chemicals,
2. The conference will consider the perspectives for the development and promotion of the Polish specialty in the areas of chemical security in the cooperation with the relevant government agencies and international partners, including organisations, academic centres, non-governmental organisations, private companies and experts.

3. The conference will review the capabilities and offers by the Polish entities and their international partners to promote comparative advantages in the areas of chemical safety and security and environmental protection at the national and international levels, to enhance cooperation in security, economy, trade relations, and research and development.
4. An important objective of the conference is to strengthen cooperation and coordination among the Polish government and private partners to enhance chemical safety and security and promote environmental protection.

Conference program

Time 09.00 – 10.30	<p><u>A plenary session with keynote national and international statements:</u></p> <p><i>Chemical security and environmental protection as leading factors of economic development, scientific and research cooperation, strengthening the national security and deepening international cooperation</i></p> <p><u>Opening speech:</u></p> <p>Dr. Andrzej Jagusiewicz – Chief Inspector of Environmental Protection - <u>conference chair</u>: "Role of environmental protection in enhancing economic, trade as well as research and development cooperation"</p> <p>Ambassador Bonnie Jenkins - U.S. Department of State, Representative of the President for Threat Reduction Programs: "Roles of chemical security in the strengthening of international peace and security; cooperation perspectives in bilateral and multilateral dimension"</p> <p>Brigadier General Wiesław Leśniakiewicz, Chief Commandant of the State Fire Service, Chief of the National Civil Defence: "Development of national potential for responding to threats in the area of environmental protection and chemical activity; international cooperation perspective"</p> <p>Mr. Jerzy Majchrzak, Director, Innovation and Industry Department, Ministry of Economy, Poland: "Cooperation between the government, the private sector and the science and research sector to enhance Poland's capabilities and specialty in chemical security"</p> <p>Mr. Timothy Scott – Chief Security Officer and Corporate Director for Emergency Services & Security in Dow Chemicals, USA: "Chemical security in the development of chemical industry and commercial cooperation"</p> <p>Prof. Maurizio Martellini, Secretary General Landau Network-Centro Volta, Italy, and International Working Group Executive Secretary: "Poland's leadership and comparative advantages in chemical security from the international perspective"</p>
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10.30 – 10.45	<p>Ambassador Krzysztof Paturej – President of the International Centre for Chemical Safety and Security: "Chemical security as means of international cooperation and comparative advantages of Poland"</p> <p>Coffee break</p>
10.45 – 11.00	<p>Photo-opportunity and opening of the Exhibition</p>
11.20 – 14.15	<p><u>THEMATIC SESSIONS:</u></p>
11.20 – 12.20	<p>1) <u>Chemical safety and security in industry and transport of chemicals and energy carriers:</u></p> <p>Mr. Paweł Dadasiewicz: Chief Inspectorate of Environmental Protection /CIEP/: "Actions taken by CIEP and international cooperation aimed at preventing major breakdowns and eliminating their impact and restoring the environment to its proper condition"</p> <p>Mr. Jerzy Golebiewski, Chairman of the Board, DGM Poland: "Transportation of dangerous goods and hazardous waste; requirements for road and rail transport operators; domestic and international experience"</p> <p>Mr. Szymon Domagalski Senior Specialist, Bureau for Chemical Substances: "Chemical Safety System established in the provisions of the Rotterdam and Stockholm Conventions"</p> <p>Ms. Bożena Adamska, Advisor to the Minister, the Department of Air Protection, Ministry of Environment: "Actions aimed at protecting the environment and human health against the emission of mercury and mercury compounds – the Minamata Convention on Mercury"</p> <p>Mr. Marek Porycki, the Chief Inspectorate of Environmental Protection, Department of Market Control, System of, safe from the perspective of the environment and human health, cross-border transfer of hazardous waste, including chemicals. Synergy of actions of the Basel, Rotterdam and Stockholm Conventions.</p>
12.20 – 12.35	<p>2) <u>Development of the manufacturers' platform for chemical safety and security</u></p> <p>Mr. Mariusz Andrzejczak, Deputy Head, Polish Defence Holding:</p>

12.40 – 13.00	<p>"Industry and research and development sector cooperation within the platform for manufacturers of chemical safety"</p> <p>3) <u>Chemical safety and security in the process of shale gas search and mining:</u> Mr. Przemysław Stangierski, Partner, A.T. Kearney: "Key elements of chemical safety and security in the shale gas exploitation"</p>
13.00 – 13.20	<p>4) <u>Preventing ecological and chemical threats at local level:</u></p> <p>Mr. Lukasz Blacha, Town Council in Tarnów: "Challenges faced by public administration in the context of chemical threats; experience from cooperation with chemical industry: <u>"Initiative: Local Awareness and Responsibility in the Chemical Safety"</u>"</p>
13.30 – 14.00	<p>5) <u>Sea dumped chemical weapons:</u></p> <p>Dr. Jacek Beldowski: The Institute of Oceanology, the University of Gdańsk "Threats relating to sea dumped chemical weapons"</p> <p>Mr. Joseph Kiyoshi Asahina, Chief of Technology, Nuclear and CWD Division, <i>Kobe Steel</i>, LTD "Industrial capacities to utilize dumped Chemical Weapons".</p> <p>Mr. Koichi Hayashi, Deputy General, Manager of CWD project department <i>Kobe Steel</i>, LTD: " Kanda project and a mobile DAVINCH lite system"</p>
14.00 - 14.15	<p>6) <u>Chemical terrorism and ecological bombs:</u></p> <p>Prof. Sławomir Neffe, Military University of Technology, Chair, ICCSS Advisory Board on Chemical Safety and Security: "Domestic and international cooperation in combating chemical terrorism – building experience to deal with Chemical Improvised Explosive Devices "</p> <p>Working Lunch</p>
14.20 - 15.15	<p>Final session and conclusions from the conference: cooperation between state bodies and industrial, scientific and civil society entities in the strengthening of environmental protection and chemical safety development</p>
15.15 – 16.15	

Abstracts of the presentations

A plenary session with keynote national and international statements:

Andrzej Jagusiewicz

Opening Statement

by Dr. Andrzej Jagusiewicz - Chief Inspector of Environmental Protection

1. The Warsaw Conference goes beyond the traditional consideration that the environmental protection and chemical security serve only the environment. The main messages of the Conference are that:

Firstly, complying with the environmental protection standards and ensuring chemical safety and security became an important condition in the research, manufacturing and trade of chemicals. It also covers the extraction of mineral resources and energy sources, including shale gas, disposal of sea-dumped chemical weapons, and research and development works. Strengthening the chemical safety and security is an important element of critical infrastructure protection.

Secondly, chemical safety and security and environmental protection are more and more interlinked with internal and external security, public health protection, economic and trade cooperation, as well as development and humanitarian policies.

2. Poland has over the years developed a series of comparative advantages in the areas of environmental protection and chemical security. The active sharing and promotion of these advantages will offer new opportunities for enhancing economic, trade, research and development cooperation.
3. Poland has introduced effective systems of environmental protection based on the highest European standards.
4. Poland is a good example that expanding production and economic activities as well as growing application of chemicals does not harm the environment. The environment is used in compliance with generally adopted acceptable principles and standards. Business activities are effectively controlled by environmental protection inspection. The condition of the environment is regularly monitored and assessed **on an ongoing basis**. **The local** communities and public authorities must be regularly informed about the environment.

5. Polish government institutions and private companies have educated and employ competent staff who is well prepared and equipped to implement chemical safety and security requirements and environmental protection. There is an effective system of supervision of installations that create risks of major accidents to people and the environment in Poland. This supervision is conducted by the organs of the Inspectorate for Environmental Protection and State Fire Service. The national system of prevention of major accidents meets the requirements of Council Directive 96/82/EC of 9 December 1996 on the control of major-accident hazards involving dangerous substances (so-called Seveso II Directive) and Directive 2003/105/EC of the European Parliament and of the Council of 16 December 2003 amending Council Directive 96/82/EC on the control of major-accident hazards involving dangerous substances. Currently, works are underway to adapt national legislation to the Directive of the European Parliament and of the Council 2012/18/UE of 4 July 2012 on the control of major-accident hazards involving dangerous substances (so-called Seveso III) . The relevance of national system of prevention of major accidents as an important element of national security has been confirmed in the official document of the Polish government entitled: "National Environmental Policy for 2009-2012 and towards 2016".
6. Inspection of environmental protection in Poland is a modern and professionally managed public institution with relevant instruments to conduct effective environmental policy and to protect the environment for present and future generations. Poland has developed and implemented modern solutions for disposal of toxic substances and wastes.
7. Poland is an active partner in the development of the international security and a leading participant of the efforts to ban chemical weapons, to enhance chemical safety and security worldwide and to strengthen environmental protection. Poland has promoted important international initiatives in these areas. Poland's entities initiated modern solutions to enhance chemical safety and security at national and international levels. Poland is leading the efforts to develop the global chemical security culture.
8. The International Centre for Chemical Safety and Security established in Poland offers chemical security solutions based on sustainability, continuity and modern management, in the whole range of chemical activities, including storage, transportation and transmission of chemicals and energy carriers. Leading international partners, governments, organisations and chemical industry have actively supported the Centre and jointly develop and introduce international programs to enhance chemical security at national and regional levels. The Centre actively promotes the global chemical security culture.
9. The Warsaw Conference offers a broad look on different aspects of the environmental protection and chemical safety and security. Let me refer to three areas where we witness a growing relevance of the enhanced environmental protection and chemical safety and security. The sea-dumped chemical weapons which stayed for generations untouched on seabed are becoming a barrier in the expanding economic activities at seas. The recent research provides more and more information on the negative environmental impact of weapons dumped at seas. We are approaching time where

these weapons have to be occasionally removed under the strict safety and security regulations. There are no such regulations and practices today. The use of different chemicals in shale gas exploration requires a comprehensive approach to introduce chemical safety and security and relevant procedures for their use. Chemical safety and security in shale gas exploration is an important condition to achieve transparency and effective communication to society and local populations. The expanding production and use of chemicals and their transportation in most of local societies, raises the importance of collecting the information on the chemicals used, stored or transported through local communities, introducing the precautions measures to deal with these chemicals and to prepare for any contingency in case of chemical accident or incident.

10. The Conference will offer concrete proposals to fill these loopholes, mitigate their risks and increase chemical safety and security in these areas. Their implementation will lead to safer environment and use of chemicals in a sustainable, safe and secured manner. Finally it will serve and offer new opportunities for enhancing internal and external security, public health protection, economic and trade cooperation, as well as development and humanitarian policies.

I thank you for the attention.

Ambassador Bonnie D. Jenkins

Coordinator, Threat Reduction Programs
U.S. Department of State

"Roles of chemical security in the strengthening of international peace and security; cooperation perspectives in bilateral and multilateral dimension"

We have witnessed a changing security landscape regarding global security and nonproliferation activities, including in nuclear and radiological security, biosecurity, scientist engagement, United Nations Security Council Resolution (UNSCR) 1540 implementation, and chemical safety and security.

National implementation of chemical safety and security practices will allow States Parties to better address the threat of hostile use of toxic chemicals. Increasing cooperation and exchanges of information is one way to strengthen the security of chemicals and the chemical supply chain to prevent theft or misuse. Such actions also help avoid duplication of efforts and resources, which is especially critical in austere times.

The Warsaw Conference is an important forum to enhance global chemical security and to promote global cooperation in decreasing the chemical threat by promoting awareness of chemical security and safety, training, exchange of best practices and fostering cooperation between chemical professionals and the promotion of global chemical security culture. The Warsaw Conference has a potential to expand to a global gathering engaging international community, including governments, chemical industries, science, academia and non-governmental organisations to enhance chemical security and promote global chemical security culture.

We should all welcome the efforts by the Polish stakeholders and their international partners to enhance chemical security. The establishment and an active international engagement of a Centre for Chemical Safety and Security in Poland (ICCSS) is not only a positive way forward, but also follows the current international trend to establish centers where training focuses on specific areas of security. The ICCSS leads efforts to enhance chemical security internationally among the different audiences, with an emphasis on chemical industries, academia and NGO's.

Efforts to develop the programme for chemical safety and security in Kenya coordinated by the ICCSS in cooperation with the public and private stakeholders including TNO the Netherlands, Dow Chemicals, AT Kearney, and the Center for International Trade and Security at the University of Georgia is also a very positive step forward.

Global security engagement programs, which clearly include chemical safety and security, must adapt to a changing security landscape that includes proliferation threats involving both state and non-state actors. Work that is based on a regional approach has many benefits, including being able to adapt to a particular region's challenges and opportunities.

The ICCSS's efforts into chemical safety and security present new opportunities for building partnerships around the world and to help bring other countries into the overall goal of building lasting strong and durable programs toward strengthening global security engagement, and moving everyone toward a more safe and secure world. The efforts of the ICCSS should be integrated into that of existing international organizations, and where possible, regional and national initiatives for information exchange and coordination of efforts.

Jerzy Majchrzak

Director, the Department of Innovation and Industry, the Ministry of Economy :

"Cooperation between the state, the private sector and the research and development sector in the development and specialization of Poland in chemical security "

In the realm of globalization and growing interdependence in all areas of international cooperation, the economic issues become a leading factor in the shaping of contemporary international relations, international security, and implementation of the assistance and development policies.

The Ministry of Economy is actively supporting pro-innovation and pro-export strategy for the development of the Polish economy, and especially the possibility of opening new foreign markets and presence of exporters in the markets of Asia, Africa and the Americas.

The primary condition of the development of the Polish economy is to increase its " innovative driving force " in both the EU and globally. The role of the Ministry of Economy is not only to support the existing directions of economic development and expansion of Polish companies, but also to point toward and open new opportunities for innovative and export-oriented directions.

Empowerment of civil society and the stimulation of the activity and creativity of the citizens is the leading condition of implementing effective programs of development policy. The emergence and rapid development of the International Centre for Chemical Safety and Security/ICCSS/- a civic initiative and non-profit organization. The ICCSS is becoming a leading national and international center for the development of chemical safety and security, environmental protection and a driving force in creation of global chemical safety and security culture. It is a practical confirmation of the participation of actors and social initiatives in creating innovative Polish economy and its export-oriented character.

Initiative development of chemical safety and security as a Polish specialty in the world open the space for further development of the Polish economy. This initiative will serve the development of entrepreneurship, innovation and competitiveness of Polish enterprises while improving internal and industrial security. As a result the field of international cooperation will expand .

Ministry of Economy supports the founding assumptions and expected conclusions of the Warsaw's Conference on Chemical Safety, Security and Environmental Protection. The unique international project of chemical safety and security in Kenya coordinated by the International Centre for Chemical Safety contributes to the objectives of the program Go Africa and will be actively supported. Creation of the firm foundations for the chemical safety and security of shale gas production will serve the environmental protection. It will streamline a debate around shale gas on the basis of proven solutions, widen social dialogue and smoothen the communication with local communities and the civil society.

Ministry of Economy supports the development and production technology platform for the chemical safety and security, which has been created - on the initiative of the International Centre for Chemical Safety and Polish Defense Holding –by Polish manufacturing companies, research institutions and trade companies.

Prof. Maurizio Martellini

Secretary General Landau Network-Centro Volta, Italy,
Executive Secretary of the International Working Group

“Poland’s comparative advantages and emerging leadership in chemical security from the international perspective”

Globalization of chemical production means that global solutions are required to implement chemical security and safety and prohibit the use of chemicals in malicious actions. A threat of prohibited activities has focused the international attention for seeking novel approaches and solutions in assuring security and safety of chemical production, handling transport, supply chain, till the end use. Chemical security has become an important element of the global chemical security infrastructure.

A strong proponent of the chemical security and protection of critical infrastructure is the European Union which provides a growing political and financial resources in these areas, as well as leading developed countries.

There is a growing recognition in the EU and at the world stage of Poland’s active and effective efforts to strengthen chemical safety and security as an important factor of international

peace and security. The Polish stakeholders from government, chemical industry, science, academia and NGO's, have participated and promoted over the last years within the EU, NATO and the other international organisations and chemical industries modern and innovative approaches and programs to enhance chemical safety and security. Amb. Krzysztof Patulej is recognized as a leading international figure in the global efforts against weapons of mass destruction and CBRN security. He is one of the godfathers of a global chemical security.

The International Centre for Chemical Safety and Security (ICCSS) is becoming a reference point and a modern platform for cooperation to enhance chemical security worldwide. The ICCSS has introduced unique approaches, which govern the international cooperation, including the engagement of all the audiences in peaceful uses of chemistry, including governments, chemical industry, science and NGO's, practical implementation of the principles of sustainability and modern management and public-private partnerships. The emphasis of the ICCSS on the developing countries and promotion of the global chemical security will draw more attention and resources for the ICCSS work.

Poland is a visible example of successful integration with the EU. After ten years in the EU Poland is today an active and important member of European family and the international community. The success of Poland was achieved due to an effective use and absorption of EU resources. In the years to come Poland should move from the position of recipient of EU resources to the provider of innovative solutions and creator of modern international agenda.

While success in a globalized world depends on the exploration and implementation of comparative advantages, Poland should use its advantages and consider making chemical security and the development of the global chemical security culture as Poland's trademark.

Investing in chemical security in the context the EU integration, regional and international security and cooperation with the developed and developing countries, offers new opportunities to strengthening Poland's position in the region, within the EU and in the international organisations, and expanding political, economic, trade and scientific relations.

The Warsaw Conference offers innovative and synergetic approaches in chemical security and provides concrete proposals and solutions. It has a potential to be expanded towards a gathering to enhance chemical security worldwide and promote global chemical security.

Timothy J. Scott

"Chemical security in the development of chemical industry and commercial cooperation. Poland's leadership on chemical security"

The chemical industry is important for the world economic and social development -- essential to a sustainable world economy and improved health and nutrition.

The chemical industry is one of the world's most international, competitive & successful industries, embracing a wide field of processing & manufacturing activities.

The chemical industry creates products that bring major societal benefits to quality of life, health, productivity, convenience and safety.

According to the International Council of Chemical Associations:

- In 2010 the world chemical industry had an estimated turnover value of over 3 trillion dollars or 2½ trillion Euros
- About 20 million people around the globe have a job connected to the chemical industry directly and indirectly

The chemical industry is the foundation upon which all other industries are built -- critical in every phase of life as we know it with some presence in every nation in the world – whether in operating plants, distribution routes or consumer use of end products.

And the industry is growing – expanding in new and emerging nations.

With this leadership position and growth comes the responsibility to operate in a safe and secure manner – protecting the environment and the health and well-being of the people. The chemical industry takes that responsibility seriously and responsible companies implement the Responsible Care codes to lay the groundwork for the safe and secure operations.

Success requires partnership. We all have essentially the same goal – a safe and secure environment – for our industry and employees, and the communities and the countries in which we operate. The industry, the people, and the government authorities designated to protect and serve those communities and countries all have a similar vision.

Everyone in this room has a similar vision. Separately each one of us can do much to achieve our individual goal, but together – in partnership – we can do more and achieve our common goal.

Dow takes an all encompassing risk-based approach to our operations and we implement the Responsible Care codes at all our sites around the world. Many companies and communities do have the same goals and ideals. When common goals are set and a true working partnership is in place, governments, industry and communities can achieve those goals.

The partnership approach with industry, government, communities and all others working together ensures that a solid foundation – a safety and security culture – is created, and any necessary regulations on chemical security are based on true risk with the flexibility for industry to address that risk in a reasonable and cost-effective manner.

In this partnership the communities – local leaders, area schools, hospitals, emergency responders and the general public - are fully engaged and aware of the operations within the industry – and emergency plans are known, in place and tested – in the community and along the distribution routes where the products are transported.

The International Center for Chemical Safety & Security in Poland is a perfect example of the vision and enthusiasm needed to motivate the necessary expertise and support, to nurture a true partnership of diverse players and interests, and to plan and coordinate the development and implementation of a safety and security culture around the world and with an emphasis on the developing countries.

In a relatively short timeframe progress has been made on the development of chemical safety and security program in Kenya, initiated and led by the ICCSS and joined by others. The Kenyan project offers a true partnership between the Kenyan and other government officials, academia, industry, and non-governmental organizations. The Kenyan project is founded on a public-private partnership and offers new opportunities for economic development and trade cooperation.

This progress and the vision and modern approach of the International Center for Chemical Safety & Security to engage all the relevant stakeholders, implement public-private partnerships, develop comprehensive solutions and to globalize existing best practices has already created inquiries from around the world regarding the possibilities of additional centers of excellence, partnerships and cooperation to enhance national and regional chemical security. There is a growing market and demand for cost-effective and comprehensive solutions to provide chemical safety and security.

The enthusiasm and leadership of Poland have sparked a global initiative that will benefit all and has branded Poland as the focal point for developing and implementing the concept of a chemical safety and security culture. Now it's up to the partners – those in this room, and those around the world in industry, government, the communities and schools – all the partners – in developed nations or emerging nations -- to build on this momentum – to create centers of excellence and a safety and security culture on a global basis.

Ambassador Krzysztof Paturej

President of the International Centre for Chemical Safety and Security (ICSS)

"Chemical security as means of international cooperation and comparative advantages of Poland"

1. Globalization of chemical production means that global solutions are required to implement chemical security and safety and prohibit the illegal use of chemicals.
2. Poland is an important international partner in the field of international security and an active participant of CBRN non-proliferation initiatives as well as a leading player in the framework of Organization for the Prohibition of Chemical Weapons in The Hague, where chemical safety and security are among the issues of growing importance.
3. Since 2008, with an active support of the Government of Poland, Polish chemical industry, science and academia, there were different measures undertaken to enhance chemical security and promote global chemical security culture. Several of these activities were undertaken in Poland.
4. At the International Conference on Chemical Safety and Security conducted in Tarnow, Poland, in November 2012, and attended by the representatives from 56 countries and several international organisations, chemical industry science and academia, there were a broad support expressed to enhance global chemical security.
5. The International Centre for Chemical Safety and Security (ICSS) established in Poland offers chemical security solutions based on sustainability, continuity and modern

management, in the whole range of chemical activities, including storage, transportation and transmission of chemicals and energy carriers

6. The International Board for Chemical Safety and Security, composed of recognized international experts from governments, academia, research, industry, has been established at the initiative of the ICCSS to provide technical and scientific advice and promote global chemical security.

7. In a close cooperation with the Polish and international companies the ICCSS has initiated the development of a platform of manufacturers of technologies and equipment for chemical safety and security.

8. Polish and international partners has confirmed major prospects for the development of the Poland's leadership in enhancing chemical security at a global level.

9. A new possibilities are open for the Polish entities to participate in the international aid to enhance economic and trade cooperation with the Eastern European countries within the Eastern Partnership, and with the developing countries.

10. The Poland's comparative advantages which should be further developed and promoted nationally and around the world.

1) Bezpieczeństwo chemiczne w przemyśle i transporcie związków chemicznych i nośników energii

Dariusz Gołębiewski

DGM Poland

Every day a large variety of companies worldwide involved in such industries as chemical, logistics, oil and gas, energy, freight forwarders, air, road, rail, maritime transport companies, etc., seek solutions for safe and efficient transportation of dangerous goods and wastes. The key to ensuring environmentally safe and chemically secure transportation of dangerous goods lies within creating and reinforcing of cooperation between private sector and administration. At the same time, safety trainings on dangerous goods transportation is the fundamental instrument to facilitate and raise awareness of safety and security. As a Strategic Partner of IATA, DGM guarantees safety and security to every participant engaged in road, air, rail and sea transportation.

Marek Porycki

Control system of transboundary movements of hazardous waste in Poland. Synergies of the Basel, Rotterdam and Stockholm conventions

Presentation includes basic information on control system of transboundary shipment of waste in Poland and involvement of Polish administration in synergies process of the Basel, Rotterdam and Stockholm conventions.

Presentation relates to international and national regulations governing implementation and enforcement of control system of transboundary shipment of waste. Presentation describes in synthetic manner procedure to be followed in case of transboundary movement of hazardous waste and system of preventing and combating illegal transboundary shipment of waste implemented in Poland.

Presentation also describes basic principles and elements of implementation of the synergies process of the Basel, Rotterdam and Stockholm conventions in the area of waste and chemicals including actions taken by competent authorities in Poland.

Szymon Domagalski

Bureau of Chemical Substances

The representative of the Bureau for Chemical Substances, will deliver a lecture on the Rotterdam and Stockholm Convention, and the Strategic Approach to Chemicals Management (SAICM). The aim of the presentation is to acquaint the audience with the most important aspects of those international agreements, and to present them in a broader context, as a complementary elements.

2) Development of the manufactureres' platform for chemical safety nad security

Mariusz Andrzejczak

Vice President, Polish Defense Holding

Cooperation of industry and research sector in the development of manufacturers' platform for chemical safety and security

Global development of chemistry together with the economic and social development – introduces many risks. Recent chemical disasters in the United States and Belgium, terrorist attack on the refinery and gas field in Algeria, as well as use of chemical weapons and illicit use of chemical substances, amongst the others, in Syria show the importance of the problem and threat to safety, health, environment, and economic activity. Ensuring the safety and security of the production, infrastructure and chain of supply both at the national and global level, requires cooperation of governments, chemical industry, science, and local communities .

The important part of the chemical security is to adopt protection measures of sites, transfer lines and transportation of chemical substances to current and future threats, through the development and implementation of the relevant procedures, technology and equipment.

Today, chemical safety and security remain still a niche in the global economy and security policy. This may be also referred to technologies, procedures, security equipment, transfer and transport of chemicals. Those will be the leading topics of tomorrow. Chemical safety and security are becoming a very profitable area of economy and pertains directly to public health, the environment, security issues, economic cooperation, promotion of development policy and humanitarian aid.

Poland has a significant potential in the chemical industry and the growing international position in strengthening chemical safety and security. Polish military and civilian manufacturers have sufficient knowledge and experience in the development and production of protective equipment. Chemical safety and security should become a Polish specialty in the world. Polish R & D centers and manufacturers of protective equipment should engage actively in the development of industry of protective and security equipment and technologies. This will bring concrete benefits in the economic, political, security, scientific dimension as well as will reinforce the image. It is

recommended to develop and implement a strategy for the development of Polish wide range potential in a of chemical safety and security related to the facilities, transfer and transport of chemicals.

Polish Defense Holding, together with the International Centre for Chemical Safety / www.iccss.eu/ have taken the initiative and decided to create a technology and manufacturers platform for the chemical safety and security. The platform will promote and coordinate the conduct of research, development and manufacturing in a full scope of chemical safety and security at a national and international level.

The result of the operation of the platform will be the presentation and promotion on the international markets of the comprehensive developments regarding the procedures, techniques and equipment in the field of chemical safety and security of the facilities, transfer and transport of chemicals. This will contribute both to improve the physical security and rise chemical security culture, increasing risk awareness and risk reduction, as well as will be promoting good security practices based on the experiences of Polish and foreign entities .

The activities will become a tangible example of the development of chemical safety and security as the Polish areas of expertise in the world through the active use of the potential of the Polish chemical industry, defense sector and their research and development capacity.

4) Preventing ecological and chemical threats at local level

Łukasz Blacha

Public Relations Chief Specialist , Municipality of Tarnów, Poland

"Challenges of chemical threats faced by the public administration; experience from the cooperation with chemical industry; the initiative: Local Awareness and Responsibility in Chemical Safety and Security".

For over 87 years the city of Tarnów has been one of the most important and innovative centres for Polish chemical industry. It may be seen as an example of great cooperation between the industry and local society, which is a main condition for overcoming social distrust and aversion towards chemical industry.

Tarnów is a chemistry-friendly city, and chemistry itself is a leading element of economical and social development of Tarnów. In Tarnów were created and implemented the mechanisms of cooperation between chemical industry, the Municipality and the society, which are based on openness, development of social awareness and introduction of effective solutions connected to monitoring and responding to chemical incidents.

In Tarnów, with the help of units responsible for monitoring and protecting the environment, there was introduced a system of monitoring and early detection of air pollution and informing the citizens.

The cooperation between chemical industry and local society is based on education and conversations about chemical substances and processes, developing the emergency response plans, providing regular trainings with Azoty's employees, representatives of local authorities, citizens and the media.

In Tarnów the development of the International Centre for Chemical Safety and Security was initiated. The ICCSS actively expands chemical safety and security training and seminar programmes. In November 2012, together with the Municipality of Tarnów, the ICCSS and the OPCW there was held an international conference on chemical safety and security. The conference gathered about 250 participants from 56 countries and 20 international organizations. The Conference was an important forum for presenting Tarnów's experience in implementing modern forms of cooperation between the chemical units and the local society, and also in reducing threats connected to chemical activity. Tarnów's experience in the above mentioned areas is highly valued on the international arena, for example, by the OPCW.

Tarnów's experience is also promoted across the world. There are undertaken measures to create in Tarnów an international centre for practical trainings in chemical safety and security.

All the hitherto experience of Tarnów proves that the chemical development, which carries a great civilisational and economic progress, requires active participation of local societies in monitoring and controlling the access to toxic chemical compounds.

To meet the challenges of the increasing usage of chemistry and to fulfill the requirements of environmental protection and chemical safety and security, the authorities of Tarnów, the Chief Inspectorate of Environmental Protection and the International Centre for Chemical Safety and Security are taking the initiative to develop and implement the programme: Local Awareness and Responsibility in Chemical Safety and Security. The main goal of the programme is creating a local policy of sustainable development in broadly defined chemical activity, managing chemical compounds and toxic waste, planning and responding to threats connected to this activity and to transport of dangerous materials. The programme will also support the partnership between the administration, self-government, citizens and users of chemical units on a local field, develop the awareness of safe usage of chemical compounds, identify stored or transported dangerous materials, and help in preparing guidelines for local authorities in creating and introducing emergency response plans. The main basis of the programme will be the exchange of knowledge and experience and providing trainings for the administration and local self-government representatives, chemistry users and civil society.

5) Sea dumped chemical weapons

Jacek Bełdowski

Chemical Weapons - From searching to monitoring, i.e. from CHEMSEA to MODUM

Some 40,000 tons of chemical weapons have been dumped in the Baltic Sea after World War II. Because of the incomplete logbooks, imperfect navigation and actions not following the orders, this weapon is spread in large areas of the bottom of the Baltic Sea. During the project CHEMSEA we managed to find about 8000 pieces of chemical weapons in the region of Gotland Deep, and further tens in the area of Gdańsk Deep and Slupsk Bank. About half of the discovered objects leak, resulting in contamination of the surrounding sediments. In proximity to the identified objects the benthic animal life was significantly poorer than in similar areas of clean sea bed, and the fish of the regions of dumped munitions were characterized by worse health condition than those free of munitions deposits. This suggests a chronic negative impact of chemical munitions on the ecosystem. To estimate the extent of the phenomenon, these should be monitored for a long time. MODUM project is developing a relatively low-cost and effective methods of monitoring of dump sites, what would allow separation of the most dangerous objects, and the answer to the question of whether local pollution bottom can turn into an ecological disaster. Presentation at the International Conference " Chemical safety and the environment : challenges and prospects for the development of economic cooperation, trade and research and development " organized by ICCSS and GIOŚ in Warsaw on 12 May 2014.

Mr. Koichi Hayashi and Dr. Joseph Kiyoshi Asahina, Kobe Steel Ltd., Japan

For the Sea As Clean As Reasonably Achievable (Sea As Clara)

-Past performance at Port Kanda and lessons learned for the future-

In the year 2000, discarded chemical weapons were found underwater in the proximity of Port Kanda. Kobe Steel received an order from MOD to survey an area of 2,200ha, followed by a removal and destruction of the recovered munitions by detonation (approximately 3,000 chemical weapons, in 9 years).

Kobe Steel developed necessary system, as listed below, which to date, had not been deployed at any prior site.

- Identification system of chemical weapons underwater by magnetic anomalies,
- Lewisite protective diving suits,,
- X ray system to use underwater,
- Double walled recovery and transportation container,
- DAVINCH detonation system.

The lessons learned;

- Sea dumped munitions project should have balance of necessary cost to remediate and consequent reduced environmental impact, bringing the concept of “Critical Depth”.
- On-site destruction is highly recommended,
There is no myth of safety. Mitigation plan should be established against event beyond the design base.

6.) Chemical Terrorism and ecological bombs

Prof. Sławomir Neffe

Military University of Technology, Chairman, ICCSS Advisory Board on Chemical Safety and Security

"Domestic and international cooperation in combating chemical terrorism – building experience to deal with Chemical Improvised Explosive Devices "

Terrorists could use dramatic methods, as an aircraft attack or a false shipping order to kill people and terrorize societies by attacking chemical plants, refineries, chemical storages. Most of them are in populated areas across the country. There are thousands of facilities in every country, which store or use chlorine, hydrofluoric acid and many other chemicals, the release of which could be very dangerous. These facilities require special security measures.

It is well known that Improvised Explosive Devices (IED) are the most dangerous weapons used by terrorists all over the world. The tremendous threat, which is created with this kind of weapons would be much higher if terrorists will use the Chemical Improvised Explosive Devices (Chem-IED). These devices can be much smaller, smarter and more effective in mortality and psychological effects than classical IED. At present many governments and first responders are not prepared for such situations and there is a real need for training, as many as possible, international experts for facing such situations.

The ICCSS /www.iccss.eu/, together with Military University of Technology / www.wat.edu.pl/ and Military Institute of Engineer Technology, Poland /www.witi.wroc.pl/ and with NATO sponsorship have developed the NATO Advanced Training Course (ATC) on "Identification and Neutralization of Chemical Improvised Explosive Devices" for promoting the higher level of security for societies all over the world. The main goals of the ATC is to enhance awareness on security developments including advanced technologies, methodologies and best practice in preparing the governments and societies to establish much lower level of vulnerability and much higher level of resilience in the case if using Chem-IED.

The course will be held from 26 to 30 May 2014 at the Military Institute of Engineer Technology (WITI), Wrocław, Poland. The ATC on Chem-IED is a first initiative to raise capacity in preparedness and first response to Chem-IED incidents and will have several impacts on security in general. The outcome of the ATC will be a set of conclusions and recommendations for governments and international organizations to establish a network of experts for further developments of approaches for successful countermeasures against Ch-IED. As post ATC activities the publication of the results, evaluation, conclusions and recommendations of the ATC will be issued as a book.

Following the course and in cooperation with the participants and trainers, a specialized international program to mitigate the risks of Chem-IED's will be developed and proposed. The program will offer sustainable and continued training courses and best practices exchanges to civilian and military first responders, antiterrorist unit members and others, who deal with the threat of Chem-IED. The

program will offer the “train-the-trainer” approach for participants who are in a position and ready to share the gained knowledge and expertise in their home country.

Training of first responders and other personnel involved in emergency planning on materials and best procedures will constitute a direct action in the area of public security prevention. The proposed program will raise directly security preparedness and response capacity of the respective state services.

Prof. Valery Kukhar

the Institute of Bioorganic Chemistry and Petrochemistry, the National Academy of Sciences of Ukraine (NASU)

Ukrainian-Polish cooperation to enhance chemical safety and security at national, regional and international levels

The active cooperation of the Delegations of Ukraine and Poland within the framework of the Organization for the Prohibition of Chemical Weapons (OPCW) was an important factor to develop the new agenda issues and priorities in the international efforts to prohibit chemical weapons. The Ukrainian and Polish Delegations led the efforts to develop the OPCW role as the global agency to decrease the chemical threat.

The exemplary cooperation of Poland and Ukraine was confirmed in the subsequent chairmanships of Poland and Ukraine the OPCW policy making organs. The effective Presidency of Ambassador Krzysztof Paturski of the OPCW Third Review Conference in 2013 resulted in the adoption of the Final Document which confirmed the political support of the world community to engage the OPCW in the efforts to enhance chemical safety and security globally. As the chair of the Executive Council of the OPCW in 2013-2014 Amb. Olexander Horin of Ukraine actively implemented these policy guidance into practice and operationalize the chemical security in the work of the OPCW.

The Ukrainian and Polish stakeholders have also created a unique partnership within the International Centre for Chemical Safety and Security, Warsaw, Poland (ICCSS). The ICCSS has become an influential actor in the international efforts to enhance global chemical security and to promote chemical security culture. The Ukrainian partners from the industry, science and academia and non-government sectors, have joined the ICCSS efforts in the areas of development, production, use, trade and transportation of toxic chemicals and energy carriers and safe disposal of toxic wastes.

The joint ICCSS-Ukrainian projects include:

- 1) Support for the work of the Chemical Security Sub-Working Group of the G8 Global Partnership, under the Ukrainian-Polish chairmanship;
- 2) Joint organization of the **NATO ATC course** “Identification and Neutralization of Chemical Improvised Explosive Devices” – advanced training course for NATO Partnership Countries, funded by NATO within frame of Science for Peace and security programme, to be held in May 2014 in Wrocław, Poland;
- 3) **Development of the EU grant: „Network of universities and institutes in raising awareness against dual use concerns of chemical materials”.**

Promoting chemical safety and security in the countries of Eastern Partnership in the peaceful uses of chemistry, including transportation of chemicals and carriers of energy is a new and prospective area of Ukrainian-Polish leadership and cooperation. The cooperation with the Eastern Partners has been initiated during the Lithuanian Chairmanship of the Eastern Partnership and resulted in a series of consultations and project proposals.

CV of key speakers

Amb. Bonnie Jenkins

Amb. Bonnie Jenkins is the Department of State's (DOS) Coordinator for Threat Reduction Programmes. She is also the U.S. Representative to the Global Partnership Against the Spread of Weapons and Materials of Mass Destruction (Global Partnership) and currently Chairs the Global Partnership. She is the DOS lead on the Nuclear Security Summit and the four-year effort to secure all vulnerable nuclear material. Prior to rejoining the U.S. Government, Ambassador Jenkins served as Program Officer for U.S. Foreign and Security policy at the Ford Foundation. She has also served as counsel on the National Commission on Terrorist Attacks upon the United States, known as the "9-11 Commission." Ambassador Jenkins worked at the RAND Corporation and is a retired U.S. Naval Reserve officer. She also worked as a legal advisor in the Office of General Council at the U.S. Arms Control and Disarmament Agency. Ambassador Jenkins was a fellow at the Belfer Center at the John F. Kennedy School of Government, Harvard University. She was as an advisor at Harvard Law School's Office of Public Interest Advising. Ambassador Jenkins has a Ph.D. in International Relations from the University of Virginia; an LL.M. in International Law from the Georgetown University Law Center; an M.P.A. from the State University of New York at Albany; a J.D. from Albany Law School; and a B.A. from Amherst College.

Timothy J. Scott

Chief Security Officer & Corporate Director, Emergency Services & Security, The Dow Chemical Company, USA

Timothy J. Scott is the Chief Security Officer & Corporate Director of Emergency Services & Security (ES&S) for The Dow Chemical Company, and a member of Dow's Corporate Crisis Management Team. Scott leads Dow's global ES&S expertise and operational organizations in over 200 locations around the world, and has testified as a subject matter expert before committees of both the U.S. House of Representatives and the U.S. Senate.

Scott served on the executive committee of the Chemical Sector Coordinating Council affiliated with the Department of Homeland Security, was a member of the inaugural National Maritime Security Advisory Committee, and co-chaired a Chemical Sector Case Study on Information Sharing sponsored by the National Infrastructure Advisory Council.

In 2007 Scott was named by Security Magazine as one of the 25 most influential security executives in the U.S.; and was a finalist for the Leadership Excellence Award sponsored by the Harvard Business Review and the United States Naval Academy's Stockdale Center for Ethical Leadership.

Scott is a graduate of the U. S. Naval Academy earning a Bachelor of Science degree in international relations; with post graduate and executive education courses taken at the Joint Armed Services Defense Information School, New York Institute of Technology and Kellogg School of Business at Northwestern University.

HE Mr. Krzysztof Paturej

President of the Board of International Centre of Chemical Safety and Security, a career diplomat, the Chairperson of the OPCW Third Review Conference /The Hague, April, 2013/, as Ambassador Titular at the Ministry of Foreign Affairs of the Republic of Poland. Amb. Paturej is experienced in multilateral diplomacy, negotiations and multicultural relations, disarmament and non-proliferation of WMD, efforts against terrorism, development and cooperation programmes, relations with stakeholders and public society, result based management and risk management strategies. He is actively engaged in the promotion of the global chemical safety and security and the development of the global chemical security culture. He is initiator of the International Centre for Chemical Safety and Security in Poland.

In 2006 - 2013 Mr. K.Paturej was the Director of the Office of Special Projects in the OPCW Technical Secretariat. In 2000 – 2006 Mr. Krzysztof Paturej was Head of Division on Non-proliferation within the Polish Ministry of Foreign Affairs. He was, inter alia, a national coordinator of the Proliferation Security Initiative (PSI), and Senior Representative of Poland to the G8 Global Partnership /2003-2005/. Mr. K.Paturej was the Representative of Poland to the OPCW Preparatory Commission /1994-1997/ and the Permanent Representative of Poland to the OPCW /1997 till 2000/. He was the Chairman of the OPCW Executive Council /1998-1999/ and Chairman of the IX Conference of States Parties to the OPCW /2004 – 2005/.

In 2012, Mr. K.Paturej received from the Minister of Foreign Affairs of Poland the Plaque of Honour "Bene merito" for activities strengthening the position of Poland on the international arena.

Valerii Kukhar

Prof. Valery Kukhar is the Director of the Institute of Bioorganic Chemistry and Petrochemistry, in the National Academy of Sciences of Ukraine (NASU). Prof. Kukhar graduated from the Chemical Technology Institute, Dnepropetrovsk in 1963, and earned a Cand. Chem.Sci. degree from the Institute of Organic Chemistry, NASU, in 1967, followed by a Doctorate of Chemical Science in 1974. He served as head of the Chemical Department of NASU from 1978 to 1988, and Vice-President of NASU from 1988 to 1993. Also, from 1987 he became Director of the Institute of Bioorganic Chemistry and Petrochemistry at NASU. Prof. Kukhar was also President of the Ukrainian Chemical Society from 1992 to 2002. In the period 1995-2002 he was the Chief of Commission of Nuclear Policy and Ecological Security for the President of Ukraine; 1996-2003 he served as Deputy-chairman, Council for Science and Technology Policy for President of Ukraine. Currently, Prof. Kukhar is the Head of State Fund for Fundamental Research of Ukraine. Prof. Kukhar is a member of International Advisory Group for Chernobyl Shelter Fund, EBRD. Prof. Kukhar was also a member of the OPCW Scientific Advisory Board. His research is concentrated on phosphorus and fluorine organic chemistry, eco-technology and sustainable development. He is author and editor of 6 books and more than 600 scientific articles. He was awarded as Member - "GLOBAL - 500 " UNEP (1993), San-Valentino Award, World Federation of Scientists, 1999, Ukrainian State Award in Science & Technology, 1999.

Marek Porycki

Author of presentation is civil servant in Chief Inspectorate of Environmental Protection. Since 2007 he has been working in Department of Market Control in Unit of Transboundary Shipment of Waste. He deals with issues of transboundary shipment of waste including cases of illegal shipment.

He participates in activities of the Basel Convention and of the working groups of the Council of the European Union focused on Basel issues and synergies of the Basel, Rotterdam and Stockholm conventions.

Szymon Domagalski

Senior Specialist, Department for Dangerous Substances and Mixtures, Bureau for Chemical Substances.

Master degree in the field of law and public administration, postgraduate studies in the field of chemical management and risk assessment. Since 2013, Serves as Regional Focal Point for Central and Eastern Europe in the framework of the Strategic Approach to Chemicals Management (SAICM). Involved in the work of the Intergovernmental Negotiating Committee (INC) for a Minamata mercury convention. Act as the National Focal Point and support the work coordination between the European Chemicals Agency, designated national enforcement authorities and competent authorities for REACH and CLP. Act as Polish Focal Point responsibly for the 3rd priority area (Reduce the use and impact of hazardous substances) of the European Union Strategy for the Baltic Sea Region. Participate in Council of the European Union Working Party on International Environmental Issues, (WPIEI Chemicals), and in Meetings of Competent Authorities for REACH and CLP (CARACAL).

Bożena Adamska

Counsellor to the Minister Department of Air Protection Ministry of the Environment Poland

Bożena Adamska was graduated from the University of Warsaw, Faculty of Geography and Regional Studies and a postgraduate course on European Affairs at the University of Warsaw and University College of Maastricht. She has been working in governmental administration since 1993 (Bureau of the Government Plenipotentiary Office for European Integration and Foreign Assistance, the Office of the Committee for European Integration, the Ministry of the Environment), professional civil servant.

In 1996 she completed the traineeship for civil servants in the European Commission. She was involved in several European projects dedicated to public administration (within the framework of "Phare" and "Transitional Facility"). From 2004 to 2008 she served as Head of European Union Unit and from 2008 to 2011 – as Deputy Director of the Department of Foreign Affairs in the Ministry of Environment. Her duties focused on European policy coordination in the area of environment, as well as transposition and implementation of European law. She participated in the negotiations of the draft regulation on LIFE+ instrument. From 2009-2011 she was responsible for preparing the Ministry of Environment to the Polish Presidency in the European Council. She has been involved also in international and global affairs. In 2008 she was nominated as a member of the Polish delegation to the Conference of the Parties of the United Nations Convention on Climate Change (Poznań, COP 16). From 2011-2013 she took part in negotiation of the new convention on mercury as a member of the Intergovernmental Negotiation Committee. Mrs Adamska is presently the Counsellor to the Minister in Department of Air Protection, being responsible for foreign cooperation in the area of air quality, in particular Mercury Convention and international Coalition for climate and clean air.

Dariusz Gołębiewski

Before becoming the CEO of DGM Poland Ltd, Dariusz Golebiewski worked in the area of air cargo (LOT Polish Airlines, AMR Services, LOT Ground Services, Air Cargo Services). Since 1993 Dariusz has worked on developing the structure of training programs and operations. He is an instructor accredited by IATA DGR, IMDG, WCA, FIATA, Lufthansa Cargo. He is the author of Program Against Acts of Unlawful Interference at many Airports, Consultant of Civil Aviation Authorities.

Prof. Adam S. Markowski

Prof. Adam S. Markowski is a Professor at the Faculty of Process and Environmental Engineering, at the Technical University of Lodz, Poland. He is also the programme coordinator for the safe-work engineering programme at the University, and since 1996 has been manager of postgraduate studies on Industrial Process Safety. In the field of process safety, Prof. Markowski has research and training experience on quantitative risk assessment, safety and risk management in process industries, layer of protection analysis, domino effects, risk analysis for ATEX, accident analysis, and fuzzy logic application. Prof. Markowski is a member of numerous professional associations, including the Chemical and Process Engineering Committee at the Polish Academy of Sciences; Functional Safety Committee, TU Gdansk; Editorial Board at the International Journal of Oil, Gas, and Coal Technology; Loss Prevention Working Party, European Federation of Chemical Engineers; International Emergency Management Foundation, TIEMS; Technical Advisory Committee and Research Associate of the Mary Kay O'Connor Process Safety Centre at Texas A&M University. Prof. Markowski has published 5 patents, 163 papers, 6 student handbooks, 5 handbooks and 20 chapters in professional handbooks, 1 monograph, 40 research projects for industry, 5 grants for KBN and NCBR, and 65 promotions of MSc works. In the area of safety, Prof. Markowski was awarded first Award of the Polish National Labour Inspection (1995); award of the ATEST Work Protection Journal (2001); the Polish National Education Award (2001); the Helena Krahelska Award of the Polish National Labour Inspection (2002); 'Men of the Year' award of ExMagazin, Poland (2008); and the Trevor Kletz Merit Award, MKOPSC, from Texas A&M University (2012).

Jacek Bełdowski

Chemical Weapons - From searching to monitoring, i.e. from CHEMSEA to MODUM

Some 40,000 tons of chemical weapons have been dumped in the Baltic Sea after World War II. Because of the incomplete logbooks, imperfect navigation and actions not following the orders, this weapon is spread in large areas of the bottom of the Baltic Sea. During the project CHEMSEA we managed to find about 8000 pieces of chemical weapons in the region of Gotland Deep, and further tens in the area of Gdańsk Deep and Slupsk Bank. About half of the discovered objects leak, resulting in contamination of the surrounding sediments. In proximity to the identified objects the benthic animal life was significantly poorer than in similar areas of clean sea bed, and the fish of the regions of dumped munitions were characterized by worse health condition than those free of munitions deposits. This suggests a chronic negative impact of chemical munitions on the ecosystem. To estimate the extent of the phenomenon, these should be monitored for a long time. MODUM project is developing a relatively low-cost and effective methods of monitoring of dump sites, what would allow separation of the most dangerous objects, and the answer to the question of whether local pollution bottom can turn into an ecological disaster.

Prof. Sławomir Neffe

Prof. Sławomir Neffe is Professor of the Faculty of Advanced Technologies and Chemistry at the Military University of Technology in Warsaw. Head of the Department of Radiometry and Monitoring of Air Pollution. Former Director of the Institute of Chemistry and Protection against Chemical Warfare Agents. Member of the OPCW Scientific Advisory Board. For many years member of the Chemistry, Biology and Physics Panel of the NATO Science for Peace Programme. Former inspector with the United Nations Special Commission (UNSCOM) in Iraq. Areas of interest and expertise: physical and analytical chemistry, development of new technologies for neutralisation of toxic chemicals and hazardous materials, air pollution monitoring and international verification of dual use chemicals, chemical defence, chemical safety and security.

Prof. Maurizio Martellini

Director of the Insubria Center on International Security (ICIS), Secretary General of the Landau Network-Centro Volta (LNCV), Executive Secretary of the International Working Group (IWG), Professor of Physics at the University of Insubria (Como, Italy), and Member of the Pugwash General Conferences. He is an advisor of the Italian Ministry of Foreign Affairs.

As ICIS Director and LNCV Secretary General, Prof. Martellini organizes International Conferences, Schools and Workshops and edit publications as well as specific Case Studies. His fields of Research and Analysis are: global environmental and resources' issues, global scientists engagement, management and disposal of hazmats; scientific and technological aspects concerning international security, CBRN risks mitigation issues; science and engineering diplomacy; and CBRN education and awareness. He is also Team Leader or Expert of different EU CBRN CoE projects.

Przemysław Stangierski

Przemysław Stangierski is Vice President and Partner with A.T. Kearney, global management consultancy. With 20 years of experience in management consulting, Mr. Stangierski worked with a number of multinational companies, advising in strategy and operations. He lead more than 100 hands-on projects with several billion Euros at stake in oil and gas, petrochemical, telecommunication, transportation and other industries. Currently he is partner in charge of A.T.Kearney Polish practice, with over 30 high caliber consultants, based in Warsaw leading the firm's thought leadership in regulatory and marketing efficiency topics. He graduated from Lodz University and The City University in London, in the field of Business Systems Analysis.

Łukasz Blacha

Łukasz Blacha graduated from the International Relations Faculty, Pedagogical University of Cracow, Institute of Political Science, Poland. From 2004 to 2007 worked in Azoty Tarnów at the Public Relations Department, where he was responsible for social relations and media contacts. Since 2008 he has been working at the Tarnów City Hall. Worked as: mayor's assistant, chief specialist civic society initiatives unit, spokesman. Nowadays he is the main specialist for public relations. He is the Municipality of Tarnów main coordinator of the International Centre for Chemical Safety and Security.

Mr. Koichi Hayashi, Deputy General Manager, CWD Project Department, Kobe Steel,

He is in charge of developing chemical weapon destruction system and was a project manager of Tooele chemical weapons project in the USA.

Dr. Joseph Kiyoshi Asahina, Chief of Technology, Nuclear & CWD Division, Kobe Steel,

He is a member of the National Committee of Science Council of Japan on the Safe Destruction Technology of Abandoned Chemical Weapons.

Lista uczestników

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Bednarek Jakub	Ministry of the Interior
Bełdowski Jacek	Faculty of Oceanography and Geography University of Gdańsk
Błacha Łukasz	Tarnów City Hall
Borysenko Oleksandr	Embassy of Ukraine in Poland
Borysiewicz Mieczysław	National Centre for Nuclear Research
Ceremuga Michał	Military Institute of Chemistry and Radiometry
Czapla Radosław	National Headquarters of the State Fire Service
Dadasiewicz Paweł	Chief Inspectorate of Environmental Protection
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Gajek Agnieszka	Central Institute for Labour Protection
Garstka Ewa	Ministry of Economy
Gołębiewski Dariusz	Corporate Sales Bureau PZU SA
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Hayashi Koichi	
Jagusiewicz Andrzej	Chief Inspectorate of Environmental Protection
Jankowski Rafał	National Headquarters of the State Fire Service
Janik Paweł	National Headquarters of the State Fire Service
Januszko Adam	Military Institute of Engineer Technology
Jenkins Bonnie	US Department of State
Kania –Szarek Anna	Industrial Chemistry Research Institute
Kiyoshi Asahina Joseph	Kobe Steel LTD
Kleszcz Sławomir	General Directorate of Armed Forces
Krawczyńska Sylwia	Fire Protection Science and Research Centre
Krześlak Andrzej	Industrial Chemistry Research Institute
Kukhar Valery	Institute of Bioorganic Chemistry and Petrochemistry
Kuskowska Karolina	Main School of Fire Services
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