Orbrix Conducts First-Ever Virtual Summit for First Responders in CBRN Emergencies

Orbrix Technical & Occupational Skills Training (UAE)—in partnership with Elifort Safety and Security Management (France)—held its first-ever CBRN summit in English last month for an international audience likely to be responders in case of a CBRN emergency. This entirely virtual, live event was called “CBRN Virtual Summit – Lessons learned during Covid-19.” It took place on 18 June 2020, started at 2:00 pm UAE Time and lasted three hours with about 148 Registrations, 80 attended participants from at least 25 countries. The event was also live-streamed on Facebook with almost 2.3k views.

Designed to help raise global awareness about the far-reaching social, medical and economic consequences of an event involving CBRN material and drawing lessons from the COVID-19 pandemic, and its consequences to the global economy and our daily lives, the summit focused on the importance of interagency and international cooperation in the response to biological threats and lessons learned from the COVID-19 crisis regarding the provision of specialized medical equipment and supplies.

Throughout the two panel sessions, the knowledge and experiences shared by the experts highlighted the need to build the capacity of first responders on CBRN emergency, convene meetings to share lessons learned and best practices applied during COVID-19 outbreak, strengthen the capacity of NGOs and media on effective communication with the public during a CBRN incident, and foster collaboration among
agencies within states and across states on CBRN issues. Another takeaway from the summit discussion is the recognition that all governments around the world ought to have demonstrated political leadership in responding to COVID-19 at the outset. Such a move will close weak links in the global effort in combatting the pandemic, mitigating risk, and recovering from the consequences.

Expert speakers of the Virtual CBRN Summit. (Source: Orbrix, 2020)

Expert speakers from around the world—UAE, South Africa, Canada, London, Ghana, France, and Nigeria—gathered online to share their unique experiences and insights. The panellists focused on successes and failures related to national and international partnerships, preparedness, medical infrastructure resilience, public response, and the role of scientists. The aim, thus, was to share lessons learned from the Covid-19 pandemic and identify how to apply them to CBRN preparedness and response.

In addition to the Opening remarks and Key Note address on the Theme of the Summit by guest speakers and event hosts, the summit was structured around one major presentation, two-panel sessions, a Fireside Chat and a Q & A session with the
Main presentation

1. You have great experience in biological and chemical weapons, but also the response to a major pandemic like the COVID-19 crisis. What is the ONE most important lesson you have learned in your management of such crisis?

2. Based on your very recent experience with COVID-19, what is the greatest priority, today, in planning for CBRN incidents?

Fireside Chat

1. The COVID-19 crisis in the UAE was quickly controlled and did not reach the wide-spread impact of other nations. Noting that Dubai and Abu Dhabi are major hubs for international travellers, What did you do differently to achieve such remarkable success, noting that?

2. What went well and what didn’t during the COVID-19 crisis response?

3. What lessons have you learned that could apply to a large scale CBRN incident taking place in the UAE or the neighbouring region. For example, a “Bio” attack could result in consequences similar to those of the corona virus emergency. Similarly, a radiological contamination event in the UAE could also reach transboundary proportions.

4. What do you see as the major common points, and differences, between the current COVID-19 crisis and a CBRN crisis?

5. How do you see the role of national and international authorities/organizations in the management of such emergencies? For example, do you think that the WHO, IAEA or other similar agencies should play a greater
role in establishing rules and standards in the way a country responds to such crises?

6. In many countries, we have seen major regional differences (within the country itself) on how the crisis was managed. Think of Italy’s Lombardy region in the early stage of the pandemic and an individual States in the USA. What do you think is the right way to manage such large scale crisis? Is there room for local authorities to decide how they will apply the restrictions and rules, or should it be centrally controlled? How would that apply in the UAE?

Panel 1: Importance of interagency and international cooperation in the response to biological threats. *(Moderated by Dr Jeff Lafortune – Nuclear Engineer)*

**Expert Speakers:**

- **Paul Butler**, P.Eng – International CBRN Expert; CBRN Response Specialist
- **Hubert Foy**, MSS – Director, African Centre for Science and International Security, Ghana
- **Douglas Ledingham**, MSc – former INTERPOL Assistant Director CBRNE

1. How important is interagency and international cooperation in response to CBRN threats and incidents?
2. Why would a CBRN incident in one country have impacts on others and require their cooperation?
3. In terms of interagency cooperation, what changes during a CBRN event compared to other conventional emergencies?
4. What has the COVID-19 crisis taught us that applies to CBRN threats and incidents?
5. One of the things we heard in the early stage is that “no one saw this coming”. Do you think this is true, and can we say the same about CBRN threats?
6. What aspects of the COVID-19 consequences can be related to the potential impacts of a CBRN incident?
7. What do you think is the best national agency to lead
the response to a COVID-type crisis? What about a CBRN-
related crisis?
8. Do we need to review our model of an emergency
management system based on what we have seen in the
COVID-19 crisis?
9. Is there an international body, like the WHO for the
COVID, that advises in case of a CBRN incident? Do you
think an international agency should play a greater
leadership role?

Panel 2: Lessons learned from the COVID-19 crisis regarding
the provision of specialized medical equipment and supplies.
(Moderated by Dr Jeff Lafortune – Nuclear Engineer)

Expert Speakers:

- Pepijn van den Broek, M.Sc – National coordinator medical
  supplies and logistics for the corona virus crisis in the Netherlands
- Joanna Carter – Director Nursing for a large London hospital
- Dr Uche Anyanwagu, MD, PhD – Park Lane Surgery, UK

1. Can you give us one key success story and one major
failing with regards to medical logistics in a major
pandemic?
2. Beyond equipment and supplies, one of the greatest
challenges may be the mobilization and deployment of
qualified personnel. What is your view on that
concerning a pandemic like the COVID crisis, and could
this be an issue for CBRN incidents?
3. Based on what you have seen during the COVID-19 crisis,
are we ready for a major CBRN incident?
4. If not, what do you think is the greatest priority?
5. Were medical personnel ready and trained? Would they be
for a CBRN emergency?
6. If this happened again, what would you personally like
to have in terms of training, equipment, etc. to be able to better respond?

7. PPE was a major issue. Given the potentially much more complex forms of CBRN incidents, what do you think can be realistically done to better prepare for future crises?

8. Should the medical community play a greater role in the operational management of such emergencies?

9. Is there room for better international cooperation of the medical networks in response to such incidents?

Why is it important to learn from the current crisis? In her welcome address, Mrs. Charfaray, CEO of Orbrix, spoke on this issue: “As the COVID-19 crisis is entering a new phase, gradually and carefully returning the world to a ‘new normal’, we are slowly identifying lessons in global health crisis management that can and should help us better prepare for and respond to future pandemics. But viruses are not the only threat that could have international consequences; criminal acts involving CBRN agents could potentially lead to similarly severe health, social, political, and economic impacts, including incredible pressure on the medical infrastructure. Therefore, it is imperative that the lessons identified during the COVID-19 crisis be examined for their implication in other large-scale contamination events like CBRN emergencies.”

As the summit’s co-host, Orbrix is grateful to all its speakers and delighted that the UAE was represented by several notable experts. One of whom was Captain Ali Al Madfei of the Abu Dhabi Police CBRN Administration, who shared the lessons learned in the UAE, as well as its many success stories during the pandemic. Other speakers from the UAE included Mr. Peter Clevestig, biosecurity specialist & trained virologist, and Mr. Ahmad Al Shemeili, international CBRN expert and nuclear scientist.

Although this was the first-ever virtual summit on CBRN,
Orbrix promises that it will not be the last. Mrs. Charfaray made this point clear: “We plan to have many more lined up, on different interests of CBRN, including crisis management and disaster management.”

Looking forward to future CBRN summits,

Hawa Charfaray  
CEO – Orbrix  
Dubai, UAE  
Email: hawa@orbrix.com

Reporting by Hubert Foy (AFRICSIS) and Hawa Charfaray (Orbrix); editing by Ethan Barlow (IJNS).

Meeting in the middle:  
Opportunities for Progress on Disarmament in the NPT

As we approach the 50th anniversary of the entry-into-force of the Nuclear NonProliferation Treaty (NPT) in 2020, it is essential the NPT can evolve to meet contemporary security challenges, including by contributing meaningfully to nuclear disarmament. More broadly, re-establishing international consensus on the security value of disarmament and arms control is vital to safeguard not just the disarmament and nonproliferation regime, but also the rules-based international order of which it is a core part.
Egypt’s Nuclear Energy: An option to achieving sustainable development

What Happened: The Egyptian Prime Minister Mostafa Madbouli remarked during the opening session of the fifth Arab Forum on the Prospects of Nuclear Power for Electricity Generation and Seawater Desalination, that nuclear energy is one of the strategic options in his country’s energy mix necessary to achieve the 2030 Agenda for Sustainable Development adopted by all United Nations Member States in 2015.

Why It Matters: Egypt’s executive-level support for nuclear power has three implications. First, it reaffirms the executive level political support of President Abdel Fattah el-Sisi’s government for the realization of nuclear power development in Egypt. Second, it presents an opportunity for Egypt’s nuclear power development stakeholders to back government decision-makers on the journey to deploying the country’s first nuclear power reactor. Third, it serves as a landmark example of how to demonstrate executive-level political support for the other dozen African countries at varying levels of nuclear energy programs. When the reactor is deployed successfully, Egypt will become the second African state to operate a nuclear power reactor after South Africa’s Koeberg 1 (1984) and Koeberg 2 (1985).

Background: Egypt set up its Atomic Commission in 1955, established a Nuclear Power Plants Authority (NPPA) in 1976, and selected the El Dabaa site on the Mediterranean coast for the development of nuclear power in 1983. Egypt announced its decision for the construction of the plant in 2007. The site was approved by the International Atomic Energy Agency (IAEA) in August 2010, but the development was halted due to the 2011
Egyptian revolution and disputes with Dabaa locals. On 19 November 2015, Egypt and Russia signed the preliminary contracts for the construction and financing of the project.

On December 11, 2017, during Russian President Vladimir Putin’s visit to Cairo, the two countries signed the contracts to build four VVER-1200 nuclear reactors. One of the contracts stipulates that Russia’s Rosatom Corporation will build a nuclear power plant at El-Dabaa, about 140 kilometers west of Alexandria. The plant will include four light-water reactors for electricity production, each with a 1,200-megawatt output.

In another contract, Egypt and Rosatom concluded that a storage depot would be built beside the nuclear plant to hold spent nuclear fuel from the reactors before it is sent to Russia for reprocessing. Test runs of the first reactor are expected in 2022 and its full commissioning is anticipated in 2026. Rosatom estimates that the project will be completed in 2028 or 2029.

Russia will also build factories in Egypt for the domestic manufacture of nuclear plant components, bringing in the required expertise; and Rosatom will service the plant for 60 years. According to reports, the project will cost about $30 billion, Russia will fund about 85 percent of the cost, with interest of three percent being paid annually, starting immediately after Egypt receives the first installment of the loan, which will be repaid over a period of 22 years. Egypt will raise the remaining 15 percent of the cost of the project from private investors.

Author: Hubert Foy (AFRICSIS), Contributor: Tambe Harry Agbor (AFRICSIS)
Nigeria: Senate Calls for Inclusion of Nuclear in Energy Mix

What Happened: The Senate of Nigeria passed a resolution that called on the government, under President Buhari, to consider including nuclear power in the country’s energy mix. On November 21, World Nuclear News reported that the Senate asked the government to give the Nigerian Atomic Energy Commission a mandate for talks with nuclear reactor vendors on time.

Why It Matters: Following the creation of the Nigerian Atomic Energy Commission in 1976, various governments sought to create an environment to facilitate the introduction of the country’s first nuclear power reactor as part of a broader effort toward industrialization, shared prosperity, and poverty eradication. However, several factors, including funding allocation, legal framework, and public support, have hindered the efforts. The Senate’s opinion presents an opportunity to rally executive-level political buy-in and rally public support necessary to advance the nuclear power program.

Background: Russia’s Rosatom and Nigeria Atomic Energy Commission initiated a partnership in 2009 by executing an intergovernmental agreement on cooperation in the field of the peaceful usage of nuclear technologies. Both parties signed agreements in 2016 and 2017 to set up four nuclear power plants and after a decade of developing the framework, a Centre for Nuclear Science and Technology. The nuclear project was estimated to cost about US $20 billion and produce 4,800 megawatts of electricity by 2035. According to the agreements,
Russia will build, own, and operate the plants in Nigeria for several decades before transferring ownership of the plants to Nigeria.

South Africa releases long awaited energy plan

The South African government has gazetted its new long-term energy plan, which includes new provisions for smaller nuclear plants. The 100-page 2019 Integrated Resource Plan (IRP) is the state’s official blueprint for future energy generation, including projected electricity demand, cost estimates, and the sources used to generate power. The IRP first came into effect in 2011 and called for the construction of 9600 MWe of new nuclear capacity over the period to 2030. A draft update to the IRP released for public comment in 2018 proposed nuclear capacity remaining at 1860 MWe – the capacity of the Koeberg nuclear power plant. Minister of Mineral Resources Gwede Mantashe told a media briefing that South Africa is not now planning large nuclear units, but smaller, modular nuclear plants.

A Cabinet on 17 October indicated that the IRP would include nine interventions to respond to energy needs in the next decade. These interventions included:

- The government will begin preparations for a nuclear build program to the extent of 2,500 MWe “at a pace and scale that the country can afford because it is a no-regret option in the long term”.
- The Koeberg NPP will be extended by another 20 years. The Koeberg plant was supposed to reach its end of life
by 2024.
- The government will immediately start to buy power from private suppliers.

The plan also refers to the changing role of state power company Eskom, as its generation, transmission and distribution functions will be separated.