

The European Security and Defence Union

International cooperation

Countering CBRN threats in a changing global environment

The EU's unique approach to tackling CBRN threats, with the support of the UN
Interview with



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The lonely dictator

How can Putin's policy of enslaving his people, consistently enforced for 21 years, fail when it comes to Ukraine?

The Russian dictator is losing more and more ground with his war policy. The attack on Ukraine, which was intended to be a short war to make Putin a world player again, hasn't made real progress anywhere. Russian soldiers have distinguished themselves primarily as molesters, while others have fled.

Since the army cannot achieve the war goals set by Putin, it needs reinforcements. That should fix the partial mobilisation, but tens of thousands of those who are to be called up leave for neighbouring countries. One wonders why Putin isn't closing the borders. Is it to voluntarily reduce the number of system opponents?

Putin ultimately needs success and enforced referendums in the partially Russian-occupied regions of Ukrainian soil. They should bring him respect and the desired success. But that has also gone wrong for three reasons. Firstly, the official pompous act of annexation on Red Square in Moscow should convey to the world that the Russian people stand behind Putin and should silence a somewhat upcoming dissatisfaction of the population, but there is discontent.

Secondly, the international community is turning against Putin, accusing Russia as a member of the United Nations (UN) Security Council of breaking all international laws. China has taken political distance, India called Putin to stop the war, and even a vassal state like Kazakhstan showed discontent. The UN General Assembly demanded on 12th October that Russia reverse the course on the attempted illegal annexation (143 in favour, 35 abstentions and 4 voting against: North Korea, Nicaragua, Russia and Syria).

Thirdly, Ukrainian forces on the ground are stimulated by the weakness of the Russian army and are regaining terrain, at least for the moment, even though we shouldn't underestimate the capabilities of Russia's war machine.

Putin's last resort is the nuclear menace. He made hardliner Dmitry Medvedev proclaim that Russia could use nuclear weapons, especially if Russian territory was attacked, and that the same would apply to the newly annexed regions.

Would Putin actually want to use nuclear weapons, or is this just a threat to buy him time to regroup his ailing army and seek an opportunity to begin negotiations during winter, being aware that the internal resistance in Russia is growing?

Why is this situation dangerous?

The use of tactical nuclear weapons – implausible but always possible – would provoke escalation by entailing a response from the US, which is already urgently warning Putin against the use of those weapons, and there is no doubt on western civil and continuing military support for Ukraine.

To conclude: the Ukraine war was started to improve Russia's international status and make its return as a world power. Consequently, since its beginning, this war has become a real power play between the great powers and can only be ended at this level. The European Union can contribute to Russia not winning this awful war by not only resisting Putin's economic war over energy, but by staying strongly behind the sanctions against Russia and being fully prepared to defend western civil critical infrastructure against Russian cyber-attacks.



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photo: private, iStockphoto.com

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The European – Security and Defence Union is the winner of the 2011 European Award for Citizenship, Security and Defence, and was awarded in 2019 the Jury's Special Prize of the same competition.

Nobel Peace Prize

The fight for human rights honoured

(Ed/hb/nc, Paris) This year's Nobel Peace Prize was awarded on 7th October to human rights advocate **Ales Bialiatski** from Belarus, the Russian human rights organisation **Memorial** and the Ukrainian human rights organisation the **Center for Civil Liberties**. The laureates were honoured by the Norwegian Nobel Committee as “three outstanding champions of human rights, democracy and peaceful coexistence”.

Ales Bialiatski is a jailed Belarusian activist who founded the organisation *Viasna* (Spring) in 1996 in response to the controversial constitutional amendments that gave President Lukashenko dictatorial powers. *Viasna* evolved into a broad human rights organisation that documented and protested against the authorities' use of torture on political prisoners.

Memorial is one of Russia's most important human rights groups, co-founded in the 1980s by Nobel Peace Prize laureate **Andrei Sakharov** to document the crimes committed during the Soviet Union era. In December 2021, the Russian authorities decided that Memorial was to be forcibly liquidated and the documentation centre was to be closed permanently.

The **Center for Civil Liberties** was founded in Kyiv in 2007 for the purpose of advancing human rights and democracy in Ukraine. After Russia's invasion of the country in February 2022, the Center for Civil Liberties has engaged in efforts to identify and document Russian war crimes against the Ukrainian civilian population.

 **Web:** <https://www.nobelpeaceprize.org/>

 **Video:** <https://bit.ly/3FqMUr7>



The Nobel Peace Center in Oslo

photo: © Ricochet64/stock.adobe.com

Sakharov Prize

MEPs award prize to the people of Ukraine

On 19th October, the European Parliament awarded the 2022 Sakharov Prize for Freedom of Thought to the people of Ukraine. The President of the European Parliament, **Roberta Metsola**, stated: “This award is for those Ukrainians fighting on the ground. For those who have been forced to flee. For those who have lost relatives and friends. For all those who stand up and fight for what they believe in. I know that the brave people of Ukraine will not give up and neither will we”.

With this nomination, MEPs highlight the efforts of the President of Ukraine, **Volodymyr Zelenskyy**, together with the role of individuals, representatives of civil society initiatives, and state and public institutions. These include the **State Emergency Services of Ukraine**, **Yulia Pajevska**, founder of the evacuation medical unit *Angels of Taira*, **Oleksandra Matviychuk**, human rights lawyer and chairwoman of the organisation **Center for Civil Liberties**, the **Yellow Ribbon Civil Resistance Movement**, and **Ivan Fedorov**, the mayor of the Ukrainian city of Melitopol, which is currently under Russian occupation. The Sakharov Prize for Freedom of Thought is named in honour of the Soviet physicist and political dissident **Andrei Sakharov** and is awarded each year by the European Parliament (since 1988). The award honours individuals and organisations defending human rights and fundamental freedoms. Last year, the European Parliament awarded the prize to the Russian opposition politician and anti-corruption activist **Alexei Navalny**.

 **Web:** <https://bit.ly/3fs3JHj>

Obituaries

Mikhail Gorbachev (1931-2022)

(Ed/hb, Paris) Former Soviet Union president **Mikhail Gorbachev** died at the age of 91 on 30th August 2022 in Moscow. The courage of the Nobel Peace Prize winner to foster political change in the Soviet Union through his perestroika and to help stabilise the east-west relationship through the renunciation of violence has led to the unification of today's Europe.



photo: © Achim Wagner / Shutterstock.com

Queen Elizabeth II (1926-2022)

(Ed/hb, Paris) An era came to an end with the United Kingdom's Queen Elizabeth II dying at the age of 96 on 8th September 2022. For 70 years she dutifully and with dignity accompanied the United Kingdom's transformation in a more and more globalised world order, representing the British people and the Anglican church. But she also deserves credit for foresightedly promoting reconciliation with Germany after the horrors of the past, thereby allowing Germany to find its place in Europe.



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European forces

The EUROCORPS turns 30



The flags of the six EUROCORPS framework nations

photo: EUROCORPS

(Ed/hb, Paris) EUROCORPS with its multinational Headquarters in Strasbourg was launched in 1992 by Germany and France as a first step towards a common European defence. 30 years later, 11 nations participate in EUROCORPS, six of which, the framework nations, share its leadership. To celebrate this 30th anniversary, a ceremony in early September 2022 gathered 500 invited guests from politics, the military and civil society, and the defence ministers of Belgium, Luxembourg and Poland as well as chiefs of defence from another seven member states. Lieutenant General (BE) **Peter Devogelaere**, the Commander of EUROCORPS, stated in his speech that EUROCORPS is an army corps-level operational headquarters with a high degree of autonomy and a unique dual role for the EU and NATO. “Duality is part of our DNA, which is reflected in EUROCORPS’ motto: A force for the European Union and NATO”, he said. Of particular note was the “European speech” by Poland’s deputy minister of defence, **Marcin Ociepa**, on Poland’s decision to join EUROCORPS in 2022: “We decided to take this step because we firmly believe that cooperation and engagement are the key to European security”, he stated.

Web <https://www.eurocorps.org/>

Ukraine

A Military Assistance Mission in support of Ukraine

(Ed/nc, Paris) In response to Ukraine’s request for military support, addressed in a letter to the High Representative Joseph Borrell on 30th September, the Council of the EU agreed to set up a Military Assistance Mission in support of Ukraine, **EUMAM Ukraine**. The objective of this non-executive mission is to contribute to enhancing the military capability of Ukraine’s armed forces to effectively conduct military operations. EUMAM Ukraine will provide individual, collective and specialised training to the Ukrainian armed forces and coordination and synchronisation of EU Member States’ activities supporting the delivery of training.

Joseph Borrell stated: “Today we step up our support to Ukraine to defend itself from Russia’s illegal aggression. The EU Military Assistance Mission will train the Ukrainian armed forces so they can continue their courageous fight. EUMAM is not just a training mission, it is clear proof that the EU will stand by Ukraine for as long as is needed.”

EUMAM Ukraine will have its operational headquarters within the European External Action Service (EEAS) in Brussels in order to ensure overall coordination at the strategic level. Vice Admiral **Hervé Bléjean**, the Director of the Military Planning and Conduct Capability (MPCC), will be the mission commander. The mandate of the mission will initially last two years.



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Climate

EU position for COP27 in Sharm El-Sheikh

On 24th October, the Council of the EU approved conclusions that will serve as the EU’s general negotiating position for the 27th United Nations Climate Change Conference (COP27). In their conclusions, Member States highlight that the global ambition for the fight against climate change must increase substantially to reach the 1.5° C objective in line with the 2015 Paris Agreement. All countries should come forward with ambitious targets. Policies and major economies in particular should revisit and strengthen their Nationally Determined Contributions (NDCs) in time for the COP27.



This year, the annual gathering on climate action will take place from 6th to 18th November 2022 in the Egypt city of Sharm el-Sheikh where heads of State, ministers and negotiators, along with climate activists, mayors, civil society representatives and CEOs will meet.

“We are in a life-or-death struggle for our own safety today and our survival tomorrow”

UN Secretary General António Guterres

Faced with a growing energy crisis, record greenhouse gas concentrations, and increasing extreme weather events, COP27 seeks renewed solidarity between countries.

Web <https://unfccc.int/>



Europe risks becoming a toy for the Big Three

The Ukraine war and the rivalry of the great powers

by Harald Kujat, General (ret), former German Chief of Defence and former Chairman Military Committee NATO, Lögow

The 21st century is marked by the rise of the Peoples' Republic of China (PRC) as an economic and military world power and by the rivalry between the great powers: the United States of America (US), Russia and China.

The Ukraine war has made it clear that only China, and not Russia, can replace the US as the leading world power.

The US National Security Strategy (10/2022) states that "the PRC is the only competitor with both the intent to reshape the international order and, increasingly, the economic, diplomatic, military, and technological power to do it. Beijing has ambitions to create an enhanced sphere of influence in the Indo-Pacific and to become the world's leading power".

The ambitions of the US and Russia

It is the unspoken geopolitical goal of the US in the Ukraine war to weaken Russia politically, economically and militarily in order to be able to concentrate on the conflict with China. For this conflict, the US wants to integrate the European states into a network of partners and allies of the same unity as against Russia.

In this regard, NATO is forming an important bridge. The US has managed to position NATO against China alongside regional allies such as Australia, Japan and South Korea.

The NATO Strategic Concept adopted on 29th June 2022 states that it will "address the systemic challenges posed by the PRC to Euro-Atlantic security and ensure NATO's enduring ability to guarantee the defense and security of Allies."

Russia wants to maintain its status as a strategic nuclear superpower equally with the US, reduce the influence of the US in Europe – at least in eastern Europe – and secure its position as a world power by staying an indispensable supplier of raw materials and energy.

Europe's unconsolidated position

Dependent on Russia for energy supply and on the US for security, depending economically and technologically – especially in digitalisation – on both the US and China, struggling with self-made challenges due to internal contradictions, Europe, in the power calculation of the great powers, is falling more and more behind.

European states have stood shoulder to shoulder with the US in solidarity with Ukraine, which was attacked in violation of international law, and are providing political, economic, financial and military support to the country. The European Union (EU) intends to further expand military assistance to Ukraine through arms deliveries from Member States and through the training of Ukrainian armed forces. To this end, a "European Union Military Support Mission for Ukraine" (EUMAM Ukraine) and training com-

General (ret.) Harald Kujat

served as Chairman Military Committee at NATO HQ in Brussels from 2002–2005. Born in 1942, he joined the German Air Force in 1959. Between 1980–1984 he served two German Chancellors and was then appointed as Dep Director ISM/NATO. He became in 1998 Director Policy at MOD Bonn and in 2000 German Chief of Defence (CHOD) in Berlin.

“The war in Ukraine is a warning sign that can only have one consequence: resolutely taking the path to geopolitical self-assertion for Europe, politically, economically, technologically and, last but not least, militarily.”

mands will be formed in two Member States, even though this increases the risk of an escalation of the war in Ukraine, both with regard to an intensification and prolongation of the fighting and a possible expansion or even a nuclear escalation.

The impact of the Ukraine war on Europe

Against the background of the geopolitical rivalry of the great powers, the Ukraine war has brought Europe to a crossroads. This war is not only about Ukraine’s security and territorial integrity, but in the long term it is also about a European security and peace order, in which all the states of the European continent have their place. However, the dramatic global economic consequences of this war for Europe as an industrial and business location are becoming increasingly apparent. In the “economic war” against Russia, the EU has imposed extensive sanctions against it. These were started with the aim of forcing Russia to end its attack on Ukraine and on the assumption that the sanctions would neither affect energy prices nor harm European states. Exactly the opposite happened.

Germany has accepted major economic disadvantages in order to dispel American reservations. For a long time, the US saw a risk in combining German capital and German technology with Russian raw materials and Russian production potential. However, Germany has now cut off energy supplies from Russia and is providing Ukraine with significant support – through financial donations, the supply of weapons and military equipment, and not to forget, the sanctions against Russia. The long-term damage to the German economy, in particular the consequences of the energy emergency expected for this winter and the effects on the international competitiveness of the German economy will also have a significant long-term impact on the entire European Union. To make matters worse, there are also signs of economic restrictions in relation to China. If globalisation, which has developed so beneficially for the German and European economies, is further restricted, irremediable damage will result for the German economy, which is dependent on world trade, and for Europe as a whole, including extensive deindustrialisation. But Europe is an economic power factor, despite the setbacks resulting from the sanctions against Russia. For China, therefore, the question of whether Europe will submit to US geopolitical goals or maintain its own course is of vital

importance. Because Europe has a say in whether China succeeds in replacing the US as the dominant world power.

New blocs and an uncertain future

The war in Ukraine has encouraged the formation of competing geopolitical blocs. As the US, EU and NATO move closer together, a second geopolitical bloc has emerged around China and Russia. Its core is formed by the BRICS countries, Brazil, Russia, India, China and South Africa, which currently make up 40% of the world’s population (G7 + Japan: 12.5%). Furthermore, the Shanghai Cooperation Group was formed with China, India, Iran, Kazakhstan, Kyrgyzstan, Pakistan, Russia, Tajikistan and Uzbekistan. Other states want to join both groups. Western democracies, joined together in the European Union, have neither found a way to prevent the war in Ukraine nor contain it and achieve a negotiated peace by balancing the interests of the powers involved. Rather, the fate of the European continent will be decided by the two main players in this war: the US and Russia.

Russia obviously cannot achieve all its political war goals despite its recent military successes. Neither will the US succeed in eliminating Russia as a geopolitical rival. Furthermore, it must be assumed that a military defeat of Russia would not be in China’s interest. The US is aware that China would use such a development both to relieve Russia and to assert its own interests, but that the US would not be able to wage a two-front war.

A ticking time bomb

The American strategy expert Harlan Ullman, author of the doctrine of “Shock and Awe” in the 1990s, therefore asks with concern, regarding the war in Ukraine: “Has the United States committed an unforced error by opening a strategic two-front military confrontation against China and Russia?” Harlan describes the American two-front strategy as a “ticking time bomb”.

This is also true for Europe. Not only the American government but even Europeans have obviously underestimated the geostrategic dynamics of their engagement in Ukraine. The war in Ukraine is a warning sign that can only have one consequence: resolutely taking the path to geopolitical self-assertion for Europe, politically, economically, technologically and, last but not least, militarily.

In the Spotlight

+++ US-EU cooperation +++



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Reality is finally catching up with rhetoric

US-Europe security cooperation at the crossroads

by Michael Singh, Managing Director and Lane-Swig Senior Fellow, The Washington Institute for Near East Policy, Washington

For years, American strategists have warned that the world was changing, but their pleas that US foreign policy must change with it were ignored. More than a decade ago, the Obama administration announced a “pivot to Asia,” even as it dispatched more troops to Iraq and Afghanistan. Today, reality is finally catching up with rhetoric. This is in part because Chinese and Russian actions have shaken Washington’s national security establishment out of its complacency by underscoring the threat of great-power conflict. It is also due to the US exit from Afghanistan which, however poorly managed, has lifted an anchor holding American strategy in place.

How to cooperate in the future?

However, Washington’s shift in strategic focus from countering terrorism to countering revisionist powers will also demand a shift in how the US and Europe work together. During the “Global War on Terrorism” (GWOT) era the US and Europe enjoyed a broad strategic convergence: they did not always agree on policy, but shared a broad understanding of the threat and what was required to address it. Moreover, they could rely upon a well-established pattern of cooperation. With a few exceptions such as French campaigns in the Sahel, the US led on both the economic and military fronts, and Europe, often via NATO, played a supporting role.

In this new era of great-power competition, however, transatlantic cooperation will not be so straightforward. The US and

Europe have long disagreed regarding whether and to what extent Russia and China pose threats and how to deal with them. And both the US and its major European partners have neglected in recent decades to prepare their militaries for great-power conflict, much less to discuss seriously how they would work together in such an eventuality. Merely applying the GWOT model – the US leading, Europe supporting – to this new set of problems will not suffice.

Putin as game changer

Events, however, have conspired to narrow the transatlantic divide on great-power competition. Russian President Vladimir Putin, in ordering a brazen invasion of Ukraine, has accomplished what years of haranguing by American officials could not: persuading key European partners of the need to embrace hard power as a tool of foreign policy and to reinvest in their own defense. The US and Europe have surprised even themselves with the steadfastness of their military support for Kiev, and must all the more have dismayed Moscow and Beijing, who undoubtedly hoped Russia’s gambit would divide rather than unite the Western alliance.

A similar if less pronounced convergence can also be seen on China. This is partly a side effect of the Ukraine crisis, which has brought greater realism and sobriety to transatlantic affairs. Moreover Beijing squandered Europe’s goodwill through its “wolf warrior” diplomacy, refusal to cooperate with international efforts to combat Covid-19, and increasing use of economic leverage for political ends against states such as Lithuania and Australia. In Sweden, for example, where

“The US and Europe have long disagreed regarding whether and to what extent Russia and China pose threats and how to deal with them.”

China’s ambassador attacked the media, unfavorable views of Beijing rose from 40% in 2002 to 83% in 2022, according to Pew Research.

Even more ominously, Beijing in recent years has significantly improved its military capabilities and signaled its willingness to use them, becoming more aggressive toward Taiwan and other neighbors. It has also become more ambitious in projecting military power outside of Asia. Little wonder, then, that NATO’s most recent “strategic concept” paper addresses the Indo-Pacific – a region of the world where both the US and Europe have enormous economic interests at stake – for the first time.

The end of permanent coalitions

Yet Ukraine has also revealed challenges that will bedevil efforts at transatlantic cooperation amid great power competition. It has underscored the complexity of building coalitions to confront revisionist powers. While US and European officials have sought to establish a “democracy vs. autocracy” framework for international cooperation, the reality has proven more complicated. Democratic powers like India have supported Russia diplomatically and economically. And Western leaders have sought the assistance of autocratic partners like Saudi Arabia in countering the Ukraine crisis’ effects on energy markets, albeit without success. Their partners’ reluctance to take “sides” or join exclusive blocs will put the onus on the US and Europe to approach other states on an issue-by-issue basis for support rather than tapping into a permanent coalition as crises arise. It will also require the US and Europe to have the capability to act without the broad coalitions of eras past if need be.

Perhaps even more concerning is something that did not happen – a major crisis in Asia taking place in parallel with that playing out in Europe. While Chinese military exercises around Taiwan following US House of Representatives Speaker Nancy Pelosi’s visit to the island triggered tension and worry in Washington, they concluded without further escalation. Had that crisis gone escalated, however, it would have put in doubt the sustainability of the US approach to Ukraine. Even without direct US involvement in either crisis, there would have been competition not only

for Washington’s attention, but for the sort of military materiel that the US has sent to Kiev. Faced with competing demands for limited supplies, the US would likely prioritize Asia, where most in Washington believe American interests are greater. Policymakers may hope this to be an unlikely scenario, but it is not a matter of random chance – Western adversaries are after all opportunistic – and would be highly consequential.

A new mode of transatlantic cooperation?

The difficulties the United States would face in responding to simultaneous crises has stark implications for European security. As effective as the transatlantic response to the Ukraine crisis has been, it has nevertheless relied overwhelmingly on American contributions: according to the Kiel Institute, the US through 3rd August pledged €25 billion in military aid to Ukraine, and Germany just €1.2 billion. Remove the US from this equation, or even significantly reduce its contribution, and the war in Europe would look different indeed. This suggests that a new mode of transatlantic cooperation is required in this new strategic era: rather than simply preparing to play a supporting role in an Asian crisis, Europe should, within the context of NATO, prepare to take a leading role if necessary in future European crises. Like US forces, those of major European states should be not just interoperable, but also able to operate, and independently if necessary.

This is not to say that the US and Europe should go their separate ways; if recent events have demonstrated anything, it is the enduring power and value of the transatlantic alliance. The US will continue to play a major security role in Europe, and European states such as France have security interests in Asia and their role there is welcome in Washington. Nor does it mean any major crisis can be geopolitically confined – the resolute Western response to Russia has surely had a deterrent

effect on China, and in any crisis in Asia, Europe would play a powerful role as an economic superpower and influential diplomatic actor, whatever its security contribution. But a new strategic era will require both the US and Europe to learn new habits of cooperation – the US by setting priorities and both expanding and husbanding its security resources, and Europe by building the will and capability to act in parallel with rather than merely in support of the United States.

Michael Singh



photo: private

is the Managing Director and Lane-Swig Senior Fellow at The Washington Institute for Near East Policy and a former Senior Director for Middle East affairs at the White House (from 2005 to 2008).



A new opportunity for enhanced Japan-Europe security cooperation

The revision of Japan's National Security Strategy

by Professor Hideshi Tokuchi, President of the Research Institute for Peace and Security (RIPS), Tokyo, and East Asia correspondent of this magazine

The government of Japan has been engaged in the revision of its National Security Strategy since last autumn. The process is expected to be over in mid-December just before the Japanese budget compilation for Fiscal 2023. The new strategy will redefine Japan's national security objectives and ways to achieve them, together with the new goal of Japan's military capability build-up and major projects to achieve it. As Europe is more engaged in the Indo-Pacific even at the time of the war Russia engineered, it may want to look into the development of Japan's new approach to its national security. It will open a new opportunity for security cooperation between them. This essay discusses how both sides can move forward to cement their partnership.

The new security landscape surrounding Japan

Japan's National Security Strategy was established in 2013. It was before Russia's annexation of Crimea, to say nothing of its invasion of Ukraine. It was before the Covid-19 pandemic and the current intensified rivalry between the US and China. North Korea had not declared completion of its state nuclear force.

“Europe and Japan should elevate the partnership to a new level, taking advantage of the timing of Japan's revision of its security strategy.”

Today's security landscape is completely different. In East Asia, China's intimidation toward Taiwan has become "normal". Increased operations by China Coast Guard ships in the waters surrounding Japan's Senkaku Islands have become "normal". China's large-scale construction of artificial islands in the South China Sea is almost fait accompli. The Japanese are much more security-minded than ever before particularly because of the Russian invasion of Ukraine and the heightened tension between China and Taiwan. They are more conscious of the solemn geographical fact that Japan

neighbours three nuclear powers, i.e. Russia, China and North Korea. Even aside from the geostrategic point, they have begun to regard climate change as a serious security challenge, but international cooperation necessary to fight against such a global issue is more difficult to realise and easier said than done due to the ongoing great power rivalry. All these will have to be reflected in the revision of the National Security Strategy.

Prospects of a new National Security Strategy

In short, the present National Security Strategy sets forth the following three objectives:

- firstly, protection of Japan's own national security by strengthening deterrence and defence capabilities,
- secondly, improvement of the regional security environment though the Japan-US Alliance and security cooperation with regional and extra-regional partners,
- thirdly, enhancement of the rules-based international order and improvement of the global environment by diplomacy and provision of human resources.

These objectives will remain basically unchanged, but the strategy is about where the country is right now, where it should be headed and how it should get there. The current position has shifted far beyond the extension of the past trend, so the ways to reach the set destination will have to change. As Japan is located at the frontline

of the great power rivalry, Japan's own military defence effort will be placed more clearly in the core of the entire security efforts and presumably Japan's defence forces will be prepared to assume larger roles not only for regional but also global security.

While there is not much time before the critical strategic document is finalised, the policy discussion in Japan seemed focused on the desirable amount of annual defence budget in comparison to the GDP and on a long-range strike capability until recently. Now, more people have begun to notice the



Artificial islands built by China in Sanya Bay, Hainan

photo: © DreamArchitect / Shutterstock.com

importance of a whole bunch of details including logistics, sustainability and multi-domain operational capability. In fact, Japan's defence budget will be substantially increased, whether to the amount comparable to 2% of the GDP or not. The defence force will acquire more offensive capability. Its cyber and space capabilities will be strengthened. However, the entire picture of the strategy and of the defence force structure suitable to the strategy remains yet to be seen.

Discussing international security cooperation

A missing point from the public debate so far is about international security cooperation. The critical importance of security cooperation with like-minded countries is crystal clear in the eyes of everyone who witnesses the Ukrainian situation. Japan and the US are moving forward to continually modernise the alliance, evolve bilateral roles and missions, and strengthen joint capabilities by aligning strategies and prioritising goals together, in accordance with the Japan-US Joint Leaders' Statement of 23rd May. Japan will establish its strategy so that it is compatible with the US strategic concept of Integrated Deterrence. Enhancement of the US nuclear umbrella will also be an urgent and serious agenda in light of the nuclear threats by the regional neighbours. The US is Japan's only ally, but today it does not make as much sense as before to distinguish the alliance relationship from other types of security partnerships. Alliance cooperation with the US may involve other US allies because of cross-decking and the exchange of officers between the US forces and the military forces of their allies, including NATO countries. From this perspective, security cooperation not only with the US but also with other like-minded countries must be more seriously explored.

Promoting Japan-Europe security cooperation

As international security is more indivisible than ever in this globalised world and the rules-based international order is in flux, it is high time for Europe and Japan to promote their security cooperation. The Individual Partnership and Cooperation Programme between Japan and NATO (IPCP) of 2018 was revised in 2020 and has been put into practice. The Japan-EU

Professor Hideshi Tokuchi



photo: private

is the President of Japan's Research Institute for Peace and Security (RIPS) and teaches international security studies as a visiting professor at the National Graduate Institute for Policy Studies (GRIPS). He joined the Defense Agency (the predecessor of the Ministry of Defense) of Japan in 1979 and served as Japan's first-ever Vice-Minister of Defense for International Affairs from 2014 to 2015 after completing several senior assignments including Director-General of the Defense Policy Bureau.

Strategic Partnership Agreement (SPA) has been provisionally applied since 2019. The EU's engagement with the Indo-Pacific region is well articulated in the Joint Communication on the EU Strategy for Cooperation in the Indo-Pacific of 2021, and Japan is actively advancing cooperation with the EU and its Member States. A number of European countries are Indo-Pacific powers as well. Europe and Japan should elevate the partnership to a new level, taking advantage of the timing of Japan's revision of its security strategy.

The way ahead

China will continue to be the most serious common challenge for both sides and Russia is posing an acute and present threat to both. They are swaying the rules-based international order, boasting that their relations are superior to the political and military alliances of the Cold War era and that their friendship has no limits. Europe and Japan must work together to restore the rules-based order by effectively countering them. First of all, NATO should establish its permanent representative office in Tokyo. Practically, intelligence cooperation is always important. Technology cooperation, too. Geographically, operational cooperation in the Indian Ocean, South Pacific, Africa and even in the Arctic must be explored more. As for non-traditional fields, cooperation on climate security and human security is increasingly meaningful. As these efforts have to endure for a long time, they should not miss the current opportunity to build a solid foundation for joint action.

Building up synergies between the different sectors involved

Horizon Europe – research to secure against CBRN risks

by Dr Philippe Quevauviller, Policy and Research Programming Officer, DG Migration and Home Affairs, European Commission, Brussels*

To set the scene, it is important to stress that CBRN research cannot be discussed on a solely scientific ground, i.e. research needs must be placed in a larger policy, industry and civil society context. Actions to secure against CBRN risks involve many different sectors and actors, such as policymakers and stakeholders, scientists, industry (including SMEs), training and operational units, civil society (including municipalities), and more generally the citizens!

Establishing a proper dialogue

One of the main challenges in this context is to ensure that a proper dialogue is established among them, both horizontally (among sectors and disciplines) and vertically (from the international to the national/local levels). In the first place, the policy landscape needs to be well understood in its overall complexity as it represents the main framework for CBRN risk management. It concerns various regulations set at international, EU or national level in the field of security, civil protection, consumer and health protection, environment and industrial

risks, energy and transport, customs, and is prone to international cooperation (e.g. through networking of CBRN Centres of Excellence).

While international and EU policies are developed in close consultation among the different sectors, in practice interactions are less obvious at the implementation level among sectors within the Member States. This is partly due to an insufficient sharing of information and joint actions. The dialogue hence needs to be designed to build up cross-disciplinary and cross-sectorial synergies, gathering and sharing knowledge from policies, scientific disciplines, industry/SMEs, practitioners (including first responders, police forces, civil protection units, etc) and risk management authorities (including municipalities).

A platform for success

Horizon Europe, the EU research and innovation framework programme (2021-27), provides a platform via EU research funding to contribute to these dialogue needs, in particular through the so-called **Cluster 3 “Civil Security for Society” programme**. Within this framework, various types of actions related to CBRN risk management are funded, namely research, innovation and networking (in particular practitioners’ networks), which cover a range of issues related to CBRN risks, either accidental or due to deliberate actions, on technologies,

Dr Philippe Quevauviller



photo: private

has been a Research Programming and Policy Officer in the Directorate General (DG) Migration and Home Affairs of the European Commission since 2015. Holding two PhD in oceanography and environmental chemistry, he was a researcher in chemical oceanography from 1984 to 1989. Dr Quevauviller then joined the European Commission, firstly as a Scientific Officer at the DG Research and Innovation, then as a Policy Officer at the DG Environment in 2002. In October 2008, he went back to the Research DG where he managed projects on climate change impacts on water systems/resources and natural hazards. In April 2013, Dr Quevauviller moved to the Secure Societies Programme (firstly at DG Enterprise, then DG Migration and Home Affairs since early 2015) where he is responsible for programming and managing security research projects, in particular on disaster risk and crisis management (natural catastrophes, accidents, terrorist threats).

“While international and EU policies are developed in close consultation among the different sectors, in practice interactions are less obvious at the implementation level among sectors within the Member States.”

methods, novel solutions to enhance or improve prevention, preparedness, response and recovery. CBRN is a cross-cutting issue which is covered by the five thematic areas of the programme, namely

- Disaster-Resilient Societies (DRS),
- Fight against crime and terrorism (FCT),
- Infrastructure (INFRA),
- Border management (BM), and
- Support to Scientific Research and Innovation (SSRI).

Bringing the human dimension back

The work programme and related yearly calls for proposals are complemented by regular exchanges among different sectors and actors involved in the five thematic areas through the **Community of European Research and Innovation for Security** (CERIS), which is the successor of the successful Community of Users (CoU) developed in the years 2014-2020. Since 2021, CERIS not only facilitates exchanges and synergy building between different research and capacity-building projects, it now moves to a more proactive participation of experts, calling for inputs and supporting the overall implementation of the Civil Security for Society programme.

An important feature is that this networking initiative brings the human dimension back into highly technical discussions, considerably facilitating working exchanges. An illustrative example of this is the willingness to join forces and establish synergies among projects that take place within the CERIS framework, including in the context of international side events such as the one that involved 13 projects (*see box*) at the CBRNe Research & Innovation conference held in Lille, France in early May 2022 (<https://cbrneconference.fr/>). This very important CBRNe Research & Innovation Conference also discussed various features such as stakeholder engagement in CBRN preparedness (including the general public), multidisciplinary, multi-agency and civil-military cooperation, innovative CBRN technological solutions for CBRN agents detection, PPE, decontamination, testing and validation of technologies, scenario building, cross-border exercises, harmonisation of procedures in preparedness and response and, if required, standardisation, uptake of innovative technologies and market dimension, etc.

 **Web Horizon Europe** <https://bit.ly/3SuccYQ>

**With thanks to Dr Olga Vybornova (UCL, Belgium) for her contribution to this paper.*



European CBRN projects and initiatives

PROJECTS

PROACTIVE: PReparedness against CBRNE threats through cOmmon Approaches between security praCTitioners and the Vulnerable civil society

<https://proactive-h2020.eu/>

HoloZcan: Deep Learning Powered Holographic Microscopy for Biothreat Detection on Field

<https://www.holozcan.com/>

RESIST: REsilience Support for critical Infrastructures through Standardised Training on CBRN

<https://project-resist.eu/>

VERTiGo: Virtual Enhanced Reality for inTeroperable training of CBRN military and civilian Operators

<https://cbrn-vertigo.eu/>

EU-RADION: European sensor system for CBRN applications

<https://eu-radion.eu/>

NETWORKING ACTIONS

eNOTICE: European Network of CBRN Training Centers

<https://www.h2020-enotice.eu>

INCLUDING: Innovative Cluster for Radiological and Nuclear Emergencies

<https://including-cluster.eu/>

NO-FEAR: Network Of practitioners For Emergency medical systems and cRITICAL care

<https://no-fearproject.eu/>

FIRE-IN: Fire and Rescue Innovation Network

<https://www.fire-in.eu/>

PANDEM-2: Pandemic Preparedness and Response

<https://pandem-2.eu>

CAPACITY-BUILDING INITIATIVES

ECCofEX: On the feasibility of the creation of a European CBRN Centre of Excellence

<https://www.umu.se/en/research/projects/eccofex/>

JA TERROR: Strengthened preparedness and response to biological and chemical terror attacks

<https://www.jaterror.eu/>

Bullseye: A Harmonised Response to Chemical and Biological Terrorism

<https://www.bullseyeproject.eu/>

GUEST COMMENTARY

Why Europe is supporting Ukraine

by Jean-Dominique Giuliani, President of the Robert Schuman Foundation, Paris

Europe is fragile. The sum of so many democracies cannot be a smooth river. They are all plagued by regressive, populist, extremist, nationalist and xenophobic currents. And so, it is easier to destabilise and attack them, which is what Vladimir Putin has been systematically doing for several years. He cannot sustainably bear to see their economic, social and political successes compared to the failure of his country, the largest in the world, perhaps the richest in mineral resources, and whose wealth is less than that of a single European Union state. Hence, we have on our borders an official and assumed enemy, which declared war on us several years ago.

“If the Russian dictator were to win, the precedent would be disastrous for the whole of Europe.”

But its greatest crime, among many others, is to have tried to change a European border by force when it attacked Ukraine. The continent's entire history teaches us how this type of behaviour ends: two world wars starting in the heart of Europe, the worst dictatorships emerging in our midst, unthinkable genocides, sublimated crime, etc. If the Russian dictator were to win, the precedent would



be disastrous for the whole of Europe. It would not take much to set Europe ablaze again. The Western Balkans would not be the last, since every part of our continent harbours grudges due to geography or history that are only waiting to be stirred up.

For the time being, they are being contained by the pull and finances of the European Union and the powerful military of the United States of America. The carrot and the stick, if you will! Without American intervention in the Balkans, they would still be at war. Without a European presence and perspective, the region would have sunk back into identity-driven madness already. We have no reason to be ashamed of our support for Ukraine in the face of an unjustified aggression with potentially incalculable consequences. We cannot accept the victory of the *fait accompli*, of violence and lies, nor of such a clear violation of international commitments. This time we are not making the mistakes of the 1930s, when democracies, through weakness, caution or cowardice, made it possible for monstrosities to occur. We do not even have any other option but to support Ukraine, which embodies honour, with all our strength. This means that we are on the side of courage and resistance to oppression, of truth, peace and democracy; these are our values and the best of what we have. We must not weaken, and we must, whatever the cost, do everything possible to stop Putin!

Web <https://bit.ly/3SeoBIM>
<https://www.robert-schuman.eu/en/>

MAIN TOPIC

International CBRN Risk Mitigation

European citizens didn't use to pay much attention to CBRN threats in their daily life. However, the Covid-19 pandemic and Putin's aggression of Ukraine, with the tangible menace of a nuclear catastrophe, changed their perception. The EU, however, has been promoting the mitigation of CBRN threats through international cooperation for a long time. Let's spotlight the EU CBRN Centres of Excellence!



An ambitious initiative for CBRN risk mitigation

The EU's unique approach to tackling CBRN threats, with the support of the UN

Interview with **Natalie Pauwels**, Head of Unit, European Commission Service for Foreign Policy Instruments, Brussels, and **Marian de Bruijn**, Programme Coordinator, United Nations Interregional Crime and Justice Research Institute (UNICRI), Turin

After a forced three-year break due to the Covid-19 pandemic, the 8th annual meeting of the National Focal Points (NFPs) of the European Union Chemical, Biological, Radiological Nuclear Risk Mitigation Centres of Excellence (EU CBRN CoE) Initiative took place in Brussels mid May. Our magazine was invited by the EU Commission Service for Foreign Policy Instruments (FPI), which organised the event together with the United Nations Interregional Crime and Justice Research Institute (UNICRI) and the support of the EU Commission's Joint Research Centre (JRC), to participate as an observer and to report on this event (see our conference report pp. 21-22).

The European: Ms Pauwels, Ms de Bruijn, please let us start our conversation by looking back to the beginning of the EU CBRN CoE Initiative which was launched by the EU in 2010. Ms Pauwels, can you tell our readers how it developed from its modest beginnings involving 13 countries into what it is today: a truly global initiative with 64 partner countries and still growing? What do you think explains its success and how was that reflected in this year's National Focal Points (NFPs) meeting?

Natalie Pauwels: The EU CBRN CoE Initiative was ambitious from the start in terms of both its geographic and thematic focus. However, "chemical, biological, radiological and nuclear risk mitigation" is not the most easily accessible terminology. It takes some time to explain what it is all about, which makes attracting political attention to this area of activity more difficult. The Covid-19 pandemic, the explosions in the ports of Beirut and Aqaba, and now the unjustified and unprovoked

“The EU CBRN CoE Initiative was ambitious from the start.”

Natalie Pauwels

Russian aggression against Ukraine have put a spotlight on the very real risks related to CBRN materials and the need to work with partner countries to enhance their capacities to mitigate and eventually respond to CBRN events.

The European: *The 8th NFPs conference offered enormous opportunities for long and solid future cooperation. What is your view from the United Nation's side, Ms de Bruijn?*

Marian de Bruijn: Indeed, it is important to have our eyes on the future and adapt to the rapidly evolving threats and challenges related to CBRN materials. All participating countries realise that this threat is cross-border and can only be addressed through effective international cooperation. The role of the UN and in particular of UNICRI is to ensure that the initiative remains agile and responsive to the needs of the partner countries and the international community, in complex and sensitive issues related to CBRN risk mitigation.

The European: *Do you both think that the success of the initiative is due to its methodology and its demand driven structure to support CBRN preparedness?*

Marian de Bruijn: The EU CBRN CoE is a decentralised network, in which countries cooperate. This starts within the countries by understanding, through the creation of national CBRN teams, the specific needs and priorities related to CBRN risk mitigation. The NFPs share their priorities in a regional context, with the support of the UNICRI Regional Coordinators, and together with experts they develop regional project proposals to address their needs. This has not been a quick process, but the methodology has proven to be very effective. Today we are a trusted community of 64 partner countries, the EU and the United Nations, and we are still growing.

Natalie Pauwels: The methodology underpinning the EU CBRN CoE Initiative is indeed unique and successfully contributing to mitigating CBRN threats. This was also the finding of the European Court of Auditors in its special report on the initiative in 2018. Many if not most CBRN risks require inter-agency coordination as well as cross-border cooperation, and the initiative supports both. It encourages partner countries to define common challenges that need to be addressed in a given region, where the EU can then step in to support with concrete actions.

The European: *Has the EU any interest in monitoring single projects or actions or does it leave this to the regions or NFPs?*



Natalie Pauwels (on the right) and Marian de Bruijn during a panel discussion at the 8th National Focal Points meeting in Brussels. On the left, the Head of Regional Secretariat for the Central Asia region, Bakhtiyor Gulyamov

photo: ©UNICRI/Freya Morales

Natalie Pauwels: The initiative is designed to be bottom-up, in the sense that the NFPs in each region together identify and define the projects that they want to see prioritised for funding by the EU. This ensures that projects correspond to identified needs and are “owned” by the partners, who have an interest in engaging the right people and institutions in the project implementation. That said, we are closely involved in the process together with UNICRI. Members of my team attend regional round table meetings and participate in discussions to ensure that what is proposed is actually workable from our perspective as a donor. And we follow projects from conception to conclusion, monitoring their implementation and impact, and drawing lessons that can feed into the design of similar projects in other regions of the initiative.

The European: *Ms de Bruijn, how can you ensure, that regions follow common guidelines and what is the role of UNICRI in accompanying them?*

Marian de Bruijn: All regions can rely on the same methodology and guidelines for needs assessment and the development of National and Regional Action Plans (NAPs/RAPs). However, the country is the owner of their needs assessment and NAP and therefore, how they are shaped and whether they are public or not is based on their strategic decision. The EU has supported the countries and regions by funding over 90 projects that support them in addressing their needs, from laboratory safety, to border security and CBRN waste management. However, the EU cannot address the needs alone and therefore UNICRI is working together with the Union to open the network to other international stakeholders that can provide additional support to the partner countries.

The European: *Ms Pauwels, how does the EU influence inter-regional cooperation and what is the value of the EU CBRN CoE Initiative within the Union’s Strategic Compass?*

Natalie Pauwels: We are putting increasing emphasis on drawing out lessons from over 10 years’ experience of the initiative, which is implemented in eight regional groupings. While every partner country and region has its own particularities and its

“Today we are a trusted community of 64 partner countries, the EU and the United Nations.”

Marian de Bruijn

own set of CBRN risks, there are also many commonalities. We are at a point where a successful action in one region is being replicated in another region, albeit adapted to its needs and particularities. But the initiative is also policy driven. It supports the external dimension of the EU’s own Action Plan to enhance preparedness against CBRN security risks, which calls for enhanced cooperation with strategic partners as well as specialised international organisations. Although the initiative is development-focused, it is supporting efforts to prevent the proliferation of weapons of mass destruction, highlighted in the Strategic Compass as a key security concern for the EU.

The European: *At the 8th NFPs meeting, a Head of Regional Secretariat said to me “never before have we had such an intense exchange of views among the regions”. Ms de Bruijn, what is your assessment as a co-organiser?*

Marian de Bruijn: As mentioned by Natalie, the initiative is now mature and the exchange between regions is vital to ensure that best practices and lessons learned are considered. Indeed, projects that have been implemented successfully in one region can be replicated in another. During the EU CBRN CoE Academy that was organised at UNICRI headquarters in Turin on 26-30 September 2022, NFPs from all regions jointly addressed key questions such as the ideal composition and mandate of the national team, the implementation of the NAP and the sustainability of the EU CBRN CoE. These events highlighted once again that, together with the EU and the UN, the partner countries are the owners of the initiative.

The European: *My congratulations for your convincing leadership in the conference and thank you for our conversation.*

documentation

The EU CBRN CoE Initiative

Launched in 2010, the European Union (EU) Chemical, Biological, Radiological and Nuclear (CBRN) Risk Mitigation Centres of Excellence (CoE) Initiative is the largest European civilian external security programme, funded through the **Global Europe: Neighbourhood, Development and International Cooperation Instrument (NDICI)**.

The EU CBRN CoE Initiative aims to mitigate risks and strengthen an all-hazards security governance in Partner Countries, following a voluntary and demand-driven approach. EU support is provided to implement a wide range of CBRN risk mitigation activities, including needs and risk assessments, national and regional action plans, trainings, train-the-trainer modules, table-top and real time (including cross-border) field exercises.

A **National Focal Point (NFP)** is appointed by each of the **64 partner**



“Our solid cooperation (...) makes the world safer, even in these most challenging of times.”

Francesco Marelli, Head of Programme, UNICRI

countries and a **CBRN National Team** is tasked with the implementation of the initiative at the country level. NFPs report to and rely on a **Regional Secretariat (RS)** hosted and led by one of the partner coun-

tries in the region and supported by a **UN Regional Coordinator**. Each of the 8 Regional Secretariats benefits from technical CBRN **On-Site Assistance (OSA)** and from specific CBRN security governance support upon request.

Since 2021, the initiative is led by the European Commission’s **Service for Foreign Policy Instruments (FPI)**, in close cooperation with the European **External Action Service (EEAS)**. The European Commission **Joint Research Centre (JRC)** provides technical support to Partner Countries, while the **United Nations Interregional Crime and Justice Research Institute (UNICRI)** ensures a coherent and effective national, regional, and international cooperation. Other relevant international and /or regional organisations and experts also contribute to the Initiative.



The 8 Regional Secretariats of the EU CBRN CoE network

Back to in-person activities after the pandemic

The EU CBRN Centres of Excellence Initiative gains maturity



photo: UNICRI/Freya Morales

Report on the 8th National Focal Points meeting of the EU CBRN Centres of Excellence Initiative by Nannette Cazaubon, Paris

After a forced three-year break due to the Covid-19 pandemic, the European Union Chemical, Biological, Radiological and Nuclear Risk Mitigation Centres of Excellence (EU CBRN CoE) Initiative held its 8th annual meeting of National Focal Points (NFPs) from 17th to 19th May in Brussels. Launched in 2010 by the EU, the initiative aims at increasing national and regional CBRN cooperation worldwide.

Hartmut and I were invited to join the event and to report on it. Since 2019 we have been following this successful initiative with great interest. We reported in our magazine on the last annual NFPs meeting (June 2019), and other events including a CBRN field exercise in Tashkent, Uzbekistan in autumn 2019. We were eager to know how the people involved in this international framework, with now 64 partner countries, managed to continue their work despite the pandemic, what impact the breakdown of in-person activities had on the initiative, and what the prospects are for the future.

The meeting took place at the “The Square” Meeting and Convention Centre in Brussels and was organised by the **European Commission’s Service for Foreign Policy Instruments (FPI)** and the **United Nations Interregional Crime and Research Institute**

(UNICRI) with the support of the European Commission’s **Joint Research Centre (JCR)**. The conference was attended by more than 100 participants with 51 National Focal Points (NFPs) out of, at that time, 63 partner countries and four observer nations (Chile, Djibouti, Mauritius, and Nigeria having become the 64th partner country most recently).

We discovered with interest the event’s new format, offering a combination of thematic panel discussions in plenary, bilateral and interregional meetings, a walking meeting, and last but not least the traditional award for the best “Regional Success Story” and the best “Innovative Regional Proposal”.

Opening session

At the opening session, moderated by **Natalie Pauwels**, Head of Unit, Stability and Peace, FPI, all speakers underlined that despite the difficult circumstances due to the pandemic during the last two years, work under the EU CBRN CoE Initiative continued, with progress made across a range of different thematic areas and in the regions.

Marc Fiedrich, at that time Acting Director and Head of Service, FPI, recognised that the pandemic was a test for the initiative as experts and coordinators found ways to adapt to the circumstances, while **Wiktor Staniecki**, Deputy Head of Division, EEAS, who represented **Joanneke Balfourt**, Director for Security and Defence Policy, EEAS, pointed out that the initiative

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Impressions from the 8th annual National Focal Points meeting of the EU CBRN Centres of Excellence Initiative in Brussels, 17-19 May 2022

photo: UNICRI/Freya Morales

now has the maturity to support actions addressing security governance issues. **Sabine Henzler**, Director of Strategy, Work Programme and Resources, JRC, underlined that despite travel restrictions during the last two years, the JRC has continued to support the EU CBRN CoE Initiative with scientific and technical assistance. Finally, **Francesco Marelli**, Head of Programme, CBRN Risk Mitigation and Security Governance Programme, UNICRI, highlighted the hard work of the persons engaged in the initiative, saying that they prevent CBRN threats from materialising by promoting a culture of safety and security.

Updates from the eight regions

The opening remarks were followed by regional analyses of the work done in the last three years. The **Heads of Secretariat** (HoS) of the eight regions shared their experience and highlighted the perspectives for the future. During this session, moderated by both **Natalie Pauwels** and **Marian de Bruijn**, Programme Coordinator at UNICRI, there was a common understanding that the enlargement of cooperation with adjacent CoE regions has a positive impact on the understanding of national work on CBRN mitigation. The participants agreed on the importance of involving more women in the process of CBRN mitigation and on the value of engaging the younger generation. A prize was awarded to the young Uzbek winner of the 2020 Central Asia drawing competition, who was also in attendance.

Walking meeting

The morning of the second day was dedicated to a walking meeting. Hartmut and I appreciated this new format. We discovered the decorated booths dedicated to each Regional Secretariat presenting their activities with clearly designed posters and showing the variety and the specificities of their respective regions. Wearing the traditional dress of their home countries, the HoS and their staffs were on hand for three hours to answer questions and exchange ideas. The regional culinary delights were appreciated by the booth visitors and by us. When we asked participants about their feeling regarding this new method of communication, we collected positive feedback and compliments for the organisers. “We had never exchanged so profoundly on single issues as we did this morning”, one NFP said to me.

Thematic sessions and interregional meetings

The afternoon of the second day was dedicated to three thematic sessions moderated by **Silvia Bottone**, Project Manager at FPI. The first session focused on developing and implementing the Regional Action Plans (RAPs), the second identified the available options for partner countries to develop CBRN expertise at national and regional levels, while the third session was dedicated to the organisation of a field exercise and considered the experiences from the recent successful experience of the ARZ 2021 exercise in Lebanon.

At the end of the second day, an **interregional meeting** between Central Asia (CA) and East and South East Europe (SEEE) took place, as well as a meeting of the African regions focussing on the preparation of an inter-Africa meeting in 2023 in Addis Ababa.

Thematic sessions continued on the third day. Experts from the European Union reported on **EU CBRN related priorities** in a plenary session moderated by **Baskar Rosaz**, FPI. While the first two presentations focused on the EU dual-use export control policy, the third presentation gave detailed insights into the EU approach to CBRN crisis response. A final presentation covered the European monitoring and emergency alert systems for nuclear and radiological threats.

Outcome of the 8th NFPs meeting

Having discussed a lot with the HoS and NFPs during this intense three-day meeting, the first after three years and coinciding with the ongoing armed conflict in Europe’s neighbourhood, Hartmut and I agreed that the EU CBRN CoE Initiative, which has funded 90 regional projects since its launch in 2010, has reached maturity.

For us it became clear that the pandemic, the war in Ukraine and the complex global security situation have encouraged the CoE partner countries to strengthen the ties between them and continue their efforts within the initiative to strive for the harmonisation of procedures for regional and interregional cooperation and efficient mutual assistance.

In her closing remarks **Natalie Pauwels** agreed that the initiative is more than just a network of experts but a community of people who know each other, “a sort of family”.



Janez Lenarčič, European Commissioner for Crisis Management (on the left), receiving a national order of merit from Ukrainian President Volodymyr Zelenskyy, Kyiv, 19th October 2022

photo: European Union, 2022 / EC Audiovisual Service

Building the EU's capacity to respond to CBRN threats

The Union Civil Protection Mechanism

by Dr Antonella Cavallo, rescEU CBRN Lead, DG ECHO, European Commission, Brussels

On 19th October in Kyiv, President of Ukraine Volodymyr Zelenskyy awarded a national order of merit to the EU Commissioner for Crisis Management Janez Lenarčič recognising the **efforts in assisting Ukraine** and people in need. To this day, the **European Response Coordination Centre** (ERCC) has mobilised over 70,000 tonnes of Member States' and Participating States' in-kind assistance and supplies from the rescEU strategic stockpiles, transport and warehousing services, medical evacuation capabilities as well as donations from private sector thanks to the collaboration with all 27 EU Member States and 4 of the Participating States (Norway, Türkiye, North Macedonia and Iceland).

Ukraine: a wide range of needs

The assistance requested by Ukraine reflected the widest range of needs ever recorded in the history of the Union: from medical to agricultural needs, from medevac to energy-related requests to equipment to respond to chemical, biological and radio-nuclear (CBRN) threats. CBRN assistance provided to Ukraine so far included medical countermeasures such as

antidotes, potassium iodide tablets, therapeutics, and response equipment such as detectors, decontaminants, radiometers, dosimeters, spectrometers, and personal protective equipment. Moreover, the deployment included significant quantities of medical equipment to treat patients exposed to Toxic Industrial Chemicals such as ammonia or chlorine. When EU Member States could not match directly high-priority requests from Ukraine with offers, the ERCC mobilised these resources from the **rescEU** emergency reserves in collaboration with the countries managing the relevant stockpiles. These already contained critical medical equipment. In addition, they were reinforced with CBRN countermeasures and response equipment based on Ukraine's current and projected needs. The overall financial value of the assistance provided to Ukraine and neighbouring States via the **EU Civil Protection Mechanism** amounts so far to over €446 million. Beyond the monetary significance of the assistance, the ERCC has acted as a coordination hub for the EU Member States and Participating States as well as for a wide array of international stakeholders. In so doing, the ERCC helped prioritise needs over a number of requests for assistance, which were circulated simultaneously to several institutions and organisations in the EU and beyond. In relation to the CBRN assistance, the ERCC secured a channel of communication with key contacts in international organisations, which were active in the delivery of C, B or RN equipment

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photo: Jerick Moral



“rescEU responds to EU Member States’ needs by offering a European reserve of capabilities.”

Dr Antonella Cavallo

is the Lead for rescEU CBRN capabilities within the European Civil Protection and Humanitarian Aid Operations at the European Commission. She coordinates the procurement and mobilisation of rescEU CBRN equipment and medical countermeasures to Ukraine. Prior to this, Dr Cavallo worked in private and public sectors in Italy, France, Germany, the US and Australia.

for medical countermeasures to Ukraine. These organisations included e.g., the International Atomic Energy Agency (IAEA), US AID (which has been tracking CBRN assistance from several US government departments), NATO, the World Health Organisation (WHO), the International Committee of the Red Cross (ICRC) and the International Federation of Red Cross and Red Crescent Societies (IFRC). Liaison officers from IFRC and the USAID were hosted in the ERCC. This coordination allowed to proactively deconflict any offers of assistance and ensure a better overall coverage of the needs expressed by Ukraine.

Which CBRN capabilities can the EU count on?

The European Civil Protection Pool

When a CBRN disaster occurs, the affected country is primarily responsible to organise the disaster response including by deploying relevant resources and specialist teams. Should there be a need for surge capacity, the affected country can request assistance to the ERCC. After a rapid analysis of the request, the ERCC considers whether the capabilities requested coincide with those available in the **European Civil Protection Pool**, which currently hosts CBRN detection and sampling and CBRN urban search and rescue capabilities including specialised teams and equipment. These are existing capabilities that France, Denmark, Portugal, Germany, Romania, Greece and Italy have pre-committed and are either already certified by the European Commission or are in the process of being certified. The Commission reimburses up to 75% of the deployment costs inside or outside the EU and supports the upgrade or repair of the capabilities to ensure their readiness and fitness to be promptly deployed in case of activation.

The rescEU emergency reserves

The 2019 “Member States’ Preparedness for CBRN Threats” report of the European Parliament found that EU Member States do not generally maintain stockpiles of CBRN medical countermeasures, and that preparedness could be improved¹. It reported that while some countries have their own reserves, these would be sufficient to cover only a part of the potentially affected population. Indeed, disrupted supply chains and long procurement times may present a structural weakness in the response to large-scale CBRN emergencies. In other words, there was a need for an additional layer of protection beyond national and Pool capabilities. rescEU responds to this need by offering a European reserve of capabilities that serve as surge capacity in case of natural or human-induced disasters, including health crises.

Primarily intended to support EU Member States², rescEU capabilities are 100% funded by the European Union. So, if national and European Civil Protection Pool capabilities are insufficient or do not match the request of the affected country in terms of quantity or technical specifications, the ERCC may activate the **rescEU** strategic reserves.

In CBRN, three streams of capabilities are under development comprising decontamination, detection and CBRN strategic reserves for several hundreds of millions of euros.

1. **rescEU decontamination capabilities** will be developed by Croatia, Germany and Spain and will boost the capacity of the Union to decontaminate infrastructure, vehicles, buildings, critical equipment and affected people (mass decontamination). Teams of experts will be responsible for the development of these capabilities and the readiness of specialist teams and equipment, which will also be able to be pre-deployed ahead of high-visibility events or major public events such as the Olympic Games.
2. **rescEU CBRN stockpiles** will focus on medical countermeasures and response equipment that can be used to quickly replenish national stocks after a sudden incident or that can be repositioned in case of sudden and temporary heightened risk. The war in Ukraine has de facto accelerated the implementation of these capabilities as selected medical countermeasures and equipment were included in the existing rescEU medical stockpiles and consequently mobilised to ensure prompt relief in the context of the war.
3. Finally, similarly to decontamination, **rescEU detection capabilities** will count on teams of experts and equipment that will be able to be pre-positioned temporarily ahead of major public events or deployed after an incident. They will cover detection, identification and monitoring with the ambition of relying on innovative technologies and integrated communication systems.

1 European Parliament, ‘Member States’ Preparedness for CBRN Threats’, 2019, p. 30

[https://www.europarl.europa.eu/RegData/etudes/STUD/2018/604960/IPOL_STU\(2018\)604960_EN.pdf](https://www.europarl.europa.eu/RegData/etudes/STUD/2018/604960/IPOL_STU(2018)604960_EN.pdf)

2 rescEU can still be deployed outside the Union “if a disaster outside the Union could significantly affect one or more Member States or their citizens”, according to Art. 12 of Decision 1313/2013/EU.

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A full-page photograph of two individuals in light blue hazmat suits and respirators working in a laboratory. The person on the left is leaning over a workbench, using a piece of equipment. The person on the right stands nearby. The background shows laboratory equipment, including a red sink with 'USH' written on it, and a brick wall in the foreground.

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Cooperation is primarily built between people

The EU's CBRN Centres of Excellence policy is a human act

Statue of Amir Timur (1336-1405) in Tashkent, Uzbekistan

photo: © Nicola/stock.adobe.com

Interview with Bakhtiyor Gulyamov, Head of Regional Secretariat for Central Asia, EU CBRN Centres of Excellence Initiative, Tashkent

The European: *Mr Gulyamov, you have been the Head of Secretariat of the Central Asia (CA) region within the European Union's Chemical, Biological, Radiological, Nuclear Risk Mitigation Centres of Excellence (EU CBRN CoE) Initiative since 2015. You are known for your innovative capabilities and your pragmatism, and you were one of the first to promote inter-regional cooperation in the field of CBRN risk mitigation.*

Bakhtiyor Gulyamov: Mr Bühl, I am honored that you invited me to be interviewed for your magazine which pays special attention to security issues. Thank you.

The world is currently facing multiple challenges related to issues such as conflicts, the Covid-19 pandemic and climate crisis that are amplifying insecurity around the world. But how do we reverse this negative trend, how do we ensure that countries become more committed to the cause of security and stability? In an encyclopedia, I read that the “ability to set goals is one of the elements of human behaviour and conscious activity, which characterises anticipatory thinking, or thinking in advance of an activity result and ways to accomplish it with certain means.”

The European: *At the end of 2019, during the international CBRN exercise Jeyran organised under your responsibility in Tashkent, you commented on the EU CBRN CoE Initiative: “We have a common charter and we made enormous progress in technical cooperation, but the initiative is far more: it is a human act”.*

Bakhtiyor Gulyamov: Indeed, the EU CBRN CoE Initiative brings together a community of professionals whose aim is to reduce the threats and risks from the use of CBRN materials. The

interventions within the frame of the initiative combine efforts of each member, and represent an endeavour to create, maintain and guarantee safe living environments across all regions. It is achievable only by the actions and behaviour of each individual person. This is a human act that plays an utterly important role. I am sure that cooperation is primarily built between people on an individual, human level. In this way, human relationships further evolve into cooperation at the organisational and institutional levels; this way trust is built, and cooperation is strengthened.

The European: *Let us go back to policy and the strategic importance of interregional cooperation in the actual political and economic context. What are the particular ties established between the Central Asia (CA) region and the South East and Eastern Europe (SEEE) region?*

Bakhtiyor Gulyamov: As the Head of the CA Regional Secretariat, I concluded that the cooperation potential between my region and the SEEE region is high, and that our common historical past and similar development models enable stronger linkages allowing a constructive exchange of experience and cross-fertilisation of expertise.

Our joint containment of the spread of Covid-19 in the region is one example. By extending Project 53 on the strengthening of the national legal framework and provision of specialised training on bio-safety and bio-security – initially designed to cover countries of the CA region – to the SEEE region, we were able to strengthen capacities for managing the pandemic, establish an exchange of information regarding the application of primary epidemiological measures, support activities of epidemiological and clinical centres, and, most importantly, facilitate measures to maintain the performance of strategically important sectors of the economy in each country of the two large regions.

“I am sure that cooperation is primarily built between people on an individual, human level.”



photo: © National authorities of Uzbekistan

The European: *What are the facilitators of such a cooperation?*

Bakhtiyor Gulyamov: The development and implementation of joint events, actions and road maps are key points, as well as shared successes and lessons learned from the projects, supporting exchange visits among experts, replicating successfully implemented interventions.

Cooperation stimulates innovations at scale, contributes to the establishment and development of continuous partnerships between regions in the field of CBRN security. Other examples are the formation of joint working groups and informal and formal mechanisms for regular interregional consultations to discuss the current state and prospects for improving interregional and worldwide cooperation in the CBRN fields.

The European: *Your region has been implementing an innovative project raising awareness of CBRN risks and threats. What is the idea behind this?*

Bakhtiyor Gulyamov: There are a lot of ordinary people who do not know what CBRN threats and risks are, although they may encounter these in everyday life, or people, including children, living in places of such threats and risks of chemical or radioactive contamination. In most cases they are not aware of the detrimental effects of these existing threats. It is our task to explain to them the essence of such risks and adverse consequences for human health and the environment in a comprehensive yet understandable manner.

The European: *And what is your pedagogical approach?*

Bakhtiyor Gulyamov: Within this innovative project, we hold various competitions for children and adolescents at schools, conduct lectures for university students, with an aim to inform the population about existing risks. For such an awareness raising campaign to be sustainable, it is necessary to constantly engage educated and respectable community members who are able to reach out to a larger population, therefore we also educate teachers as the key target audience of our project. Recently, as part of the exchange between the CA and SEEE regions, we successfully held similar awareness raising events in Georgia, and these interventions were enthusiastically received.

The European: *What is, in this context, the added value of interregional exercises?*

Bakhtiyor Gulyamov: In November 2019, you came to Uzbekistan to observe the Jeyran field exercise in Tashkent, designed as close as possible to resemble a real-life event. On a national level, early warning and communication systems, logistical base and medical capacities were tested, and plans of action for response and

recovery measures were clarified and adjusted. Today, due to globalisation processes, closer relationships, travel and interdependence between countries, threats such as pandemics, climate change, conflicts, and terrorism are transnational ones that require coordinated action not only within countries, but also between neighbouring countries, as well as at the regional and interregional levels.

The European: *To delve deeper into the subject of cooperation, could you reflect on the interoperability of the material?*

Bakhtiyor Gulyamov: Of course, the compatibility of equipment, means and materials employed during a CBRN incident would contribute to a greater efficiency. Therefore, this important aspect of standardisation and compatibility of such equipment, means and materials to be procured for the emergency services of neighbouring countries must be taken into account while developing and implementing projects and programmes of regional, interregional and global character.

The European: *Mr Gulyamov, what is your appeal to the community formed by the now 64 partner countries of the EU CBRN CoE Initiative and the EU Member States?*

Bakhtiyor Gulyamov: There is a global demand for mutual trust. We must engage in constructive dialogue and facilitate close cooperation between countries, as dialogue and cooperation are and will continue to be critical for ensuring CBRN safety and security. The EU CBRN CoE Initiative provides a platform for dialogue and cooperation among countries. Therefore, I encourage all partner countries of the initiative and the EU to continue dialogue and expand and strengthen cooperation in the field of CBRN risk mitigation within the framework of the initiative for our common cause – security and prosperity for all. In the end, all our efforts to increase the efficiency of emergency services will ultimately result in saving human lives.

The European: *Mr Gulyamov, thank you very much for the interview.*

The Interview was led by Hartmut Bühl.

Bakhtiyor Gulyamov, is the acting Chairman of the State Committee of Industrial Safety of the Republic of Uzbekistan and the Head of the Regional Secretariat for Central Asia of the EU CBRN CoE Initiative



photos: © G. Povoden

An onsite observation in Lebanon

Report on the ARZ CBRN counter-terrorism exercise in the Middle East region



by Günter Povoden, key expert with the On-Site Assistance (OSA) for the Middle East region of the EU CBRN Centres of Excellence Initiative, Vienna

The distinguished reader knows that “Arz” is the Arabic word for “cedar”, the national symbol of Lebanon, the country which hosted the ARZ CBRN (chemical, biological, radiological, nuclear) exercise from 6th to 9th December 2021 – despite many obstacles such as the Covid-19 pandemic and the difficult political and economic situation in Lebanon, which interrupted the preparation of the exercise for two years. The highlight, after a very successful exercise, was the final ceremony with the presence of high-level representatives, including three Lebanese government ministers, ambassadors and high-level representatives from other countries and international organisations.

Lebanon did a great job in difficult times!

Exercise participants were the **Lebanese armed forces**, the **Internal Security Forces**, including the **Governmental Guard**, **Civil Defence**, **Beirut Fire Brigade**, the **Lebanese Red Cross** and the **Lebanese Atomic Energy Commission (LAEC)**.

The exercise location, the training centre of the Internal Security Forces Academy in Aramoun near Beirut, was perfectly suited for a complex CBRN counter terrorism field exercise. It contains all the infrastructure and professional staff to support such an exercise. Before the start of the exercise, which brought together the planners and the representatives of all participating institutions and units of Lebanon, the preparatory phase involved intensive cooperation, discussion

about the scenarios and the adaptation to the needs and capabilities, thereby increasing the interoperability and mutual knowledge of national CBRN capacities. In addition, as a direct consequence of the tragic explosion in Beirut in August 2020, there has been closer interaction and cooperation between the different first and second responders.

Overall coordination and technical preparation

The **CBRN Commission of Lebanon** played a crucial role in the implementation of the exercise. It can be considered as the “single point of contact” for all CBRN related activities in the country, under the leadership of the National Focal Point (NFP) for the EU CBRN Centres of Excellence Initiative, **Dr Bilal Nsouli**. As director of the Lebanese Atom Energy Commission (LAEC), he also facilitated the mobilisation of the LAEC staff in the preparation of the exercise scenarios. Equipment and materials from LAEC laboratories were used to simulate laboratory infrastructure and chemical precursors as realistically as possible. The scenarios were planned in great detail by the On-Site Assistance (OSA) expert for the Middle East region, in close cooperation with the French expert from Project 73, both under the umbrella of the EU CBRN Centres of Excellence in close cooperation with the LAEC staff.

Planning documents, administration and logistics

Such an exercise requires the drafting of various planning documents, for instance the exercise manual, the so-called main event/main incident list, guidance for the role players and much more. The OSA expert was in charge of all the technical

planning documents. A tangible output was also the preparation of an exercise planning guide summarised by the **United Nations Interregional Crime Research Institute (UNICRI)**, based on all the experience from this exercise.

Apart from the technical preparation, countless administrative steps were necessary such as the organisation of preparatory meetings, translation of planning documents, invitations to observers etc. Most of these activities were organised by UNICRI, in close cooperation with the Lebanese CBRN Commission and the LAEC. Around 20 meetings, in-person as well as virtual, were organised around this exercise. The exercise itself, involving more than 200 participants, international and national observers and exercise staff members required professional logistics that were provided by the Italian implementer, **Fondazione SAFE**, with its local staff.

Exercise scenarios and execution

The first scenario simulated an incident at an illicit hazardous material storage site and a terrorist laboratory producing chemical and biological warfare agents, dirty bombs and explosive devices. Preventing CBRN terror attacks requires CBRN awareness and disrupting terrorists' activities at an early stage. This was simulated by providing CBRN intelligence to connect the dots. A major part of the exercise was to arrest terrorists before the planned attack and detect, identify and secure CBRN materials and precursors for chemical warfare agents, toxins and explosives in illicit laboratories and storage sites.

The second scenario focused on the response to a CBRN incident, simulated by a terrorist attack on a VIP convoy using chemical materials and explosive devices. This scenario required the extraction of the VIP under CBRN conditions followed by the whole spectrum of CBRN activities such as detection, leak sealing, rescue and treatment of victims, decontamination, explosive ordnance disposal and site exploitation including forensics. These activities were disrupted by follow-on attacks and an additional challenge was to deal with such attacks under CBRN conditions.

The coordination of all injects, where some are running parallel, required professional exercise control. This task was given to the commander of the CBRN company of the Lebanese armed forces, **Capt. Ziad Abou Malhab**. His wide experience gained from other activities, like projects for CBRN capacity building in Lebanon funded by the EU Delegation, and his experience of missions in the aftermath of the Beirut explosion were crucial to successfully coordinate and guide all players in the field. I also want to highlight the important role of women as first responders: Lebanon had well-trained female first responders in team leader positions.

The evaluation of the exercise took place under the leadership of **Lieutenant Colonel Andrea Gloria** from Italy, supported by international experts from the OPCW, INTERPOL, the French police, SCK-CEN (The Belgian Nuclear Research Centre), Italian army, NATO School, and the OSA expert. This evaluation report was a valuable output and will be used for the development of future activities in Lebanon.



photo: private

Günter Povoden

is currently the On-Site Assistance (OSA) key expert for the Middle East region of the EU CBRN CoE Initiative. His activities in recent years have been related to CBRN risk management in military and humanitarian missions and the development of CBRN Explosive Ordnance Disposal (EOD) capabilities in the Austrian Armed Forces in his function as Head of Section Chemistry at the CBRN Defence Centre. Appointed as a member of the Scientific Advisory Board of the Organisation for the Prohibition of Chemical Weapons (OPCW) in 2019, Mr Povoden has since been elected chairperson. He is also an external lecturer at the University of Technology in Graz, Austria.

Financing of ARZ

How can such a huge exercise be financed? On one hand there are the in-kind contributions for the planning, execution and evaluation by international experts working for EU projects, the UNICRI staff, representatives of the OPCW, INTERPOL, French police, Italian army, SCK-CEN, the NATO School and above all, the Lebanese authorities and stakeholders. On the other hand, the exercise logistics, catering, accommodation and travel costs of observers, interpretation, etc., requires a huge budget. Without solid funding, such an exercise cannot take place and this is why the European Commission, in close cooperation with ISTC (International Science and Technology Center) and UNICRI, provided the funding needed for this exercise.

My conclusion

Exercises like this are definitely worth funding to make projects more sustainable. ARZ 2021 is a great example of how the combination of national commitment and international cooperation can be effective if all the stakeholders and partners are working towards a common goal, which was to improve Lebanon's CBRN counter-terrorism capabilities. It also showed that the effort of the EU CBRN Centres of Excellence Initiative in Lebanon was successful and sustainable in building technical capacities and reinforcing interagency coordination and cooperation. In order to repeat this success story, similar exercises are planned in the near future in the Middle East region.

Successful launch of the first African CBRNe Master's programme

The implementation of an innovative idea

Interview with Mohamed Salami, Head of Regional Office, African Atlantic Facade (AAF), EU CBRN Centres of Excellence, Rabat

The European: *Mr Salami, you have been the Head of the Regional Office for the African Atlantic Façade (AAF) region of the European Union CBRN Risk Mitigation Centres of Excellence (EU CBRN CoE) Initiative for 12 years and you will soon hand over to your successor. In 2019, at the annual meeting of the EU CBRN CoE Initiative, the AAF region was awarded a prize for “the most innovative project” which was related to the establishment of the first African specialised CBRNe Master’s programme.*

When we met for an interview in Rabat, in the spring of 2020, you expressed your optimism that this regional initiative, strongly supported by the European Union, would start in 2022. How do things stand today?

Mohamed Salami: Ms Cazaubon, first of all, I would like to thank you for giving me the opportunity to discuss with you once again to take stock of the situation of the specialised African CBRNe Master’s degree.

I am happy to confirm that my optimism has been vindicated, with an effective start of the Master’s programme in January 2022. Today we are almost at the end of the training sessions for the first year’s student intake, coinciding with the start of the course for the candidates selected for the second intake.

The European: *My congratulations on the successful start of your project! Could you give our readers more detail about the objectives of this specialised training course and the participants selected for the programme?*

Mohamed Salami: Given the objectives of the European Centres of Excellence initiative aimed at strengthening the

capacities of member countries in the prevention, planning and intervention against CBRN risks, whether of natural or technological origin or linked to malicious acts, the AAF Regional Office deemed it necessary to organise high-level training for senior executives from countries in the region and made a request to the European Union, which approved it and agreed to fund it. The stated objective is to enable the various African countries bordering the Atlantic seaboard to acquire specialised skills, so as to be able to advise the competent national authorities on CBRN risk management, to be in a position to drive national strategies in this area and to steer the implementation of National Action Plans (NAPs) established in each country – and even to contribute to the development and implementation of a Regional Action Plan (RAP).

The European: *How many students are there in each year and what is their distribution among the AAF nations?*

Mohamed Salami: The 50 participants in the two years, distributed evenly between the eight French-speaking countries of the region, are mostly from security bodies and specialised scientific organisations.

The European: *Could you say more about the different stages of the implementation for this remarkable project?*

Mohamed Salami: After approval of the project by the CBRN National Focal Points (NFPs) and validation by the European Union, the Regional Office began to seek reliable partners for its realisation. Once that was done and the related administrative procedures completed, the various partners began implementing the project in three successive stages: firstly, selection of potential candidates on the basis of their background files, provided by the NFPs; secondly, organisation of distance training courses to upgrade candidates’ knowledge,

the content and validation of which are monitored by experts, and thirdly, organisation of written and oral exams with a view to selecting the best candidates among those who successfully complete the various distance learning modules. As soon as the final list is drawn up by the jury, the NFPs and the selected candidates are informed and the administrative procedures are initiated to facilitate travel to Morocco and ensure that classes can start.

The European: *Clearly, it takes time to put such an important project together. What were the main challenges and how did you find universities willing to cooperate?*

Mohamed Salami: It must indeed be said that this project was not easy to bring to fruition. It took a long time and a great deal of effort to get it off the ground. In addition to the administrative and procedural constraints on the finalisation and presentation of any project, as well as the intense discussions with the competent entities of the European Union, it was necessary, for this specific project, to identify the shortest path and safest route to manage it reliably and efficiently.

This is why the Regional Office contacted the University of Haute Alsace in France, which has expertise in this field, having offered this kind of Master's degree in France for many years, and the International University of Rabat, which has excellent infrastructure and sufficient experience in organising this type of training.

In the end, everything fell nicely into place, despite the context of Covid-19, which only delayed the start of training.

The European: *May I come to the question of budget? Could you elaborate on how your region is involved and to what extent the European Union is financially supporting the project?*

Mohamed Salami: In reality, the project is fully funded by the European Union for both student intakes and I would like to take this opportunity to express, in my own name and on behalf of all the NFPs in the region, my profound gratitude for its financial support and reiterate my sincere thanks to its senior officials for their understanding and commitment. That said, the Regional Office is trying to convince the various countries to contribute financially, by facilitating and supporting the graduates of the two courses to organise training modules in their respective countries. In addition, my Regional Office is in the process of identifying the various donors who could be approached with requests for financial support for the organisation of additional sessions.

The European: *You mentioned your gratitude to the EU for its contribution. Is the support from Brussels limited in time and in volume?*

Mohamed Salami: We are in discussions with the specialised services in Brussels with a view to extending the project for two more years in order to allow other candidates to benefit from it, including those from English-speaking countries who have not been able to benefit so far and possibly representatives of other countries than those of the Atlantic seaboard, knowing that there is a strong demand from the countries of the region and others who wish to take part.

The European: *Mr Salami, now that the project is well on track you have decided to retire from the post of AFF Head of Regional Office and you will soon hand over to your successor. On behalf of our team, I wish him every success in the continuation of the region's important work within the EU CBRN CoE Initiative and I express to you and your family our best wishes for the future.*

“It must indeed be said that this project was not easy to bring to fruition. It took a long time and a great deal of effort to get it off the ground.”



Mohamed Salami with Nannette Cazaubon during her first visit to the University of Rabat in January 2020

photo: © ESDU

Keeping troops effective in the face of advanced CBRN threats

Prevent, Protect, Recover

Soldiers donning their CBRN individual protective gear, applying the buddy-system

photo: ©Bundeswehr CBRN Defence Command

**by Colonel Stephan Saalow, Commander
CBRN Defence Command and Chairman FNC
Cluster CBRN Protection, Bundeswehr CBRN
Defence Command, Bruchsal**

The use of fourth generation chemical agents in Salisbury (UK), continued nuclear sabre-rattling from North-Korea and Iran, nuclear power plants (NPPS) under threat like in Zaporizhzhia (Ukraine), the exploitation of World War 1 chemical warfare agents documented by the Organisation for the Prohibition of Chemical Weapons (OPCW) in Syria and the spread of ballistic missiles are only a snapshot of the tense and complex chemical, biological, radiological and nuclear (CBRN) threats that have emerged in and around Europe over the last few years. The Russian attack on Ukraine and its brutal consequences mark a turning point in the threat perception of the European population.

Tangible CBRN threats for Europe

The possible use of CBRN materials and weapons against European countries by hostile aggressors continues to be a tangible threat and needs to be addressed politically by greater coherence in security and defence and a common sense of purpose and urgency in the resulting actions. Of special concern is the erosion over recent decades of the global security architecture in arms control, disarmament and non-proliferation of CBRN materials and weapons, with a negative impact on geopolitical strategic stability.

NATO has initiated a process of addressing CBRN risks, has closed ranks, enhanced deterrence, increased the Alliance's defence capabilities and tackled the complex security threats with a new Strategic Concept, which was endorsed at NATO's Summit in Madrid 2022. In addition, NATO heads of state and

government have turned their focus to threats posed by CBRN weapons of mass destruction and approved a new NATO CBRN defence policy. CBRN threat assessments are shifting back to state actors. Russia is explicitly referred to as "NATO's most pressing CBRN security challenge". This clear focus on state actors with extensive and diverse CBRN weapon arsenals has an impact on the capability profile required by NATO, which must now invest more in CBRN defence capabilities in order to ward off the threatened use – or protect and recover from the actual use – of CBRN materials and weapons.

Assuming the reality of CBRN risks

The EU must be aware that the trend towards possession and use of CBRN materials and weapons will continue and should not expect a secure system of control and verifiable destruction of weapons of mass destruction and their delivery systems to be set up, even partially, in the foreseeable future. In addition, the destruction of all chemical weapons declared in the context of the Chemical Weapons Convention is unlikely to be completed by the end of 2023. Therefore, a credible deterrent through effective, sustainable and robust CBRN defensive and



Decontamination of a MARS rocket launcher

photo: ©Bundeswehr CBRN Defence Command

protective measures is essential. Consequently, the EU and its Member States should continue all preventive activities aimed at strengthening the international framework of arms control, disarmament and non-proliferation, along with efforts to protect the European population, regions and forces from CBRN threats, and, should these measures fail, to recover from the effects of a CBRN attack.

However, not only do CBRN attacks directly targeting unprotected troops carry the risk of enormous damage, a further potential risk, as demonstrated in Ukraine, is the damage to critical and CBRN-related infrastructure itself. Nuclear power plants in Europe, not unlike the Zaporizhzhia NPP, have the potential to endanger the population and military throughout the EU, especially if they are deliberately chosen as military targets. As seen in Ukraine, preventing an enemy from damaging critical infrastructure is not always possible, so protecting potentially affected troops and appropriate recovery methods take on an even greater importance.

Pragmatic efforts: the example of Germany

The CBRN Defence Command of the Bundeswehr is a joint enabling headquarters that is not only responsible for equipping and training sufficient and appropriate CBRN defence capabilities but also for the functioning of the CBRN Defence System of the German Armed Forces. This fully acknowledged conceptual approach to protect against CBRN hazards enjoys international recognition. It is organised around a set of interdependent preventive and reactive measures that aim to significantly strengthen all parts of the German armed forces through a detailed and systematic CBRN risk and threat analysis, precise and methodical CBRN advice, CBRN individual and collective protection measures, and CBRN reconnaissance and decontamination. In this way, the CBRN defence system contributes to maintaining or restoring the operational capability and readiness of the Bundeswehr by a flexible and effective response to potential CBRN threats and risks and can be deployed across the full mission spectrum of the Bundeswehr. The organisational structure, capabilities and functions of CBRN defence are designed to be graduated and sustainable. Depending on the CBRN threat and risk analyses for a given mission, these capabilities can also be used in a modular fashion. CBRN defence tasks are carried out in all military services in an echelon-appropriate manner at various capability levels, including

- **basic capability** (CBRN protective measures for individual soldiers to be taken immediately to survive a CBRN attack);
- **enhanced capability** (unit level CBRN defence measures, allowing continuation of unit tasks albeit for a limited time under CBRN conditions);
- **specialist capability** (additional measures carried out by qualified and specially trained CBRN defence personnel and Joint Medical Service personnel).

By allocating CBRN defence capabilities to these capability levels, the CBRN defence system creates synergies that



“The Russian attack on Ukraine and its brutal consequences mark a turning point in the CBRN threat perception of the European population.”

ensures not only the protection but also the operational readiness of deployed forces. It enables troops to survive a CBRN attack and restore their operational effectiveness, essential not only in the face of a direct military confrontation, but also considering new threat scenarios such as hybrid conflict. The linking of covert and overt operations, the interplay between diplomatic pressure and economic sanctions and targeted disinformation via the internet and social networks all blur the line between war and not war. In such situations, the threat from CBRN materials and weapons complicates decisions about protective measures. But in both direct military confrontations and new forms of warfare, the focus remains on the protection of soldiers in the field. The CBRN defence system ensures that this focus is maintained, thereby contributing to credible and robust European security and defence capabilities.

Acknowledging the new situation

We are surrounded by instability and conflicts and face a dangerous mix of armed aggression, illegal annexation, fragile states, revisionist powers and authoritarian regimes. This environment is a breeding ground for multiple threats to European security from terrorism, violent extremism and organised crime to hybrid conflicts, instrumentalisation of illegal migration, arms proliferation and the progressive weakening of the arms control architecture¹. CBRN materials and weapons exacerbate this situation. The EU's Common Security and Defence Policy (CSDP) must fully acknowledge this development, design capacity building measures and provide resources to strengthen the provision of effective troops capable of stopping the proliferation of weapons of mass destruction, protecting against CBRN hazards and taking appropriate recovery measures should prevention fail.

¹ A Strategic Compass for Security and Defence for a European Union that protects its citizens, values and interests and contributes to international peace and security.

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Security and Defence

Since the Covid-19 pandemic, armament industries in EU Member States and those of their Atlantic partners face supply shortages. These are worsening with the ongoing war in Ukraine and the current energy crisis, thereby threatening European and global security. Against this background and the tense international security environment, a transatlantic approach, including armament cooperation, has become even more important.



“There must be a transatlantic approach to safety, security and defence.”

There is no either/or in arms cooperation between Europe and America

Interview with Lutz Kampmann, Managing Director of Northrop Grumman LITEF Holding GmbH, Freiburg

The European: *Mr Kampmann, you have been the Managing Director of LITEF since 2019 after holding several executive positions in international companies. LITEF was founded in Germany more than 60 years ago and started by producing under licence and maintaining a navigation system. What are the key success drivers of LITEF?*

Lutz Kampmann: LITEF was founded in 1961 as part of an offset agreement resulting from the sale of the **F-104G Starfighter** to Germany. Production under licence and maintenance of the Inertial Navigation System for the Starfighter were the main features of the offset agreement. Ten years later, in 1971, LITEF was awarded the development contract for the **Tornado's on-board computer**. This was LITEF's entry into computer technology and we still provide upgrades and maintenance. Another 20 years later, LITEF received orders for the development and production of the so-called **IMU** (Inertial Measurement Unit) as well as several on-board computers for the new Eurofighter programme.

The European: *Was this participation in the Eurofighter programme the second breakthrough after the “Starfighter Story”?*

Lutz Kampmann: To a certain extent yes, but there have been many other highlights in our now more than 60-year success story. We are constantly developing our products and remain true to our core competencies: acceleration and rotation rate sensors, inertial measurement units and attitude heading reference systems.

The European: *Are these developments and products you mentioned subject to the American International Traffic in Arms Regulation (ITAR)?*

Lutz Kampmann: These LITEF solutions are ITAR-free and are based on the further development of our **MEMS** (Micro-Electro-Mechanical Systems) and **FOG** (Fiber Optic Gyro) core technologies, redefining what is technologically feasible.

The European: *What technical and technological innovations led to LITEF's leadership in the market segment of inertial reference and navigation systems?*

Lutz Kampmann: LITEF has been specialised in inertial navigation since the company was founded. Together with our customers, we develop **inertial sensors and systems** for various types of operations and applications, with high accuracy. Milestones are the development and production of mission computers and IMU for military aviation. What we have learned from aviation, we have subsequently transferred to land systems as well as missile and torpedo applications.

Through the further development of FOG and MEMS technologies, LITEF can offer **inertial reference systems for aviation** characterised by low weight, low volume and low power loss with high sensor data accuracy. These attitude heading reference and navigation systems offer excellent reliability and the capacity to provide “hybrid” position and location information with high bandwidth and low noise for navigation and flight control by means of the optimal combination of Global Navigation Satellite Systems (GNSS) receiver data and inertial sensors.

The European: *What technical innovations for future systems are you working on and where are you putting the focus now?*

Lutz Kampmann: We will continue to develop ITAR-free premium systems based on a unique pool of knowledge and perfectly tailored to individual requirements. We certainly intend to maintain our leading market position in the areas of FOG, MEMS and sensor fusion solutions in the years to come. The company will continue to explore and redefine what is feasible using its systems expertise, from the modernisation or upgrade of legacy systems to the development of MEMS-based navigation for new platforms and systems. MEMS-based products are smaller, lighter and have lower power consumption. The next generation will be suitable for missile and torpedo applications but also for unmanned aerial systems and remote carrier devices.

The European: *What are the key points for navigation here?*

Lutz Kampmann: For the **European Future Combat Air System** (FCAS) and **Medium Ground Combat System** (MGCS) but also more generally, the requirements for navigation will be size, weight and accuracy. Future platforms will perform different tasks in the network; we will adapt to this and tailor our developments and products to receive and process signals and data from other sensors as well.

In addition to providing absolute position data, we are working on solutions that can also map relative positions in a



“For me, the most important keywords in cooperation are communication, interoperability and data exchange with the USA and our NATO partners.”

Lutz Kampmann (left) discussing with Hartmut Bühl in Freiburg

photo: ESDU

measurable and usable form for the mission network. This will make a significant contribution to securing the mission and making it more resilient to electronic warfare attacks.

The European: *You already mentioned that there is a spin-off to naval and land forces...*

Lutz Kampmann: ...yes, LITEF has applied what it has learned from aviation to land and naval systems as well as missile and torpedo applications. Inertial systems are needed for navigation of every type of vehicle, from main battle tanks to light armoured troop carriers, especially in a GPS Denied Environment. The same is true for the Navy. The limitations of GPS-only navigation will be exposed in any future mission by enemy jamming and spoofing. Robust and resilient navigation systems based on inertial sensors are needed to avoid jeopardising the mission and associate the use of different weapon systems. Our land portfolio is currently undergoing intensive revision.

The European: *Your company is an independent company within the Electronic Systems Division of Northrop Grumman Corporation, USA. Does this mean that you are operating independently and do not exchange any technical or research data with the US owner?*

Lutz Kampmann: Indeed, group affiliation has no influence on the development and production processes at LITEF. Northrop Grumman LITEF is a German GmbH, which supplies German cutting-edge technology. It is like a large medium-sized company, managed and operated independently in Germany, with all relevant decisions regarding technology & strategy taken in Freiburg. All relevant decisions are made without influence from the USA. For years, LITEF has been offering an **ITAR-free portfolio**, a stance which is supported by the Northrop Grumman Corporation, because it was recognised very early on that European requirements must be independent of American influence (ITAR-free). 80% of our supply chain is located in the so called “DACH region” (Germany, Austria, Switzerland). We intensively pursue our own technology developments and

spend R&D funds to meet national and European, but not US, market requirements.

The European: *This brings me to transatlantic armaments cooperation in general. What is the added value of cooperation with the US for European industries and what are the challenges in this respect?*

Lutz Kampmann: In my opinion, there must be a **transatlantic approach** to safety, security, defence and joint missions. There is no either/or in arms cooperation between Europe and America. Communication between systems is extremely important. An example is the planned **F35** which must be compatible with the Bundeswehr’s systems. It cannot operate in isolation but must become part of the alliance. Only then can it be operated efficiently. For me, the most important keywords in cooperation are communication, interoperability and data exchange with the US and our NATO partners.

The European: *Thank you, Mr Kampmann, for giving me these insights into your impressive company.*

Lutz Kampmann

has been the Managing Director of Northrop Grumman LITEF GmbH in Freiburg, Germany since November 2019. He is also the Managing Director of Northrop Grumman L.E.F. GmbH and Northrop Grumman Holding GmbH. Born in 1964 in Altona, Germany, he graduated from Clausthal Technical University with a degree in engineering. From 2003 to 2013, he was Director Customer Projects, Managing Director Programs and Sales, Vice President Wheeled Vehicles and finally Vice President Marketing and Business Development at General Dynamics European Land Systems (GDELS). At RUAG Switzerland AG, he served as Senior Vice President Marketing & Sales from 2014 to 2018, then as Vice President Simulation & Training and finally Vice President Land Systems.



photo: © GDELS

The stand of GDELS at the Eurosatory exhibition

Taking the Bundeswehr as an example

Military mobility for European land forces

Report by Hartmut Bühl on his information visit to General Dynamics European Land Systems (GDELS) at the Eurosatory exhibition near Paris in June 2022

Military mobility was one of the issues that featured most prominently in the armament show at Eurosatory (Villepinte, France), the largest exhibition of land forces in Europe. Given the background of the war in Ukraine, the focus was on medium-sized armoured vehicles, wheeled or tracked and speed versus protective armour.

My visit to Eurosatory

What I was interested in above all was the future equipment of the German army that national and international experts have described over the last few years as run-down, due to budgetary restrictions. I was curious if there were any systems offered which could serve the German land forces, benefitting from the €100bn special fund the German government announced for the Bundeswehr to make it a significant player in European defence.

I visited several companies from Europe, Israel, the US and finally stopped at the spacious and busy stand of **General Dynamics European Land Systems** (GDELS), a leading manufacturer of military wheeled and tracked vehicles and bridge

systems in Europe, that has been focusing specifically on military mobility in Europe since 2016¹. I met with the Managing Director for Germany, **Dr Thomas Kaufmann** and some of his top executives.

“Only the smooth and rapid deployment and manoeuvrability of mechanised land forces over the whole area of the Alliance can create the conditions and credibility for a successful and deterrence-oriented defence of our continent”, said Dr Kaufmann, as an introduction to our discussion. He added that “it is the lack of rail, road and water transport capacity, ageing road tunnels and bridges with limited load capacity or headroom, the fragmentation of the enlarged operational theatre due to topographical obstacles of water or uneven terrain that has brought the subject of military mobility into sharp focus for the defence of our country and the Alliance.”

A sea change in strategic thinking

Speed is one of the decisive factors in the capacity to project land forces. Starting with the capacity to rapidly assess a potential threat, eliciting and implementing a speedy political and military response at all levels (NATO, EU, national) requires the capacity to appropriately project not only light forces but also to speedily deploy mechanised forces to any part of the Alliance’s territory under threat by a potential aggressor. This means a sea change for European land forces, as they must be able to adapt their current capabilities and vehicle mix of their fighting units (wheeled, tracked and bridge) to the new

¹ One of the first comprehensive papers on this issue appeared in 2021, entitled: “The CEPA Military Mobility Project – Moving Mountains for Europe’s Defence” in cooperation with the transatlantic think-tank CEPA, led by Lieutenant General (ret.) Ben Hodges.

requirements, both in quantity and quality, according to Dr Kaufmann who explained that “the advantage of wheeled as opposed to tracked vehicles is that they can be deployed over long distances under their own power. This makes a big difference”. I learned that the medium sized vehicles in the German army, the number of which is planned to increase soon, is typified by the BOXER made by Rheinmetall/Krauss-Maffei-Wegmann. It is also true of the next generation of vehicles designed to supersede the ageing FUCHS Armoured Personnel Carrier (APC) and thereby highlights the plausibility and relevance of this strategic sea change. Dr Kaufmann emphasised “the importance of prioritising the roughly 800 APCs in the special Bundeswehr budget so as to make a suitable next generation system available to troops in the near future”.

The requirements of European defence

Every development should be adapted to the requirements of European defence. **Marc-Aurel Bischoff**, responsible for GDELS communication, pointed out that “very early on, GDELS focused its development work on this central requirement of European defence. All our vehicles and bridge systems have been upgraded or newly designed to fulfil the necessary criteria” (see box below).



German army: criteria for new developments and upgrades

- No vehicle system heavier than MLC 50;
- Optimised mobility and capacity for integration into the “Army System” through compact construction, improved power-to-weight ratio and optimised loading and transport capacity by land, air or water;
- Standardised interfaces for greater interoperability with other systems;
- Multi-role capacity of each vehicle platform;
- Modular construction and systems integration;
- Open systems architecture;
- Optional amphibious capacity for 6x6 and 8x8 vehicles;
- Separation of mobility and functionality in vehicle-supported bridge systems.

The GDELS experts consider that these trends spell the end of the road for the very heavy main battle tank that requires considerable logistic effort to be transported to the theatre, however effective its firepower, manoeuvrability over multiple terrains and heavy armour. “Highly mobile vehicle systems, equipped with the latest armoured technology, interoperable, more lightweight and therefore easier to transport are the

“I am convinced that highly mobile vehicle systems, equipped with the latest armoured technology, interoperable and easier to transport because of their modular construction and lower weight, are the systems of the future”.

Dr Thomas Kaufmann



© GDELS

future”, a senior engineer confided to me and, on my request, proceeded to show me some of these systems.

The **PANDUR 6X6 EVO** for example is a transport vehicle with which GDELS has equipped the Austrian army since 2018. It has exceptional mobility, high crew carrying capacity (3+8), a high level of mine (4a/3b) and ballistic (3+) protection, is versatile, including an amphibious option, and is easy to load onto a Hercules C-130.

The **EAGLE 6x6** is another example of a future procurement option. With it, the Bundeswehr would be taking a further step towards a modern, versatile 6x6 wheeled vehicle platform with excellent mobility, armour and ease of loading. An added advantage is a high degree of logistics similarity with the EAGLE 4x4, of which the Bundeswehr already has a large number. Once all the certification testing is completed, the company expects the EAGLE 6x6 to enter service with the Bundeswehr in 2023.

Consequences for land forces procurement

Dr Kaufmann emphasised that, “in the light of the Russian aggression in Europe, there can be no compromises in the equipment and capacity of medium forces nor any delay in their delivery to the troops. Contrary to air or seaborn combat, land forces must combat in a multifaceted situation in conjunction with other weapon systems and therefore the characteristics and performance of each individual system and vehicle platform must be assessed within a comprehensive operational configuration”.

It became evident to me, that in order to be able to speedily deploy robust and survivable medium forces on the battlefield, modern platforms in their functional capacity, versatility, mobility and protection, must be measured against the BOXER. Restrictions and shortcomings in this area would compromise the success of medium forces which are essential for military mobility and the defence of Europe.

I came away from my visit to Eurosatory and the detailed discussion with GDELS with the feeling that if the Bundeswehr is to count once again among the best armies in Europe, it must rise to the important challenge of procuring the right equipment for its land forces.

Supply chain resilience is decisive for national defence, security and infrastructure

The importance of European steel production

by Silvio Stockmann, Member of the Advisory Board of DIHAG Holding GmbH, and Tobias Romanowsky, Sales Engineer SHB Stahl und Hartgusswerk, Bösdorf GmbH, Leipzig

With Covid-19 and the blockage of the Suez Canal, global supply chains and various manufacturing sectors have been tested on resilience, adaptability, and supply security on an unprecedented scale. Since 24th February 2022, Member States of the European Union and its Atlantic partners face additional supply shortages and a profound energy crisis that threatens national and European security.

Vulnerability around the world

Both crises have exposed the vulnerability of the global supply chains concept, especially if the needs of core manufacturing processes or materials are very distant, located in countries whose national interest is rather opposite to the free west and require time-consuming transportation through disputed or unstable regions or waters for example.

The United States accordingly considers steel to be of national security.¹ The Presidential Directive of former President Barack Obama clearly lists several industries and sectors of importance to national security.² Why is that so? Because national security for critical infrastructure and national defence can only be assured through resilient, self-sufficient, and homeland-based supply chains.

In Europe the concept of “national security” needs to be reconsidered as it is forced to rethink and overhaul its national



Steel plates produced by SHB

photos: © SHB

defence and security. Both, however, will only be as strong as its supply chain and manufacturing capabilities which at best are homeland-based. A good example is the German and European iron and steel industry. These industries are imperative to critical infrastructure and other industries because steel is a prerequisite for energy, utilities, defence, agriculture, or infrastructure equipment such as bridges or buildings, railways and carts, mining, and raw materials processing. A strong and viable domestic steel industry is therefore essential for European security and economic welfare. A further escalation of the war could cut off our supply of steel and iron from overseas and thereby impact our ability to ramp up the requisite production of armaments. The military’s heavier use of domestic sources of steel is arguably the answer to many questions after the supply cuts on raw materials or energy from Russia, Ukraine, China and perhaps Turkey. A continued reliance on steel or iron imported from competitors outside of the EU therefore puts our national security at risk.

1 See: US Department of Commerce, 2018 <https://bit.ly/3ga3Mro>

2 See: Presidential Policy Directive (PPD-21): <https://bit.ly/3EK8hDi>

Tobias Romanowsky

is a sales engineer at SHB Stahl und Hartgusswerk Bösdorf GmbH. He is a foundry engineer who graduated from the TU Bergakademie Freiberg in materials science and technology. After writing his thesis at the automotive supplier MAT Foundries Europe, his career led him to the investment foundry in Spremberg as a technologist. Since 2018, Tobias has been working as a sales engineer at SHB responsible for the sectors of mining, crane construction and defence technology.

“Without steel and iron components, you simply won’t be able to build an excavator, a railway cart, ships, or even a tank.”

Silvio Stockmann

is a mechanical engineer and holds an international finance and business degree from SUNY New York, FH Dortmund and HES Amsterdam. He has been trained at INSEAD and Harvard Business School. Over his career, he has held positions at Dresdner Kleinwort Benson’s Debt Capital Markets and Advisory unit, Sagem Defense Security and Deutsche Nickel Group. He was a value creation expert for companies and has worked in the US, Singapore, South America and the Middle East. Currently, he is a member of the advisory board of DIHAG Holding GmbH and served DIHAG as Chief Transformation Officer until November 2022.

Keep core processes of the value chain in Europe

Given the weight of a Leclerc tank, a Howitzer 2000, an aircraft carrier – tons of special steel will be needed, and it will have to be produced safely and independently of Russia or China. It is therefore of utmost importance that the core processes of the value chain remain in Europe, with raw materials and energy being sourced from strategic alliance partners.

In Europe, for example, DIHAG Group, a German based integrated iron and steel group (www.dihag.com), manufactures and supplies components for critical infrastructure such as defence, rail, mining, energy and utilities, and agriculture. One of its subsidiaries, SHB Stahl- und Hartgusswerk Bösdorf GmbH, is specialised in common steel and special alloys for mining, rail, agriculture, dredging, infrastructure, and defence. Most recently SHB has expanded its capabilities toward cast armour steel. The current development process targets the qualification of grades Q and R for wall thicknesses of 15 and 45 mm by the end of this year with initial range tests documenting superior qualities.

Important criteria for European security

What makes SHB highly eligible for being important to the national security of Germany and the EU, is that the steel foundry is German based, privately owned and has modern, scalable equipment including a metal refining process converter to refine armour steel in high grade and quality. Through the fully automated moulding line for heavy parts combined with dedicated heat treatment lines, SHB has a highly replicable and scalable production process to suit the increased demand for cast armour steel products from European forces. In addition, the company has a modern engineering depart-

ment with laboratory, simulation, test furnaces and treatment lines to be a strategic development partner to the Original Equipment Manufacturers (OEMs) of the defence industry. Besides, customers can rely on the group’s broader Research & Development (R&D) capabilities. Accordingly, SHB and DIHAG are strong and viable Tier1 development partners of OEMs in critical infrastructure and defence in Europe and Americas.



DIHAG Group is a privately owned, integrated iron and steel foundry group that services the OEMs of the agriculture, mining, railway, energy, and other critical infrastructure industries on international scale. The group consists of eight specialist factories in Germany, Poland and Hungary with approximately 1,400 employees. DIHAG supplies around 125 thousand tons annually of iron and steel cast products to renowned OEMs in their respective markets and regions.

[web www.dihag.com](http://www.dihag.com)

DIHAG’s Stahl- und Hartgusswerk Bösdorf GmbH (SHB) located in Germany is specialised in steel cast products and special alloys for mining, rail, chemical plant, agriculture, dredging, infrastructure, and defence. Its customers include well-known global acting, multinational corporations. Thanks to investments in state-of-the-art plant equipment the foundry can produce around 14,000t steel castings annually for the highest requirements and various applications.

[web www.shb-guss.de](http://www.shb-guss.de)

A collaboration project under the flagship of PESCO

The future Chemical, Biological, Radiological and Nuclear Reconnaissance Surveillance System

by Johann Fischer, Head of Unit Land & Logistic,
and Friedrich Aflenzer, Project Officer for CBRN
Defence, European Defence Agency, Brussels

The early detection and reconnaissance of chemical, nuclear and biological incidents will be crucial for soldiers' safety in future warfare. As part of efforts to increase the safety of its armed forces and the wider population, the European Union (EU) is developing a sensor network that can produce a recognised picture of a chemical, biological, radiological and nuclear (CBRN) threat over a specific area.

One of the first steps has been to set up a project called the Chemical Biological Radiological Nuclear Surveillance as a Service (CBRN SaaS, see graphic below). In late 2018, Austria, Croatia, France, Hungary and Slovenia started a collaborative project under the EU's flagship defence framework of Permanent Structured Cooperation (PESCO).

Establishing a sensor network

The objective of the project is to establish a sensor network linking Unmanned Aerial Systems (UAS), or drones, and Unmanned Ground Systems (UGS) such as vehicles without an on-board human presence. Once developed, the system will be interoperable with older surveillance technology to provide

a recognised CBRN picture that should heighten the operational information shared across commands – such as troop positions and the status of threats – used for EU missions and operations.

Led by the European Defence Agency (EDA), the hub for European defence expertise, the project aims to reach initial operating capacity in 2024 and to become fully operational by the end of 2025. Meanwhile, a related project, the similarly named Chemical Biological Radiological Nuclear Surveillance Reconnaissance Surveillance System (CBRN RSS), is set to enhance the development of an eventual prototype.

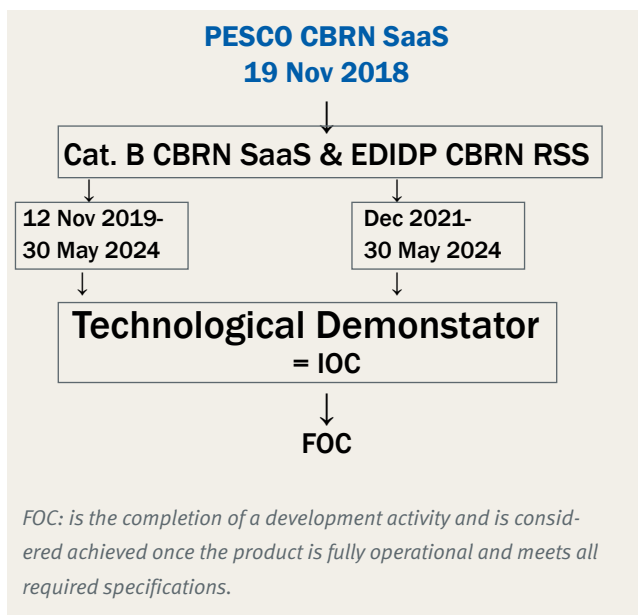
Funding supported through EDIDP

Those involved in the EDA-led CBRN SaaS felt that involving funding from the EU's industrial scheme to support innovation in Europe's defence industry, the European Defence Industrial Development Programme (EDIDP), could bring additional funding. The Austrian Institute of Technology made its proposal for EDIDP support, based on ongoing work through the original PESCO project and the ensuing EDA project. To meet all additional capability requirements such as stand-off detection, biological detection/identification and drone sampling, the consortium has expanded to include a Danish enterprise and two French companies.

While the EDA-led and the EDIDP-funded projects remain separate, only one so-called "technological demonstrator" for a recognised picture will be assembled. But it must comply with both the CBRN SaaS and CBRN RSS high-level capability requirements. For Austria, Croatia, Hungary and Slovenia, it means that they should receive a more sophisticated end-product than might have originally come out of the process.

After the design phase, CBRN RSS is set to develop a prototype. Then comes the testing phase from late 2023. Possible procurement may then come from 2025 onwards.

Given that the CBRN RSS project proposal was accepted by the EDIDP with approximately €6.7million in additional funding, the grant agreement between the European Commission and AIT was signed on 1st December 2021. That allows both the EDIDP project and the EDA-led Category B project to end around the same time in mid-2024.



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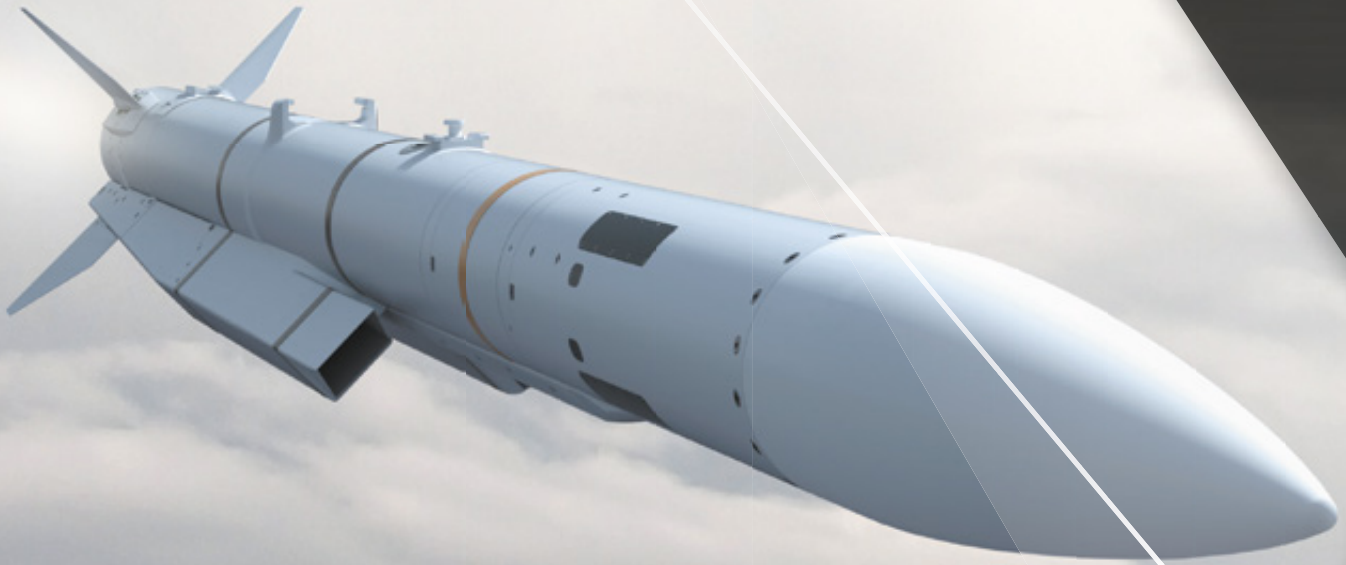


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