

Quarterly **NEWS**
LETTER

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BeST

Beryllium Science & Technology Association



Dear Readers,

**We welcome you to the Autumn edition
2022 of the BeST Quarterly Newsletter!**

In this edition, we will share with you information on the 15th International Workshop on Beryllium Technology (BeWS-15) attended by BeST members in Germany as well as on the Be Responsible webinar on Working Safely with Beryllium held in German.

BeST Members gave interesting interventions at both these events.

In addition, we will share with you the recent achievements of the James Webb Space Telescope and the strategic applications of beryllium in the defence sector. We will also share with you details of BeST's visit programme to Brussels to address recycling of critical raw materials. Finally, we will provide you information on our next Easy Guide Blast.

Kind Regards,

Mrs Angélique Renier, Secretary General of BeST

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BeST at the 15th International Workshop on Beryllium Technology

In September 2022, BeST Secretary General - Mrs. Angélique Renier, BeST treasurer - Mr. Peter Mählmann, and BeST Vice President - Mr. Ted Knudson, attended the 15th International Workshop on Beryllium Technology (BeWS-15) and 9th Industrial Forum on Beryllium Opportunities & New Developments (BeYOND-IX) in Karlsruhe, Germany. The UKAEA (UK Atomic Energy Authority), associate member of BeST, also attended the event.

The event gathered experts around the world and constituted a unique opportunity to discuss and share knowledge on beryllium and its use in energy technologies of the future, especially in nuclear fusion. Experts from laboratories based in EU including the KIT, but also in China, Japan, Kazakhstan, UK, and US presented their latest R&D activities. Beryllium clearly is the best material for nuclear fusion due to its performance to multiply and moderate neutrons while resisting extreme conditions in terms of temperature and corrosion.

Health and Safety issues were also addressed: Angélique RENIER and Ted KNUDSON presented the latest regulatory updates in the European Union, including France where the ITER project is based, and US. The harmonised Binding European Occupational Exposure Limit for beryllium recently transposed in EU member states, including France, was highlighted. Chris DORN and his team from the UKAEA presented a new wiping tool with robotic interface to perform surface contamination assessments in safe conditions. Studies on beryllium sensitisation, genetic factors, toxicity of soluble compounds, training programs of workers were also presented.

It was recalled that electricity demand will increase by about 50% in the next 30 years. Many research and investment projects on commercial fusion are emerging particularly in the US, Japan and UK. The European Union has to accelerate its commitment in the energy of the future.

Great Achievements of the James Webb

©NASA

Little more than a month ago, the James Webb Space Telescope (JWST) marvelled us with the first pictures of the deep universe. The incredible nature of the JWST is impeccably represented by the beauty of the galaxies and nebulae captured in the first months of activity of the telescope.

Moreover, unexpected new achievements of the telescope were registered as it released detailed images of different planets. The telescope was also incredibly efficient in finding exploded and unexploded supernovae.

Beryllium is the crucial material that allowed the mirrors of the machine to produce such wonderful pictures. It was the perfect material for JWST's construction and assembly due to its lightness, excellent optical reflectivity, and ability to retain its shape even at low and extreme temperatures.

Beryllium's role in EU Defence and in the new Critical Raw Materials Act

During the State of the European Union address, Commission President Ursula von der Leyen announced the EU's plans to put forward a European Critical Raw Materials Act. The CRM Act aims to identify CRMs to be considered as strategic.

While no date of release has been decided yet, there is speculation that the legislative proposal will come out in the first quarter of 2023.

Considering the recent international developments, the defence sector is a priority for EU countries and the materials used in the sector have strategic importance, including beryllium.

Due to beryllium's superior properties as a lightweight, stiff, and thermally stable material, it is ideally suited for strategic applications in the military and aerospace field. It is a mandatory element for assembling laser guidance systems, SAM systems, MANPAD weapons and ammunitions, aerospace optical and electronics components and every high-performance connector used in air, sea, and land forces equipment.

Considering its strategic importance for defence, BeST will encourage the European Commission to identify beryllium as a key strategic material in the frame of the EU CRM Act.

BeST joins the CRM Alliance to discuss recycling

In September, BeST members gathered in Brussels to address the topic of recycling of critical raw materials (CRMs) with EU policymakers.



BeST members: Mr. Ted Knudson, Mrs. Angélique Renier and Mr. Peter Mählmann, Mr. Peter Husen (Vanitec – CRM Alliance Member), Ms. Elisabeth Prieto Strobl (CRM-Alliance Secretariat) and Mr. Dumitru Fornea (Secretary General of the National Trade Union Confederation).

The visit programme was organised by the Critical Raw Materials Alliance (CRM Alliance) in the frame of the so-called Special Action dedicated to recycling. BeST is member of the CRM Alliance since its creation in 2016.

The special action gathered BeST and four other members of the CRM Alliance to address the challenges and opportunities associated with recycling.

[Learn more about recycling beryllium here.](#)

Be Responsible Webinar held in German

On 20 October, BeST hosted the third 2022 Be Responsible Webinar – Working Safely with Beryllium.

This webinar was held in German and saw the intervention of expert Mr. Peter Mählmann, Treasurer of BeST.

After a brief reminder of the regulatory context of Beryllium in EU and Germany, he addressed occupational health and safety at the workplace and highlighted good practices applied to Beryllium.

Could not follow the event?

Don't worry, BeST will organise other webinars in 2023. In the meantime, you can read more on our Be Responsible Programme on **our website**. The website is free of charge and available in all official EU languages.



First Easy Guide Blast dedicated to specific Beryllium processes to be released this month

Easy Guides are a new communication tool developed by BeST at the end of 2021 and dedicated to each of the 12 Guides developed in the frame of the Be Responsible VPSP.

The fifth edition will be published this month and will be our first Easy Guide Blast dedicated to a specific beryllium process. The guide will be the first of nine and will address CNC (Computer Numerical Control) Milling and Lathe Machining.

Check out our previous Easy Guide Blast editions [here](#).



Stay in Touch

The BeST website keeps you informed with a 'Latest News' section, where readers can follow the latest news and features on beryllium.

The news section complements the wealth of information already on the site, on issues such as environment, health, and safety.

Get the latest news on BeST online.

BeST can also be found on Facebook. 'Like' the page and be notified when there is news from our association. Photos of events organized by BeST can also be found on our [Facebook page](#).