Quarterly NEWS LETTER

SPRING ISSUE 2021

BeST

Beryllium Science & Technology Association

Dear Valued Readers,

Welcome to the Second edition of 2021 of the Quarterly Newsletter!

In this edition, BeST will touch on its most recent webinar dedicated to the Be Responsible Program, welcome you in our new websites and address the results of the recent study under the RoHS Directive.

We will also provide an overview of European Commission Research Centre's conclusions on Nuclear Power and address the recent approval of the Horizon Europe Program.

Finally, we are happy to announce a new associate member of BeST.

But first, we would like to celebrate a happy birthday! Today, we are celebrating **10 years of BeST.** Since its founding in 2011, we have promoted sound policies related to the use of Beryllium through actions such as having participated in the RoHS Stakeholder Conference, holding our BeResponsible Webinars in three languages and partnering with EU-OSHA, for which we won an award.

Kind Regards,

Prof Dr. Andreas Köster, Chairman of BeST

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Official Campaign Partner
Healthy Workplaces
2018 - 2019

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BeST Holds First 2021 Beryllium Safety Webinar

On 23 March, BeST hosted its first Be Responsible Webinar – Working Safely with Beryllium - of 2021. The webinar gathered stakeholders from a variety of sectors, including industrial hygienists and relevant companies, together with government representatives and University researchers. The meeting hosted two expert guests: BeST's Vice President and Senior Director of Regulatory Affairs and Product Stewardship at Materion Corporation, Ted Knudson, and the President of the Belgian Center for Occupational Hygiene and Industrial Hygienist at the Nickel Institute, Dr. Steven Verpaele.

Mr. Knudson initiated the webinar by providing to the audience a detailed overview of the current EU Regulatory Framework on Beryllium. He gave an overview of the EU legislative process that brought to the adoption of an EU-wide Binding Occupational Exposure Limit (BOEL) for Beryllium.

Mr. Knudson also presented the "Be Responsible Program" - BeST's voluntary stewardship program developed directly by the beryllium industry and launched in March 2017. As he explained during the webinar, this Voluntary Product Stewardship Programme was conceived to ensure safe and responsible usage of Beryllium in workplace to reduce potential health risks in places of employment and other activities involving beryllium manufacturing or use. The program features 3 general and 9 process specific guides which can be easily printed in the 5 main EU languages (EN, DE, FR, IT, ES).

Mr. Knudson announced to the audience the recently created "Be Responsible" websites in all European official languages, – see article below. The website describes the potential health risks associated with the exposure to airborne beryllium, the main sources of exposure and the measures to be implemented to control dust emission and dispersion for the most frequent operations. Beyond beryllium-containing materials, the information and recommended actions contained in this program can be used to address concerns in industries processing dangerous metals or substances by inhalation.

Dr. Verpaele continued the webinar by providing a detailed explanation of the EU existing standards and methods to assess an exposure in the workplace. Dr. Verpaele also walked the audience through all the steps that should be followed by an Industry to ensure full compliance with safety rules. He underlined the importance of developing stewardship programs that help complying with the law.

Mr. Knudson concluded the webinar with a presentation on the available strategies to control workplace exposure to beryllium. He informed the audience that all the strategies, techniques and risk management measures can be found on the **BeST website.**

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The webinar ended with an engaging Q&A session. BeST is pleased with the success of this webinar series and looks forward to holding similar programmes throughout 2021 in different languages: English, German and French.

More information about the "Be Responsible Program" can be found here.

Launch of Beryllium Safety websites in 24 languages!

Talking about websites - In 2017, BeST launched a website, berylliumsafety.eu, which contains all the information related to the Be Responsible voluntary product stewardship program. The success of the website made the association move towards producing a basic version in all 24 working languages from the EU!

The basic versions of "Be Responsible" describes the potential health risks associated with the exposure to airborne beryllium, the main sources of exposure and the measures to be implemented to control dust emission and dispersion for the most frequent operations. Beyond beryllium-containing materials, the information and recommended actions contained in this program can be used to address concerns in industries processing dangerous metals or substances by inhalation.

The IP addresses can be found here:

- BULGARIAN
- CROATIAN
- CZECH
- DANNISH
- DUTCH
- ENGLISH
- ESTONIAN
- FINNISH
- FRENCH
- GAELIC
- GERMAN
- GREEK
- HUNGARIAN
- ITALIAN
- LATVIAN
- LITHUANIAN
- MALTESE
- POLISH
- PORTUGESE
- ROMANIAN
- SLOVAKIAN
- SLOVENIAN
- SPANISH
- SWEDISH

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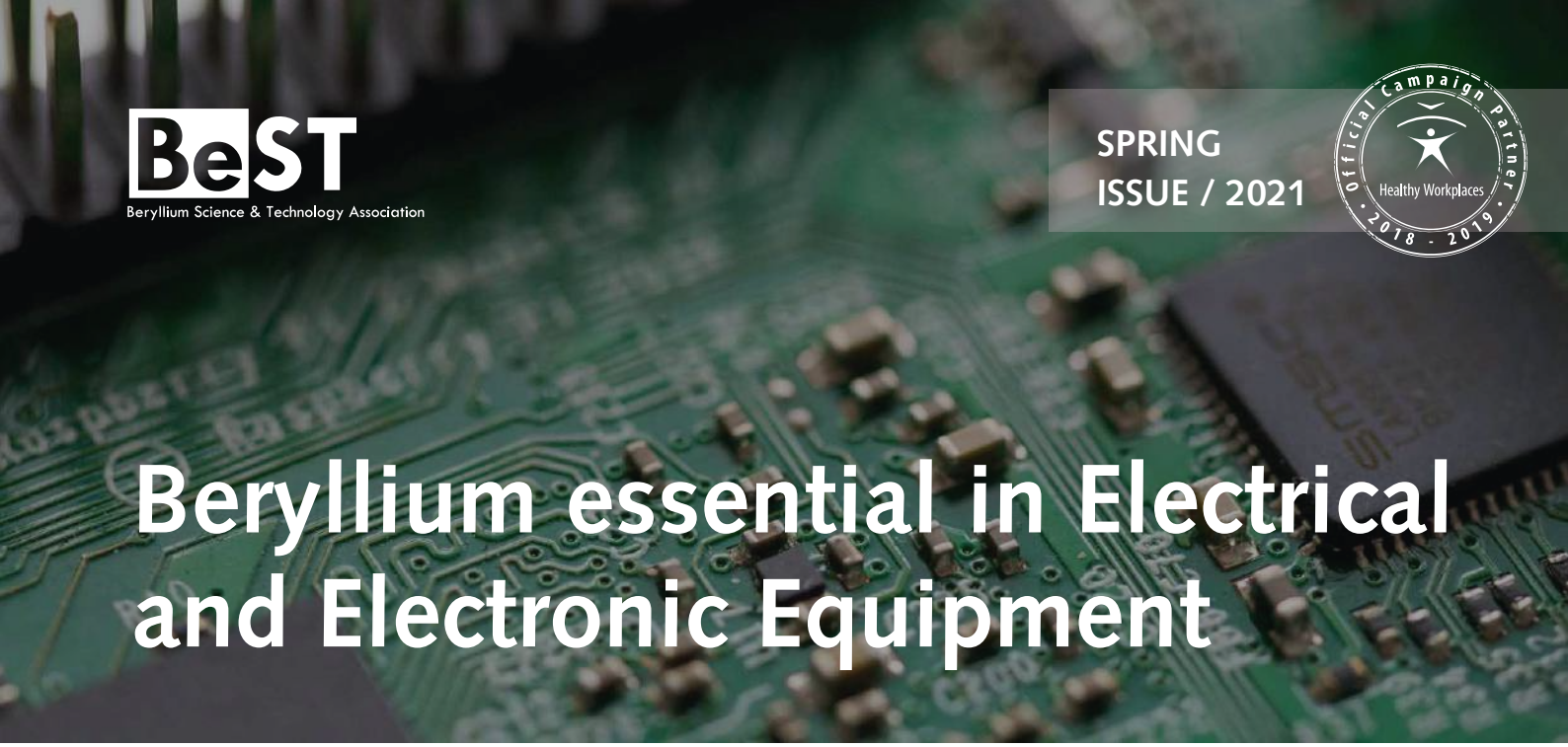

Beryllium essential in Electrical and Electronic Equipment

The Oko-Institut, a non-profit environmental research institute based in Germany, was asked in February 2018 to assess the safe use of beryllium in Electrical and Electronic Equipment. In its final report, the Institute concluded that beryllium and its compounds do not need to be restricted under the RoHS Directive. Beryllium passed, as always, the safety test!

Now that we have just shared with you this story, a question might naturally come up to your minds: what is the RoHS Directive and what does it say in its restrictions list – annex II of the law?

The Restriction of Hazardous Substances in Electrical and Electronic Equipment (RoHS) Directive is the EU main legal framework setting rules restricting the use of hazardous substances in electrical and electronic equipment to protect the environment and public health. In spite of the rise in the production and use of electrical and electronic products, the EU decided to set a clear legal framework that would reduce the presence of hazardous substances in these products. RoHS Annex II sets out a list of substances which use is restricted in Electrical and Electronic Equipment.

The European Commission periodically instructs expert Research Institutes - as it was the case with the Oko-Institut - to assess whether this list needs to be updated. These periodic assessments are called "Packs" and Beryllium was included in the "Pack 15". Pack 15 was also assessing other substances and, in fact, recommended the restriction of Tetrabromobisphenol-A (TBBPA) and Medium Chain Chlorinated Paraffins (MCCPs) under Annex II of the RoHS directive.

Beryllium and its compounds have been, once again, confirmed as essential in electrical and electronic equipment and beneficial to end users in terms of product performance, reliability and product lifecyle.

To access the final report of the Pack 15 study, published recently by the European Commission, please click here.

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First steps in favour of labelling Nuclear Power as green under the Taxonomy Regulation

On 19 March 2021, the European Commission's in-house science and knowledge service, the Joint Research Centre, published its much-awaited report on nuclear power. The Commission's research service came to a clear and straightforward conclusion: nuclear power is a safe and low-carbon energy source and should be entitled to the green investment label under the EU Taxonomy Regulation. The possible inclusion of nuclear power among the green activities compliant with the EU Taxonomy could increase the flow of money towards these projects.

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Guess what is an essential component for many nuclear power projects? **Beryllium!**

As ITER - one of the most ambitious energy projects in the world currently developed in southern France - proves, beryllium is essential for nuclear projects because of its unique properties. "Tokamak", ITER's core experimental machine designed to harness the energy fusion, strongly relies on beryllium capacities. In fact, beryllium presents rare atomic, physical, and chemical characteristics. For instance, beryllium displays good thermal properties that can accommodate high heat fluxes. Beryllium also contains low atomic number which help minimize radiation heat loss in case of plasma contamination.

Let's now take a step back and analyse what does it concretely mean for nuclear power to gain the green investment label under the EU Taxonomy. The EU taxonomy is a classification system establishing an EU wide and unique list of environmentally sustainable economic activities. The ultimate goal of the regulation is to provide appropriate and clear definitions to companies, investors and policymakers on which economic activities can be considered environmentally sustainable. JRC's conclusions will feed into the European Commission's final decision on whether to include nuclear power as "Taxonomy aligned" sector, to be adopted by the end of this year.

BeST Members stand ready to support the classification of the nuclear power sectors as green and are happy to actively contribute to environmentally sustainable projects.

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Horizon Europe: opportunities for CRMs and Beryllium

After 3 years of negotiations, Members of European Parliament finally adopted landmark research program Horizon Europe during the Plenary on 27 April, with a budget of €95.5 billion, including €5.4 billion from the Next Generation EU recovery plan and an additional €4 billion from the Multiannual Financial Framework (MFF).

The research and innovation program will be in place until 2027 and will provide short- and long-term financing for research and innovation related to global challenges, such as the fight against climate change and digitalization. The final work programs will be published by the Commission in May.

Horizon Europe contains three pillars:

I.Excellent Science

II.Global Challenges and European Industrial Competitiveness

III. Innovative Europe

Pillar II is especially important for CRMs and Beryllium, as it will directly support research, technological and industrial capacities and includes the clusters dedicated to (i) digital, industry and space, and (ii) climate, energy and mobility. It also includes public-to-public and private-to-private European Partnerships and activities coordinated by the Joint Research Centre (JRC).

During Horizon 2020 – predecessor of Horizon Europe, the EU has recognized that ensuring the sustainable supply of raw materials has a strong beneficial impact on those sectors considered pivotal to achieve the EU's goals under the Green Deal. .

The now-adopted Horizon Europe Program will make sure that the EU is able to address societal changes, such as the green transformation, by supporting breakthrough innovation and technologies throughout the program. This is a great opportunity for Beryllium and other CRMs to support their crucial role in achieving climate neutrality by 2050.

To access the calls, please click here.

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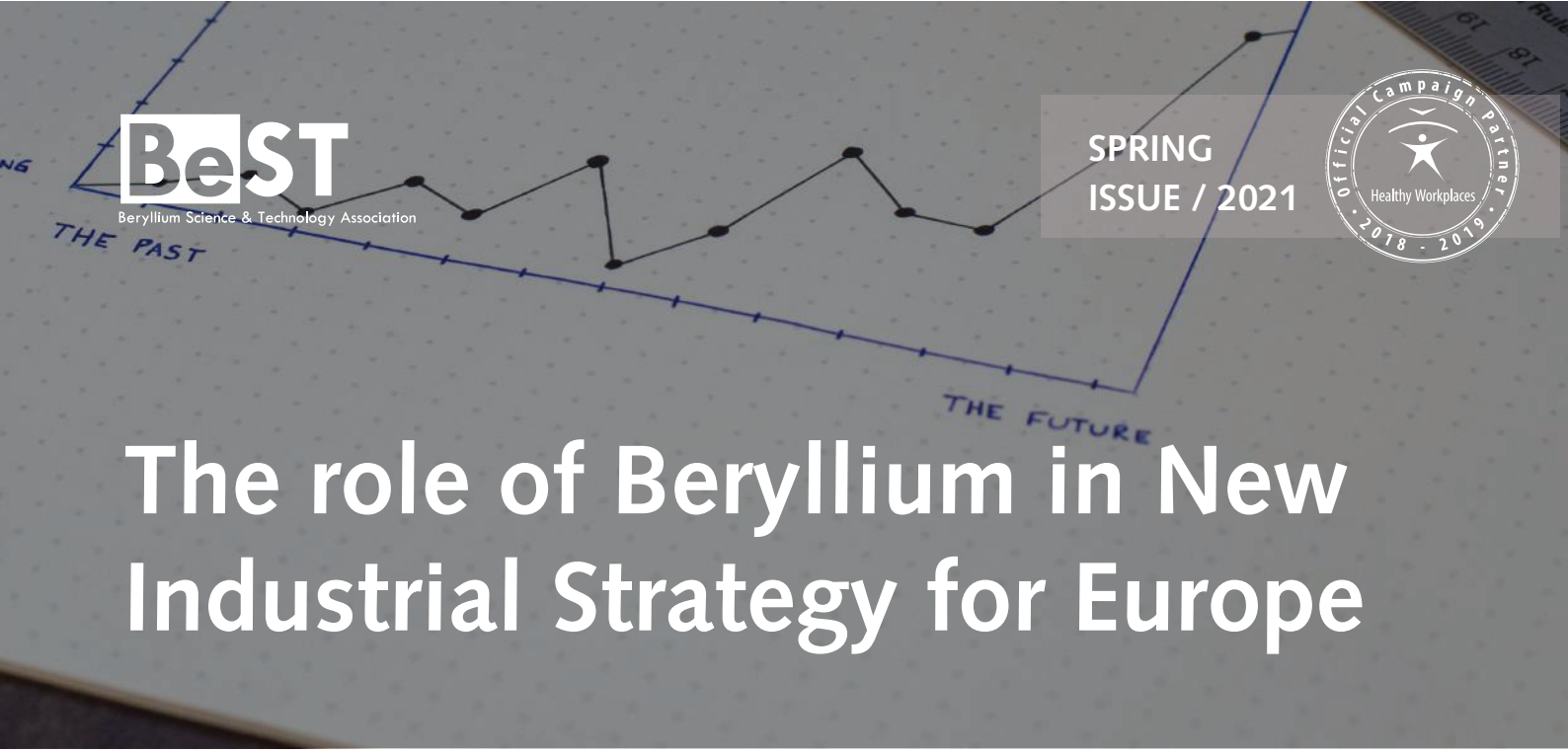

The role of Beryllium in New Industrial Strategy for Europe

Following the European Parliament's call, the Commission presented its updated version of the Industrial Strategy for Europe. A previous version was published in March 2020. Within its report, the EP requested the Commission to develop a clear policy framework to improve the EU's strategic resilience and autonomy, including on raw materials.

How will this New Industrial Strategy support Beryllium? One of the objectives of the strategy is reinforcing Europe's industrial and strategic autonomy. Specifically, the strategy underlines that CRMs are crucial for the following markets: e-mobility, batteries, renewables, pharmaceuticals, aerospace, defence and digital applications. The EU is aware that the demand for raw materials is projected to double by 2050, which is why the **Action Plan on Critical Raw Materials**, adopted in September 2020 by the European Commission, will be used as a tool to include efforts to broaden international partnerships on access to raw materials.

It is important to remember that Beryllium is an integral part of the European Green Deal, which aims to achieve climate neutrality by 2050. In its original communication, the European Green Deal recognized the access to raw materials as a "strategic security question" to achieve the goals set in the Green Deal.

Berylium can contribute to climate neutrality in different ways. For example, Beryllium is used in the recycling of magnesium and aluminium magnesium, light metal alloys used by automobile industry, including cars, trucks and aircrafts. Also, the use of Beryllium in early electronic ignition systems can lead to a 20% increase in automotive fuel efficiency. More recently, alloys containing beryllium are enabling all-electric and hybrid electric vehicles to operate at high voltages.

It is now widely known that not having access to CRMs or depending excessively on suppliers would hamper the EU's ability to become a leader in "green" technologies. Therefore, Beryllium and other CRMs have a big role to play in the European green and digital transformations.

BeST followed the recent Commission's publication of the **New Industrial Strategy** on 5 May. Beryllium is cited as an example of dependent product used in strategic sector. The draft report on the Action Plan on CRMs is currently being drafted in Parliament and the final vote is expected during the November Plenary.

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New Member for BeST

We are pleased to end our quarterly newsletter by sharing a very positive news - BeST has recently welcomed a new Associate Member: the BGV Group Management. The BGV Group is an Ukrainian investment company uniting several companies that have exploration and production licenses for many minerals and metals.

Their members have access to beryllium deposits in Ukraine. They are ready to join us in the promotion of sound policies, regulations, science and actions related to the use of beryllium.

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.**