# Science4Peace: now more important than ever!

24. June 2022

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Russia's war of aggression against Ukraine also has clear consequences for science and culture. But some sanctioning or boycotting measures actively harm the opportunity for peace-promoting exchanges. Especially in particle physics, the consequences can be felt. Hannes Jung reports on the effects at the DESY large-scale research center and the "Science4Peace" campaign.

For many years, even in times of the Cold War, there has been lively scientific exchange between states which where in different military blocks - also and in particular in elementary particle physics. One of the central places for such cooperation, which has repeatedly become known with particularly spectacular findings, is CERN in Geneva. This large-scale research institution was founded in 1954 by states that were at war a few years earlier. CERN became a symbol of the "Science4Peace" idea: Scientists from different countries, with different backgrounds and different political ideas, should work together on projects that pursue exclusively peaceful goals.

### **Exchange and cooperation**

Another of these institutions in Germany is DESY (Deutsches Elektronen Synchrotron) in Hamburg. Even during the Cold War, researchers from socialist countries were able to work very successfully, well and peacefully with researchers from the West. As a doctoral student at DESY in 1985, it was an extraordinary experience for me to get to know colleagues from the GDR, Poland, the Soviet Union and many other countries, to work together and to make friends. Science4Peace was natural for me and many of my colleagues, and we were very proud to be part of this community. In November 2021, together with colleagues at DESY, I organized a seminar with the former director of CERN, Rolf Heuer, under the title "Science bridging cultures and nations" [1], in which Rolf Heuer represented the Science4Peace idea very convincingly and euphorically.

### The war against Ukraine is changing everything

For me very suddenly and surprisingly, with the beginning of Russia's war of aggression against Ukraine, this fundamental attitude of the institutes and the German scientific community also changed. Just one day after the war started, the German science organizations published a statement (amazing how fast this went), which states "... (it) is recommended, however, that scientific cooperation with state institutions and commercial enterprises in Russia be frozen with immediate effect until further notice" [2].

A internal communication from the DESY Board of Directors of the 1st March 2022 stated that all guests of Russian and Belarusian institutes have to finish their work, new publications with the participation of Russian and Belarusian institutes are no longer approved. I was shocked - I never expected such a turnaround of 180 degrees. Within two days, scientists from DESY and CERN then wrote a letter to the DESY Board of Directors to protest against what we consider to be highly exaggerated and counterproductive reactions. For us, it was and still is unacceptable for all Russian and Belarusian colleagues to be placed under general suspicion and even to ban publications.

On March 15, DESY's sanctions were published on the website: According to this, there must be no joint publications, and "DESY employees will not participate in conferences co-organized by Russian or Belarusian institutes or at which speakers from Russian or Belarusian institutes will be announced." [3] These sanctions were unacceptable to me and colleagues, as they are counterproductive and do not put pressure on the Russian government, but only make communication between scientists difficult and in some cases impossible. They often affect

colleagues who share our condemnation of the war and have endangered their own well-being by expressing their opinion publicly. These sanctions will isolate Russian and Belarusian scientists and decouple them from international discussions in science and elsewhere. Therefore, we were forced to establish the Science4Peace Forum [4] and write a petition [5] to call on the directors of the major research institutions DESY and CERN and the various scientific bodies of the major CERN experiments to react prudently to the war and, above all, not to break off all contacts and connections between scientists.

#### Defend Science4Peace as an idea...

Scientists from several predominantly European countries, including colleagues from Russia, meet regularly in the Science4Peace Forum to keep in touch and to consider how to work together in the current situation. The Science4Peace Forum works on a website independent of the research institutions. Meanwhile, the forum's email distribution list has more than 100 entries.

The general principle of "Science4Peace" is particularly important in times of war: right now it is important to offer young scientists a perspective in attractive and future-oriented research and thus create a serious alternative to dual use and military research. In the past in the summer student program of DESY young students from many countries have been able to learn together for two months, exchange ideas and work on peaceful research projects. This year, no students from Russia were allowed to participate for the first time. What a grotesque message is conveyed to these young people.

## DESY summer-students 2021

24 Countries out of 193 countries of the United Nations



DESY summerstudents in 2021 (from https://bib-pubdb1.desy.de/record/475260)

Especially in times of tension and wars, Science4Peace must assert itself and prove itself and show ways out. Especially in these times, it must be possible to cooperate and stay in conversation with scientists who have all committed themselves to the peaceful use of their science (because this is Article 2(1) in the CERN Convention [6], which every user must sign and

live). Science, similar to music and art, must build a bridge and show opportunities for conversation.

If nowhere else one can talk, science and art offers languages for understanding. We must set an example to our younger generation that one can deal peacefully or also argue for the right position in order to finally achieve the best answers to the pressing questions of the world. If this communication collapses, scientific systems are positioned against each other, this only further fuels further conflicts - but this cannot be our goal.

Science4Peace is therefore more in demand than ever, we must tear down walls instead of building new borders and iron curtains and marginalizing others - especially if they are committed to the peaceful use of science.

- [1] https://indico.desy.de/event/32037/
- [2] https://www.helmholtz.de/assets/helmholtz\_gemeinschaft/Downloads/ Allianz\_der\_Wissenschaftsorganisationen\_-\_Sopinion\_on\_attack\_on\_the\_Ukraine\_-\_25.02.2022.pdf
- [3] https://particle-physics.desy.de/e283270/e312773/
- [4] https://science4peace.com/
- [5] https://www.change.org/science4peace
- [6] http://cds.cern.ch/record/330625/files/? Ln=en