



# I.FAST-CBI: Challenge Based Innovation for Particle Accelerators and related technologies

*The EU-funded I.FAST program includes a task which aims at challenging young people to find new and innovative ideas on how accelerators and their related technologies could be used to address societal issues.*

Sometimes taking a fresh look at an issue can help find new solutions. This is the idea underlying the I.FAST-CBI which is part of work package 2 of the I.FAST (Innovation Fostering in Accelerator Science and Technology) project funded by the European Union Horizon 2020 program.

The I.FAST-CBI stems from the historic collaboration between the European Scientific Institute (ESI - <https://www.esi-archamps.eu/About-ESI>), CERN and others partners to run the Joint Universities Accelerator School. This new collaboration has been inspired by the success of CERN's IdeaSquare Challenge Based Innovation (CBI) program (<https://www.cbi-course.com/>) but with a much shorter duration. Three teams of about eight students from different countries will spend nine days at ESI in Archamps near Geneva exploring ways in which accelerators and related technologies could be used to meet a societal challenge related to one of the Horizon Europe missions (see [https://ec.europa.eu/info/horizon-europe/missions-horizon-europe\\_en](https://ec.europa.eu/info/horizon-europe/missions-horizon-europe_en)). The teams will be strongly multidisciplinary with students coming from social sciences, law, environmental studies and, of course, physics and engineering. Working together they will develop an innovative way to address the challenge using accelerators. At the end of the nine days, they will be invited to spend a day at CERN and present their work in front of a jury.

The jury will comprise experts from knowledge transfer, industry, science and non-governmental organisations and international organisations related to the challenge. Each jury member will assess the participants work from their own perspective.

The topic of the 2022 edition of the I.FAST CBI will be "Accelerators for the environment". Within the team, each student will look at the problem from the point of view of their specialty. Although prizes may be a motivation the challenge will be organized on the model of the accelerator community, encouraging collaborative work, both within each team and between the teams themselves. Participants will have the opportunity to meet experts in accelerators and also from disciplines related to the challenge. The proximity of Geneva and the many international organizations located there will be key to find high level experts.

The first I.FAST CBI will take place from Monday 25th July to Tuesday 3rd August 2022. The final details are still being worked out but a call will be circulated to European Universities in the Autumn with an application deadline around January 2022. The participating students will be expected to be in the University's second cycle (3<sup>rd</sup> to 5<sup>th</sup> year of studies). They will have to apply individually and the organizers will ensure a strong diversity among the participants.

Their travel and their full-board accommodation at Archamps will be paid by the project. Several on-line seminars will take place before the Archamps meetings to familiarize the students with the topics.

Plus de détails bientôt sur <http://www.ifast-cbi.particle-accelerators.eu/>