Position:

Science Teacher Liaison to Italian Middle Schools – Development of an Education Kit

The European Organization for Nuclear Research, CERN, (based in Geneva, Switzerland), and the Fondazione Giovanni Agnelli, FGA, (based in Torino, Italy) are collaborating on a project aimed at fostering scientific culture, especially in the field of physics, in Italian middle schools (grades 6-8). We are looking for a liaison figure who will work in close contact with CERN and FGA in the initial stage of the project. S/he must commit to a 2-3 months residency period at CERN in Geneva, Switzerland, plus another period of part-time collaboration from home.

S/he will be involved in designing:

- hands-on learning units, consisting of all-in-one portable lab kits; The units will tackle the main topics of the physics syllabus in Italian middle schools (i.e. matter and its states, motion, forces, energy, electricity, and magnetism, etc.).
- a professional development programme aimed at Italian middle school (*scuola secondaria di I grado*) teachers. The basis of this professional development programme will be the hands-on learning units, mentioned before. Teachers participating in the professional development programme will get prepared to use the portable lab kits on their classroom. The focus of this programme will be the definition, the role, and the challenges of Inquiry-Based Learning in physics (and other STEM subjects in general).

The project will have its pilot phase during the school year 2020-21. By the end of that school year, the candidate will have led the development process of the all-in-one lab kits and the professional development for middle school teachers in Italy. Besides, s/he will have assisted CERN, FGA, and its associates in testing the equipment in some selected pilot schools.

The successful candidate should ideally:

- be able to commit to a 2-3 months residency period at CERN in Geneva, Switzerland in spring/summer 2020, where s/he will work with the local team in IR-ECO-TSP, plus parttime collaboration at home up to the end of school year 2020-21.
- has a thorough knowledge of the Italian National Curriculum for Physics. S/he is or has been a science teacher in an Italian (middle) school and/or has participated in high-profile learning projects and/or labs aimed at the same level;
- has a proficient working knowledge of the English language (B1 or higher);
- has experience of professional development programmes and/or of physics education research;
- has good interpersonal skills and the ability to act as a liaison between different actors (researchers, teachers, organizers, etc.);

- is part of a professional teacher network and can involve other colleagues in the pilot activities (*desirable*)

Candidates should send a detailed CV to <u>sascha.schmeling@cern.ch</u> and should upload a self-made video (maximum length 4 minutes) into the dropbox at http://cern.ch/go/n8KQ (please use your first and last name in the filename of the video, like "LeonardoDaVinci.mp4") in which:

- they introduce themselves (in English)
 - o talk about their experiences and motivations (max 1 minute);
- they describe an experiment / learning activity could be used in the classroom of an Italian middle school (in Italian):
 - the presentations should include a reference to the National Curriculum for Physics and can be supported with drawings and/or simple objects.

During the stay at CERN, the successful candidate will receive an allowance according to CERN standards, to cover all cost in Geneva.

Candidates will be initially selected on the basis their CVs and videos and subsequently be interviewed individually.

Candidates should send the required material not later than 28.01.2020