Professional Qualification Launched

The decision by the Council of EPS to launch a professional qualification aims to enhance the status of physicists.

The Council of EPS at its meeting in Cracow on 25/26 March agreed with a proposal put forward by a working group to launch a professional qualification in physics. If they fulfill certain requirements relating to education, training, and experience, successful applicants may use the title European Physicist (Euro Phys for short) subject to a review every five years.

The qualification will have a direct impact in some areas, notably applied fields such as medical physics where people often need recognition of their competence as physicists in addition to what is provided by an academic title. It is expected that the scheme will enhance the Society's visibility and improve the status of a physicist in a given field.

The process of unification of Europe is tending to increase the importance of disciplines in science, and therefore the recognition of scientists and general recognition of their competence. Indeed, officials of the European Commission have already expressed positive interest in the Society's initiative, which comes at a time when other disciplines in science are in the process of setting up their own qualification procedures.

The Executive Committee was authorised by Council to implement the scheme by establishing the Commission that will maintain the Register of European Physicists. Council will review progress after three years to see if any fundamental changes are needed. It is envisaged that the working group will be expanded to form the Register Commission which will then specify its needs. National societies collaborating in the scheme will help in the distribution this autumn of application forms and guidance notes detailing the requirements and conditions, so we can expect the first Euro Phys to be awarded in 1995.

N. Kroó, EPS President

Recognizing Fundamentals

Someone who is adequately educated and trained as a physicist and has been working as one will soon be able to become a European Physicist. The requirements will be straightforward and the procedure simple. The qualification will enhance the status of physicists, although the perceived extent varies depending upon the viewpoint. Most agree that formal recognition by the physics community as a Euro Phys will be in-

Cover illustration

Enhanced nuclear binding in magic nuclei. The macroscopic-microscopic model is used to compare the measured properties of exotic nuclear with theoretical estimates. The illustration plots calculated values of microscopic shell corrections as a function of the proton number Z and the neutron number N for the ground-state masses of nuclei with N < 100. The energy (or mass) corrections are colour coded from +6 MeV (red) through to −10 MeV (violet). Nuclei in the region near the 100Sn doubly magic N = Z = 50 nucleus are predicted to have large, negative correction energies. [From P. Möller et al., Atomic & Nuclear Data Tables, to be published]. See E. Roeckl, p. 48.
fully see the potential for its development, the need to support the scheme. They hope—
the immediate Past-President of the German valuable to colleagues employed in specific weakness.
the strength of physics Is also seen as its specialization. So the paradox is that to their fundamentals can be entrusted with
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value on what we call physics. This is not tri­
plex problems in a society that increasingly
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community which has the remarkable ability
of sophisticated tasks. It questions whether a
physics is by nature reductionist — it aims to
develop an esprit, a viewpoint, based on
analyzing the world and nature in terms of underlying quantitative concepts. While these apparently effortless simplifications are the source; not of ignorance but of remarkably powerful paradigms for progressing understanding and technology; without them much of what we take for granted — from electric light to aeroplane reservations
would be impossible. The result is that phys­
ics work across a broad range of fields, tackling everything from enormous astron­
astics used to reducing Nature and problems
to their fundamentals can be entrusted with
managing and analyzing the growing number of sophisticated tasks. It questions whether a
community which has the remarkable ability
to speak with one voice across a broad range of issues, from social behaviour to funda­
mental particles, is truly able to tackle com­
plex problems in a society that increasingly
values specialization. So the paradox is that
the strength of physics is also seen as its weakness.

The shoe is now on the other foot: society
once expected individuals who opened their
doors to offer professional services in law,
insuring, medical and elsewhere to be
officially recognized by a legal body authori­
sed to regulate their activities. Society now
wants to know if an individual is demonstr­
strably competent in a given area before it
opens it own doors in a growing number of areas involving security, safety, health, educa­
tion, and insurance, to name but a few.

Physicists are naive to ignore such sentiments. It has the means to react. Phys­
icists has a strong mathematical and analytical skills, an intuitive feeling of how to apply form­
ality to our messy world, a close familiarity with interdisciplinary problems, and in many
cases experience with collaborating across laboratories, large experimental facilities, and
national borders. The community’s work is
open to all comers and every scrutiny; It is
judged on a truly global scale. So physicists are able to provide security and confidence in science and technology, by defining strong anchoring points with which to pin down those elusive phenomena and complexities that are known to confuse and disturb many people.

Different Routes

The scheme will also help to attract young people into the whole of physics by telling them that the harsh realities of modern life are not being ignored. For it recognizes that many people now arrive by different routes to a point which make them competent to prac­
tice as physicists in a variety of essential con­
texts. In so doing it recognizes the very real fact that society is becoming much more com­
nicated, with people learning, training and
working in an increasingly wider variety of roles.
When the community recognizes one of its members as a European Physicist it is there­
therefore attempting to say that the person rep­
resents some fundamental values and can live up to some of society’s expectations. The
stakes are therefore not microscopic but go to the very heart of what physics tries to contribute. The professional qualification Eur­
Phys ought not be sidelined into those areas where for one reason or another are the greater: it should be adopted vigorously by the entire community as a living symbol of where it stands and where it is going.

Sponsors Needed

The Register Commission — the EPS body responsible for maintaining the Regis­
ter of European Physicists — will appreciate once it is constituted that it needs hard work to establish whether the necessary high stan­
dards are met by applicants who have stu­
died, worked and trained in different parts of Europe. The plan is to involve experts who
have an excellent knowledge of both local conditions and the international context. Pro­
cedures will be decentralized to minimize costs (the application fee will not exceed SFR 50.–), and the registration fee will cover essential expenses, promotion and eventual­
ly maybe special activities.

Moreover, unlike an academic qualification which remains valid forever as a testament of what was learnt and achieved, a profes­sional qualification is placed in the context of today’s society and an individual’s competen­
tence in performing to its expectations. So reevaluation of the individual is essential, along with continuous appraisal of the status of the qualification relative to external require­ments such as European Union Directives on employment conditions. Thus, there will be renewal every five years, with the annual fee to remain on the Register being reduced progressively from SFR 50.– per annum for the first five-year period.

The Society is seeking general support for promoting the scheme from European agencies, government bodies, industrial and employee federations, and others, but it will probably only come once physicists have demonstrated their commitment. EPS is conscious, however, that the fees will be prohibitive for some. Companies and organiza­tions based in western Europe could perhaps consider sponsoring, for at least the first five years, colleagues or colleagues based in east and central Europe as this would repre­sent tangible evidence of how physics sees its future.

P.G. Boswell
Member, EPS Working Group

on Professional Qualifications

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