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To: "IDCsecretariat@djei.ie" <IDCsecretariat@djei.ie>
CC:
Date: 20/03/2015 11:00:49
Subject: Strategy for Science Technology and Innovation

Dear Committee,

Thank you for the opportunity to comment on the consultation paper for a successor to the strategy for Science, Technology and Innovation.

I am an astrophysicist employed by an Irish University to carry out basic research. As half of my job I teach physics to undergraduate science students. I work hard, I have co-authored over 100 papers in international journals including Nature and Science, I am a National Teaching Forum/Union of Students in Ireland "Teaching Hero", and a former Head of School.

An essential part of any science, technology and innovation strategy is that we have a university sector that can produce quality technical graduates who will drive the hi-tech economy. A key characteristic of a quality university education is that students are taught by practitioners, scientists working at the cutting edge, and not by teachers. Whereas the long-term goal of my research is to discover more about how the Universe works, the short-term output is third level science graduates who are problem solvers and innovators.

However, we currently have a situation where basic researchers have been shut out of any national funding scheme. There is a lack of joined-up thinking between one state sector (the universities) who employ basic scientists, and another state sector (the science funding agencies) who previously provided researchers with the funding they need to do their jobs. If this persists we will very soon have a situation where there are no active researchers in basic science in Ireland.

This wind down of basic research will have an appalling impact on the quality of our undergraduate science education. We will have no active basic scientists to teach the fundamental science which underpins not only blue skies research but also applied research.

Ireland seems to be alone among developed economies in adopting this policy of shutting down blue skies research. Note that what Irish agencies call "oriented basic research", i.e. research in areas of industrial relevance, would generally be categorised as applied research in other countries.

My appeal is that we urgently re-focus our national science spend and make an excellence based funding stream available for basic science. I strongly support funding for applied research but we need a balance. We should devote a minimum of 20% of national science funding to basic research. This would be in keeping with the report of the Research Prioritisation Group which highlighted the importance of "research for knowledge".

So in a nutshell, if we get rid of basic scientists, who is going to teach the basic science?

Best of luck in your critical task of setting our national science policy.

Regards,

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