

CX4616

Banque commune École Polytechnique - InterENS

PSI

Session 2014

Épreuve de Langue Vivante Étrangère

Durée: 3 heures

Aucun document n'est autorisé

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Chaque candidat doit obligatoirement traiter le sujet qui correspond à la langue vivante étrangère choisie au moment de son inscription et l'indiquer sur sa copie.

ANGLAIS

1. Translate the following text into French:

Crowdfunding science: could it work?

In its infancy, science was sponsored by rich benefactors who favoured areas of their own liking. Today, despite being more equitably financed by public intervention, science seems to evolve in parallel to, rather than in sync with, society.

Despite representing only 7% of the world's population, Europe produces about 30% of its total 'knowledge'. But compared to others, we fail to deliver a proportionate impact on the daily lives of our citizens. Europe holds a 29% share of global patents in photonics, for example, but produces only 13% of photovoltaic cells, despite the fact that Europe represents 80% of the total market. We can argue about the reasons, be they structural (incentives, barriers) or cultural (a low entrepreneurial mindset). One reason is surely our long tradition of 'free-minded' research, as opposed to the solution-oriented cultures of countries such as Japan.

Nobel prizes are not won by constraining scientists into 'applied sciences' and asking for concrete outputs. Freedom of initiative is a fundamental driver for scientific excellence and not all areas are prone to short-term science-driven discovery. The difficulty is deciding on scientific priorities. We cannot rely solely on the wish that scientists' own interests will bring about public good. The personal and general desire of citizens is also a driver for defining research priorities.

A simple approach could be based on philanthropic crowdfunding, the principle being that any individual – indeed any entity – can provide a financial contribution via an internet-based application to a specific (research) project. Such projects could already be selected for funding (the crowd simply providing additional resource) or be in the process of being selected – at regional, national or EU level.

Citizens do not need to be experts to have an opinion, anyone could 'vote with their heart' for areas ranging from the discovery of life on Mars up to finding a cure for Parkinson's disease.

Adapted from *The Guardian*, 11 November 2013 (by *Didier Schmitt*)

2. Answer the following question in about 200 words:

Should citizens decide on what the priorities should be for research and development in science and technology?