BY **MARJA MAKAROW**

Identifying excellence

When Portugal won the 2016 European football championships, the result was clear: 1-0. Measuring sports excellence is simple, as symbolised by the Olympic motto – *citius, altius, fortius* (faster, higher, stronger). Other accomplishments such as artistic impression in figure skating are more complicated to evaluate objectively, as the assessment is influenced by a judge's experience, taste, and even his/her integrity.

The excellence of an artwork is ultimately judged by the general public. Avant-garde artists are ahead of the curve, and sometimes their genius is only understood by later generations. Think of Vincent van Gogh, who never sold a painting in his lifetime – and then think of the prices his art fetches today. I wonder whether I am ready for the music of the contemporary Finnish composer Kaija Saariaho. I will watch her opera *L' Amour de Loin* together with sixty million spectators worldwide when the Metropolitan Opera transmits it live in cinemas in December.

How is excellence in science identified? Past performance is assessed by comparing the researcher's published work to pre-existing science in the field. Research is rated as excellent when it yields new knowledge. Anticipating the value of research yet to be done is much more difficult. My experience is that the radically new ideas of young scientists can only be judged by panels of wise, visionary researchers with a deep understanding of diverse scientific domains.

But moving on from excellence to relevance, innovations that make the world a better place often arise from unexpected findings. More than one hundred years ago, Albert Einstein wrote the theory of optics, on the basis of which scientists embarked on laboratory experiments half a century later. Today this innovation – laser beams – is used in countless applications from wireless communication and neuro-surgery to tailoring steel plates in shipbuilding.

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Scientists who actively drive the practical application of their findings are true accelerators of innovation. Immunologist Sirpa Jalkanen from Finland's Turku University recently received an EU Prize for Women Innovators for her achievements in technologies preventing inflammations and the spread of cancer. Bio-engineer Frances Arnold from the California Institute of Technology received the 2016 Millennium Technology Prize for the discovery of a method for creating new enzymes for industry catalysts to replace technologies using non-renewable raw materials and toxic chemicals.

Recognising excellence in a travel destination is a lot like judging an artwork or identifying an innovation: to make enriching discoveries – be they in culture, art, architecture, nature, or lifestyle – travellers, too, need to keep an open mind. ●

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