

---

# Science, Policy and the Public in Italy: A full day conference for UK-based researchers to meet with Italian policymakers

---

COMMUNICATION | EDITORIAL | INVITED CONTRIBUTION | PERSPECTIVE | **REPORT** | REVIEW

**Iacopo M. Russo**

Department of Engineering  
University of Cambridge  
imr29@cam.ac.uk

## ABSTRACT

The first edition of the *Science, Policy and the Public in Italy (SPP Italy)* conference was held in Cambridge in October 2019. Organised by the Cambridge University Italian Society together with the Association of Italian Scientists in the UK, the conference invited UK based Italian researchers and policymakers from Italy to discuss policy issues that could benefit from expert scientific advice. Covering topics such as infrastructure monitoring and machine learning bias, the conference was one in a series of events promoting an initiative to set up a scientific advisory office for the Italian Parliament. This article reviews the contents of the thematic panels and keynote speeches, and suggests improvements and expansions for future editions of the event.

## Introduction and goal of the conference

---

With multiple institutes and student societies dedicated to science and policy, Cambridge has established itself within the last decade as a centre of excellence in bridging the gap between academic researchers and policymakers. Another brick was added to this bridge last year in October when St. John's College's Old Divinity School hosted the first ever edition of Science, Policy and the Public in Italy (SPP Italy). Organised by the Cambridge University Italian Society (CUIS) in collaboration with the Association of Italian Scientists in

the UK (AISUK), the full day conference invited UK based Italian researchers and policymakers from Italy to meet and discuss policy issues the country is facing that could benefit from expert technical and scientific advice.

The goal of the conference was to help address two problems: the diaspora of highly qualified Italian students and researchers caused by a perceived lack of opportunities in their home country, and the absence of any independent scientific advisory body available to the Italian Parliament for effective legislation on issues which require technical expertise. Thus, the overarching question for the day was: how can emigrated researchers continue to positively contribute to the social and political

progress of their country of origin? Sponsored by both the Italian Embassy in London and the British Embassy in Rome, the event was a fantastic opportunity for science diplomacy, in advance of the UN Climate Change Conference of the Parties (COP) 26, to be hosted jointly by Italy and the UK in 2021.

## Thematic panels

---

The discussion was structured around three themes: Environment and infrastructures, Public health and biotechnologies, and Digital technologies. For each theme, one experienced researcher working in the UK and one policymaker from Italy were invited to provide their perspective on a relevant topic and to start a conversation with the audience. In the Environment and infrastructure panel, Dr. Giorgia Giardina, an expert in Civil Engineering from the University of Bath, was joined by Prof. Andrea Taramelli, the Italian national delegate at Copernicus, a space programme by the European Union which provides Earth observation data. The topic of their panel was risk management and infrastructure monitoring. This is a pressing issue in Italy, where earthquakes, floods, volcanoes and other natural disasters have caused significant damage on multiple occasions over the 150-year history of the nation. Appropriate technical evaluation of the safety of infrastructures can literally save lives. On many tragic occasions, state-owned buildings and roads have demonstrated their fragility: the most recent case is that of the Morandi Bridge near Genoa, which collapsed in 2018 causing the death of 43 people. In her presentation, Dr. Giardina talked about her Crossrail-sponsored work with cutting-edge sensor techniques to monitor tunnels in London. Recently, she has been using satellite data to observe soil settlement and deformation in structures caused by underground tunnelling. The information one can gather with such techniques can be crucial in allocating financial resources to prevent damage to the infrastructures most in need. In his presentation, Prof. Taramelli gave an overview of the current legal framework in Italy for risk management. The Civil Protection Department is responsible for all activities relating to environmental disasters: risk assessment and prevention, emergency response,

and post-disaster restoration of infrastructural services. Although there have been research and operational demonstrations that illustrate the potential usefulness of Earth observation satellite data for a broad range of hazards, and the Civil Protection Department has started using such data for its activities, the operational application of these data is still quite limited. In the discussion, both speakers stressed the importance of clear, honest communication by technical experts on such matters: the limitations of the knowledge available to predict and prevent should be clearly communicated to decision makers.

In the Public health and biotechnologies panel, Prof. Carlo Rinaldi, a clinician scientist and neurologist from the University of Oxford, was joined by Mr. Marco Cappato, an internationally known activist and former Member of the EU Parliament who fights for end-of-life rights and for the ‘right to science’. An expert in the study of human muscle and motor activity, Prof. Rinaldi highlighted the importance of developing therapies for muscle loss and muscle diseases, which are increasingly more common in our ageing population. He touched upon the issue of animal experimentation where scientific researchers in Italy have received dangerous threats from members of the public for their work with animals in the lab. However, animal testing remains fundamental to developing new therapies, and scientists are fighting back for the right to research. This issue was picked up by Mr. Cappato, who called attention to the lack of unionisation in the researcher workforce in Italy. He urged scientists to become more active citizens, both to defend their right to do research and to lobby the government to allocate greater funding to universities. Unlike the UK, Italian laws on experimentation, especially in the medical and biological sciences, are very restrictive. For example, research employing embryos and stem cells is currently not allowed. A UK-based scientist achieving a Nobel prize-worthy breakthrough in embryonic genome editing or stem cell research could be arrested if they worked in Italy. He concluded his contribution by proposing that the ‘right to science’ be included in the list of fundamental human rights by the UN.

In the Digital technologies panel, Dr. Silvia Chiappa from Google’s DeepMind was to be joined

by Riccardo Luna, former Digital Champion of the Italian government, for a conversation on the opportunities and challenges of artificial intelligence (AI). However, Mr. Luna could not attend the event due to illness. Therefore, Dr. Chiappa gave a very detailed, yet surprisingly interesting presentation on her work at DeepMind to correct the bias of machine learning algorithms. Dr. Marco Basaldella, from Cambridge's Language and Technology Lab, directed the conversation, which spanned from regulation of new AI-based technologies, to government funding for start-ups. An interesting proposal was to involve the public earlier in the development of predictive machine learning algorithms, to help avoid the risk of bias against minorities.

## Keynote speeches and final panel

---

The conference also featured three keynote speeches. Prof. Carole Mundell, Chief Scientific Advisor to the British Foreign Office and a special guest of the conference, gave an inspired talk about scientific advice in the UK, and the power of science to bring countries together. She explained how the network of scientific advisors in the UK has developed over the last few decades. They are not lobbyists but civil servants, and this has ensured that ministers and Members of Parliament (MPs) continue to trust them. She emphasised that the British Government has invested significant resources in public engagement with science. A prime example is the system of museums and institutions such as the Royal Society, which regularly provide opportunities for science communication and interaction between researchers and the public.

Prof. Massimiano Bucchi, an internationally renowned scholar in Science and Society, used the data collected in a yearly survey of the Italian population's attitudes towards science to show how Italians' public perception of science has changed over the last few years. Many scientists today are concerned with the so-called 'expert backlash', i.e. the public's dissatisfaction with the advice provided by technical experts. However, Prof. Bucchi showed that science literacy in Italy has risen steadily in the last decade and that

Italians have high familiarity with images related to science. For example, in 82.6% of the 2017 survey respondents could identify a picture of the periodic table of elements, and a surprisingly high 64.1% could identify a picture of Marie Curie. Compared to politicians and journalists, scientists still enjoy the highest credibility (51%), a trend that is mirrored in the United States. Particularly relevant for Italy is the case of vaccinations, due to a strong anti-vaccination movement that is often featured in the media. The data collected by Prof. Bucchi surprisingly shows that in 2018 only 4.5% of Italians believed that vaccination should not be compulsory.

Finally, Elena Fattori MP, current senator of the Italian Republic and a PhD in Molecular Biology, told her story as a scientist in the Italian Parliament. Author of the book *Il Medioevo in Parlamento* (The Middle Ages in Parliament), Dr. Fattori highlighted the challenges she faced in effectively communicating science to an audience with a surprisingly low level of scientific literacy. Her talk focused on many cases of unproven 'pseudoscience' finding support in the Italian Parliament. A widely talked-about case involved an unproven therapy for neurodegenerative diseases called Stamina Therapy, whose use in public hospitals received approval by the Italian government despite the protests by the scientific community. Dr. Fattori's opinion is that pseudoscientists are very effective in orientating Italian politics because they have the money to do it and use powerful emotive communication. Italian MPs wishing to oppose such pseudoscience lack an official scientific office to support them, and often fail to gather enough consensus not to be dismissed. They highlighted the need to establish a scientific office for parliament like the UK's Parliamentary Office of Science and Technology (POST).

This issue was picked up by the final panel of the day, led by Alessandro Allegra, a PhD researcher in Science and Policy at UCL and main promoter of the #ScienzaInParlamento initiative to create an office for science and technology for the Italian Parliament. The panel tackled the topic: 'How can we bring more science into the Italian Parliament?' and was joined by two current Italian MPs, Massimo Ungaro MP and Elisa Schirò MP, elected in the foreign constituencies of the UK and Germany respectively. It

was the MPs who kick-started the conversation, by commenting on what they had heard during the day. They praised the initiative of Italian students abroad, acknowledged that there is a serious problem of scientific misinformation in the Italian Parliament, and pledged support to the #ScienzaInParlamento initiative. However, many challenges were highlighted in the ensuing discussion. For example, setting up a scientific advisory office requires funding by the Government but it must remain independent from it to provide impartial advice. Selection of personnel must be independent of politics as well.

## Conclusion

---

Overall, the day was very inspiring. Besides the talks and panels, young researchers were also given the opportunity to present their research in support of a policy recommendation in a poster. During the day a nice atmosphere of openness and collaboration was created. There is significant room for improvement for future editions of the event: in some of the panels there was not enough discussion and interaction between the speakers—it is not easy to select speakers who can have a meaningful discussion with different points of view and at the right level of technical detail for an audience to learn something new.

However, the event gave rise to many creative ideas for the future, including inviting Italian researchers from across the world to an edition of SPP Italy in Rome. Alternatively, a biannual Oxbridge Italian forum could be established, in collaboration with the Oxford University Italian Society. Moreover, the SPP concept could be expanded to all of Europe, not just Italy, which could be especially relevant now that the UK has exited the European Union. Many of these potential meetings will have been paused amid the global coronavirus pandemic, but hopefully future collaborations will continue virtually or later in person. Such ideas and initiatives are uplifting, because they show the willingness of young scientific researchers to engage with the public and policymakers to contribute to the public good.

## Acknowledgements

---

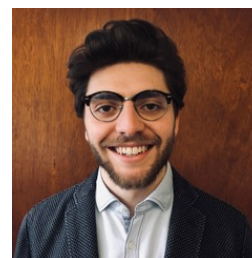
The author would like to thank the *SPP Italy 2019* organising committee for the detailed notes taken during the conference, as well as the invited speakers for their generosity in sharing the contents of their presentations.

© 2020 The Author. Published by the Cambridge University Science & Policy Exchange under the terms of the Creative Commons Attribution License <http://creativecommons.org/licenses/by/4.0/>, which permits unrestricted use, provided the original author and source are credited.

## About the Author

---

Iacopo acted as the Chair of the *SPP Italy 2019* organising committee. He is a final year PhD student in the Department of Engineering at the University of Cambridge.



His research attempts to develop innovative technologies that promote resource efficiency in the metals industry, to lower its overall environmental impact. More generally, Iacopo is interested in the ways technology and policy can cooperate to address the global climate crisis. Prior to his doctoral studies, he earned a Master of Engineering from Imperial College London.

**Conflict of interest** The Author declares no conflict of interest.