



ERA Learn 2020 – 29 September 2015

What is COST?

COST is the longest-lasting and widest European framework for cooperation in Science and Technology. COST finances *networks of researchers*, which are established through the COST Actions, the principal instrument employed by COST. Within these Actions, researchers and professionals from different fields and different sectors have the opportunity to interact and to engage in the sharing and transfer of knowledge and skills. COST Actions are specifically meant to widen research networks and to stimulate integration amongst European researchers and experts. In order to do so, COST is particularly looking to integrate young researchers, as well as researchers from Inclusiveness Target Countries, in its networks.

Benefits of the COST instrument

A particular benefit of COST Actions is that they go beyond the reach of 'ordinary' instruments of science financing. Most research grants are either given to individual researchers, or to focused research projects. COST Actions, on the other hand, are 'programmed' to involve a large number of participants from different countries and backgrounds. Meanwhile, these Actions are centred on research challenges identified by actual players in the field, encompassing a wide variety of subjects. Through this focus, COST Actions can anticipate on major research challenges, which are hard to tackle from the angle of one specific discipline or researcher, but which instead deserve a multidisciplinary approach. When talking about 'alignment', one can say that COST Actions align the efforts and resources of different researchers and experts around a common goal.

Example:

In 2012, a COST Action started concerning the proliferation of common ragweed (*ambrosia atermisiifolia*, in Europe. Common ragweed, an exotic plant originating from North America, has two major negative societal impacts. First, it disseminates pollen which induce a strong hay fever, its effect being far stronger than the effect of native flora. Second, infestation of agricultural areas with common ragweed can reduce harvest yields by up to 30 percent. Hence, both from a health and from an agricultural perspective, ragweed forms a main societal challenge. Management of this challenge requires the consideration of several (complementary) strategies, hailing from different perspectives. Indeed, in this specific Action, biologists, agricultural scientists, ecologists, health scientists and medical researchers are all involved, coming from universities, applied research institutes and health organisations alike.



Key factors for successful implementation

COST incorporates two crucial human resources which enable the success of COST Actions. First of all, every of the 36 COST Member Countries has a COST National Coordinator. These coordinators raise awareness of the COST framework and instrument, and they allow researchers to become COST Actions members. As a result, COST Actions tend to involve researchers and experts from many different backgrounds and professions. Second, every Action financed by COST is guided by an independent scientific rapporteur, who evaluates the scientific management of the Actions. The newly established Scientific Committee selects the COST Actions, supervise the quality of the process and assesses the broad impact of these Actions.

Suitability of the COST instruments

My example on ragweed showed where COST Actions can be applied to their maximal potential: where there is a pressing research question, which involves several disciplines, and which is of academic interest, but which also has real-life implications. Many of the great challenges of our time might require solutions and mitigation strategies which are based on the combination of insights from different disciplines. COST Actions precisely facilitate the interaction between these different disciplines, and the resulting 'unusual' collaborations which can lead to scientific breakthroughs.

Conclusion

COST Actions aim to fill the void left by more conventional forms of science funding. COST Actions allow the leverage of other forms of funding through bringing together researchers and experts around one topic or research challenge, identified by researchers themselves. The instrument employed by COST stimulate the alignment of different resources and efforts, which eventually contributes to the management and resolution of societal challenges. Moreover, unique in the world of science funding, COST Actions often involve players from non-academic backgrounds, like governmental bodies and SMEs. Through this third-party involvement, quick dissemination of knowledge and practices can be attained.