





Connecting knowledge to action

16 September 2019
To the Members and member organisations of EFI

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Dear Colleagues,

Why Humboldt? Why now?

Alexander von Humboldt, born in Berlin exactly 250 years ago on 14 September 1769, was one of the most inspiring men of his time. Celebrated for his knowledge and scientific thinking, he revolutionized the way we see the natural world. *“In this great chain of causes and effects, no single fact can be considered in isolation”*, he said.

Humboldt represents the type of polymath that we urgently need today, in the beginning of the 21st century, to inspire change towards a sustainable future. Creating a sustainable future requires above all going beyond fixing isolated problems to concentrate on developing a framework that allows us to shape a new world: one that prospers within our planetary boundaries in harmony with nature.

Humboldt’s holistic approach to science and nature is more relevant and modern than ever. In a time when scientific knowledge advances ever faster and the questions we seek to answer are becoming more complex, science has also become more specialized. It is not that modern scientists are not interested in other fields, but rather that to conduct research at the cutting edge of a discipline today represents a huge investment of time and effort.

This is why now we need to revisit Humboldt and his way of thinking!

Humboldt resurrected the use of the word *cosmos* from the ancient Greek to title his treatise, *Kosmos*, in which he connected and unified diverse branches of scientific knowledge and culture. His scientific approach included not only hard biophysical data but also socio-economic information as well as art, history and even poetry. His work resulted in an unprecedented holistic perception of nature as one interacting entity: *“Nature is a living whole”* Humboldt said, and he developed the term *Naturgemälde* – a German term that can mean ‘painting of nature’ but which was used to express a sense of unity in diversity.

Humboldt was also the first person to describe the phenomenon of human-induced environmental change *“when forests are destroyed, as they are everywhere in America by the European planters, with an imprudent precipitation, the springs are entirely dried up, or become less abundant. The beds of the rivers, remaining dry are converted into torrents, whenever great rains fall on the*

heights...".

Finally, another of Humboldt's greatest achievements, which is highly relevant today, was to make science accessible and popular. He used infographics and a simple and non-scientific language to share his knowledge with farmers and craftsmen, schoolchildren and teachers, artists and other scientists and politicians.

"The most dangerous worldviews are the worldviews of those who have never viewed the world" said Humboldt. Our times, with their unprecedented complexity, new digital dimensions and the globalization of our world, need more than ever scientists who are willing to embrace different disciplines, who are willing to communicate beyond science. Science and scientists have to go beyond knowledge, to enable a more holistic understanding of our world and nature.

This letter was inspired by Andrea Wulf and her book *The Invention of Nature – The Adventures of Alexander von Humboldt - The lost hero of science*.

Looking forward to meeting many of you this week at our Annual Conference in Aberdeen, where I look forward to inspiring discussions on this and many other topics!

Marc Palahi

