

Speech for 25th EFI Anniversary – Gala dinner, Alghero, September 26th 2018

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Dear Mr. President, Ladies and Gentlemen, dear EFI colleagues,

On behalf of the EFI Secretariat I would like to wish you all a very happy **EFI 25th anniversary**. 25 years might not seem a long time, especially when compared to our grandmother organization, IUFRO, which just turned 125! But **time**, as Albert Einstein proved, is relative, as it **depends on the speed experienced at a given moment in space and time**. And, one thing is clear, during the last 25 years the speed of global change has been faster than ever.

For instance, in the last 25 years, poverty has been reduced from 40 to less than 10% of the global population, while at the same time the global GDP and the global middle class have tripled. **But not only has the global economy accelerated, technology has as well**. Remember that when EFI was established, **Google, Amazon, Facebook or our smart phones** did not exist at all. In fact, during the last 25 years a new revolution has started, a digital revolution, **one that is disrupting the way we produce, consume and work - basically the way we live**. A revolution that has influenced as well the development of science. For instance, we can now sequence the human genome in hours for less than 1,000 dollars, when the scientific project that made it possible in the 1990s required a decade of work and more than 2 billion dollars.

But during the last 25 years, science has also made a defining discovery with consequences for our future! Science has demonstrated that our economic system, which has relied since the Industrial Revolution on the use of fossil resources and the belief in unlimited growth, is responsible for unprecedented global environmental problems like climate change and the degradation of our biosphere - environmental problems with potentially irreversible consequences for future generations.

This scientific discovery should not have been a surprise, at least, I believe that it would not have been one to the French physicist, **Sadi Carnot, who formulated the second law of thermodynamics**. Because the Industrial Revolution, at the end of the day, resulted in a fundamental systemic change in our economy from a thermodynamics perspective, as we moved from an open system powered by the sun, to a closed system powered by finite fossil resources which are internal to the system. And Monsieur Carnot demonstrated what happens with free energy in closed systems: **they result in entropy, disorder and irreversibility**. So in the last 25 years, science has proved that the second law of thermodynamics also works at planetary scale. But more than that, **science has demonstrated that we have arrived at a tipping point; the world has become too big for our planet**.

Having arrived at this tipping point, we should remember the words of Albert Einstein, who said that "**We cannot solve our present problems with the same thinking we used when we created them**"... This is exactly what we need now, new thinking as basis for a new economic paradigm, one **where prosperity takes place within the renewable boundaries of our planet as powered by the sun**. An open paradigm where renewable energy and renewable biological resources become the prosperity engine for sustainable development. However, when developing the new paradigm, it is important to remember that biological resources are renewable but not infinite. This is why their use and transformation should be intelligent, efficient and above all sustainable. That is what a **circular bioeconomy** should be about! Furthermore, in a rapidly changing environment, we also need to ensure the resilience of our biological resources to climate change. Therefore, enhancing biodiversity should be recognised as a priority investment for a long-term bioeconomy. This also explains why the bioeconomy paradigm, above all is an opportunity to address the past failure of our

economy to value nature, to value our natural capital, to value the biodiversity of our ecosystems. So the bioeconomy offers us the possibility to adjust our economy to the biological rhythm of our planet. To build a synergistic relationship between ecology and economy. By the way, both words come from the Greek word *Oikos*, which means *environment*.

Realising the new bioeconomy paradigm based on such a synergistic relationship, of course, requires solid science. And, of course, forest science has a lot of potential to offer and should play a central role! I don't need to convince you about that. In fact, everyone agrees, not only in this room, but also outside, that forests and forest science are part of the solution of climate change and sustainable development. But being part of the solution is not enough, **we need to be also part of the answer**, and to be part of the answer, we need to communicate, we need to be proactive in building partnerships with other disciplines, sectors and actors, we need to create a compelling narrative to connect with our increasingly urbanised societies... who at the end of day will write the answers.

So what does this mean for EFI?

Well, in the past 25 years, EFI, has been a fantastic and unique European network of forest research organizations, but looking to the present and future, that is not enough if we want to be relevant. We need to go outside our comfort zone and become an open platform where forest science meets other relevant sciences to formulate the right questions, where forest actors meet other relevant actors to bring the right answers to action.

And to that end, I would like to finish with a quote from another physicist, the third one I mentioned today, a physicist who Albert Einstein considered the father of modern science, but who is also considered to be the first oenologist in history, at least in Italy.

The quote says "**Il vino è la luce del sole tenuta insieme dall'acqua**" *Wine is sunlight, held together by water, and the physicist is of course, Galileo Galilei*

Let's drink together, to the sun of Sardinia, to the forest island, to celebrate our 25th Anniversary.