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MADRID 2017
NOVEMBER 14 - 15

CLOSING SESSION

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President CAETS &
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In his book *The Magic Mountain*, Thomas Mann wrote nearly a century ago that the technical developments of his time constituted the most useful vehicle that the human race had towards happiness. Since that time, technological progress has been such that the quality of life that humans experience now in the planet is beyond the dreams of just one generation ago.

This is not to say that inequalities, unfortunately on the rise, represent the darkest side of the otherwise highly successful trajectory of humans since mid-1950.

It will be fair to say that engineering has played a crucial role in coping with, and solving many, if not most, of the problems faced by humanity in this last century. Among those problems, it would be hard to find one more relevant than the one created on the planet by the doubling of world population that has occurred after World War Two.

We have seen in this Conference how it has been possible to supply sufficient food to a population that was growing at an unprecedented rate. Both on the land and in water bodies, the productivity of food production systems was more than doubled to cope with this challenge. This success story, as many others in engineering, has not really reached the general public, who pretty much took for granted all the amazing advances that have been experienced until now.

One may ask why, in spite of the increasing rate of technological progress, engineering is less thought of, and why it has lost some of the prestige it had 50 years ago in many societies, though there are some notable exceptions.

I believe that one reason is that we have not succeeded in communicating the complexity of the more recent technological advances to society at large. Also, the general public has reacted negatively to the damage caused to natural ecosystems, as they should because we have been much less successful in solving some of the more tricky environmental problems associated with the intensification of production.

We must emphasize that protecting the environment is crucial to ensure the sustainability of all production systems, thus protecting the future of the coming



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generations. By the way, future generations do not vote in a democracy and therefore are overlooked by the short-termism that today dominates decision-making in our societies.

The new threat of climate change adds more uncertainty to the management of our limited natural resources, now and in the future. Humanity will face these and other threats that might appear, but I am certain that the innovative engineers of the future will measure up to these new challenges, as it has occurred until now.

Summarizing, there is a lot more work to do, and these is good news for an engineering education institution such as the one we are here today, that, I am sure, will produce engineers that will surpass the achievements of past and current generations.

Thanking all the people, institutions, and corporations that have contributed to this Conference would take much more time that what I think is reasonable.

First, I would like to mention Alicia Vadillo and the rest of the staff of the Royal Academy of Engineering for their excellent work and enthusiasm that has made this conference possible. By hosting us in this magnificent building, the support of the Polytechnic University of Madrid is gratefully acknowledged. Our Academy has limited financial resources and it has benefited from the support of many sponsors listed in the banner. Finally, I would also like to thank the speakers for their participation, and all of you for attending the conference.

Thank you very, very much.

Madrid, November 15th 2017