



Address to Participants in the Plenary Session of the Pontifical Academy of Sciences



Distinguished Ladies and Gentlemen,

I am pleased to meet the full complement of the [Pontifical Academy of Sciences](#). I offer cordial welcome to the new Members and I am grateful to the former President, Professor Werner Arber for his gracious words of introduction, while I pray that Professor Joachim von Braun may be restored to full health. I also thank the distinguished speakers for the valued contribution that they have made to this meeting.

The scientific world, which in the past tended to assert its independence and self-sufficiency, and to show a certain distrust vis-à-vis spiritual and religious values, seems today instead to be increasingly aware of the ever more complex reality of the world and of the human being. We see signs of a certain lack of security and some fear before the possible evolution of a science and technology that, if left to their own devices, could turn their back on the good of individuals and of peoples. True, science and technology influence society, yet the world's peoples with their values and their customs in turn influence science. Often the direction and emphasis given to certain developments of scientific research are influenced by commonly shared opinions and by the desire for happiness deeply rooted in human nature. Nonetheless, greater attention should be paid to the values and fundamental goods that are at the basis of the relationship between peoples, society and science. This relationship demands a rethinking aimed at promoting the integral advancement of each human being and of the common good. Open dialogue and attentive discernment are indispensable, especially as science becomes more complex and the horizons

that it opens up bring decisive challenges for the future of humanity. For today, both the evolution of society and scientific changes are taking place ever more rapidly, each following the other. It is important that the Pontifical Academy of Sciences consider how these interconnected changes require a wise and responsible commitment on the part of the entire scientific community. The splendid ivory tower security of early modern times has given way, in many, to a salutary unrest, for which today's scientists are more easily open to religious values and can glimpse, beyond the achievements of science, the richness of the spiritual world of peoples and the light of divine transcendence. The scientific community is a part of society, and must not be considered separate and independent; indeed, it is called to serve the human family and its integral development.

The possible fruits of this mission of service are countless: here I would like to mention only a few. First, there is the immense and ongoing crisis of *climate change* and the nuclear menace. Following in the footsteps of my predecessors, I reaffirm the fundamental importance of commitment to a world without nuclear arms (cf. [*Message to the United Nations Conference to Negotiate a Legally Binding Instrument to Prohibit Nuclear Weapons, Leading Towards their Total Elimination*, 23 March 2017](#)), and I ask – as did Saint [*Paul VI*](#) and Saint [*John Paul II*](#) – that scientists actively cooperate to convince government leaders of the ethical unacceptability of such weaponry, because of the irreparable harm that it causes to humanity and to the planet. Consequently, I too reaffirm the need for a disarmament which today seems a subject less and less raised at the tables around which great decisions are made. May I be able to thank God, as did Saint [*John Paul II*](#) in his [*Testament*](#), that in my Pontificate the world was spared the immense tragedy of an atomic war.

Global changes are increasingly influenced by human actions. Hence there is also a need for adequate responses aimed at protecting the health of the planet and its inhabitants, a health put at risk by all those human activities that employ fossil fuels and deforest the planet (cf. [*Laudato Si'*, 23](#)). Just as the scientific community has made progress in identifying these risks, it is now called to propose workable solutions and to convince societies and their leaders to pursue them.

In this regard, I am aware that in your sessions you have identified the insights that emerge from basic science and have worked to link them with strategic visions aimed at studying the problems in depth. It is your calling to come up with innovative developments in all the principal disciplines of basic science and to acknowledge the boundaries between the various scientific sectors, particularly in physics, astronomy, biology, genetics and chemistry. This is part of the service that you render to humanity.

I welcome the fact that the Academy also concentrates on the new knowledge necessary to confront the scourges of contemporary society. The world's peoples rightly ask to take part in forming their own societies. The universal rights we proclaim must become reality for all, and science can contribute decisively to this process and to breaking down the barriers that stand in its way. I thank the Academy of Sciences for its valued cooperation in combating the crime against

humanity that is human trafficking for the sake of forced labor, prostitution and organ trafficking. I stand at your side in this battle for humanity.

There is a long way to go towards a development that is both integral and sustainable. The elimination of hunger and thirst, high levels of mortality and poverty, especially among the eight hundred million needy and excluded of our earth, will not be achieved without a change in our way of living. In the encyclical *Laudato Si'*, I presented some key proposals for attaining this goal. Nonetheless I believe I can say that there is a lack of will and political determination to halt the arms race and to put an end to wars, in order to pass urgently to sources of renewable energy, programmes aimed at ensuring water, food and health for all, and investing for the common good the enormous capital that remains inactive in fiscal paradises.

The Church does not expect science merely to follow principles of ethics, which are a priceless patrimony of the human race. It expects a positive service that we can call with Saint *Paul VI* the “charity of knowledge”. You, dear scientists and friends of science, have been entrusted with the keys of knowledge. I would like to stand before you as the advocate of the peoples that receive only rarely and from afar the benefits of vast human knowledge and its achievements, especially in the areas of nutrition, health, education, connectivity, well-being and peace. Allow me to say to you in their name: may your research benefit all, so that the peoples of the earth will be fed, given to drink, healed and educated; may political life and economy of peoples receive from you indications on how to advance with greater certainty towards the common good, for the benefit especially of the poor and those in need, and towards respect for our planet. This is the immense panorama that opens up before men and women of science when they take stock of the expectations of peoples: expectations animated by trusting hope, but also by anxiety and unrest.

I bless all of you from the heart, I bless your work and I bless your initiatives. I thank you heartily for all that you do. I accompany you with my prayers and I ask you please, do not forget to pray for me. Thank you.