

The world has always faced immense challenges. Food crises have repeatedly led, and still lead, to hunger and emigration. Disease has often ravaged the world's populations, from the Black Death in the 14<sup>th</sup> century to the "Spanish flu" pandemic that again killed millions in the early 20<sup>th</sup> century. More recently, atmospheric pollution resulted in acid rain, which severely damaged forested areas and surface water. Today's more globalized world has increased the sources and geographic extent of such challenges. Global warming and climate change affect the entire planet. The free movement of people and goods means that infectious diseases, for example, readily cross borders and can spread worldwide and also that greater demands are now placed on the world's public goods. As of today, regional conflicts can no longer be seen as isolated crisis, given that the ripple effects of the war can be felt across the globe, worsening life conditions in some of the world's most vulnerable regions. In addition, some of the processes that are creating global challenges run the risk of reaching the critical thresholds, called "tipping points", which may lead to irreversible damages to the complex systems that are essential for our survival and welfare.

The selected candidate will focus her/his attention on the challenges affecting today's world, either from a global or a regional perspective; she/he will disseminate the outcomes of the research by publishing at least one paper or chapter subject to peer-review and by participating to a conference or a seminar where the results of her/his work will be presented and discussed.