

Ladies and Gentlemen,

Dear friends,

It is a great honour for me to take the floor as the 2018 Challenger Society Conference draws to a Close.

On this edition's programme, I noted that over 200 talks were being given before mine, 200 varied, fascinating, targeted, pertinent and incredibly academic talks.

First, I was anxious as to what I could add to the speeches delivered by all those distinguished scientists and individuals over the past three days, especially as you I am not a sciep.

I then realised that this was no doubt exactly why you had entrusted me with this keynote speech in ordre to talk about a different matter.

Rest assured; I am not going to talk to you about dance, gastronomy, football or AS Monaco, even though I'd actually be quite keen to speak about AS Monaco and even though here in Newcastle, the topic could be of interest to some.

Instead I am going to speak of the way in which the leader I am makes every effort possible to work with the scientists you are.

I am going to speak of the way in which we should, in my opinion, coordinate our efforts to address a challenge which is common to all of us.

I am going to speak of the way in which we can rise to this challenge together over the next years to come.

You are well aware of this challenge: it has been described, thoroughly, during the speeches which preceded mine.

You are also aware that it is even more far-reaching than the descriptions given in these talks. It does concern our seas which cover more than 70% of this Planet's surface. It also concerns landmass, and the greatest threat derives precisely from this landmass, or more specifically from an inhabitant of this land: a species of great ape with an enlarged cortex and opposable thumbs.

The challenge faced by our oceans, the challenge at the heart of this Conference, it is humankind. It is our development paradigm, which has thrived for centuries on the destruction of nature.

This phenomenon of destruction has been in motion for centuries. Yet we are only just beginning to measure its effects. More importantly, today it is taking on, greater a magnitude.

As presented in detail here, it is causing disruption, down to the micro-organisms on the ocean floor, at the same time at it is changing the overall climatic equilibrium of our Planet. It is changing the course of ocean currents and wreaking havoc with mountain ecosystems. It is causing species to disappear every day and, regardless of what we do, will affect the pH of our seas for centuries to come.

It is likely to lead to upheavals unprecedented in human history in the course of the next few decades.

Unprecedented in the history of humankind in terms of magnitude.

Undoubtedly unprecedented in the history of the Earth, in terms of speed.

From this point of view, I believe we have miscalculated the scale of what lies ahead. Perhaps because scientific uncertainty prompts us to remain cautious.

Perhaps because we still believe in progress: both human and technical progress which undoubtedly will offer us alternatives, if it is not too late.

Perhaps also because we just do not want to see. Because we are worried. Because we lack courage.

When speaking about this situation, in the great country that the United Kingdom is, I cannot help but draw a parallel with the global situation eighty years ago when Europe was sliding into war. I was from here that the most lucid voices were heard. It was from the United Kingdom that a response was formulated to a danger that cost the lives of millions of people which could have been even bloodier without the courage of your people and the one who stood by your side on that time.

This parallel may seem excessive to you, and perhaps it is. However, we need to bear in mind the magnitude of the threats facing us today.

First of all, global warming. In Paris in 2015 we pledged to keep the temperature increase below 2°C by 2100...yet, according to some studies, the current warming trend points towards an increase of between 4°C and 8°C. Some oil companies, such as BP, are anticipating an increase of around 5°C by the middle of this century.

Every year, we are witness to an increasing number of disturbing, if not catastrophic, weather patterns. Over the last few weeks, deadly fires have ravaged California and Greece; floods have killed hundreds of people in Japan and India; unprecedented heatwaves have struck Canada and Scandinavia; the hottest temperatures ever have been recorded in Oman, Baku, Scotland and Algeria.

This deadly weather, which we are now experiencing all over the world, is already bringing its share of tragic consequences. These disturbances have just only begun.

The ice melt, from the Arctic to the Himalayas, including mountain glaciers in Europe and America, will lead to increased sea levels which will make whole regions uninhabitable, will engulf others and will disrupt many ecosystems.

The disappearance of permafrost is likely to release billions of tonnes of methane, which in turn will accelerate global warming.

Ocean acidification, already apparent, will continue to increase, further destroying the biodiversity of certain regions, such as the coral reefs, and further depleting our already severely afflicted seas.

The alteration of the ecosystems will cause thousands of other species to disappear, in a global context which we already know is one of mass extinction.

Agricultural yields will also be affected: last year, a study published in the Proceedings of National Academy of Sciences of the United States of America established that each degree-Celsius increase in global mean temperature would, on average, reduce global yields of wheat by 6.0%, rice by 3.2%, and maize by 7.4%.

We know how important these crops are to meet the needs of the human population. A population that could reach nine or ten billion individuals within a few decades and which is eating increasingly better and increasingly more.

These lower yields will be all the more serious in that, due to the effects of global warming, droughts will increase, especially in the most densely populated regions of the world. Around the Mediterranean, in the United States, in South America.

New viruses, until now trapped in the Arctic ice, could be unearthed. Others, dependent on the temperature, such as dengue fever and malaria, may affect new regions, even here in Europe.

All these phenomena are of course likely to have consequences on a par with large-scale conflict on the Planet's geopolitical balance, and on peace itself.

Populations chased away from their homes by rising water levels, the ravages of natural disasters, drought, famine, disease and the scarcity of resources.

Growing tension to gain access to these resources, as we are already witnessing.

Multiple confrontations caused by an increasingly unstable, increasingly fragile and increasingly restless world.

Especially as global warming is not the only threat hanging over our climate. It comes on top of other dangers which are already in process. Pollution of course, which contaminates all the way down to the ocean floor and affects our health. The loss of thousands of species essential for our survival, such as pollinators and so many others, most of which are still unknown to us. The destruction of precious ecosystems, both marine and land-based. Natural resources are being depleted, without having any appropriate alternative solutions.

The combination of all these phenomena is already weakening our planet.

Every month, every week, every day, devastating news extends the list of natural disasters I have just mentioned.

Sixty-five million of our contemporaries already chased from their homes because of climate change. Famine upon famine. Exacerbating tensions in certain regions. Thousands of refugees who have cast a tragic shadow over the Mediterranean and created a climate of political instability in Europe.

Ladies and Gentlemen, Dear friends, There is no need for me to continue this alarming list. My goal was not to scare you – you who are of course fully aware of the threats weighing on our environment. It is a way to stress out that the connection between scientific observation and political responsibility is already visible, for those who are willing to take the time to recognise it.

It is to point out that although these environmental issues often seem of secondary importance in the light of the headlines, they are in fact an extremely pressing concern. Our mobilisation is necessary, if we do not want to resign ourselves to the global disasters these threats foreshadow.

That is the reason why I have made such issues one of the priorities of my action.

Whether in my capacity as Monaco's Head of State, through our ambitious internal policies to promote the energy transition and to combat pollution.

Whether through agreements with our Mediterranean neighbours to protect our natural resources.

Whether through our diplomatic action within multilateral fora where these issues are addressed.

Whether through my personal commitment, with the personalities I meet, or whenever I am given the opportunity to express myself publicly, as I am doing today.

Whether of course through my Foundation, which for twelve years has fought for the climate, biodiversity and water issues, all over the world.

At the root of each of these commitments, at the heart of all the initiatives I implement or support, there is a common thread: the crucial role of science, your crucial role.

Everything we know about climate, we owe it to you. We owe it you for being able to begin to understand the role of the oceans, their infinite wealth, their fragility too, when for so long we regarded these huge expanses as immutable deserts, with no interest and no stakes. If we are able to take action, even if still inadequate, we owe it to you.

Nothing of what we have achieved so far to protect our Planet would have been possible without you. Nothing of what we need to do to prevent the major risks I just mentioned will be possible without you.

It is still possible to act.

As at the heart of the darkest hours I mentioned at the beginning, hope must never die. We must be confident that we are still able to save the Planet, to save its oceans.

To appreciate this imperative, I would like to take an example, which is at the core of the ocean-related issues being discussed here, which is at the core of our changing climate; I am referring to the Polar Regions whose future is currently a subject of major concern.

These regions are, perhaps more than any other region in the world, at the crossroads of the issues being discussed today.

They are predominantly maritime regions, but whose fate is inseparable in the Arctic from that of the indigenous populations. They are unspoilt regions, but are attracting growing interest, even greed, from both local and distant powers. They are little known regions but already directly affected by the damage we are inflicting upon our environment.

You have read over the last few weeks the alarming news informing us of the melting of the ice sheet located in North Greenland and its first time on record fragmentation. This ice sheet, probably the oldest on the Planet and the thickest in the Arctic, has broken up twice since the beginning of 2018, due to warm winds and a climate change driven heatwave experienced in North Greenland in February and August.

While temperatures generally fall below  $-20^{\circ}\text{C}$ , the local weather station recorded a high of  $17^{\circ}\text{C}$  in the week of 13th August.

For the first time, a Russian container ship sailed from Vladivostok to the North Sea a few weeks ago via the Bering Strait, inaugurating what could be the new trade route of tomorrow.

Sadly, these concerns are not new. Each year, new indices accumulate, new records are broken, and the phenomenon takes on increasingly alarming proportions. They are the result of long-term movements and a reflection of relentless development.

Faced with this, our primary weapon is, as always, knowledge.

We must acknowledge that if the Poles are so seriously threatened today, if we struggle so hard to prevent or cure the ills afflicting them, it is first and foremost because our knowledge is still insufficient, because for too long we ignored what was happening. Today, we are still miscalculating the exact dangers they are facing.

As is the case with all environmental matters, and in particular anything concerning the marine environment, our priority must therefore be to enhance our knowledge. To understand before taking action, in order to take effective actions.

It is in this sense that together with my Foundation I urged the IPCC to devote an interim report to the cryosphere and the oceans. Launched nearly two years ago in Monaco, this work is due to be published in one year ahead from now.

It will, I hope, enable us to gain a better understanding of the threats truly weighing on the Polar regions and their manifold implications.

In particular, it should help us to map the interactions between the Planet's overall situation and the climate of these regions more effectively. By so doing, it should also allow us to gain insight into the mechanisms at play globally, beyond solely these areas. Although the Poles are often seen as sentinels for global warming, they are also indicators of complex movements, which their extreme situation reveals and thus enables us to gain a better grasp.

That is the reason why, in addition to the IPCC and its irreplaceable work, the entire scientific community needs to focus more closely on these areas, if we are to have a real chance of saving this heritage that is today in jeopardy. Once again, the opportunity for our action is dependent on your work.

This action begins with the mobilisation of international fora.

I am thinking of the UN of course, and the proceedings that have just got underway in New York on marine biodiversity of areas beyond national jurisdiction. We will, I hope, be able to leverage tools from there which are adapted to today's challenges and ensure long term conservation and sustainable use of marine resources.. That is also the reason why I am following this work with active interest, and that is why I would also urge you to take an interest.

Because on this issue, as with all matters concerning the environment, the pressure of public opinion and the mobilisation of scientists are unparalleled companions of political action.

This political action is not limited to UN negotiations. It also encompasses more specific regional initiatives – the Antarctic Treaty System and the Arctic Council: two tools which have little to do with each other, but which give each other the resources to act, and are both, I believe, good indicators of what is possible and what is desirable.

What is possible is to unite all of the States involved in order to advance dialogue, with the focus on realistic goals.

What is desirable is to mobilise, as widely as possible, the entire international community, because each one of us is definitely linked to the future of these regions.

Above all what is desirable is to build their future around common principles, based on the quest for public interest, peace and science.

Of course, the Antarctic Treaty System's model is not applicable to the Arctic region, but its spirit and the overall ambition for peace and science it demonstrates, should be sources of inspiration.

I am thinking particularly of the need to create marine protected areas in the Arctic's international waters, as was ultimately done in the Ross Sea. I believe that this project is crucial, especially at a time when global warming is opening up new trading routes and making new activities possible.

Once again, I hope that the work undertaken at the UN on the Law of the Sea will make things easier.

However, I feel it is also important that this project be developed as widely as possible, beyond the strict political framework of the UN and regional organisations. I feel that it is necessary that private players become involved, who have a key role to play, in these issues and in those concerning the preservation of our seas, and more broadly our environment.

This role can be two-fold: It can be a role for the voluntary restraint of their activities. Some companies, in particular oil companies, have themselves abandoned offshore drilling projects in the Arctic, rightly considering that the risks were too great, in particular in the event of an oil spill.

However, in addition to these cautionary measures which are welcome, the role of private players should also be to promote the creation of truly sustainable growth, i.e. capable of reconciling the increasing needs of humanity with respect for the imperatives of nature.

Through this new growth, it is a question not only of developing new production methods but also engaging consumers, the public and all the economic players involved, in a new, pacified and sustainable relationship with nature.

In this respect, I feel it is important to draw attention here to the role to be played by the indigenous populations in the case of the Arctic.

These people have a decisive role to play. They are the primary users of these regions. They have a wealth of knowledge concerning these regions, and the ability to live in harmony with them - we should therefore take inspiration from them.

In the same way as we can only find a sustainable solution for our oceans by involving the coastal populations – the billions of women and men who derive their living from the sea – we can only ensure the future of the Arctic by involving its populations.

In addition, our contemporaries as a whole must take on these challenges. I believe that they are ready and willing at present.

That is why, more than ever before, we need to join forces and take action.

That is why you can count on me, as I know I can count on you in the face of this major global challenge where the world we will be leaving our children, the environment in which those growing up today will live as adults, are at stake. In thirty years' time. In ten years' time. Tomorrow.

This is the reason why we must join forces to address this danger, perhaps one of the greatest humanity has ever had to confront, and perhaps one of the most demanding in terms of redefining our lifestyles, our short-sighted habits and our selfish ways.

In this context, I would like to conclude by quoting a few lines from a great English scientist whose intelligence matched his courage, and who sadly passed away this year. He did not study the sea beds, but the stars, drawing similar wisdom from them.

This man, Stephen Hawking, clearly described the role you need to play in this uncertain world: "Scientists have become the bearers of the torch of discovery in our quest for knowledge." A torch that should light the path for all of us, in particular our political leaders. We need this intelligence, as this: "Intelligence is the ability to adapt to change."

With these few lines, he summed up the challenge which lies ahead perfectly. Let us rise to this challenge. With you.

Thank you.