I.

Europe is struggling with itself. Once again, national interests are being given priority over the European common good. The founding of the European Union 61 years ago, which represented a great peace-making enterprise, risks sinking into oblivion. When the Treaties of Rome were signed at that time, they were linked to the belief that the great challenges ahead should be overcome together in the future. This was a wise and far-sighted decision. At that time, Konrad Adenauer said that the Treaties were beneficial for every member state, for Europe and for the world (“If Europe unites, it will not only benefit itself and its states, it will benefit the whole world”). Thanks to this decision, Europe gained in attractiveness over the following decades. This should be remembered today, when the priority of national interests is being promoted by means of slogans. Slogans do not replace politics. They offer neither prospects for a European future nor solutions to problems in the member states of the European Union. Slogans unsettle, create exclusion and lure into national isolation.

The European tradition has also been shaped by the success story of its science and universities. The idea behind European universities is education through science. This is recognized worldwide and, for example, has also found its way into leading American universities. It corresponds to the conviction of European people that human being with their talents holds a special position. The Berlin Declaration on the 50th Anniversary of the Treaties of Rome (2007) states that: "Europe’s wealth lies in the knowledge and ability of its people; that is the key to growth, employment and social cohesion". Science is part of European culture – and science has always been European and internationally oriented. This is proven by several international university partnerships and international research projects and by the European Research Council and the research framework programmes in Europe, most recently HORIZON 2020.
The international nature of science and research offers great opportunities – especially now – and this is incompatible with any regression to primarily national interests. In science policy, science is regarded as the diplomacy of trust. An outstanding example of this is the relationship between Israel and Germany. Long before the first journey of a political delegation from Germany to Israel took place, a group of the Max Planck Society travelled there. When political contacts were not yet possible, science was able to establish an initial connection between the two countries and paved the way for the later establishment of diplomatic relations. Scientific relations between Israel and Germany have continued to remain excellent to this day.

II.

Science as diplomacy of trust is also a good guiding principle for Europe today. If we look at the development of science and research centres in Europe in recent years, we will see both light and shadows:

- The Lisbon Strategy, adopted at a special summit of the European heads of state and government in Lisbon in 2000, aimed to make the European Union the most competitive and dynamic knowledge-based economic area in the world within 10 years. The programme which followed is known as "Europe 2020". Innovation is described in both programmes as the engine for economic growth in Europe. Another goal was to invest 3% of gross domestic product in research and development. The decisions were persuasive; their implementation was difficult. To date, investments in research and development are well below the 3% target.
- The European Research Council was founded in 2007 under the German presidency. It established financially attractive and common research funding and promotion at European level.
- HORIZON 2020 is the largest EU research and innovation programme in the history of the European Union. It includes nearly 80 billion euro of public investments for the years 2014 to 2020. This should also help attract further investments from forward-looking companies. In this way, the European Union defines itself as a union of innovation. A further aspect is the participation of European countries in major international research projects such as the European Molecular Biology Laboratory (EMBL), the European Synchrotron Radiation Facility (ESRF) and the European Organization for Astronomical Research in the Southern Hemisphere (ESO). Also worth mentioning is the European X-ray laser XFEL, which was inaugurated in 2016 in Hamburg.

Although the 3% target has not yet been achieved, the above mentioned initiatives have led to a significant increase in financial investment in research and development. Above
all, these decisions in the field of research policy have made clear how much innovation is a key to future prosperity in Europe.

Today, education, science and research are indisputably recognized internationally as the key to good future prospects for our societies in the 21st century. Europe must face strong competitors in this regard. This is as true with regard to the USA today as it has always been, and it is now also true for countries like South Korea and China. This is another reason why the 3% target must be upheld. Some current debates, for example those about European contributions to NATO, neglect this important target. Science must highlight its importance vigorously. Special attention within future initiatives should be paid to the situation of young scientists. The current situation in many countries of the European Union is unsuitable for promoting young talents in a sustainable way. A new research framework programme of the European Union starting from the year 2021 must focus on this aspect.

Finally, there is a need for new ideas in order to truly enable all the member states of the European Union to participate in European research framework programmes. One of the downsides of the current situation is that more and more countries do not have their own resources at their disposal to seize the opportunities offered by such programmes.

III.

My previous remarks have described the context of research policy for our topic, which is the "reorganization of biomedical research". What we are speaking about here are facilities, financial investments and new European cooperation possibilities in the field of health research. The special public responsibility in research policy does not only concern financial investments. It also concerns suitable facilities for promoting research. I shall illustrate this in the following part.

I will take as an example the founding of the German Centre for Neurodegenerative Diseases, which was inaugurated in 2009 in Bonn. The starting point for the founding of this centre was the demographic developments in Germany, which were comparable to those in all other European countries. It tells a success story in the field of medicine: we live considerably longer than previous generations and we speak of societies of long life. In these societies, however, illnesses and multiple medical histories occur more frequently, especially in connection with age. In particular, these include neurodegenerative diseases such as Alzheimer’s and Parkinson’s. Forecasts in Germany indicate that in the light of demographic change, up to four million people will be
affected by dementia by 2050 if we fail to make any significant progress in prevention and therapy. This is the reason why the Federal Government in Germany has decided to establish its own research centre for neurodegenerative diseases. This has given us a new and unique facility to better exploit the potential of our research resources. The centre consists of several efficient facilities, which are jointly financed by the central state and the federal Länder in Germany. The foundation of the centre was possible because the research on neurodegenerative diseases in Germany is carried out at high level and has an excellent reputation worldwide.

The founding of the German health research centre for neurodegenerative diseases is linked to the following three aspects:

- We bring together the research nationwide - across disciplines and as international leaders. The DZNE centre is more than just a place where excellent science comes to life. In the centre, research is carried out by joining forces and on the basis of a common strategy. This enables us to increase the efficiency of dementia research dramatically.
- The DZNE centre covers the entire spectrum of patient-oriented research: we need to know more about aging processes and the causes of age-related diseases. We need new approaches in therapy and prevention. And since there are as yet no satisfactory treatment options, we also need more research into care and the care of dementia patients.
- The DZNE represents a type of research that puts the human being at the centre and focuses on the benefit of patients. To do this, we need to shorten the path from research to clinic, thus promoting transmission. That is why the DZNE also has the task of bringing knowledge from research to the patients’ bedsides and thus to patients themselves more rapidly. What is needed is close cooperation between non-university and university research, including university hospitals – for the mutual benefit of both. This focus on transmission is unique, and since a single facility cannot handle this alone, forces are joined nationwide. What we therefore need are long-term targeted research centres.

Here I have addressed one central task of an effective research policy: the creation of facilities in which the best scientists from various specialist fields can work together in an intelligent network, regardless of which research organization, university or federal state in Germany they work in. The existing resources should be employed in the best possible way. A national research centre with satellite facilities provides an excellent framework in this regard.
The Federal Government's partner in the establishment of the German Centre for Neurodegenerative Diseases is the Helmholtz Association. The founding of the DZNE nine years ago was linked to the intention of permanently bundling and strengthening the existing capacities in health research also in view of other common diseases. In the intervening years, the research centres on common diseases have been strategically developed and more German centres of health research have been established. These include the German Cancer Research Centre, the German Centre for Diabetes Research and the German Centre for Cardiovascular Diseases as well as the German Centre for Infectious Diseases. The coalition agreement of the new Federal Government provides for the founding of another German health research centre. These centres are the flagship of internationally visible, competitive, top-level research.

Nine years ago, a breakthrough in health research was anything but a matter of course. Despite or perhaps because of the financial and economic crisis, the then-Federal Government very consciously decided to significantly increase investment in research and development. In a single legislative period, the budget of the Federal Ministry of Education and Research in Germany was increased by 35%. We believed that, especially in difficult times, Germany as research country should be sustainably strengthened. For the establishment of the German Centre for Neurodegenerative Diseases, we were able to engage Professor Nicotera, an internationally renowned researcher, as Scientific Director. He made the creation of the centre a great success story and I would like to thank him here for that. The success of his work has significantly contributed to the creation of further centres in Germany by the Federal Government and the federal states concerned.

IV.

Why are we speaking about the developments in Germany here in Rome today?

Our experiences in Germany encourage us to think about similar facilities in Europe. I have already said that the demographic trends in European countries are comparable. The same is true for their consequences – for patients and their families as well as for the developments in health systems, especially in economic terms. Science and research need consistent and long-term financial investments. Even though we are also speaking about many other issues in Europe, this must not be forgotten. Progress in dementia research, cancer research, cardiovascular diseases, and multiple medical conditions which are dealt with by geriatric medicine is also associated with progress in health care systems. Investing in research leads in the long term to positive consequences for the people concerned with regard to
diagnostic options and therapies. Prevention and early detection have positive effects on the health system.

So, if we are thinking about the next European Research Framework Programme, then this is the right time to think about European health research centres. If I am properly informed, the preparation of a new European Research Framework Programme includes the introduction of a section called "Medicine in curriculum ". The EU Commission has planned €7.7 billion for health research in the health cluster. In addition, there are further as yet unquantified sums from, for example, the European Research Council. The programme initiatives should focus on dementia. Negotiations are ongoing, so proposals are still possible.

To Europe, as to every member state, the principle applies that public responsibility in research policy relates to financial investment on the one hand and initiatives for pooling forces on the other, and thus it also has a conceptual task. European health research centres could therefore represent an interesting European vision.

V.

I shall repeat my previous question. Why are we talking about this here in Rome?

Italy and Germany can strengthen their cooperation in science and research through a joint initiative to set up European health research centres. They are already working together on the aforementioned large-scale European research projects. There are excellent researchers in both countries, including in the younger generation. There are several cooperation partnerships between universities in Italy and Germany. Many Italian and German researchers work together on European research projects.

Science as diplomacy of trust – now is the right time in Europe to devise a vision of Europe 2030 as a research hub. Now is the time to give a chance to young talents in the field of science. Now, Italy and Germany should take the initiative! European health research centres can become an important part of the European project.