Conference: Space against Youth Unemployment
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Title of speech: Hi-tech as a crisis fighter and as a path to a better tomorrow

Introduction
The financial and economic crisis hit hard on the European economy. This led to skyrocketing unemployment in some countries, in particular in the South and among the younger generation. Youth unemployment has enormous costs. This holds true for both financial but in particular for social reasons. As compared to other countries Austrian youth unemployment is low but even here the purely financial cost is estimated to be around 1 billion Euro.
On the other hand youth unemployment always had and still has a catastrophic and long-lasting impact on our society. For countries, such as Greece, Spain or Portugal, where 50% do not have jobs you do not need to be historian to understand that this can only lead to social unrest. If we should believe the figures of the UN youth unemployment in these Southern European countries equals or is even higher than in Tunisia or Egypt. As we know in the “Arab spring” it was the lack of economic and political prospects that drove the younger generation to revolution. It is however still unclear whether the final outcome of these revolutions will be overall positive or not. This means for Europe in the worst case that rising unemployment could harm our democratic system, too.

The origin and the development of the crisis
Let us recapitulate how this crisis all started. One prerequisite for this was globalisation. Globalisation is not a brand-new phenomenon. There was worldwide trade and elements of globalisation which go back to the middle ages and beyond. There was the era of the European discoverers and the global empires under European rule. There is also a history of violence and wars initiated and/or fought on European soil. The negative climax of this was the first half of the 20th century. Then after 1945 that part of Europe saw a remarkable economic success story under US influence. Till the mid-1970s and in principle to a lesser

extent till the end of the cold war in 1989 our worldwide economic system remained quite stable. Since then Russia, Brazil, China and India with enormous natural and/or human resources have left their isolation and re-established their place in the world economy. Dependencies and competition have grown. The world labour supply has doubled within a short time.

Around the time of the fall of the iron curtain we were also faced with a remarkable shift of paradigm as far as our financial markets were concerned. The new paradigm was “anything goes”. And risks were not taken into account. In any case if there was a risk there seemed always a means to insure the risk. This already led to bubbles and imbalances in the 1990s and finally culminated in the Lehman collapse in 2008. So the recent crisis started in the US but did not remain there because of the globalised interdependencies.

This hit in particular on Europe because the political and economic status of the European Union exposed some particular vulnerability. For instance, there is the incomplete institutional architecture of the European Union and in particular of the Euro. There is a lack of political and economic integration, especially with respect to our financial and banking systems. There are also the imbalances in competiveness between European countries. And there are growing public debts, which are very often the consequence of the bail-outs for system-relevant banks. That is where we are in Europe. There are signs that we could get out of the worst recession but the prospects remain gloomy. Overall growth rates are low and unemployment high, including the staggering youth unemployment.

In addition to tackle increasing public deficits unimaginative austerity policy worsened the situation in several countries and created nearly catastrophic political side effects. There is no doubt that more solid public finances are needed. In the long run you can only spend what you earn but it is obvious that if your car is on blank ice you need to slowdown smoothly if you do not want to risk a total crash.

In this setting the Austrian Council for Research and Technology Development has recently published a book with the title “Austria 2050”. The publication sheds light on Austria’s future in a wide range of political and societal areas. A lot of the findings can be transferred to other countries.

A pertinent finding is the political stagnation with respect to the key factors of the future. In some areas money is spent in a way that lacks consideration of the real challenges. For
example: although life expectancy has increased the age of retirement has not been significantly extended. This practice clearly is at the expense of the younger generation.

Last year the Austrian Council for Research and Technology Development hosted a conference with the former Swedish Prime Minister Göran Persson. Sweden was a country on the brink of total financial collapse in the 1990s. Sweden was put under the supervision of the IMF which was described as humiliating exercise by Persson. But he said as well that this meant that there was no alternative to reforming the Swedish model. By the way this is interesting because the Swedish welfare state had been the model for a lot of other countries before.

After all Sweden made it, increased its competitiveness and got its public finance in order but still invested in the right things. Today Sweden is again one of the leading countries in almost any ranking related to education, research, innovation or well-being. Still, Sweden has some homework to do. In Sweden youth unemployment for instance is very high, and especially the economic and social integration of the second and third generation of migrants turns out to be a challenge. Persson rightly points out that politics is continuous and permanent change management.

*Investment in education, research and innovation and its impact on economic development and employment*

We should take the current crisis as opportunity to do the right things and shape the future. In his visions about our economic system the great Austrian economist Josef Schumpeter saw innovation as the key to our future. It is what he described as the process of “creative destruction”. This can also be applied to disruptive events. Schumpeter saw it as “a fundamental impulse of our system that new consumers’ goods, the new methods of production or transportation, the new markets, the new forms of industrial organisation set and keep the capitalist engine in motion.” He added that “by nature capitalism was a form or method of economic change and [...] never could be stationary.”

In the context of nowadays recession or low growth and its rising unemployment figures let us not forget about what another great economist, John Maynard Keynes, said. Similar to what he suggested as response to the Great Depression we must acknowledge that public investment into the future is one key element to create growth. Beside our long-term path to solid public finances we need as well a reasonable and balanced policy for this. Economic
growth is a product of work, capital and technological progress. Thus it is widely accepted that education, research, technological development, innovation and an adequate infrastructure are the underlying factors for technological progress. Due to multiplier effects the return in terms of growth and employment will always be higher than the investment itself.

So there is agreement that we need education and research and investment in hi-tech industries. But how is it then possible that in several European countries hi-tech education still does not help you to find (meaningful) employment? Looking carefully it is true that the economic figures are sometimes so bad that this seems the case. On the other hand it has been empirically proved that education increases labour participation. Even under very bad circumstances the unemployment risks are lower for those with higher education. In addition, for instance engineers, who cannot be absorbed by the labour system in some EU countries, have left to find work in other countries. For a functioning common market this is not necessarily bad and seems only natural.

**Specific measures to fight youth unemployment**

The initial experience in the labour market has a profound influence on later working life. Getting off to a good start facilitates youth integration into the world of work and lays the foundation for a good career, while it can be difficult to catch up after an initial failure.

Hence, what can be done to fight youth unemployment? Among others, the OECD in its recent publication “Jobs for Youth” has some good answers. According to the OECD, governments must prioritise policies that have produced cost-effective results in other countries. Measures which according to the OECD should be prioritised by governments are for instance:

- Move towards early intervention programs and effective job-search assistance.
- Strengthen apprenticeship and other dual vocational training programs. Austria has some good experiences in this area.
- Encourage firms to hire youth, by offering temporary subsidies.

The OECD has also developed an Action Plan for Youth which should tackle the current youth employment crisis but also looks into the long-term employment prospects.
The space sector

Obviously in this regard looking at the potential of the “space” sector is an interesting exercise. In general anything related to space gives a boost to our human imagination. Moreover, space based services are helpful in our daily lives, e.g. in the fields of telecommunication and satellite navigation. Manned space exploration led to many inventions with widely used applications elsewhere: better cardiac pacemakers, optimised water filter technology, etc.

Space is a challenge to all mankind and has therefore led to international cooperation at a fairly early stage. In Europe the ESA\(^2\) has been a platform for cooperation for some time. Moreover, the last Treaty changes\(^3\) gave the EU a specific mandate in space policy.

According to recent surveys\(^4\) three quarters of Europeans expect that space derived services and space technologies are important for our policies on transport, environment, and security. And even more relevant for today’s discussion over three-quarters think that space is important for industrial competitiveness, growth and creation of jobs.

Space activities require highly-skilled and trained personnel and lead to innovations with potentially wide non-space use. We can therefore expect a positive impact on the overall economic performance.

Austria has for instance around 1000 employees in the space sector, both research and industry.\(^5\) It is a small sector but has potential to grow. Moreover, it is very likely that there is a considerable spill-over effect from space to other sectors.

Closing remarks

Let us summarise the message. Youth unemployment is one of the most dangerous side-effects of the lingering European economy. This puts our democratic systems at stake. My personal call to the European governments and the European institutions is therefore to

\(^2\) European Space Agency
\(^3\) Lisbon Treaty, 2009
\(^4\) Flash Eurobarometer 355, September 2012
\(^5\) Weltraum Zukunftsräum, Strategie des bmvi für österreichische Weltraumtätigkeiten, November 2012
invest in our future by intelligent public spending. Let us invest in education, research and development, hi-tech industries, and appropriate infrastructure. This includes space related activities such as the pan-European flagship programmes Galileo\textsuperscript{6} and Copernicus\textsuperscript{7}.

Thus the budget reduction of the recently adopted EU research programme Horizon 2020 was not the right signal. Let us avoid something like that in the future. In this regard let me also repeat how the former Swedish Prime Minister Persson put it at this year’s conference: “the art of politics is not in being elected. Getting re-elected is a bit more difficult. If you do the right things it might be that you are not re-elected but if you do not do anything you will definitely not being re-elected.” With this in mind it is also an easy choice.

Let me conclude with another quote because I am aware that politics is about finding compromises and doing the right things is not always an easy task. Count Kaunitz, the Austrian Chancellor at Maria Theresia’s time in 18\textsuperscript{th} century said that “a lot of things are not done because they seem difficult but clearly a lot of things only seem difficult because they are never done.”

Hence let us take a chance at this conference and explore a few new ideas.

Thank you for your attention!

\textsuperscript{6} Mainly for satellite navigation
\textsuperscript{7} The former programme for Global Monitoring for Environment and Security (GMES) mainly for space-based earth observation and monitoring for environment and security