„More Effective Public Workforce Programs

through Comparative Performance Monitoring“

(Washington, 13. November 2018)

“The Skills Needed by a 21st Century Labor Force“

Good morning, ladies and gentlemen!

- I am very pleased to address you today on behalf of our Federal Minister of Labour, Social Affairs, Health and Consumer Protection, Ms. Beate Hartinger-Klein, who is sorry of not being able to attend our meeting today and who sends her best wishes for a successful dialogue.

- For Austria, the **dialogue with experts from the US** regarding the topics we will discuss during the day is an **excellent opportunity** because of the pioneer role of US researchers in this field and the **highly developed and long-standing evaluation culture** in your country.

- From the very start of her mandate, our minister stressed the importance of **evaluations** and **evidence based policies**. This is in line with the general requirement of **impact assessments for all legislative measures**, as laid down in the **budget reform** 2013.

- The objective to design and monitor Labour Market Policy in a way that ensures the most **effective and efficient use of means** has already been the guiding principle in the last decades, but gains importance in times of tight budgets.

- In **Austria**, we can build on a comparably **good database for evaluation studies** due to the availability of encompassing **administrative data:**

  - The **Data Warehouse**, developed and used by the Ministry of Labour and the Public Employment Service serves as the "backbone" for the ongoing monitoring of all Labour Market Policy Programs.

  - The **Labour Market Database**, which was developed by the Ministry of Labour and the Public Employment Service, serves as the main database for evaluation studies. Researchers of the Austrian Institute of Economic Research know the advantages and limits of this database quite well, we will hear some remarks about this issue later on.

- In the last 15 years, many **evaluation studies** have been conducted to study the effectiveness and efficiency of single measures or the whole range of labour market policies. Helmut Mahringer has been involved in both types of endeavors and will

tell us some experiences and methodological conclusions later on.

- In addition to the "mainstream" of evaluation programs based on administration data only, there has also envolved a tendency to **combine different data** (for example, **administrative data and survey data**) in the last years to enrich the database and to gain more information about individuals. This method was used, for example, to study motivations and effects with regard to Training Leave or differential effects of counselling and placement activities of the Public Employment Service. **Experiments** are still quite rare in Austria, in part due to concerns quite common in central Europe (but much less in the Nordic countries). But there was a study commissioned with regard to discrimination in the recruiting process of companies. We will hear more about this issue later on from Georg Fischer.

- In the last part of my welcome remarks, I would like to stress **recent developments** with regard to **digitalisation** and **new technological opportunities**.

- At the moment, the **Public Employment Service** is starting to implement a new assistance tool for screening and **profiling** purposes based on administrative data. This profiling "based on algorithms" has raised a lot of public discussions and exchanges

of pros and cons of these tools. As we are just at the beginning of this journey on the road to "deep digitalisation", it is important to stress from the start that policy orientations and politically defined objectives guide technological solutions, not the other way round.

- Once and again, our minister stressed the need to develop **taylor-made solutions for specific needs**. Evaluation studies that show **what works for whom (and why?!)** and what the "comparative advantages" of specific instruments are will be an important cornerstone to achieve this objective.

- I am convinced that our discussions today will help us to get a clearer picture about where we stand and how to improve the evidence base for **"future proof", adaptive policies**. In this vein, I am looking forward to fruitful discussions.

Ladies and gentlemen!

- ✓ It´s a **particular pleasure** for me **to address** such an important topic as the "**Skills needed by the 21st century**" at our todays conference. I´d like to start with some general remarks!

In General

- ✓ **Skills are extremely important in the modern economy and in everyday life**. It is commonplace to read that skill requirements are **evolving very rapidly nowadays** under the pressures of on-going **structural changes**, **demography, globalisation** and **technological change** (the so-called "New Machine Age/**4th Industrial Revolution**"). At the same time, the supply of skills often struggles to match these rapidly evolving demands.

Digital Technologies

- ✓ The **pervasiveness of digital technologies in daily life** is fundamentally changing the **way individuals access and elaborate knowledge**. Individuals have to **process complex information**, **think systematically** and t**ake decisions weighting different forms of evidence**. More fundamentally, in order to seize the new opportunities that digital technologies are opening in many areas, individuals have to develop the **right set of skills** to make a meaningful use of these technologies.
- ✓ Increasing use of **ICTs at work** is raising the demand for new skills along **three lines**: ICT **specialist skills** to programme, develop applications and manage networks; ICT **generic skills** to use such technologies for professional purposes; ICT **complementary skills** to perform new tasks associated to the use of ICTs at work, e.g.:

communicate on social networks, brand products on e-commerce platforms or analyse big data.

- ✓ A significant number of workers **using ICTs every day do not seem to have sufficient ICTs skills** to use these technologies effectively, based on the results of the PIAAC assessment. The proportion of workers with **insufficient ICT generic skills** is, on average, 9% for communication and information search and over 40% for office productivity software. The demand for **ICT specialists** has been growing fast over the last years. The diffusion of ICTs is also changing the way work is carried out, raising the demand for **ICT-complementary skills**. A major finding of OECD-studies is that changes in the **tasks set** associated to increasing use of ICTs tend to be **larger for people in low-skill occupations** than for those in middle and high-skill occupation. On average, intensive use of ICT at work is associated with tasks that require **more interaction with co-workers and clients**, **more problem solving** as well as **less physical work**.

How and what to learn and teach!

- ✓ All in all, **new requirements and required competences** involve different technical, interdisciplinary and "cross-sectional competences" which can be developed and expanded at **different learning locations** such as **schools**, **universities**, in **courses** or **seminars**, at the **workplace** etc. and with different forms of

learning. It should be noted here that **learning causes**, **learning content** and the **appropriate learning formats and forms** of mediation (face-to-face, in cooperation with others, blended learning, learning with the aid of digital assistance systems, etc.) differ and can achieve different things. It is important to keep this diversity in mind when further developing education and training systems and offers.

- ✓ In the **education system**, the conditions must be created without which other measures cannot be effective (e.g. teaching solid basic skills, arousing interest in MINT occupations). The "success model" of **apprenticeship** must be continuously improved and adapted to new requirements (new apprenticeship occupations, new career opportunities, apprenticeship with Matura).
- ✓ In **labour market policy**, many measures are already being taken to aim for higher qualifications and, for example, to particularly promote training for **technical occupations for women** (FIT), to which current or constantly changing demand is geared (e.g. implacement foundations) or which have a strong focus on areas which will be more in demand in the future; measures which increase occupational mobility and enable employees to undergo time-consuming training could also be mentioned here (educational leave, part-time education, specialist scholarships).

- ✓ The **greatest challenge** in all forms of further training promotion remains **unequal participation**, so even greater attention will have to be paid to the development of low-threshold and attractive offers for educationally disadvantaged people.
- ✓ **Key competences** or **cross-occupational, "transversal" skills** are becoming **increasingly important** due to shorter "half-lives" of vocational qualifications. However, a broadening of the competence base or the provision of broadly applicable cognitive skills should not be equated with a general trend or the need for large-scale tertiarisation. In countries such as Austria or Germany, for example, it can be seen that the prerequisites for skilled workers for "Industry 4.0" are very good, that the corresponding training and occupations are adaptable and flexibly expandable, and that corresponding careers and income opportunities are associated with this, which in other countries are only open to people with tertiary degrees.

“Platform Industry 4.0”

- ✓ **Education** is certainly one of the central subjects in the context of the 4th Industrial Revolution (Industry 4.0) and digitalization, and plays a key role in successful digital transformation. **Digital transformation in Austria** – and not only in Austria! - can only be

successfully implemented if **essential qualifications and competences** are taught, as well as creating a suitable **environment for learning and teaching**. Platform Industry 4.0 has been addressing questions which arise from the use of Industry 4.0 and digitalization in the educational and training system in Austria. 81 recommendations have been compiled within seven fields of action which have been defined by priority – combining new and old learning methods, diversity of learning places, promoting access to learning, optimizing framework conditions, supporting co-operations, breaking stereotype role models and pursuing a strategy.

Anticipation of new job requirements and fields of employment

- ✓ There is the corny saying that **anticipation of the future is particular challenging for future events**. This is the case in particular for qualification needs because **even the companies have fundamental difficulties naming precisely the qualifications they need** for their production even five years ahead.
- ✓ In Austria, **different methods** are used in the field of **skills forecasting**: medium-term forecasts at federal and regional level (e.g. WIFO forecasts for the AMS), qualitative methods or instruments based on various "softer" data such as the **AMS qualification barometer** or the intensive use of **expert knowledge** through the establishment of appropriate discussion forums.

Regardless of the respective methods and data sources, the following applies: **anticipating future competence and qualification requirements is not a technical exercise** with exact results or "precision landings", but a dialogue with the aim of identifying relevant developments, deriving scenarios and discussing possible "futures" and options for action. It is important to involve various stakeholders and different types of knowledge and expertise.

- ✓ Against the background of globalisation, dynamic technological development and increasing competitive pressure, the Board of Directors of the AMS set up a **Standing Committee on New Skills** in October 2009 with the aim of preparing workers in good time for upcoming changes and demands. Within this framework, input from **industry experts** together with representatives of continuing **education institutions** and **social partner organisations** was used in several workshops to identify operational change processes. On the basis of the results of the workshops, curricula for initial and continuing vocational training were developed.