WHAT CAN HEIs DO TO
ENHANCE THE RELEVANCE
OF THEIR EDUCATIONAL OFFERING
AND **HOW** CAN PUBLIC POLICY SUPPORT THIS?

BeyondScale project conference, 5-6 April 2022
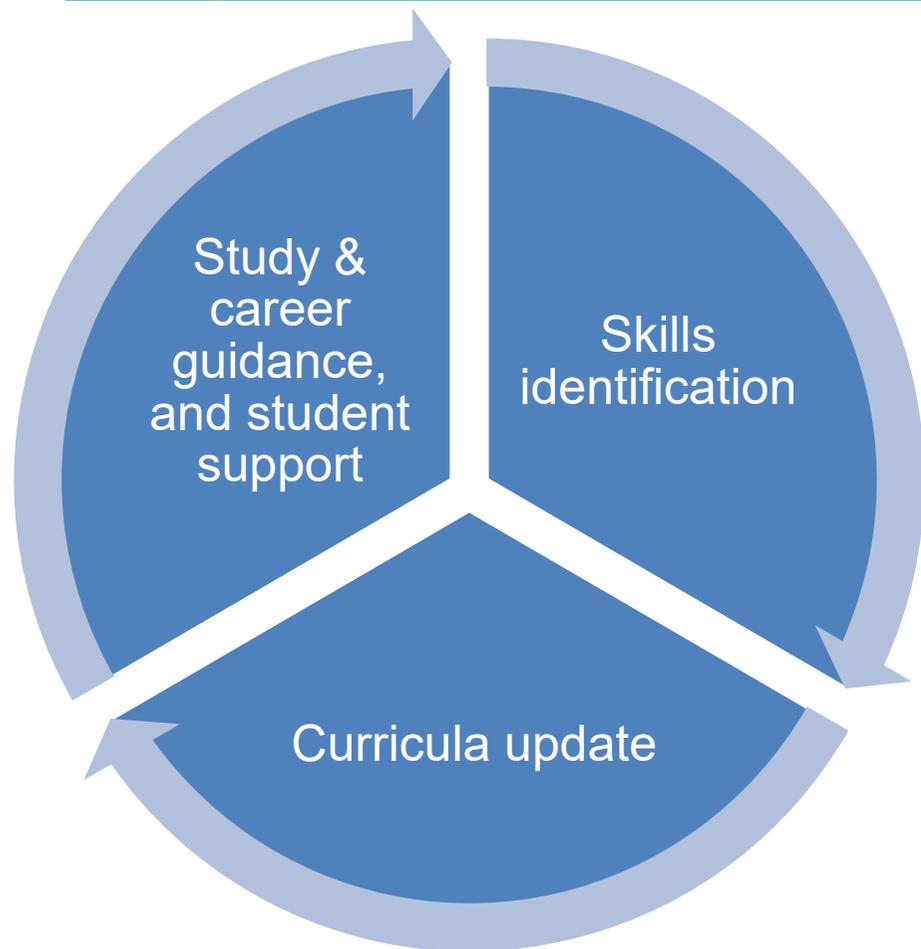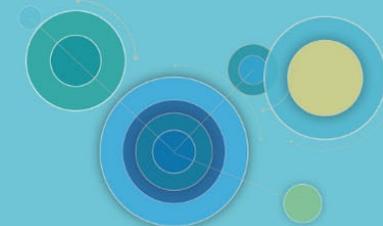Andrea-Rosalinde Hofer, OECD
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Presentation overview:

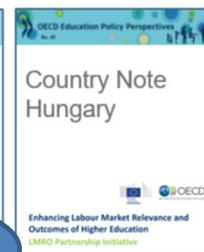**Study & career guidance, and student support**

Skills identification

Curricula update

Findings from the LMRO Partnership Initiative' country-specific analysis in Austria, Hungary, Portugal and Slovenia 2010-2022

OECD Education Policy Perspectives

Country Note Austria

Enhancing Labour Market Relevance and Outcomes of Higher Education
LMRO Partnership Initiative

OECD Education Policy Perspectives

Country Note Hungary

Enhancing Labour Market Relevance and Outcomes of Higher Education
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Country Note Portugal

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OECD Education Policy Perspectives

Country Note Slovenia

Enhancing Labour Market Relevance and Outcomes of Higher Education
LMRO Partnership Initiative

Forthcoming:

Seminar Brochures:

Nov. 2020 Using labour market information to improve learners choices and curriculum	Feb. 2022 Widening access and attracting students to fields with high labour market demand	Feb. 2022 Raising study success through student support and improved career-study linkages	March 2022 Stimulating innovation through inter/trans-disciplinarity in education and research	March 2022 Supporting improvement in teaching and learning to address students' needs and labour market demands
	Country chair: Austria	Country chair: Slovenia	Country chair: Hungary	Country chair: Portugal

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Excerpts from the Vienna Manifesto on Digital Humanism [Werthner et al., TU Wien 2019]

- Democracy
  - Digital technologies should be designed to promote democracy and inclusion
  - Fairness, responsibility and transparency of software programs and algorithms
- The Role of Research, Science, and Academia
  - The connection of different scientific disciplines is essential
  - Universities (create new knowledge, enhance critical thinking) have a particular responsibility
- Education
  - Academic teaching needs to combine humanities, social sciences and engineering
  - Education on Informatics and its societal impact must start as early as possible

Source: G. Kappel / TU Vienna, presentation at the 5th LMRO peer-learning seminar, 10 March 2022, Country Chair Portugal - Ministry for Science, Technology and Higher Education, and Directorate General for Higher Education (highlights added).

Digital skills are becoming crucial for almost all higher education graduates

Why is there a need for HEIs to increase their efforts?

- **Analysis of skills sets** ("skills bundles") demanded in artificial intelligence (AI)-related online job postings **shows growing role of socio-emotional skills** for managers, professionals and technicians:
  - Communication, teamwork and problem solving skills, and creativity and writing skills
    - Communication skills gained in relative importance (2013-2015 vs. 2017-2019), particularly "presentation skills", "being detail oriented"
    - Socio-emotional skills most important for managers (12 of the top-30 skills)

THE HUMAN CAPITAL BEHIND AI
JOBS AND SKILLS DEMAND FROM ONLINE JOB POSTINGS

OECD SCIENCE, TECHNOLOGY AND INDUSTRY POLICY PAPERS
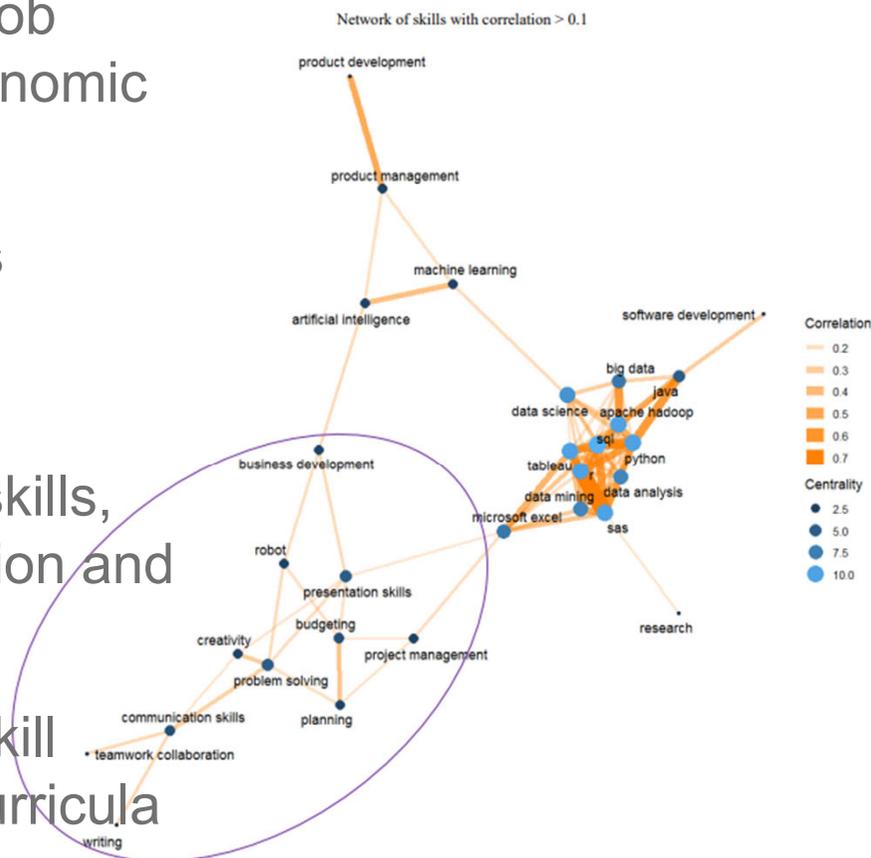September 2021 No. 120

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BETTER POLICIES FOR BETTER LIVES

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Example: Top 30 skills in AI-related jobs, US, Managers, 2017-19

- 40% of correlated skills in AI job advertisements are socio-economic skills

- "Business development" skills connect cognitive and socio-economic skills

- High centrality: presentation skills, problem solving, communication and creativity

→ Information about employer skill demand helps HEIs to update curricula and develop study guidance

Figure 7.4. Top 30 skills in AI-related jobs, United States, Managers, 2017-19

Network of skills with correlation > 0.1

Note: Managers, defined by 1-digit International Standard Classification of Occupations (ISCO) code. The identified socio-emotional skill bundles is colour coded purple.
Source: Authors' own compilation based on BGT data.

THE HUMAN CAPITAL BEHIND AI
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Skills identification and curricula update

What can be learned from current institutional practice?

- Labour market relevance is a **strategic priority** for HEIs across the sectors in the four countries
- Important role of **central institutional structures** in the collection, analysis and use of labour market information; **TTOs are still underutilised**
- Part-time students, guest-lecturers and alumni as **sources of information**
- **Greater focus** on **inter- and trans-disciplinarity** in updating curricula; annual self-evaluation reports create room & collaboration for this
- **Extension-curricula**: adding a specialisation to a study programme

Policy options

- Further develop the **labour market information system** for HEIs
- **Stimulating synergies** between research collaboration and skills development in higher education to identify emerging skills needs
- A **national platform** with information on extension-curricula studies

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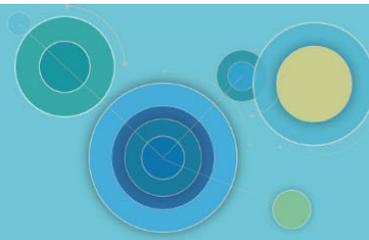
Study & career guidance, and student support

What can be learned from current institutional practice?

- **Collaboration** between **HEIs and schools** can raise interest in STEM subjects
- Students need **information** that describes the **study environment**, **academic requirements** and **student support**; this is best provided by HEIs
- **Study guidance** is important also **for higher-level studies**
- Students need **LM information** that is sufficiently specific and related to their study programmes
- **Curricula design** to help students to understand the relevance of what they learn in class
- **Flexibility** of curricula to help students complete their final thesis
- **Support** for students who return for **study completion**

Policy options

- A single, easily accessible and user-friendly **web portal** with comparable study and labour market information for prospective students
- **Support for HEIs to collect data** to design inclusive student support services