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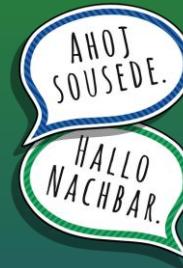
ERNILAC: **Euroregion Neisse International** **Labor Market for Academics**

04. 09. 2025, Liberec, Czech Republic

Lead Partner: Technical University Liberec 

Partner: Technical University Dresden, IHI
Zittau  TECHNISCHE
UNIVERSITÄT
DRESDEN

Timeframe: 01.09.2024 - 31.8.2026



ERNILAC – Euroregion Neisse (ERN) International Labor Market for Academics



Challenges:

1. Labor shortage (also of academics) in the ERN
 - Graduate outmigration (brain drain) → how to keep graduates?
2. Possible mismatch of taught and needed competences by employers
 - Future skill demands changing (AI, additive manufacturing) → how to react?

Objectives:

- Strengthen cross-border labor market integration
- Increase graduates' retention in the ERN
- Help align education of universities with future key competences
- Provide systematic support for (future) university graduates aligned with the needs of employers

Overview of ERN Region – German Side – Free State of Saxony

Some interesting facts on the labor market in Saxony (2024 study of Chamber of Crafts in Dresden):

- 57% of asked companies have vacancies
- Journeymen/women most sought after (48% of vacancies)
 - 13% of all vacancies are for university graduates
- 55% of all vacancies for graduates are open for more than **6 months**
- 69% of companies mention lack of applications for vacancies
- Top reasons for vacancies: Retirement of employees, employee fluctuation, **missing qualifications**

Sources: Fachkräftesituation der Sächsischen Wirtschaft, Monitoring 2024,
Handwerkskammer Dresden

ERNILAC Project - Concept

1. Situation Analysis - Research, Analyses and Expert Panel

Study: Migration and willingness to stay of graduates

Survey in 2 rounds

Study: Academic labor market

Company survey

Study: Study programs of all ERN universities

Analysis of study programs for competences and needs

Expert commision CZ / DE

Members:

- Career Service
- Chamber of Industry and Commerce
- Associations
- Employment Office
- Company representatives

2. Cross-border activities

Career Day:
Career fair with ERN companies

Workshops:
Advice for students on the ERN labor market and related topics

Excursions:
Student excursions to ERN companies to get insights

3. Further outputs

Career Compass
for students and graduates with guidance on job market in the ERN

Recommendations for political decision-makers

Recommendations for university decision-makers

competences:

- Practical entrepreneurial experience
- Knowledge of the region
- Transformation knowledge

Results so far – Workshops & excursions

1 of 3 two-day workshops for students done – ca. 20 participants from CZ and GER (2nd in December)

1 Online workshop with ca. 100 participants

2 Excursions:

- Siemens Energy (manufacturing) in Görlitz
- ZF (automotive) in Frýdlant

2 Expert Meetings



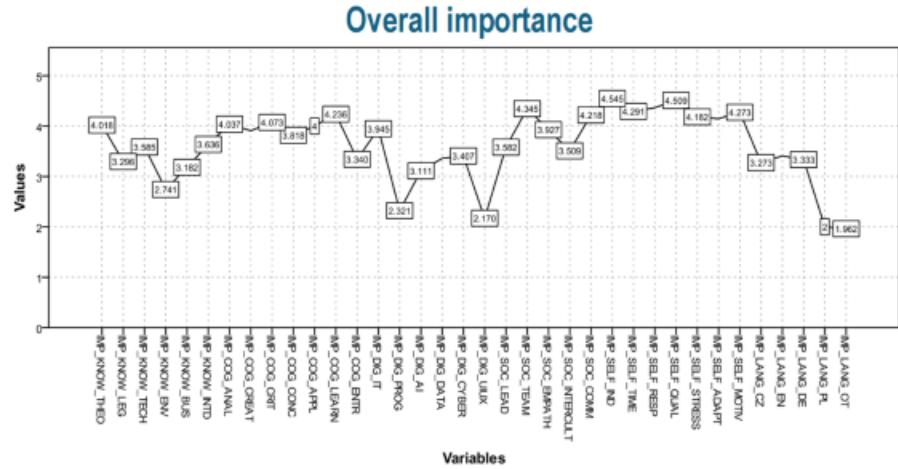
Preliminary Results – Labor Market Study

Survey sent to 2340 German and 1775 Czech companies in the ERN – 55 usable responses

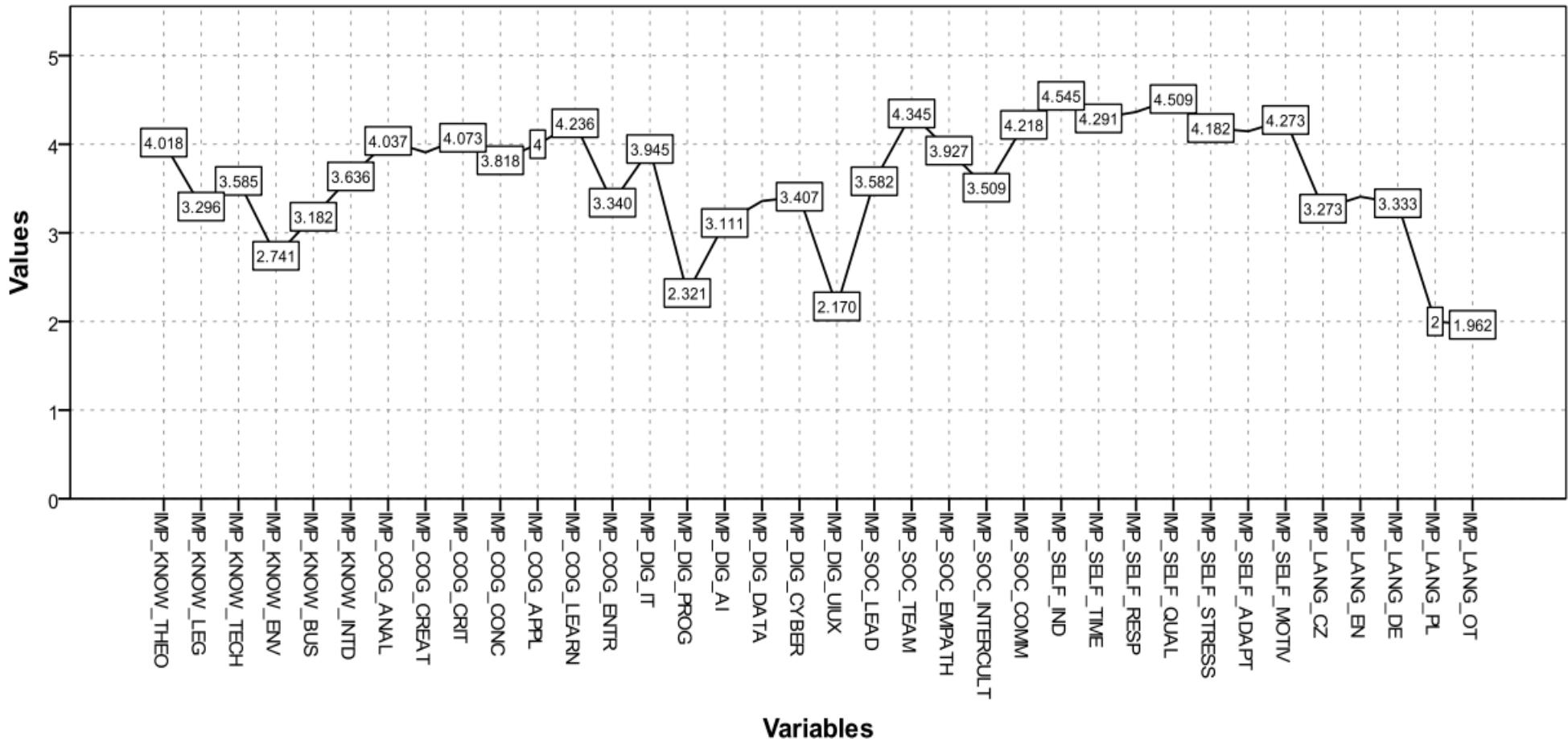
1. Rating of importance of 36 competences by companies

6 categories: knowledge, cognitive-, digital-, social skills, self-management and language skills

- Overall, cognitive, social and self-management skills are on top
 - e.g., working independently, striving for quality, responsibility & teamwork
- language skills medium importance and more country specific
- more specific digital skills (ui design and interestingly, programming) less important



Overall importance



2. How do employers rate the development of graduate competences?

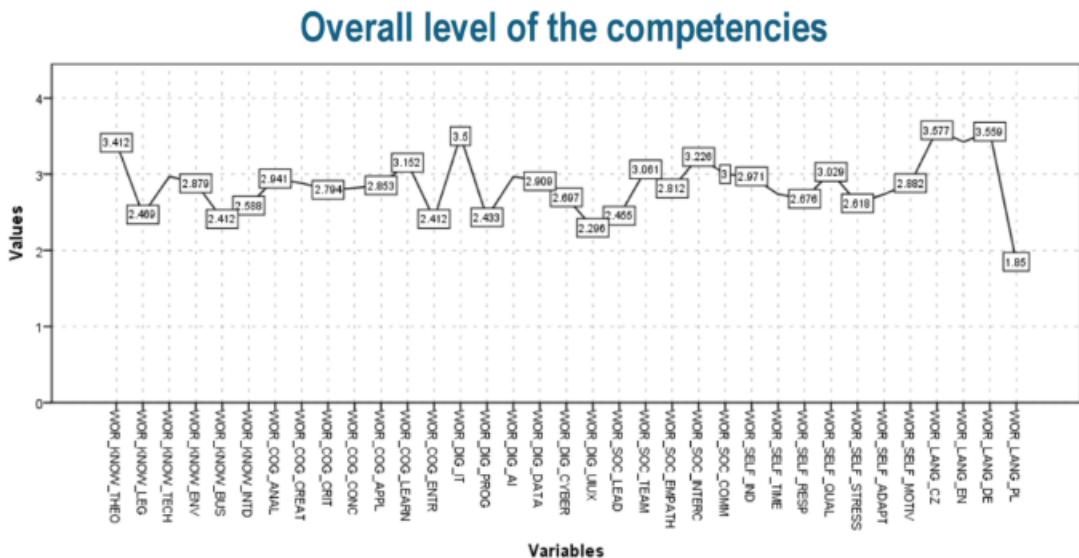
- Development of almost all competences rated lower than their importance

Most highly developed competences (3.5 of 5):

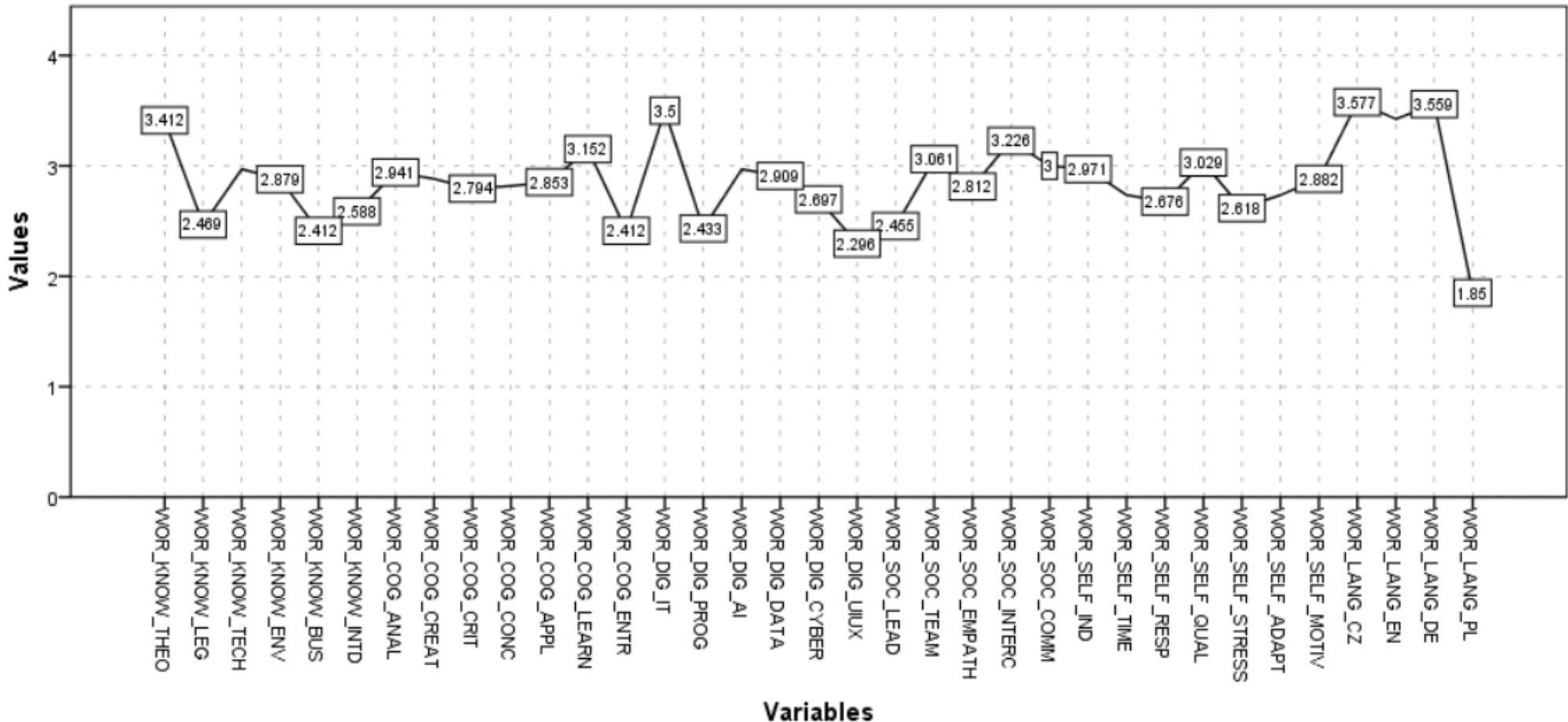
- Theoretical knowledge
- General IT skills
- Countries respective languages

Least developed competences:

- Business knowledge
- Entrepreneurial thinking
- Interdisciplinary skills
- Programming skills
- Leadership
- Teamwork
- Cybersecurity
- UI Design



Overall level of the competencies



3. What are the biggest areas of improvement in terms of competences?

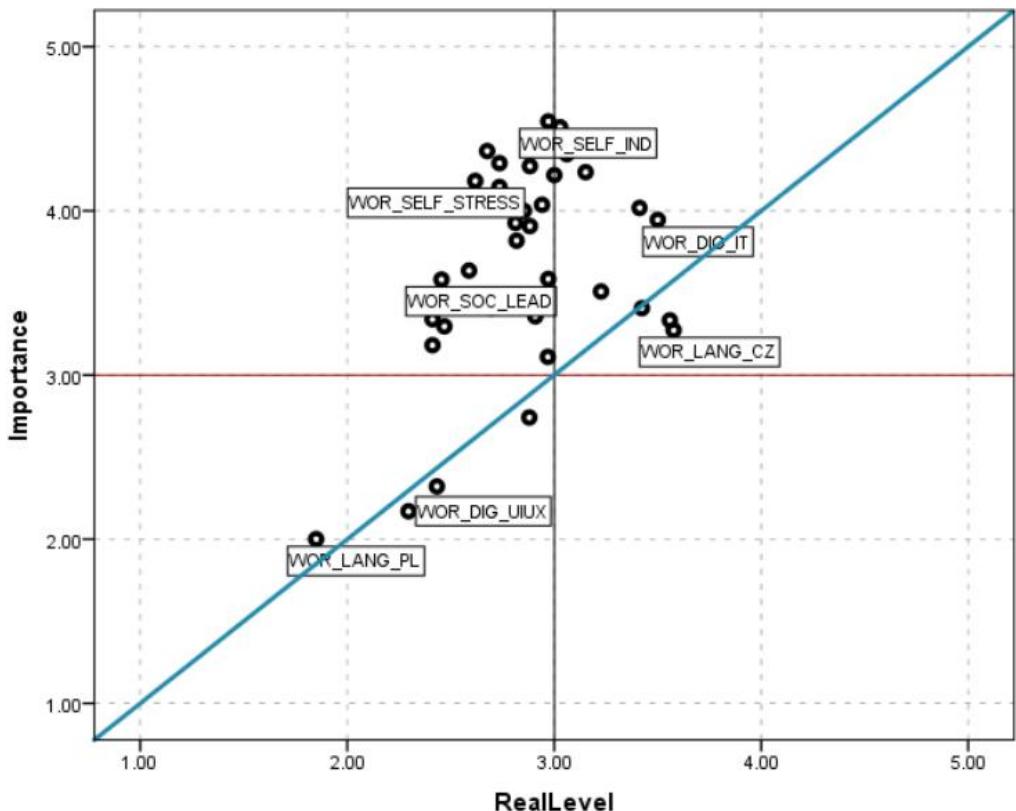
Scatterplot of Importance vs. Development level

- the further up from the line, the bigger the gap

Critical areas of improvement:

- Critical thinking
- Practical application of knowledge
- Independent work
- Time management
- Responsibility
- Stress management
- Leadership qualities

Identification of areas of improvement



4. Which competences are rated most important in the future?

Most often mentioned:

- Teamwork
- General IT skills
- AI expertise
- Effective communication

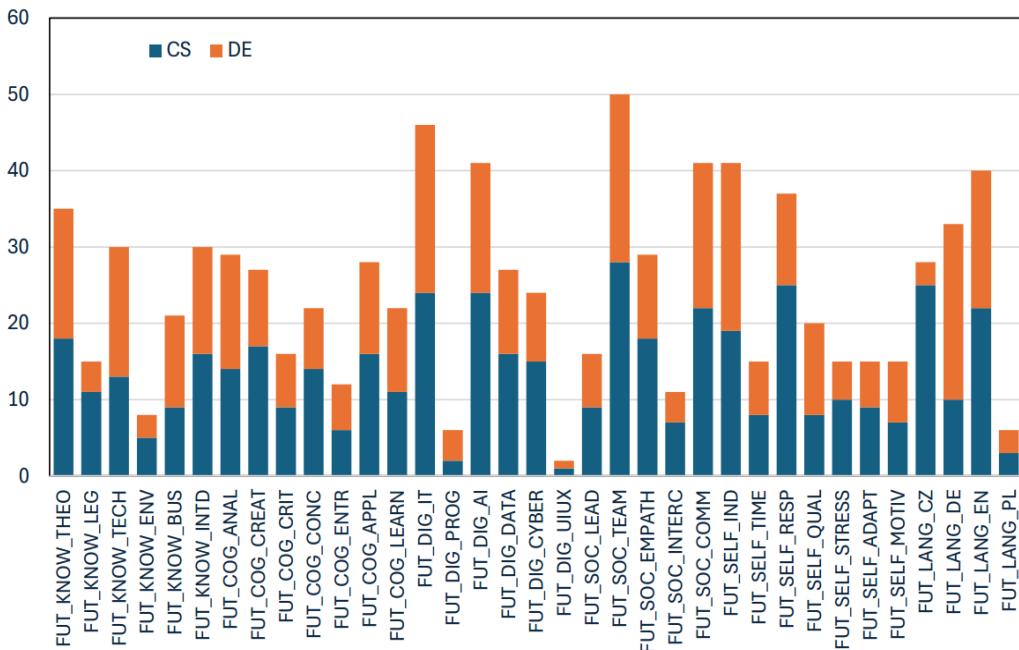
Least mentioned:

- Programming & UI design
- Environmental knowledge
- Intercultural knowledge

Biggest differences between Czech and German:

- Responsibility (81% CZ vs. 50% GER)
- Working independently (61 % CZ vs. 92% GER)
- Technical knowledge (42% CZ vs. 71% GER)

Frequencies of future competencies expected by firms from different countries

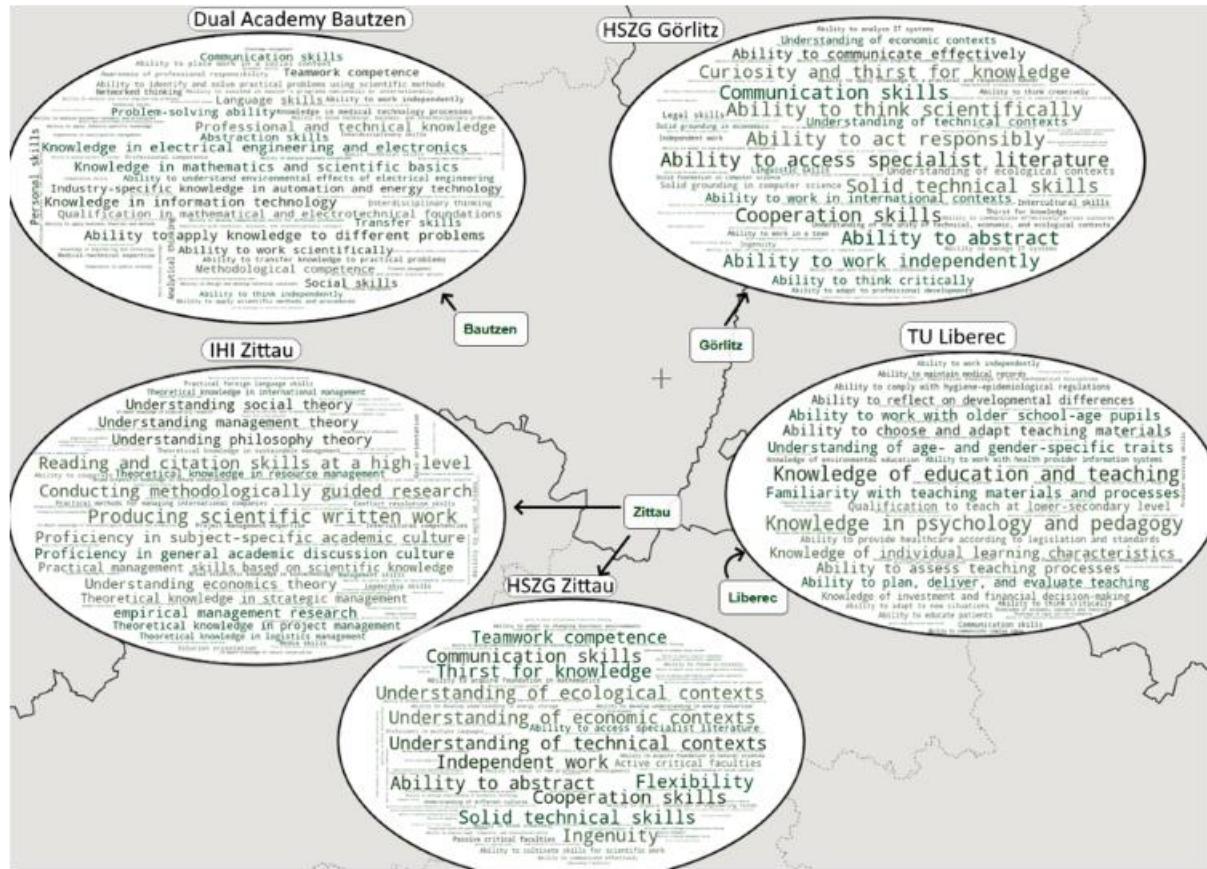


Preliminary Results – Study Program Analysis

All competences in study programs of universities in the ERN (Ger & CZ) extracted and mapped to our 36 competence categories

- multiple assignments possible

Word clouds as a first visual overview



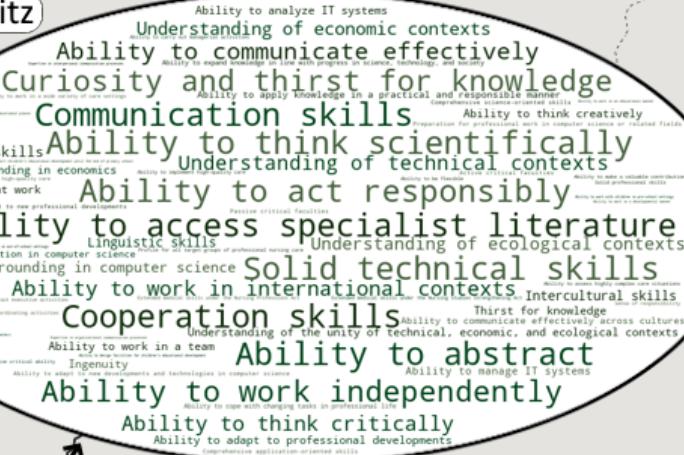
Dual Academy Bautzen



IHI Zittau

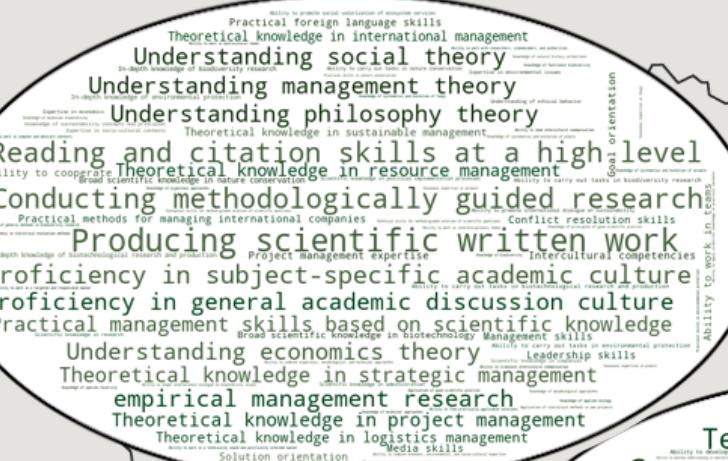
Bautzen

HSZG Görlitz



TU Liberec

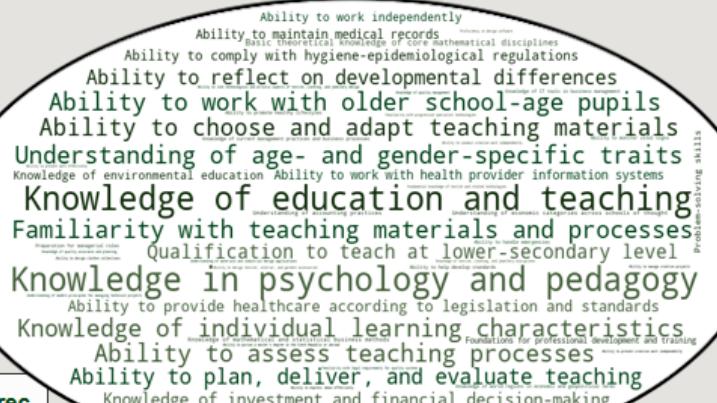
Görlitz



Zittau



Liberec



Most mentioned competences

HSZG - Görlitz

HSZG - Zittau

IHI Zittau

Dual Academy
Bautzen

TU Liberec

1.Theoretical knowledge				
2.Practical application of knowledge	2.Technical knowledge	2.Environmental knowledge	2.Practical application of knowledge	2.Practical application of knowledge
3.Business knowledge	3.Practical application of knowledge	3.Practical application of knowledge	3.Technical knowledge	3.Technical knowledge
4.Intercultural competence	4.Environmental knowledge	4.Business knowledge	4.Business knowledge	4.Analytical thinking
5.Adaptability	5.Business knowledge	5.Intercultural competence	5.Environmental knowledge	5.Business knowledge

Least mentioned competences overall

1. Language skills
2. Working independently
3. Striving for quality
4. Interdisciplinary knowledge
5. Data analysis
6. AI expertise
7. Programming

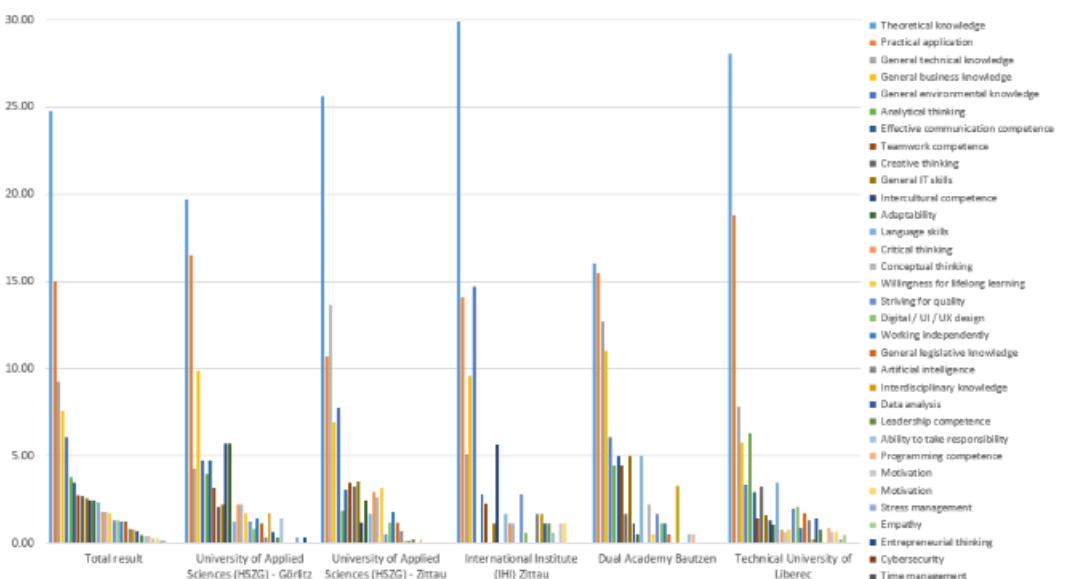
8. Responsibility
9. Entrepreneurial thinking
10. Motivation
11. Empathy
12. Stress management
13. Cybersecurity
14. Time management

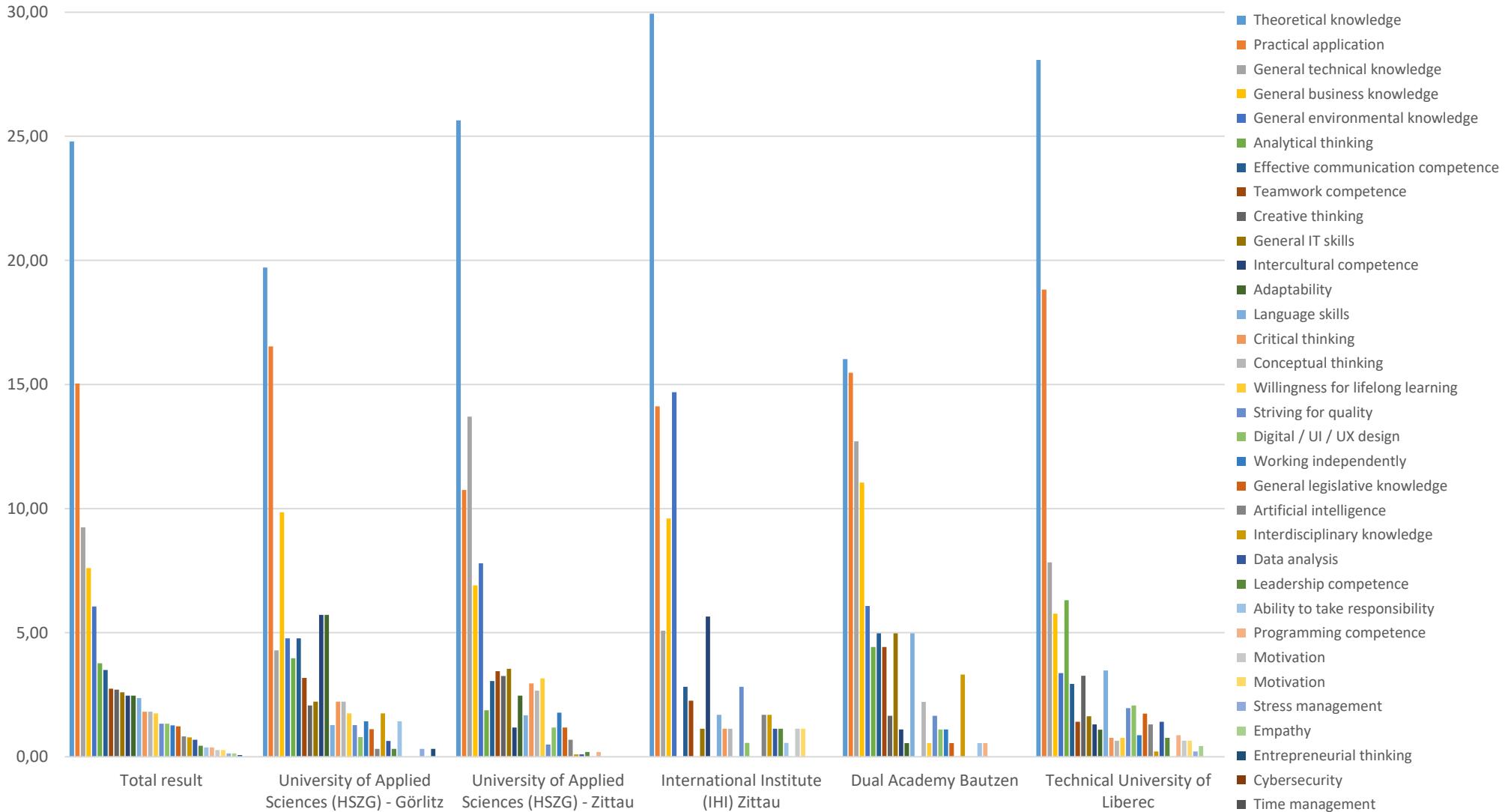
Starting here, the mentions are close to zero

Preliminary Results – Study Program Analysis

Similar competence profiles among ERN universities

- As expected, universities of applied sciences (HSZG and Dual Academic School Bautzen) less focus on theoretical knowledge
- IHI Zittau & HSZG Görlitz less technical focus, but e.g. IHI high ecological focus, HSZG Görlitz focus on creative and social roles
- Bautzen big IT focus as well as strong technical focus (like TUL)

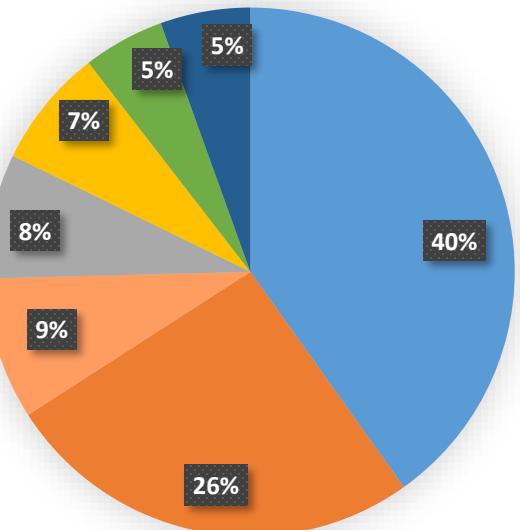




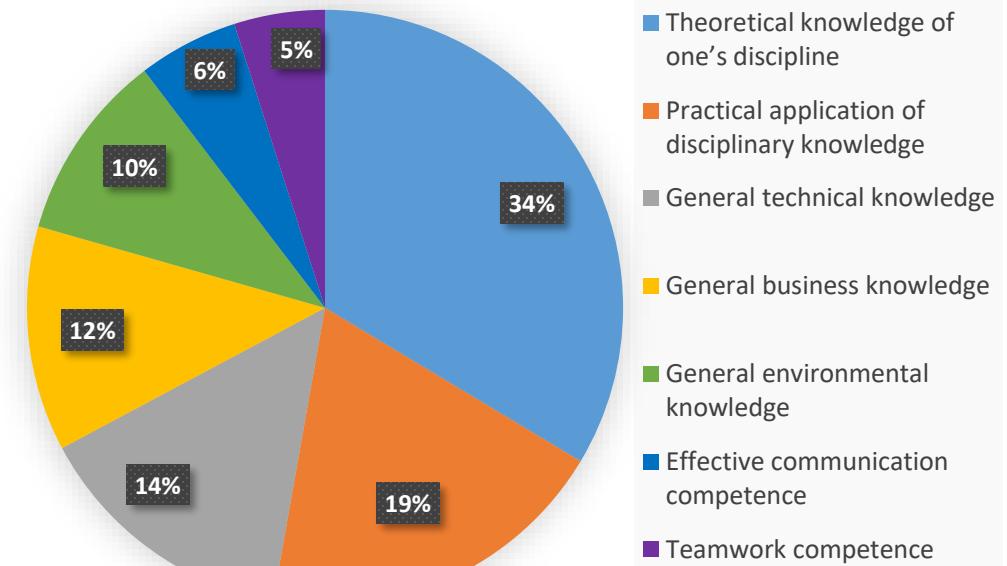
Preliminary Results – Study Program Analysis

Comparison of competence profiles of CZ and GER side

Most focused Competences in CZ



Most focused Competences in GER



Czech side more focus on theoretical knowledge and it's application, but German side more focus on business, environmental and technical knowledge in specific

**Thanks for listening!
Any further comments or ideas?**