THE EUROPEAN UNIVERSITY INITIATIVE FROM THE PERSPECTIVE OF DATA AND INDICATORS. EVIDENCE FROM ETER

ETER-RISIS webinar

13 June 2022

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This project is funded by the European Union under Service Contract EAC-2021-0170

INTRODUCING THE EUROPEAN TERTIARY EDUCATION REGISTER

- The European Tertiary Education Register (ETER) has established itself as the reference point for any analysis of higher education based on microdata, that is, on data related to individual institutions.
- It is currently supported by DG Education, Youth, Sport and Culture.
- ETER covers both university (PhD granting) and non-university institutions (e.g. Fachochschule) on the basis of microdata **validated by National Statistical Authorities** across all European Union countries and several affiliated countries.

- In particular, within the RISIS ETER dataset we select those HEIs that award the PhD as the highest degree, that is, university institutions only. We are able to compare **292 universities that are members of 41 alliances** with **1024**

MAIN QUESTIONS

- Are the HEIs participating in the **European University Initiative** structurally different from those non-participating?

Q1. Do they have **different size**, as measured by number of students or number of academic staff?

Q2. Do we see differences in the **subject mix**, or the balance across disciplines?

Q3. Do we see differences in terms of the **research orientation**, as measured by the share of PhD students out of undergraduate student population?

Q4. Are they different in terms of degree of **internationalization** of the student population?

Q1. Do they have **different size**, as measured by number of students or number of academic staff?

Variable	Universities in Alliances		Universities not in Alliances	
	Average	Number of observations	Average	Number of observations
Total academic personnel (HC)	2249	271	826	968
Total academic personnel (FTE)	1911	212	665	627
Total number of students ISCED 5-7	23.081	292	15.261	1018

Largest number of complete observations

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Members of alliances are significantly larger

Q2. Do we see differences in the **subject mix**, or the balance across disciplines?

Extended STEM

Natural sciences, mathematics and statistics

Information and Communication Technologies

Engineering, manufacturing and construction

Agriculture, forestry, fisheries and veterinary

Health and welfare.

Variable	Universities in Alliances		Universities not in Alliances	
	Sum	Number of observations	Sum	Number of observations
Total number of students ISCED 5-7 in extended STEM	2.892.198	276	3.154.702	704
Total number of students ISCED 5-7	6.762.516	276	7.827.792	704
Extended STEM intensity (%) (undergraduate)	42,8	276	40,3	704
Total number of students ISCED 8 in extended STEM	205.213	240	176.349	667
Total number of students ISCED 8	337.491	240	274.305	667
Extended STEM intensity (PhD)	60,8	240	64,3	667

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Universities in alliances do *not* differ in terms of subject mix

Q3. Do we see differences in terms of the **research orientation**, as measured by the share of PhD students out of undergraduate student population?

Variable	Universities in Alliances		Universities not in Alliances	
	Sum	Number of obser-vations	Sum	Number of obser-vations
Total number of students ISCED 5-7	6.762.516	276	15.536.049	1018
Total number of students ISCED 8	395.175	276	388.810	1018
PhD intensity (average)	5,8%	276	2,5%	1018

The total number of PhD students at universities in alliances already exceeds the number of PhD students not in alliances

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Members of alliances are more research-intensive

Q4. Are they different in terms of degree of **internationalization** of the student population?

Variable	Universities in Alliances		Universities not in Alliances	
	Sum	Number of observations	Sum	Number of observations
Total number of foreign students ISCED 5-7	734.099	260	706.790	848
Total number of students ISCED 5-7	6.378.364	260	13.367.337	848
Internationalization degree (%) (undergraduate)	11,5	260	5,3	848
Total number of foreign students ISCED 8	98.217	240	41.229	602
Total number of students ISCED 8	350.455	240	191.221	602
Internationalization degree (%) (PhD)	28,0	240	21,6	602

The total number of foresign students is larger in universities members of alliances

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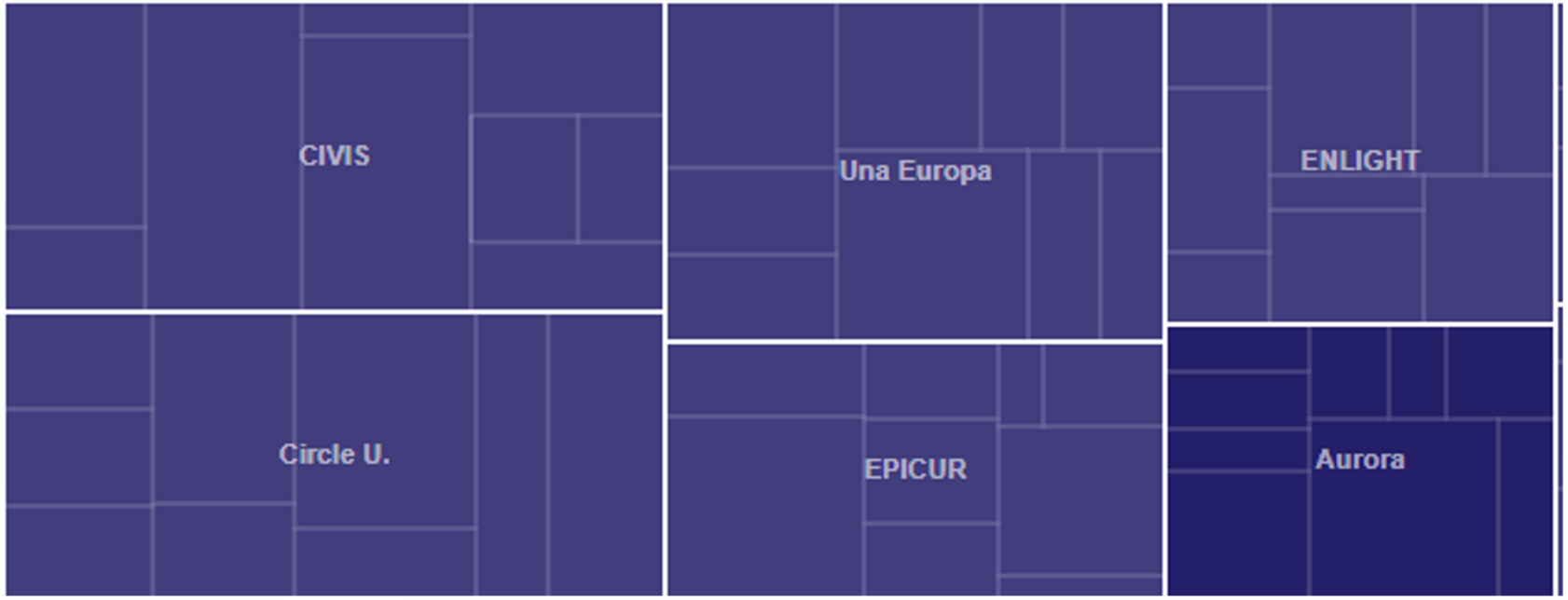
Universities in alliances have a more international student population

What could be done (further) with ETER data

- Geographic-level analysis
    - Country (e.g. % coverage of alliances)
    - Region
    - City vs urban areas; Peripheral areas
- Intra-alliance analysis
    - Diversity among members in terms of size, subject mix, research intensity, internationalization
    - Summary measure of intra-alliance diversity
- Integration with other data
    - Erasmus data (already in ETER) + mobility flows
    - Cordis data
    - Publication data (RISIS and other sources)
    - Funding (under study)
- Integration with self-description of alliances

Size and geographical balance

The **largest** 6 alliances have only 7 out of 55 universities from **Eastern Europe - 12%** - and over **7000 European projects.**



The smallest 6 alliances have 11 out of 25 universities from **Eastern Europe - 44%** - and less than **70 European projects**.

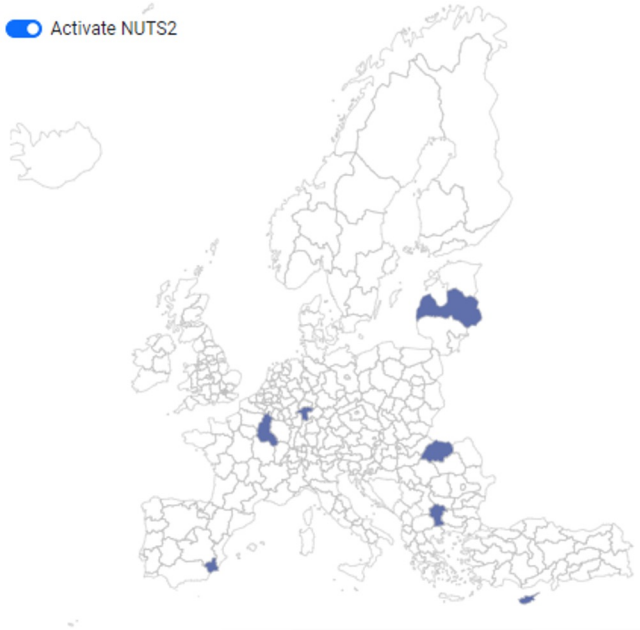
The main European Universities Initiative are dominated by Western European research-intensive universities

http://sirislab.com/lab/observatory-european-university-alliances

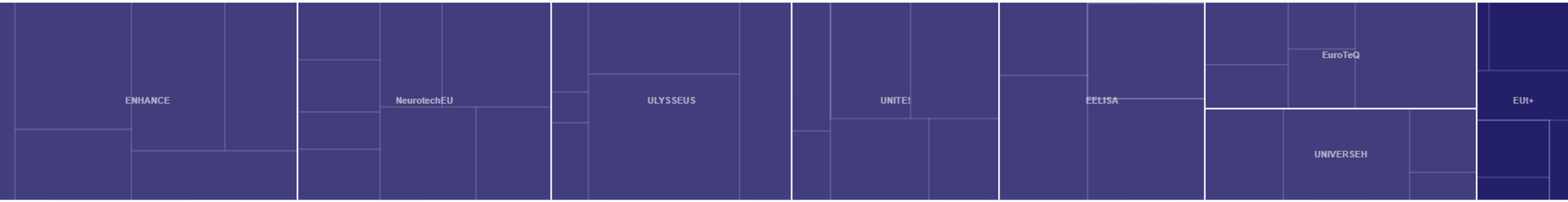
Word clouds: the example of “technology”

The eight EUIs that include “technology” in their description (under) and, on the right, the distribution and word cloud of the smallest of these eight alliances: EUt+ - the European University of Technology

GEOGRAPHICAL PRESENCE OF EUI (NUTS2)



THEMATIC WORDCLOUD OF EUT+



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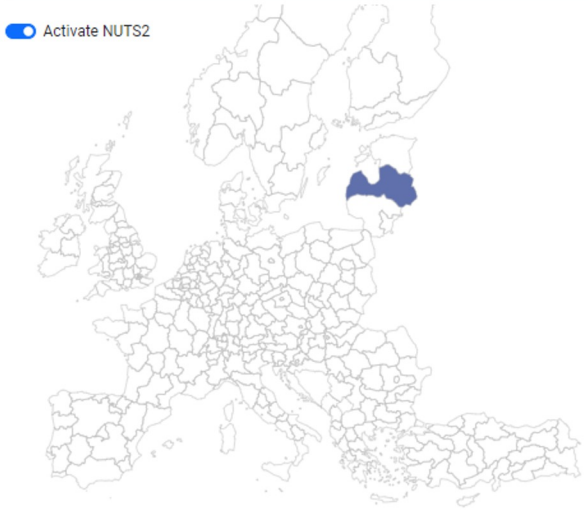
Linking ETER data with EUI data

The four alliances with a Latvian university and an example of preliminary integration of ETER data on these universities

GEOGRAPHICAL PRESENCE OF EUI (NUTS2)

Activate NUTS2



Latvija 4 alliances

ALLIANCE	STUDENTS	STAFF	EU PROJECTS
EU4ART 4 universities	4,000	500	0
Art Academy of Latvia Latvia, Latvija 1 wave	800	100	n/a
FORTHEM 9 universities	196,800	14,600	314
University of Latvia Latvia, Latvija 1 wave	14,600	1,200	48
EUt+ 8 universities	55,800	5,800	109
Riga Technical University Latvia, Latvija 2 wave	13,900	900	37
E$_3$UDRES$_2$ 6 universities	17,000	1,700	8
Vidzeme University of Applied Sciences Latvia, Latvija 2 wave	700	100	n/a

Riga Technical University

Latvia, Latvija | Member of the alliance EUt+ 2 wave

ACADEMIC STAFF
41.7% WOMEN
930

PROFESSORS 133
14.3%

FOREIGNERS 0
n/a

STUDENTS
42.0% WOMEN
14,409

BACHELOR'S 10,359
71.9%

562 ERASMUS STUDENTS
3.9%

BACHELOR'S 294
52.3%

MASTER'S 244
43.4%

EU PROJECTS
37

http://sirislab.com/lab/observatory-european-university-alliances

According to the rich **ETER data** available, it appears that universities participating in alliances

- are larger
- are more internationalized
- have stronger research orientation
- do not differ in the disciplinary profile

These differences are quite strong, as they are measured across comparable subsets of data and with multiple indicators.

Questions for the roundtable

Question 1.

How do you interpret the evidence on differences and similarities between universities that are members of alliances and those that are non-members?

Question 2.

If you were asked to evaluate the initiative, in terms of several policy goals, **which kind of data and indicators would you require**?