



NATIONAL
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Polish Graduate Tracking System – the analytical power of administrative data

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ela.nauka.gov.pl

Polish Graduate Tracking System (ELA)

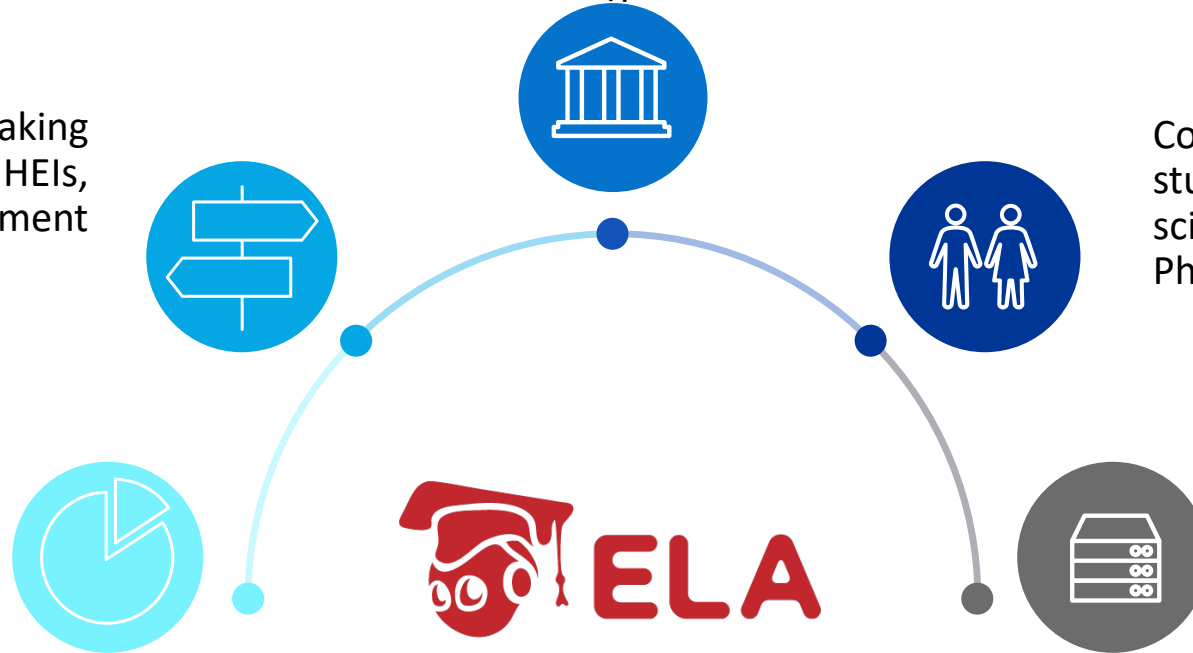
Developed by the National
Information Processing Institute
(OPI PIB) for the Ministry of
Science and Higher Education

Supports decision-making
processes of citizens, HEIs,
and the government

Covers entire populations of
students, graduates, and young
scientists (Ph.D. students and
Ph.D. holders)

The results are available
through the website,
free of charge

Uses data from two national
registers: POL-on and ZUS



The results are disseminated as automatically generated reports, interactive visualizations, and aggregated datasets

The range of the ELA system

The number of people covered

	2014	2015	2016	2017	2018	2019	2020	2021
Students	-	529 132	524 160	515 867	501 545	496 377	497 236	505 525
Graduates	389 473	383 034	356 998	345 393	325 349	316 432	294 610	296 934
Ph.D.	5 768	6 126	6 031	5 639	5 966	7 085	4 449	5 283
Ph.D. students	10 783	10 402	9 856	8 290	8 142	4 163	4 708	4 274
Total	406 024	928 695	895 858	875 348	841 587	825 156	801 003	812 016

The ELA system covers **6 385 687** people in total.

About 800 000 more people expected to be covered in the upcoming 9th ELA edition (June 2024)

Polish Graduate Tracking System – legal basis

- 2014 – an amendment of the Law on Higher Education
- 2015 – pilot study of ELA
- 18.05.2016 – launch of the Polish Graduate Tracking System
- 2018 - new Law on Higher Education and Science (widened the monitoring to all groups of Polish higher education and science system: students, graduates, doctoral students, and Ph.D. holders)



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- 2018 - new Law on Higher Education and Science (widened the monitoring to all groups of Polish higher education and science system: students, graduates, doctoral students, and Ph.D. holders)
- The aforementioned bills provide precise regulations for exporting, transferring, processing, and distributing data in the ELA system.
- It guarantees the stability of the system and provides a transparent framework for its development.

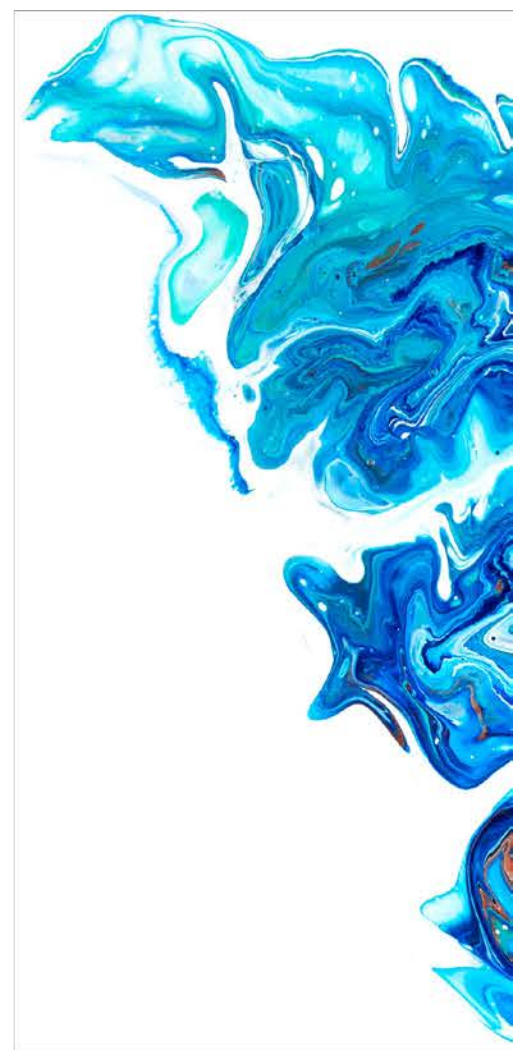
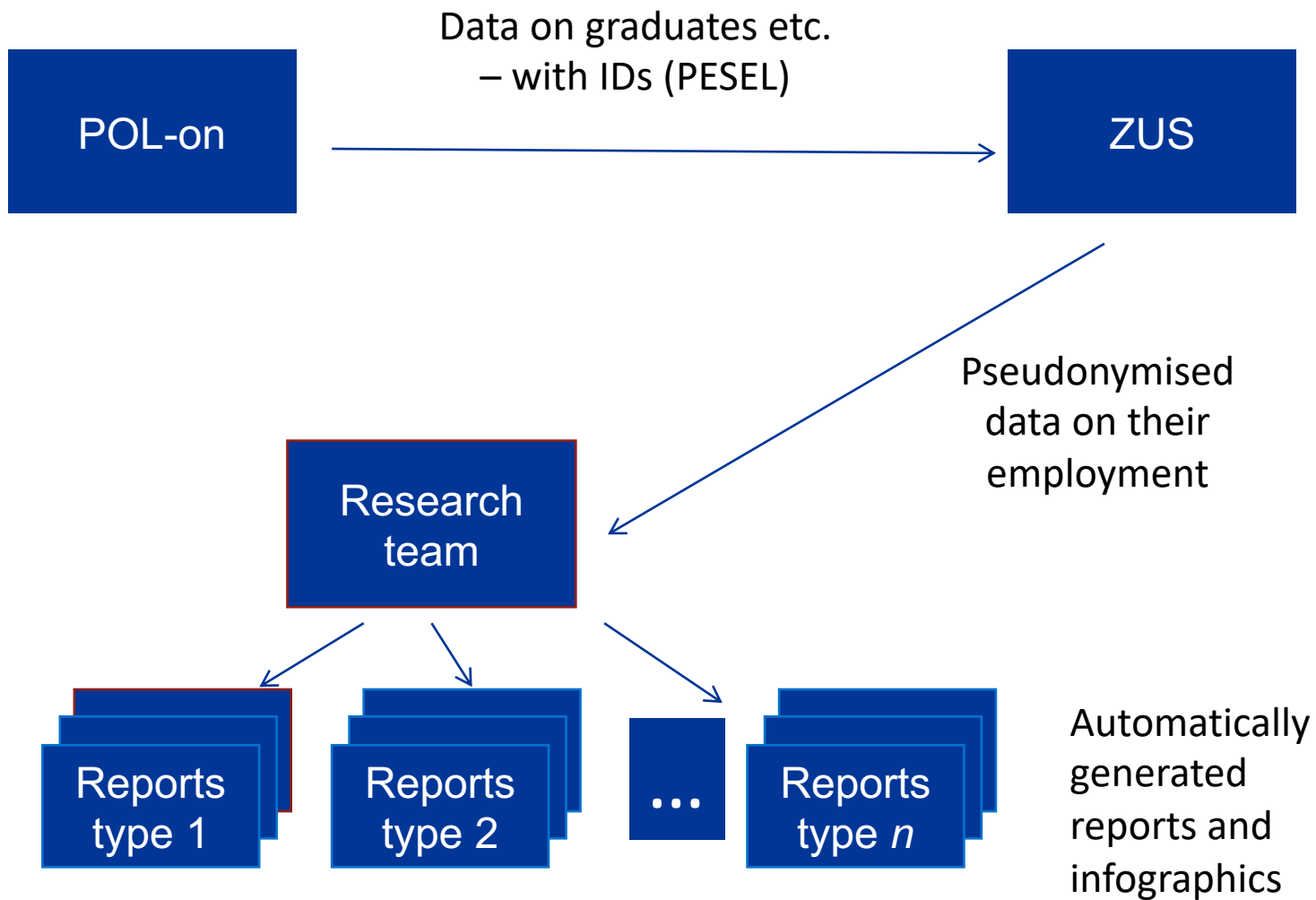


Polish Graduate Tracking System

– data sources

POL-on The national register on Polish science and higher education	Social Insurance Institution (ZUS)	Statistics Poland (GUS)
<ul style="list-style-type: none">• Personal ID (PESEL)• Full history of higher education• Characteristics of studies including:<ul style="list-style-type: none">• HEI, department, etc.• Study programme• Field and discipline• Level• Mode of study• Publications• Scientific projects	<ul style="list-style-type: none">• Personal ID (PESEL)• <u>Monthly</u> social insurance contributions• Status in the labour market (e.g. employed, self-employed, unemployed, on maternity or parental leave, student) based on insurance title code• Contribution calculations basis (<i>Pol. podstawa wymiaru składki</i>)• Information on the employer	<p>Data describing local labour markets:</p> <ul style="list-style-type: none">• Average gross salary in each <i>powiat</i> (equivalent to county, district, or prefecture)• Unemployment rate in each <i>powiat</i> (equivalent to county, district, or prefecture)

Polish Graduate Tracking System – data flow

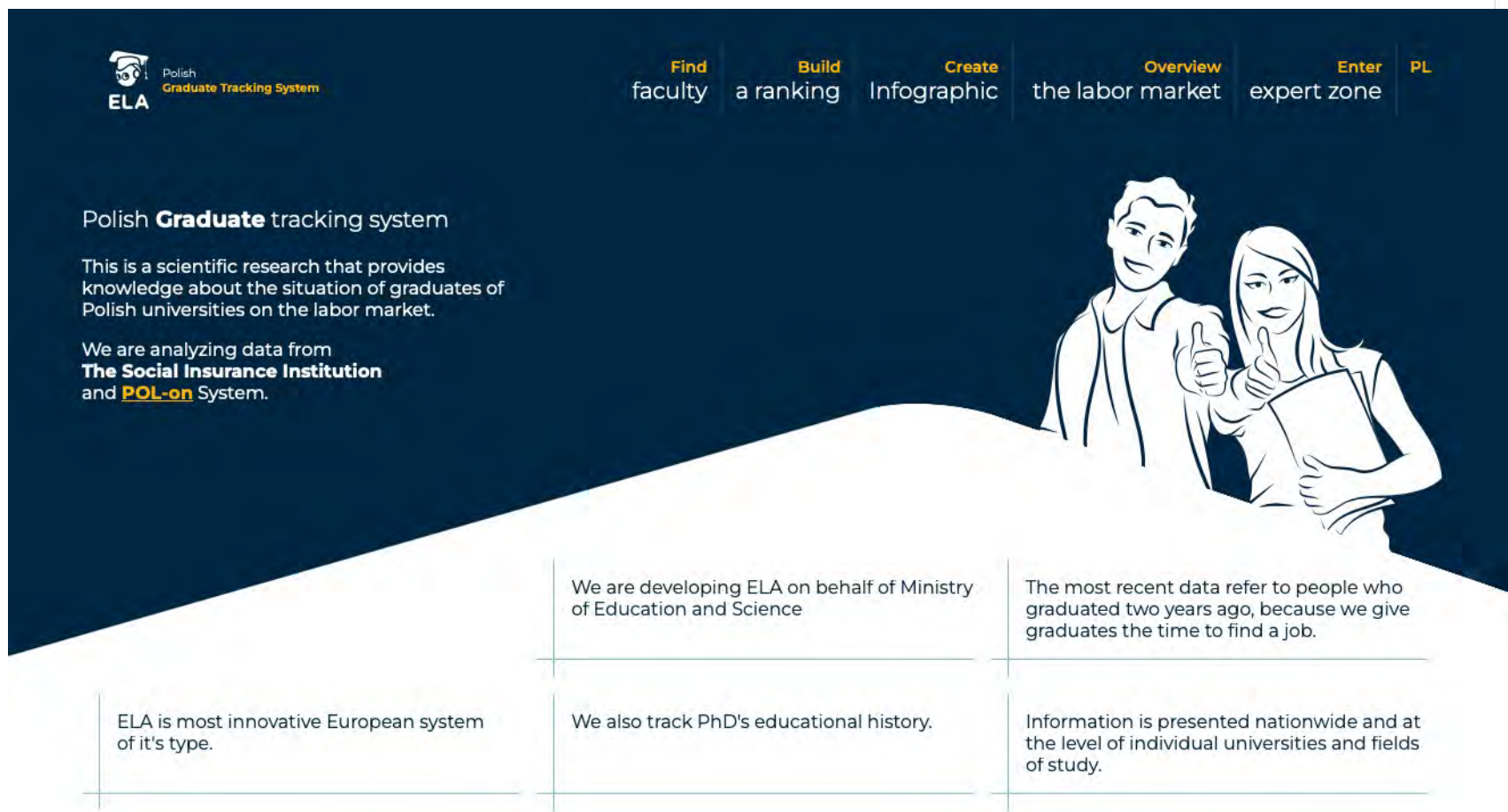


Polish Graduate Tracking System – the data flow calendar

- In autumn the data structure for the upcoming export is arranged.
- By 31 January, the data are exported from POL-on system, as of 31 December, and transferred to the Social Insurance Institution - ZUS (Law on Higher Education and Science, Art. 352, sec. 3&5.)
- Within 3 months after receiving the data, the Social Insurance Institution (ZUS) supplements them with information on the labour market outcomes, pseudonymises them, and transfers them to the Ministry of Education and Science (Law on Higher Education and Science, Art. 352, sec. 6.)
- The National Information Processing Institute (OPI PIB) processes the data and disseminates the results in summer (on graduates and Ph.D. holders) and autumn (on students and Ph.D. students). Also, conducts in-depth analysis for the Ministry on an as-needed basis.

Dissemination

<http://ela.nauka.gov.pl>



The screenshot shows the ELA website interface. At the top left is the ELA logo and the text "Polish Graduate Tracking System". To the right is a navigation menu with the following items: "Find faculty", "Build a ranking", "Create Infographic", "Overview the labor market", "Enter expert zone", and "PL". Below the navigation menu is a large illustration of a man and a woman looking at a document. The main content area contains the following text:

Polish **Graduate** tracking system

This is a scientific research that provides knowledge about the situation of graduates of Polish universities on the labor market.


We are analyzing data from **The Social Insurance Institution** and **POL-on** System.

Below the main text is a grid of six text boxes:

<p>ELA is most innovative European system of it's type.</p>	<p>We are developing ELA on behalf of Ministry of Education and Science</p>	<p>The most recent data refer to people who graduated two years ago, because we give graduates the time to find a job.</p>
<p>ELA is most innovative European system of it's type.</p>	<p>We also track PhD's educational history.</p>	<p>Information is presented nationwide and at the level of individual universities and fields of study.</p>

Dissemination

<http://ela.nauka.gov.pl>

 Polish Graduate Tracking System

[Find faculty](#) [Build a ranking](#) [Create Infographic](#) [Overview the labor market](#) [Enter expert zone](#) [PL](#)

Infographics

Here you can create infographics depicting the outcomes for graduates of selected universities and in specific fields of education. If you do not select a specific university, the results will be based all universities in Poland.

On the infographic you will see information on the circumstances of graduates on the labour market, as well as the activities they undertake after obtaining their degrees.



Institution
Uniwersytet Warszawski

Field of education
All

Level of study
Second-cycle programmes

Year of graduation
2020

ALL
UNIWERSYTET WARSZAWSKI

diploma	fields of study	level of study
2020	117	2nd. cycle programmes

number of graduates
3,737

women 73% **men** 27%

Example of results - infographics

ENGINEERING AND TECHNOLOGY COUNTRY LEVEL		
diploma 2016	fields of study 751	level of study 2nd. cycle programmes

number of graduates 28,534 women 38% men 62%

6,694 PLN average gross income the average graduate earned

1.23 of the average income in his/her district

34% of graduates who worked full-time or were self-employed before their studies now earn on average (gross) **7,502 PLN**

the average graduate earned **1.38** of the average income in his/her district

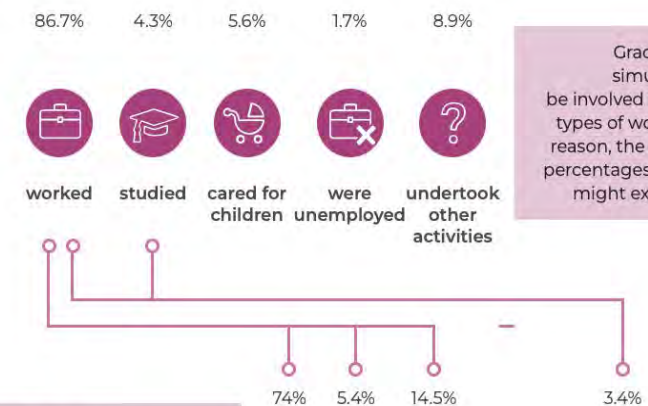
13% graduates who worked full-time or were self-employed during their studies now earn on average (gross) **7,383 PLN**

the average graduate earned **1.34** of the average income in his/her district

53% of graduates who had not worked full-time or been self-employed before graduation now earn on average (gross) **5,957 PLN**

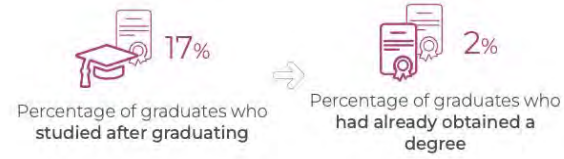
the average graduate earned **1.1** of the average income in his/her district

Activity in the average month of the fifth year after graduation



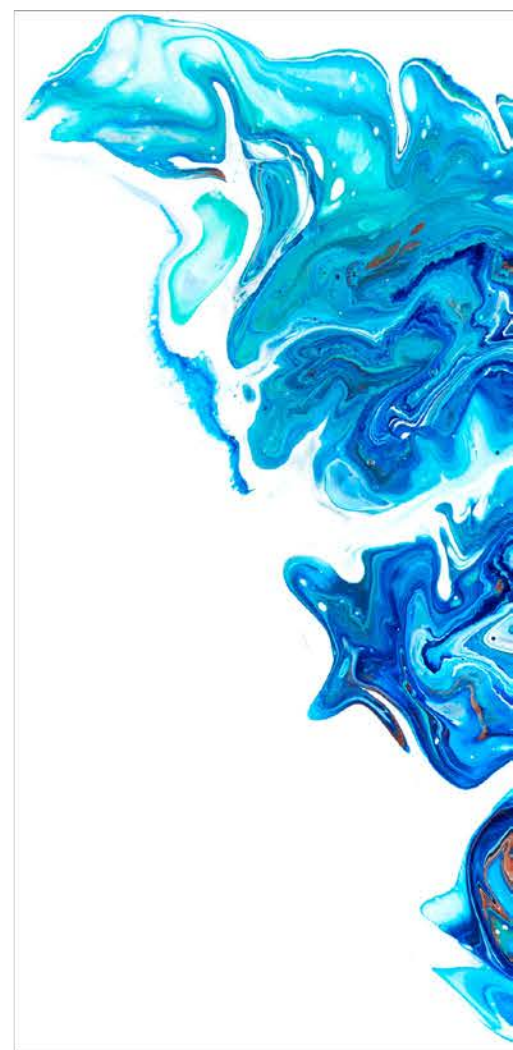
Graduates may simultaneously be involved in different types of work. For this reason, the total of the percentages presented might exceed 100%.

Graduates may simultaneously be involved in different types of work. For this reason, the total of the percentages presented might exceed 86.7%.



Example of results - rankings

1. Administracja	0.76
Państwowa Wyższa Szkoła Zawodowa im. Angelusa Silesiusa w Wałbrzychu	
Full-time, Państwowa Wyższa Szkoła Zawodowa im. Angelusa Silesiusa w Wałbrzychu, First-cycle programmes, 6-semester, general profile	
See field of study >	
2. Administracja	0.72
Państwowa Wyższa Szkoła Zawodowa we Włocławku	
Full-time, Państwowa Wyższa Szkoła Zawodowa we Włocławku, First-cycle programmes, 6-semester, practical profile	
See field of study >	
3. Administracja	0.71
Państwowa Wyższa Szkoła Techniczno-Ekonomiczna im. ks. Bronisława Markiewicza w Jarosławiu	
Full-time, Instytut Stosunków Międzynarodowych, First-cycle programmes, 6-semester, general profile	
See field of study >	
4. Administracja	0.7
Uniwersytet Szczeciński	
Full-time, Zamiejscowy Wydział Społeczno-Ekonomiczny w Gorzowie Wielkopolskim, Second-cycle programmes, 4-semester, general profile	
See field of study >	
5. Administracja	0.69
Państwowa Wyższa Szkoła Zawodowa w Wałczu	
Full-time, Państwowa Wyższa Szkoła Zawodowa w Wałczu, First-cycle programmes, 6-semester, practical profile	
See field of study >	



Example of results – reports (1/3)

Country level

2020 | Studies of First-cycle programmes

Country level

2020 | First-cycle programmes

Work and unemployment <p>Contains information on the time of graduates seeking work as well as employment forms and stability.</p> <p>Download report</p>	Earnings <p>Contains information about graduates' salaries for full-time work and from all sources.</p> <p>Download report</p>	Work experience <p>Contains a comparison of salaries, time of job seeking and unemployment risk of graduates with experience and without work experience before the diploma.</p> <p>Download report</p>
Working and pursuing studies after obtaining a university degree <p>Compares rates of unemployment, employment and remuneration of graduates for the periods in which they studied, after having obtained their university degree, and for the periods in which they did not study.</p> <p>Download report</p>	Work and place of residence <p>Contains a comparison of salaries, time of job seeking and unemployment risk of graduates depending on their place of residence.</p> <p>Download report</p>	Comparison <p>Compares wages and unemployment of graduates in different fields of study. The report can be nationwide or limited to a specific higher education institution.</p> <p>Download report</p>
Comparison of cohorts <p>Compares rates of unemployment, employment and remuneration of subsequent cohorts of graduates in the same periods after obtaining a university degree.</p> <p>Download report</p>		

[^ hide reports](#)

Example of results – reports (2/3)



 ELA⁵
Polish Graduate Tracking System

████████████████████

Graduates **2014**

Wages

National level
Second-cycle programmes

████████████████████



Example of results – reports (3/3)

In the two tables below we indicate the averages and medians of monthly wages **from employment** among the graduates in employment in the 5 years following graduation and from graduation until the end of the period covered by the research (31.01.2020). The persons who were not employed in the period are not considered in the analyses. In the case of the persons who worked on and off in employment throughout this period, we only calculated their wages from employment in the months in which they were actually employed. We present the results for persons who had employment or self-employment experience before graduation, who did not have such experience, and in total.

Average monthly gross wage from employment ...			
	Persons who had employment or self-employment experience before graduation	Persons who did not have employment or self-employment experience before graduation	Total
before 31.01.2020	4082.46 zł	3556.29 zł	3769.97 zł
during the first year after graduation	3285 zł	2481.75 zł	2875.83 zł
during the second year after graduation	3662.12 zł	2941.71 zł	3256.14 zł
during the third year after graduation	4030.65 zł	3396.5 zł	3664.23 zł
during the fourth year after graduation	4442.75 zł	3870.01 zł	4108.11 zł
during the fifth year after graduation	4929.93 zł	4383.2 zł	4608.42 zł

Medians of monthly gross wage from employment ...			
	Persons who had employment or self-employment experience before graduation	Persons who did not have employment or self-employment experience before graduation	Total
before 31.01.2020	3513.22 zł	3098.89 zł	3252.75 zł
during the first year after graduation	2901.86 zł	2193.82 zł	2513.49 zł
during the second year after graduation	3210.47 zł	2590.25 zł	2845.62 zł
during the third year after graduation	3495.97 zł	2959.76 zł	3173.81 zł
during the fourth year after graduation	3817.38 zł	3331.17 zł	3517.32 zł
during the fifth year after graduation	4218.35 zł	3734.03 zł	3928 zł

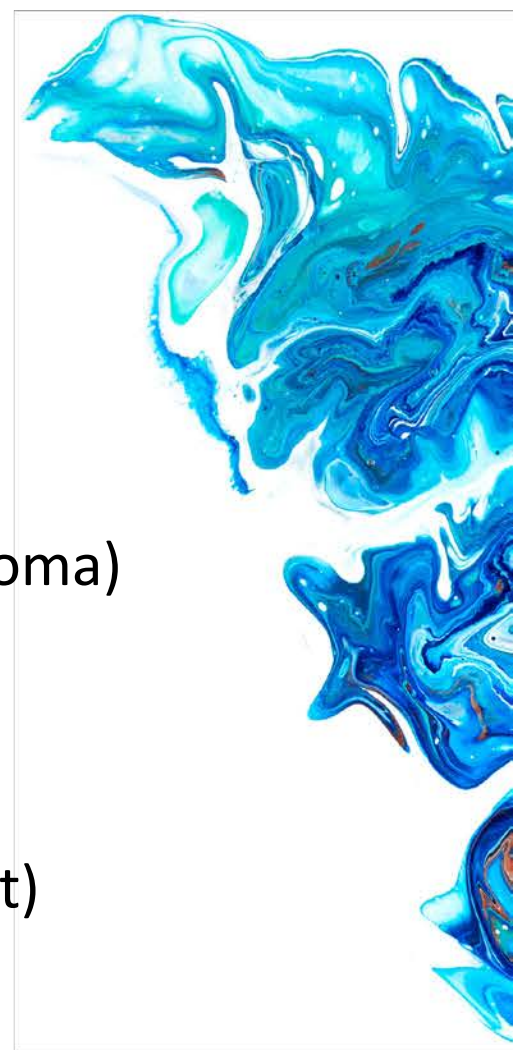


Types of reports

	Students	Graduates	Ph.D. students	Ph.D.
Wages		✓		✓
Work & unemployment		✓		✓
Work & place of residence		✓		
Work experience		✓		
Work & further studies		✓		
Comparison of cohorts		✓		
Listings		✓		✓
Course of studies	✓		✓	
Working while studying	✓		✓	
Data for international rankings		✓		



- EDUCATIONAL PATHS
 - Achieving subsequent stages of studies
 - Graduating on time (1 and 2 years after the deadline)
 - Cost-effectiveness of studies (basis: number of semesters per diploma)
- DROPOUT
 - Percentage of dropouts of each type
 - Dropout time
 - Directions of flow (other study programmes or HEIs, labour market)
- INTERACTIONS WITH THE LABOUR MARKET
 - Labour market indicators of students
 - Labour market indicators of dropouts vs graduates



- QS World University Rankings & QS Graduate Employability Ranking
 - Continuation Rate
 - Employment Rate
 - Number of Student Entrepreneurships
 - Median Grad Salary
- Global Research University Profiles (Shanghai Ranking)
 - Unemployment Rate of Graduates
- U-Multirank
 - Graduate Unemployment
 - Employment in the Region
 - Graduate-Founded Companies



- EMPLOYMENT

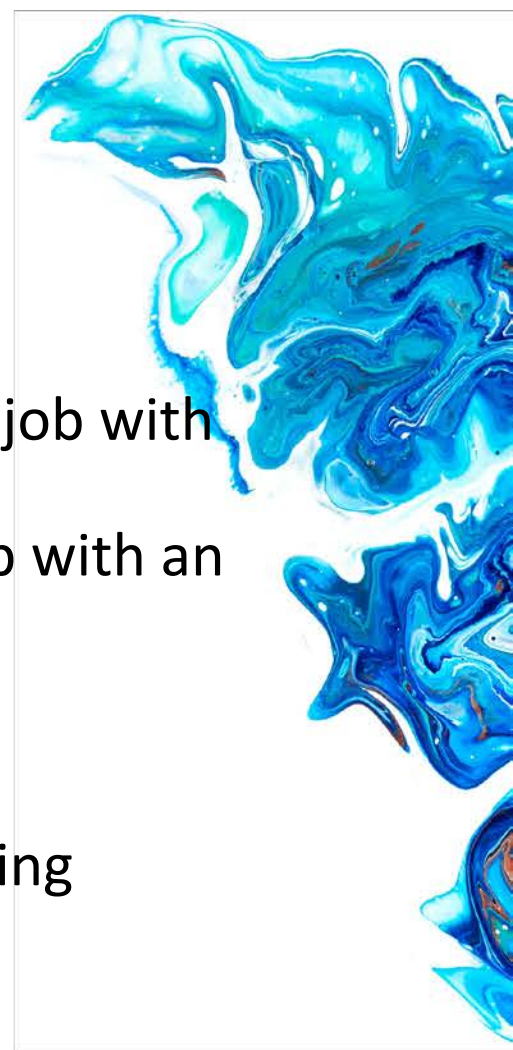
- Time spent looking for a job
- Percentage of graduates who experienced: having a job, having a job with an employment contract, being self-employed
- Percentage of months during which graduate: had a job, had a job with an employment contract, was self-employed
- Number of employers

- UNEMPLOYMENT

- Risk of unemployment, i.e. the average percentage of months during which the graduates were registered as unemployed
- Relative Indicator of Unemployment (RIU)

- WAGES

- Average monthly gross wages (in PLN)
- Relative Indicator of Wages (RIW)

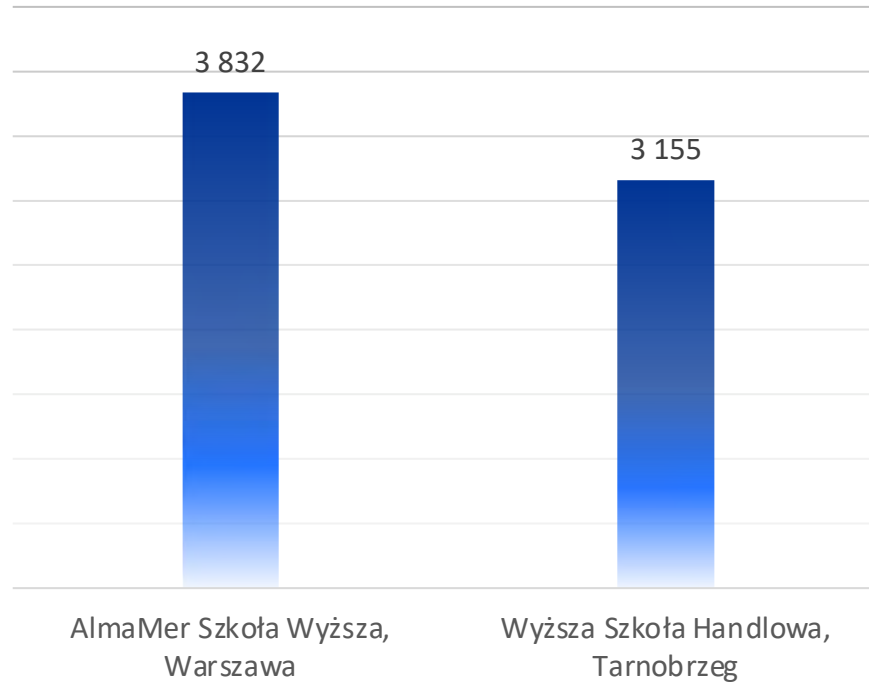


$$Me \left(\frac{\textit{individual gross monthly earnings}}{\textit{average local earnings}} \right)$$

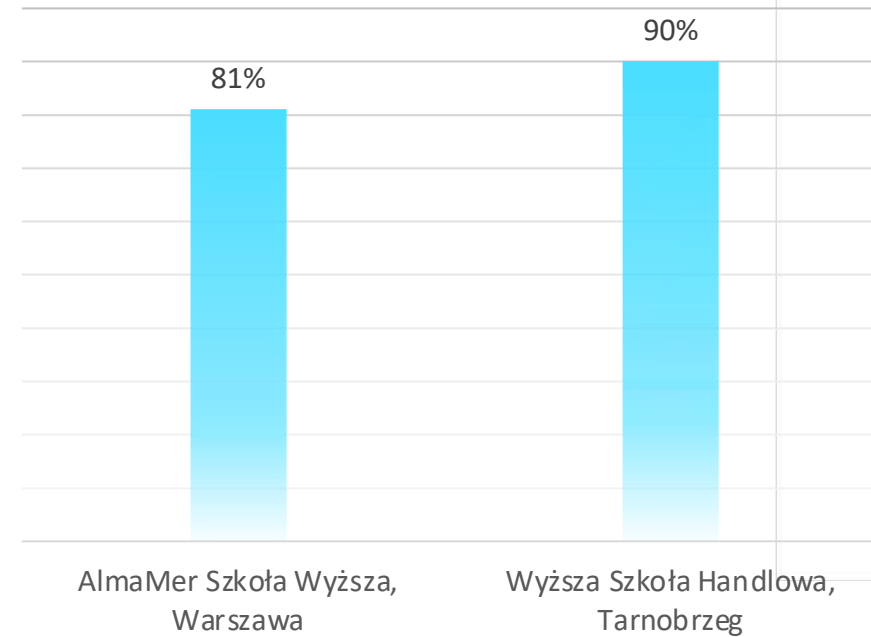


Relative Indicator of Wages

AVERAGE MONTHLY WAGES
(IN PLN)



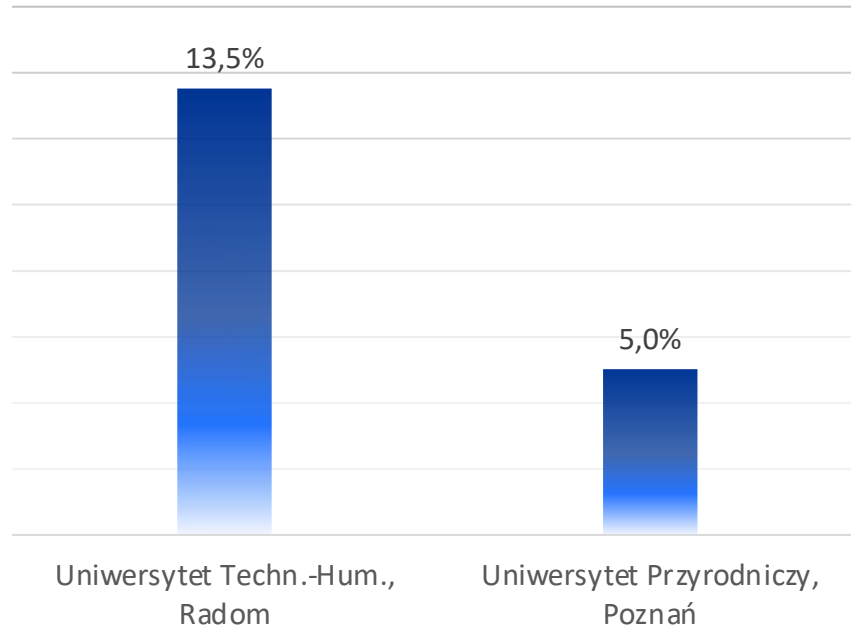
RELATIVE INDICATOR OF WAGES



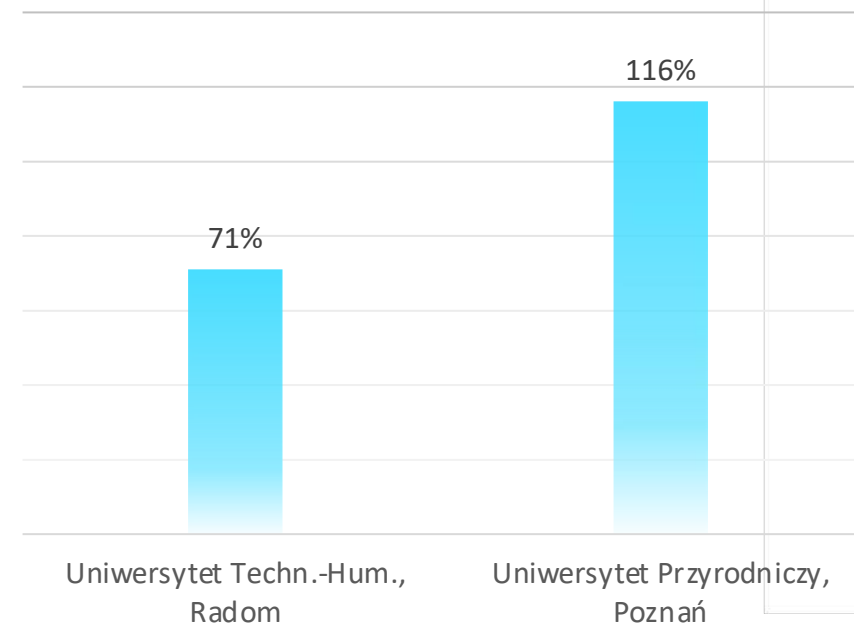
The relative indicators provide comparability of the results in time and space

Relative Indicator of Unemployment

RISK OF UNEMPLOYMENT

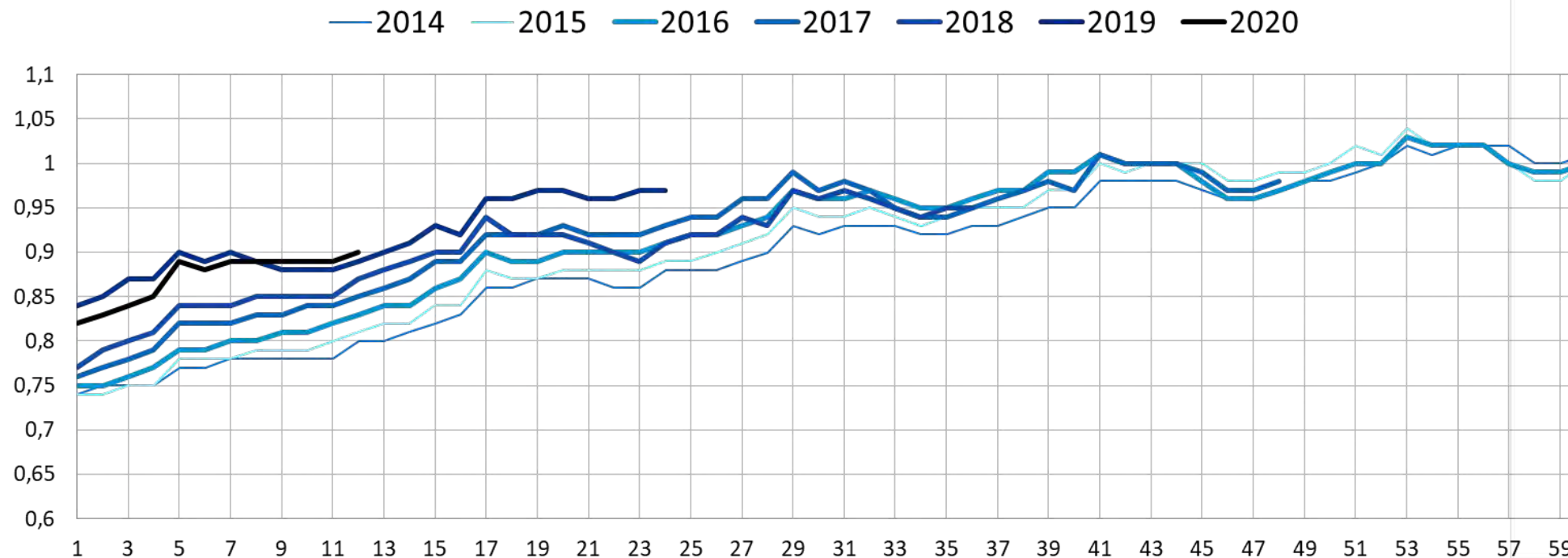


RELATIVE INDICATOR OF UNEMPLOYMENT



The relative indicators provide comparability of the results in time and space

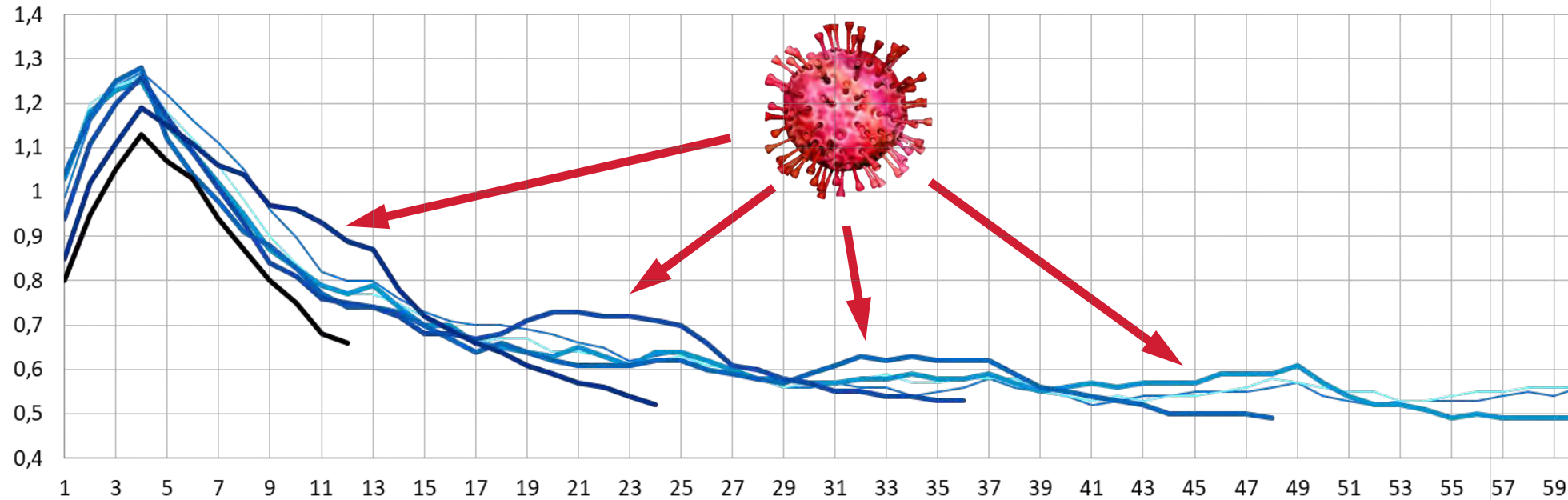
2nd cycle graduates 2014-2020



The relative indicators provide comparability of the results in time and space

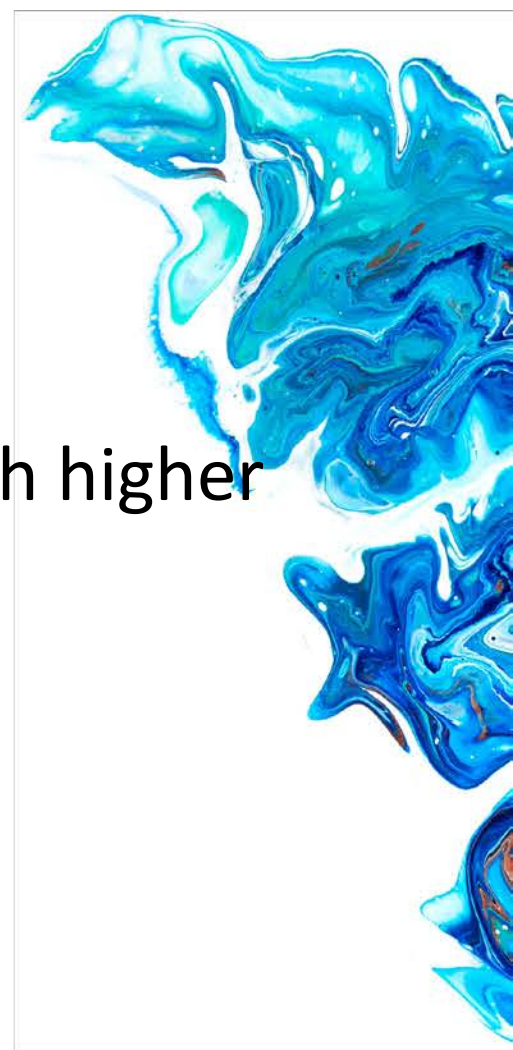
2nd cycle graduates 2014-2020

— 2014 — 2015 — 2016 — 2017 — 2018 — 2019 — 2020



The relative indicators provide comparability of the results **in time and space**

- Cost-effective system based on administrative data
- Systematically provides information on all groups of Polish higher education and science system
- Supports decision-making on different levels: for citizens, business, HR departments, HEIs, policy-makers
- Part of the most popular Polish HEI ranking (Perspektywy University Ranking)
- Is the basis for numerous in-depth scientific research and analyses requested by the public administration



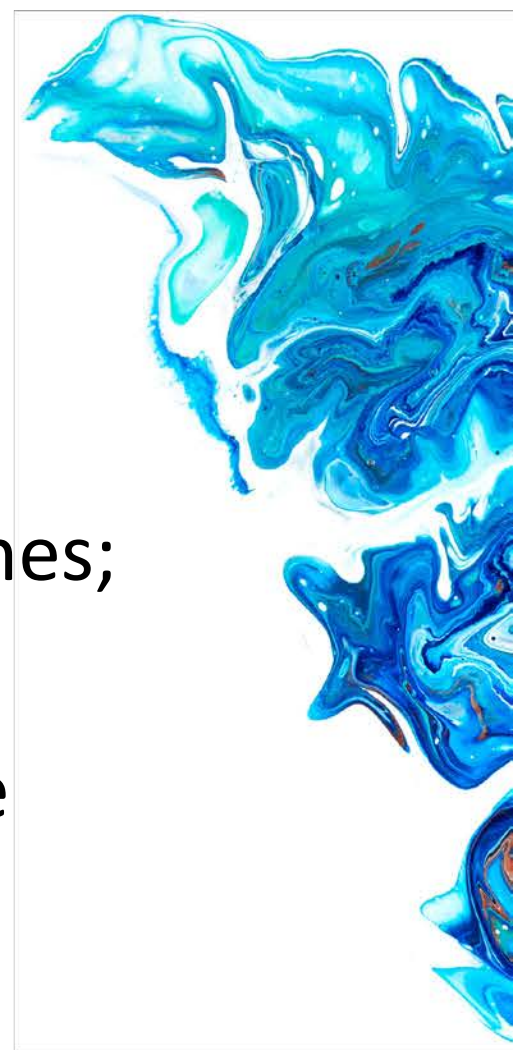
Polish Graduate Tracking System – upcoming amendment (1/2)

- Additional information on earnings based on the tax register;
- Additional information on labour market activity based on the data from the Agricultural Social Insurance Fund;
- An extended period of analysis;
- Adding information on:
 - secondary education,
 - working time,
 - job classification,
 - citizenship,
 - participation in Polish National Agency for Academic Exchange programmes.

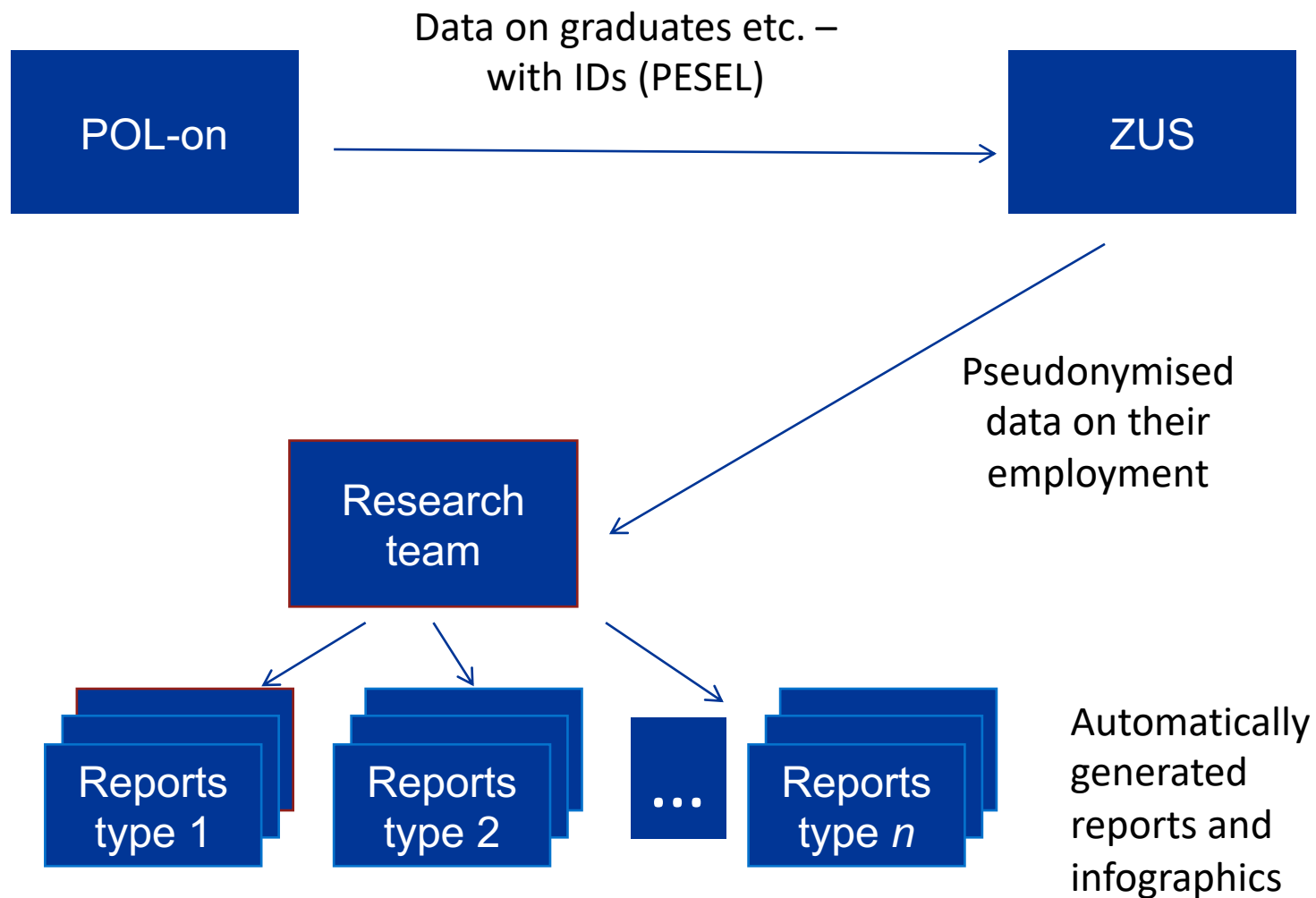


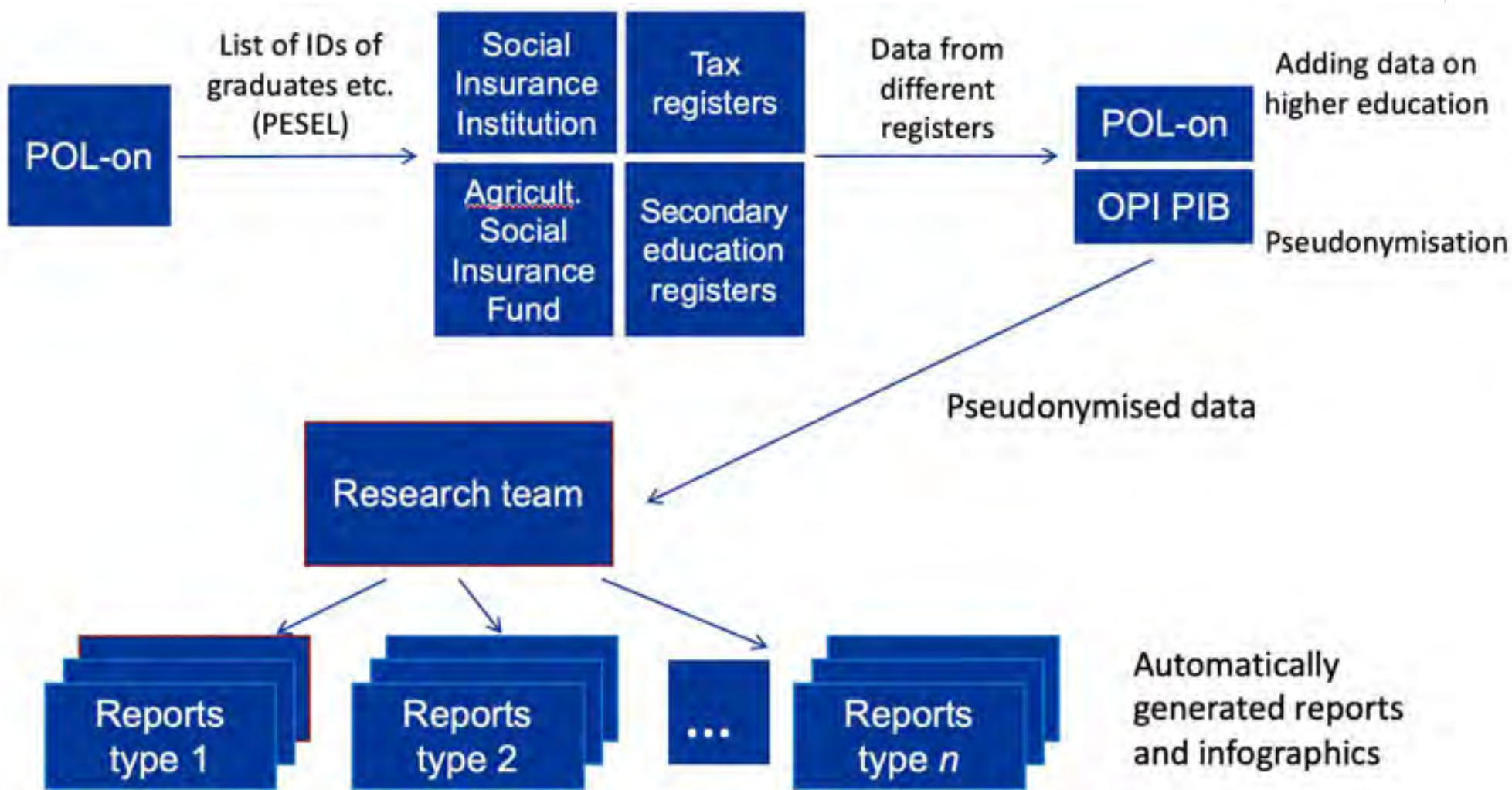
Expected benefits of legal changes

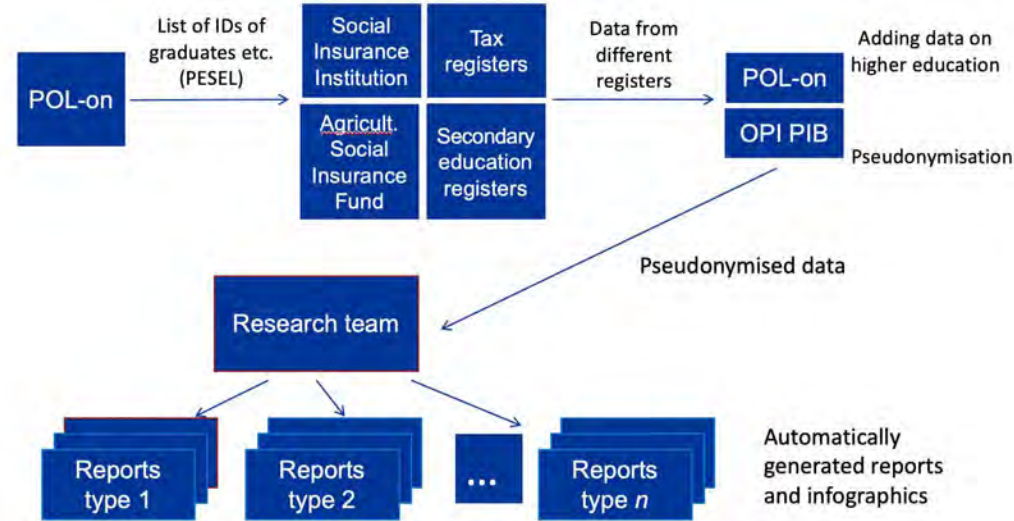
- Assessing the secondary education impact on higher education decisions and future labour market outcomes;
- More precise calculation of earnings;
- More types of labour market activities covered by the system;
- Improved tracking of foreigners (students, graduates, scientists).



ELA – current research organisation







Thank you for your attention

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