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Research infrastructure in Poland: evolution from dispersed data to e-service platform

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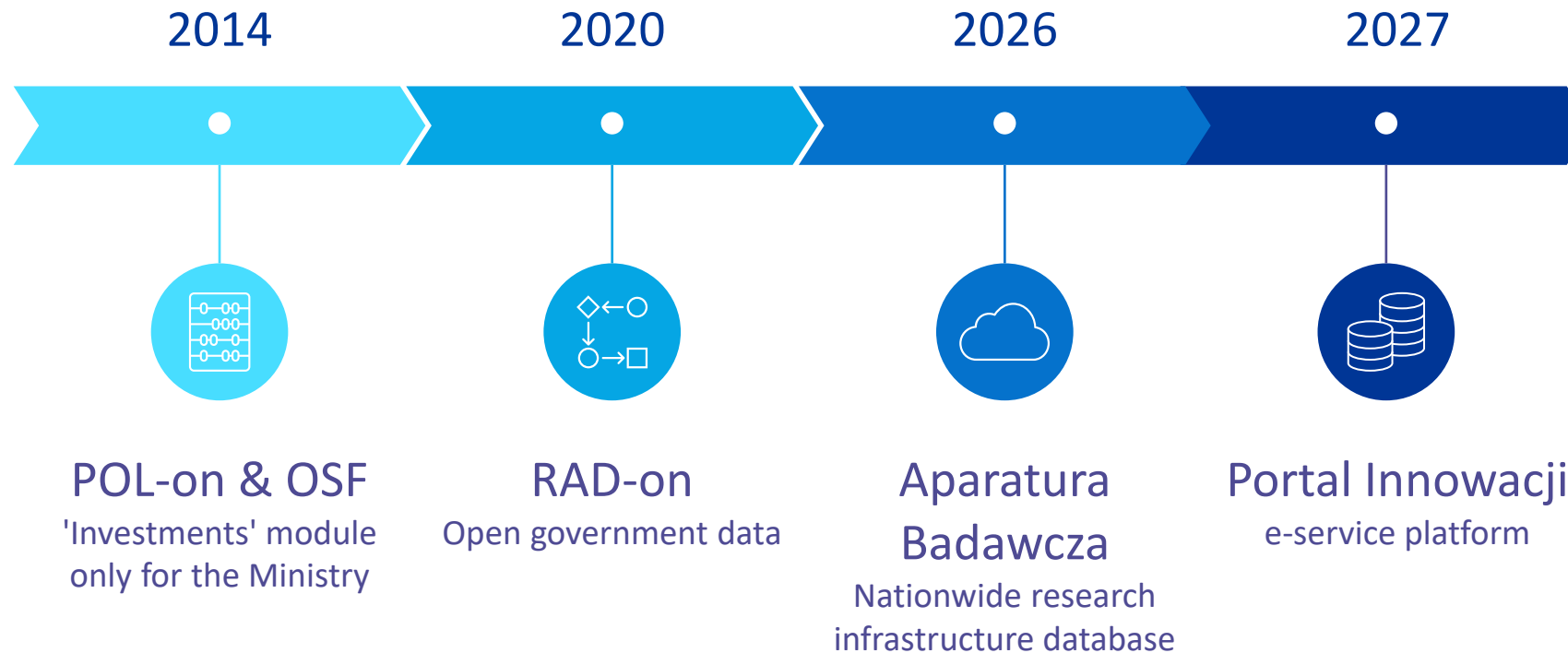
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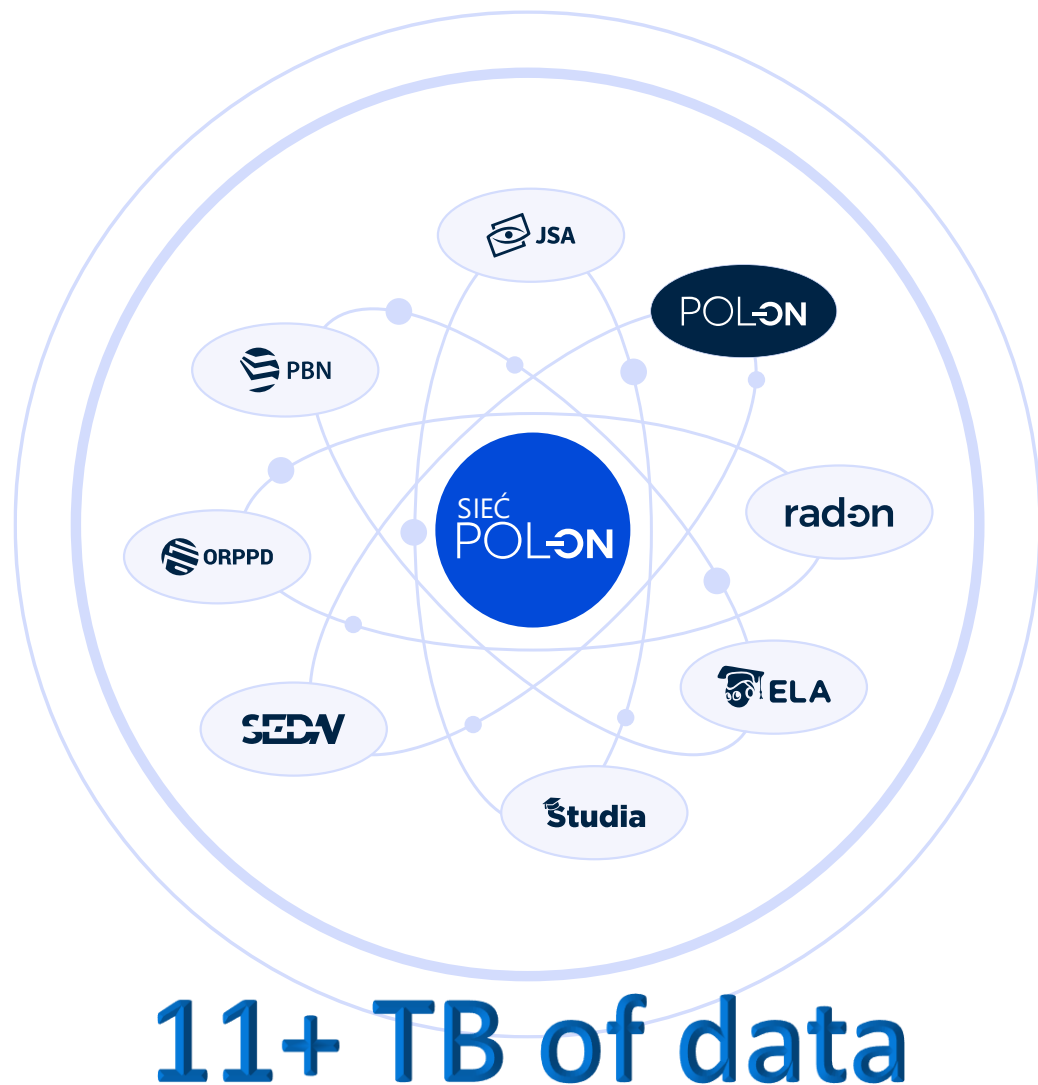
Intruduction

- Historically, information regarding Poland's research infrastructure, which was funded by numerous projects and investment grants, was highly dispersed.
- This fragmentation made it difficult to obtain a comprehensive overview and carry out nationwide analyses.
- Without a holistic view, the effective allocation of public funds was difficult, and there was a risk of resource duplication and suboptimal utilisation.

Evolution from dispersed data to e-service platform



POL-on



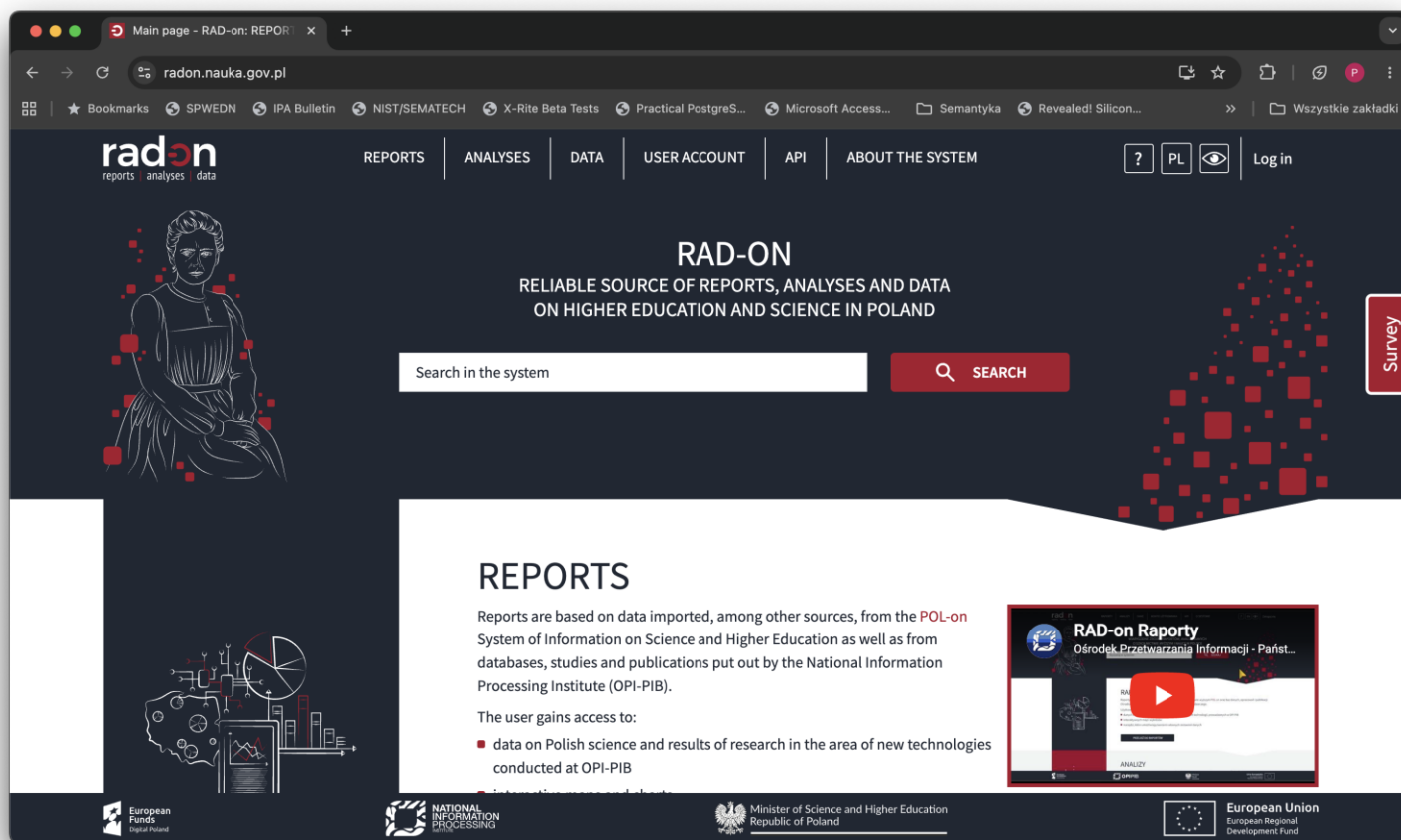
- **Central Database:** The primary repository of data for Polish higher education and science.
- **Data Collection:** Tracks universities, students, doctoral schools, academic staff, and research funding.
- **Research Evaluation:** Serves as the official platform for assessing scientific achievements and institutional categories.
- **Financial Control:** Supports the Ministry of Science in budget allocation and subsidy distribution.

Investment module in POL-on



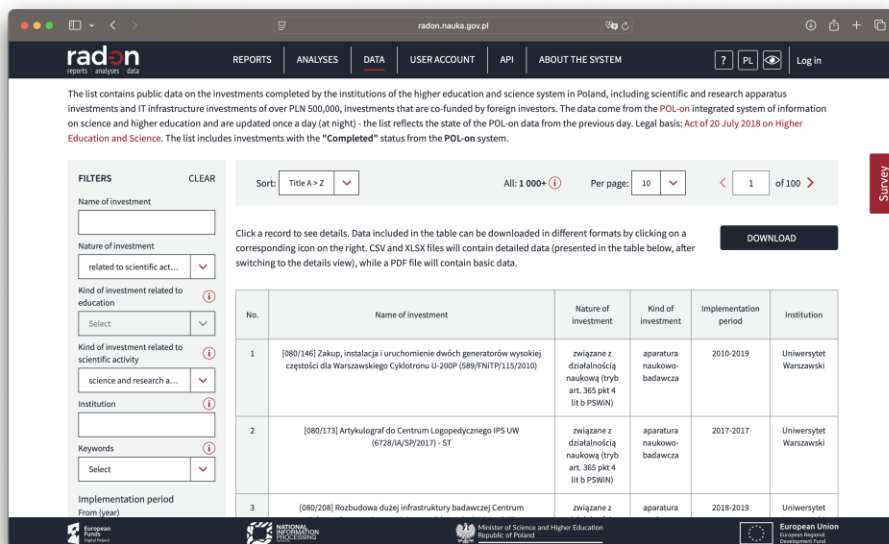
- Collects basic information:
 - the name,
 - value,
 - funding source,
 - description,
 - year of purchase.
- Is not publicly available.
- It serves as an internal tool for the Ministry of Science and Higher Education to supervise institutions and allocate funds.

RAD-on – radon.nauka.gov.pl



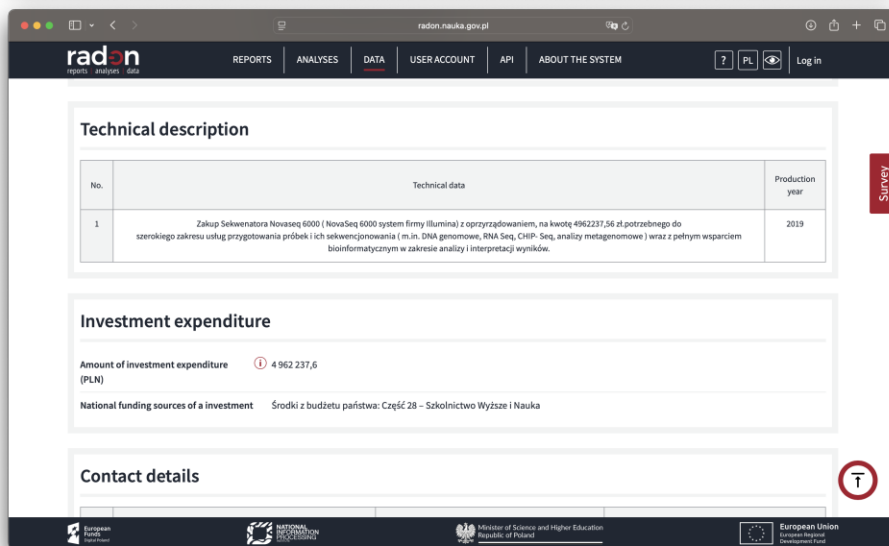
RAD-on provides open access to analytical reports and datasets, grounded in **open government data** (OGD) and FAIR principles, facilitating transparent, participatory decision-making in research funding and innovation strategies.

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The screenshot shows the main interface of the RAD-on system. It includes a navigation bar with links for REPORTS, ANALYSES, DATA, USER ACCOUNT, API, and ABOUT THE SYSTEM. A sidebar on the left contains various filters for searching investments, such as Name of investment, Nature of investment, Kind of investment related to education, Kind of investment related to scientific activity, Institution, Keywords, and Implementation period. The main area displays a table of investments with columns for No., Name of investment, Nature of investment, Kind of investment, Implementation period, and Institution. A 'DOWNLOAD' button is visible above the table.

No.	Name of investment	Nature of investment	Kind of investment	Implementation period	Institution
1	[080/146] Zakup, instalacja i uruchomienie dwóch generatorów wysokiej częstotliwości dla Warszawskiego Cyklotronu U-200P (589/FNTP/115/2010)	związane z działalnością naukową (tryb art. 365 pkt 4 lit b PSBN)	aparatura naukowo-badawcza	2010-2019	Uniwersytet Warszawski
2	[080/173] Artyskulptura do Centrum Logopedycznego IPS UW (6728/IA/SP/2017) - ST	związane z działalnością naukową (tryb art. 365 pkt 4 lit b PSBN)	aparatura naukowo-badawcza	2017-2017	Uniwersytet Warszawski
3	[080/208] Rozbudowa dużej infrastruktury badawczej Centrum	związane z	aparatura	2018-2019	Uniwersytet

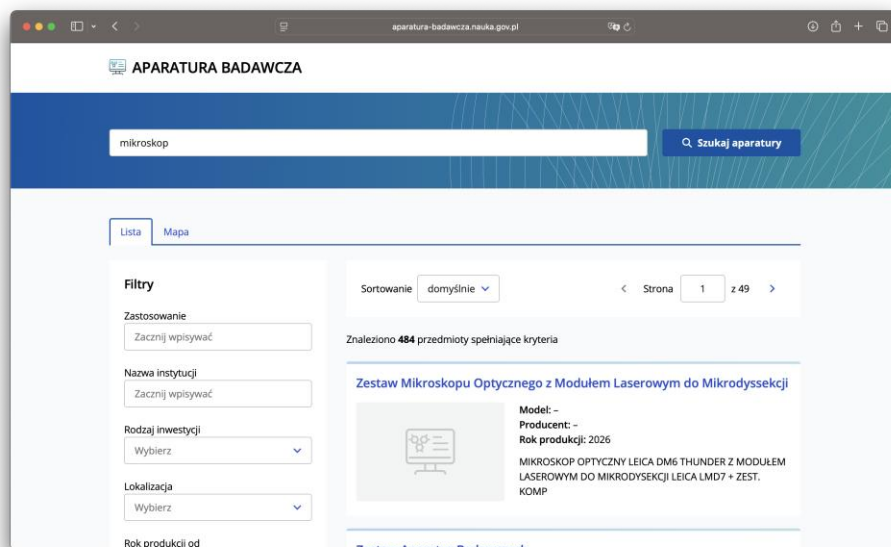


The screenshot shows the detailed view of an investment project. It includes sections for 'Technical description', 'Investment expenditure', and 'Contact details'. The 'Technical description' section contains a table with technical data and production year. The 'Investment expenditure' section shows the amount of investment expenditure in PLN and the national funding sources. The 'Contact details' section is partially visible at the bottom.

No.	Technical data	Production year
1	Zakup Sekwencji Novaseq 6000 (NovaSeq 6000 system firmy Illumina) z oprzyrządowaniem, na kwotę 4962237,56 zł, potrzebnego do szerokiego zakresu usług przygotowania próbek i ich sekwencjonowania (m.in. DNA genomowe, RNA Seq, CHIP-Seq, analizy metagenomowe) wraz z pełnym wsparciem bioinformatycznym w zakresie analizy i interpretacji wyników.	2019

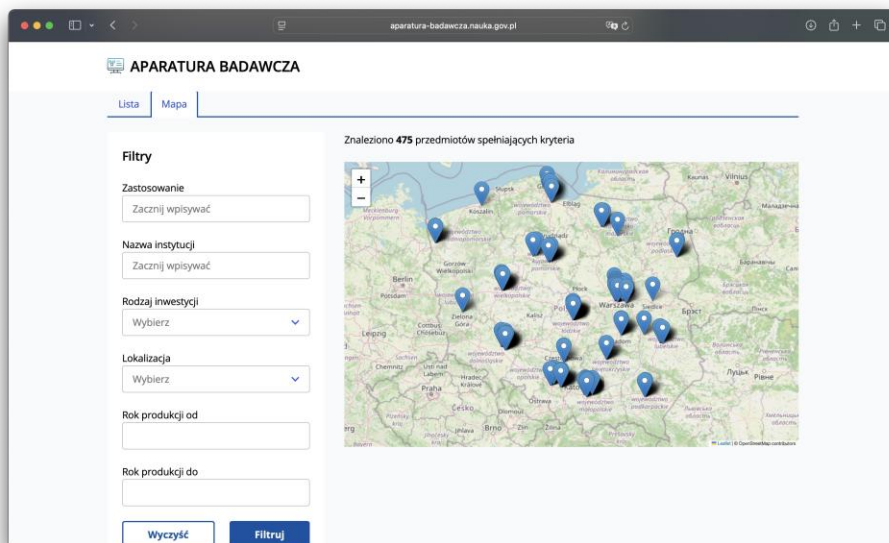
- Data from POL-on system.
- 1558 investments (projects) involving research equipment.
- A project may involve the purchase of more than one piece of research equipment.
- The research equipment is characterised by just one text field.

aparatura-badawcza.nauka.gov.pl



- The new nationwide research infrastructure database.
- This platform is not just designed as a registry, but as a foundational component of a much larger strategic vision: increasing interoperability within all the services developed by the National Information Processing Institute.

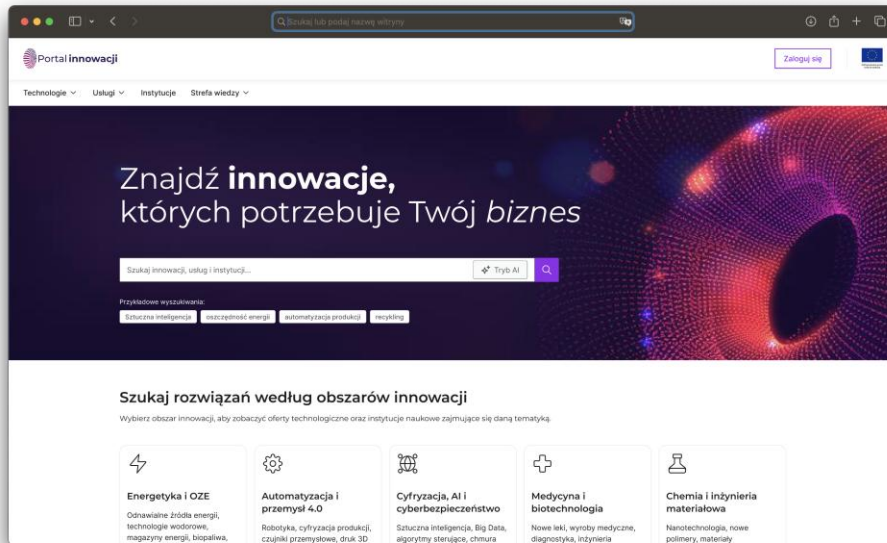
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- 5296 research equipments
- 191 institutions
- 40 localizations
- Artificial intelligence was used to extract data on the research equipment and organise it.



e-service platform



- The main goal is to bridge the gap between science and industry by creating a single digital ecosystem that accelerates technology transfer and R&D commercialization.
- The selected research equipment will be used to provide research services.
- Launch of the portal in 2027.

Conclusions

- Data on research equipment has been collected in Poland for over a decade.
- Initially, the data was collected solely to meet the requirements of the Ministry of Science and Higher Education, but it was later made available to the public.
- Data available does not solve the problem of facilitating access to research equipment.
- The next step is to build an e-service that can be implemented on the existing infrastructure.
- This presents a significant challenge, primarily in organisational terms, as the owners of the equipment — scientific institutions and universities — must implement the necessary legal and organisational solutions to provide these services.



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Thank you

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