Universität wien

Research Services and Career Development
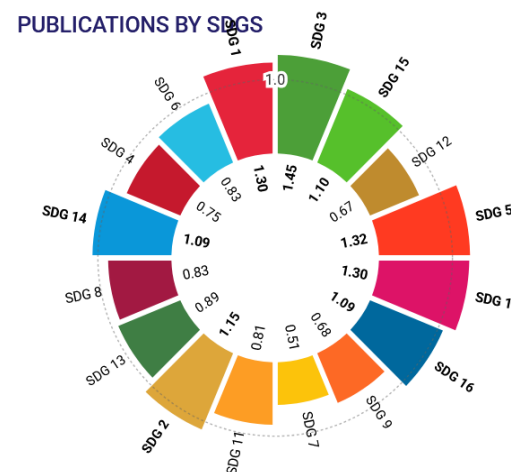
Circle U.
European University Alliance

We live in cities with more than 19 Mio inhabitants and deal with a budget of more than 5 billion Euros.

More than 38,000 academics are teaching about 445,000 students, supervising 29,500 PhDs, were publishing more than 54,000* papers in 2024, and were engaged in 6,825* grants.

* Source: dimensions.ai

Circle U. Knowledge Hubs are
- **Artificial Intelligence**
- **Climate**
- **Democracy**
- **Global Health**

PUBLICATIONS BY SDGS

Research in the context of Alliances?

- Circle U universities share key characteristics, as being comprehensive research-intensive universities.

- Collaboration is the lifeblood of effective research. How does a top-down mentality fit with the organic, bottom-up nature of science?

- **Alliances can have a role in enabling cross-border collaboration, but do the current approaches to fostering initiatives really resonate with researchers?**

- If we want to realize the full potential of alliances, we must rethink how we engage researchers—by combining a step-by-step, bottom-up approach with strategic, long-term vision.

WHAT ARE EUROPEAN UNIVERSITIES?

European Universities are **ambitious transnational alliances of higher education institutions** developing long-term structural and strategic cooperation.

Key criteria

Minimum of **3 higher education institutions**, from **3 EU Member States** or third countries associated to the Erasmus+ programme.

Key cooperation principles

🚩 Alliances develop **joint long-term strategies** for education with, where possible, links to research and innovation to drive systemic, structural and sustainable impact at all levels of their institutions

🚩 Alliances create and implement **European inter-university campuses**, where:

- students, academics, university staff, researchers and lifelong learners enjoy **seamless mobility** (physical, virtual or blended) to study, train, teach, do research, work or share services across borders and disciplines

- **transdisciplinary and transnational teams** of students, academics and external stakeholders tackle big issues facing Europe (such as climate protection, digitalisation, health, democracy, migration, security)

- students can design their own **flexible curricula**, leading to a European Degree

- **practical and/or work-based experience** is provided to foster an entrepreneurial mind-set and develop civic engagement

- the student body reflects the social, economic and cultural **diversity** of the population

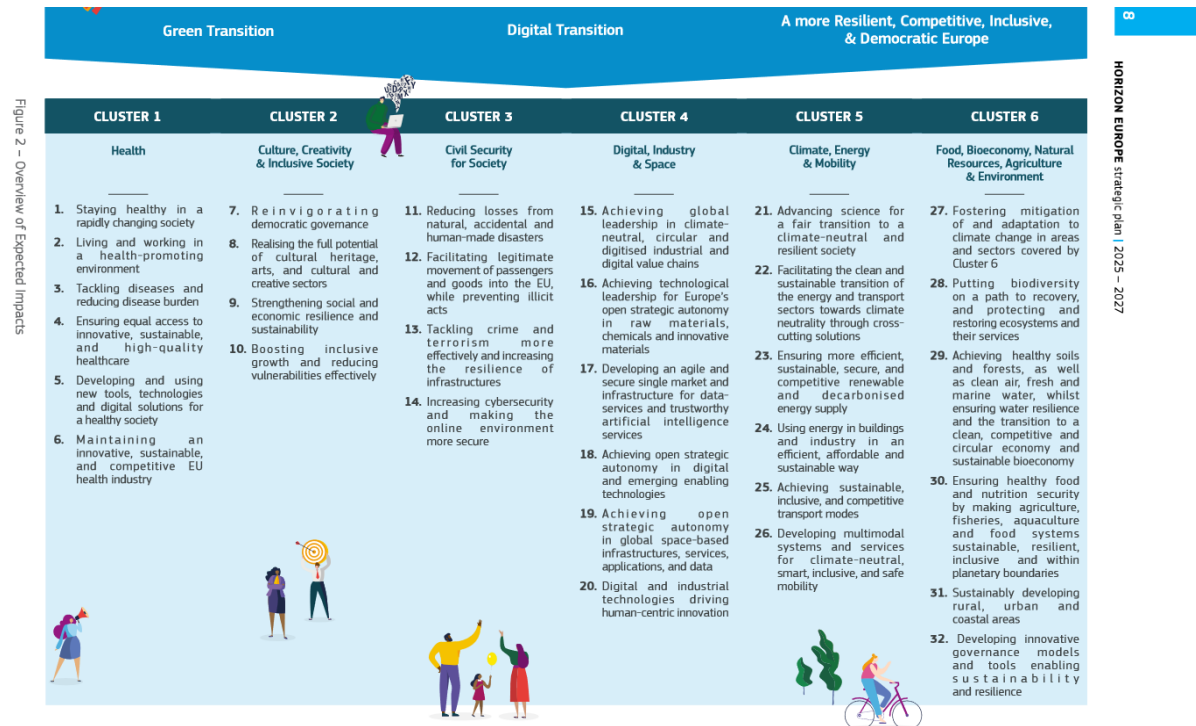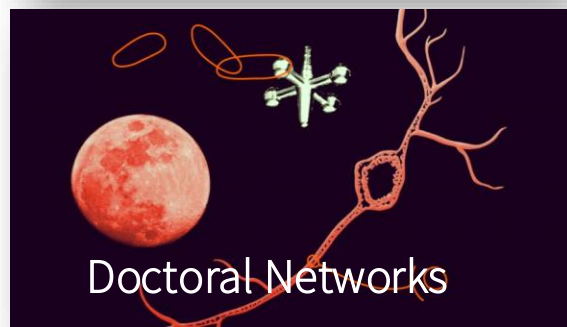🚩 Cooperating partners should come from **different parts of Europe**

Sadly, without real money for research

What do we have to offer our researchers?

Source: Factsheet - **European universities A key pillar of the European education area**
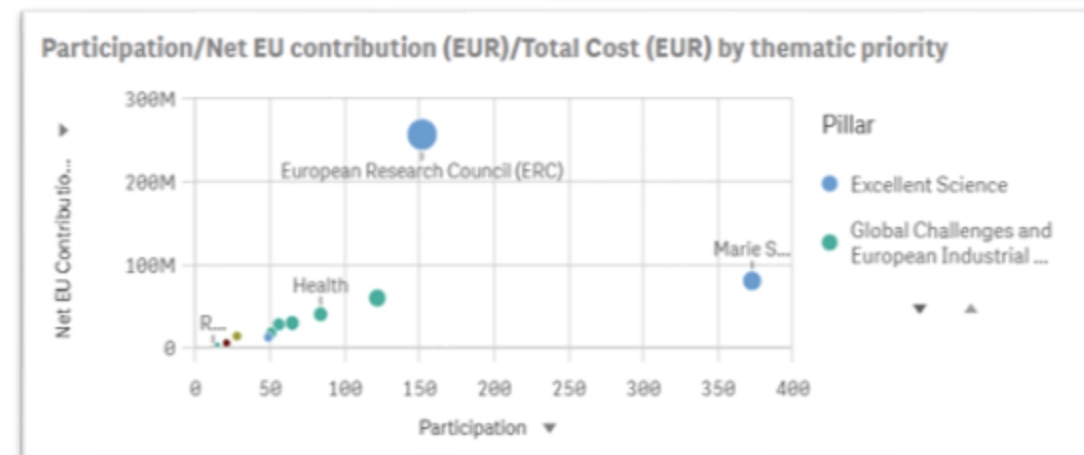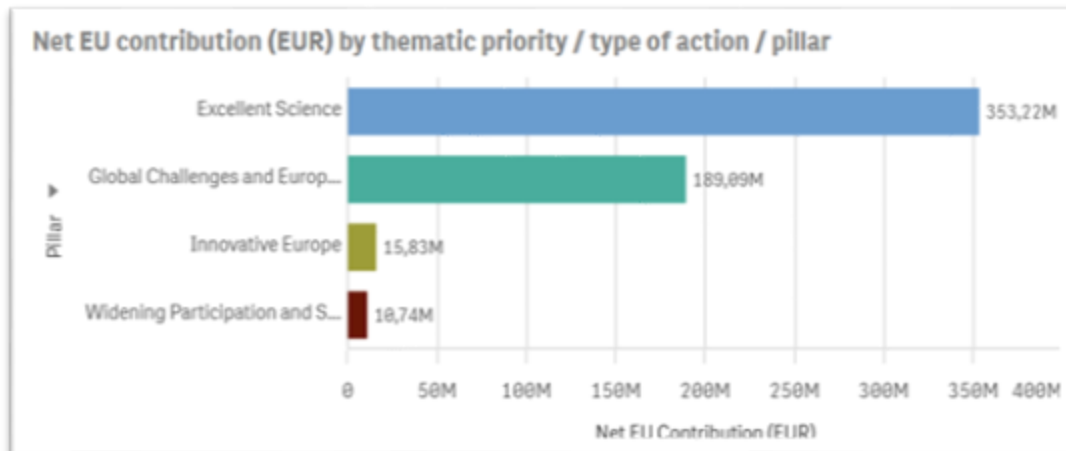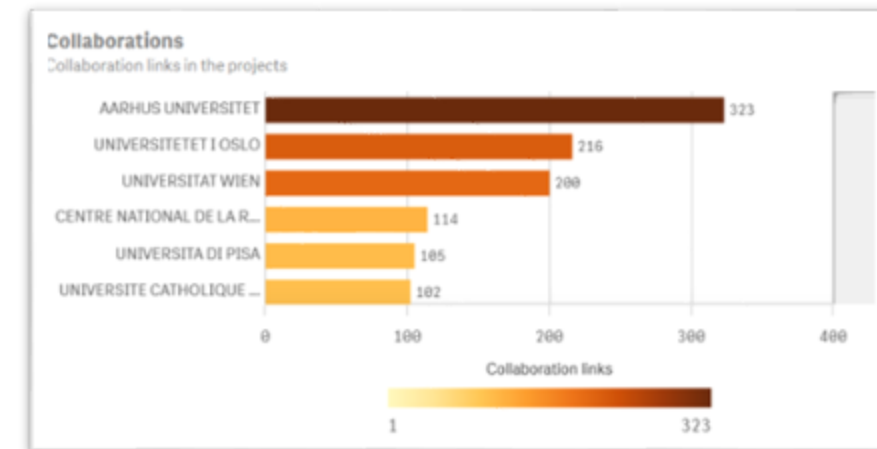
Research Services and Career Development

One way to go...

use the most relevant EU instruments for research collaborations in Circle U: Pillar I & II

Postdoctoral Fellowships

Doctoral Networks

COFUND

erc Synergy Grant

Figure 2 – Overview of Expected Impacts

HORIZON EUROPE strategic plan | 2025 – 2027

8

Green Transition		Digital Transition		A more Resilient, Competitive, Inclusive, & Democratic Europe	
CLUSTER 1	**CLUSTER 2**	**CLUSTER 3**	**CLUSTER 4**	**CLUSTER 5**	**CLUSTER 6**
Health	Culture, Creativity & Inclusive Society	Civil Security for Society	Digital, Industry & Space	Climate, Energy & Mobility	Food, Bioeconomy, Natural Resources, Agriculture & Environment
1. Staying healthy in a rapidly changing society	7. Reinvigorating democratic governance	11. Reducing losses from natural, accidental and human-made disasters	15. Achieving global leadership in climate-neutral, circular and digitised industrial and digital value chains	21. Advancing science for a fair transition to a climate-neutral and resilient society	27. Fostering mitigation of and adaptation to climate change in areas and sectors covered by Cluster 6
2. Living and working in a health-promoting environment	8. Realising the full potential of cultural heritage, arts, and cultural and creative sectors	12. Facilitating legitimate movement of passengers and goods into the EU, while preventing illicit acts	16. Achieving technological leadership for Europe's open strategic autonomy in raw materials, chemicals and innovative materials	22. Facilitating the clean and sustainable transition of the energy and transport sectors towards climate neutrality through cross-cutting solutions	28. Putting biodiversity on a path to recovery, and protecting and restoring ecosystems and their services
3. Tackling diseases and reducing disease burden	9. Strengthening social and economic resilience and sustainability	13. Tackling crime and terrorism more effectively and increasing the resilience of infrastructures	17. Developing an agile and secure single market and infrastructure for data-services and trustworthy artificial intelligence services	23. Ensuring more efficient, sustainable, secure, and competitive renewable and decarbonised energy supply	29. Achieving healthy soils and forests, as well as clean air, fresh and marine water, whilst ensuring water resilience and the transition to a clean, competitive and circular economy and sustainable bioeconomy
4. Ensuring equal access to innovative, sustainable, and high-quality healthcare	10. Boosting inclusive growth and reducing vulnerabilities effectively	14. Increasing cybersecurity and making the online environment more secure	18. Achieving open strategic autonomy in digital and emerging enabling technologies	24. Using energy in buildings and industry in an efficient, affordable, and sustainable way	30. Ensuring healthy food and nutrition security by making agriculture, fisheries, aquaculture and food systems sustainable, resilient, inclusive and within planetary boundaries
5. Developing and using new tools, technologies and digital solutions for a healthy society			19. Achieving open strategic autonomy in global space-based infrastructures, services, applications, and data	25. Achieving sustainable, inclusive, and competitive transport modes	31. Sustainably developing rural, urban and coastal areas
6. Maintaining an innovative, sustainable, and competitive EU health industry			20. Digital and industrial technologies driving human-centric innovation	26. Developing multimodal systems and services for climate-neutral, smart, inclusive, and safe mobility	32. Developing innovative governance models and tools enabling sustainability and resilience

From individual fellowships to large applications

Success of CU universities, which we cannot claim for the alliance CU

- 11 ERC Synergies awarded to CU universities in the last 2 years.

- 966 signed grants with 569 Mio net EU contribution in Horizon Europe so far

Collaborations
Collaboration links in the projects

Net EU contribution (EUR) by thematic priority / type of action / pillar

Participation/Net EU contribution (EUR)/Total Cost (EUR) by thematic priority

Collecting Low-Hanging Fruits

- Providing micro-grants to fund exploratory collaborations between three or more researchers from different Circle.U universities.

- Combining networking among Circle.U researchers and institutions with a career development programme for postdocs. „Visit your next host"

- Promoting joint PhD supervision as a tangible, low-barrier form of collaboration that benefits both researchers and PhD candidates.

- Connecting professionals in EU/international funding from each university and exchanging best practices

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Collecting Achievable Fruits

- Building on existing collaborations and encouraging joint projects through intensivized services like proposal writing support.

Co-Publication 2020-2025	Aarhus	Humboldt	King's	Paris Cité	Belgrade	Pisa	Vienna	Louvain	Oslo
Aarhus University (Denmark)		139	530	335	112	87	207	110	759
Humboldt-Universität zu Berlin (Germany)	139		753	779	530	554	177	261	692
King's College London (United Kingdom)	530	753		1194	589	685	210	204	1094
Université Paris Cité (France)	335	779	1194		628	929	229	492	940
University of Belgrade (Serbia)	112	530	589	628		967	170	463	625
University of Pisa (Italy)	87	554	685	929	967		96	568	601
University of Vienna (Austria)	207	177	210	229	170	96		105	153
UCLouvain (Belgium)	110	261	204	492	463	568	105		122
University of Oslo (Norway)	759	692	1094	940	625	601	153	122	

Collecting Achievable Fruits

- Building consortia, starting with an existing network and expanding it within CU

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MSCA DN

Universitetet i Oslo
Aarhus Universitet
King's College London
UCLouvain
Humboldt-Universität zu Berlin
Universität Wien
Università Pisa

What we also try - a look into our experimental box

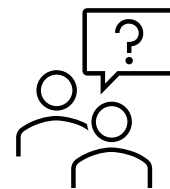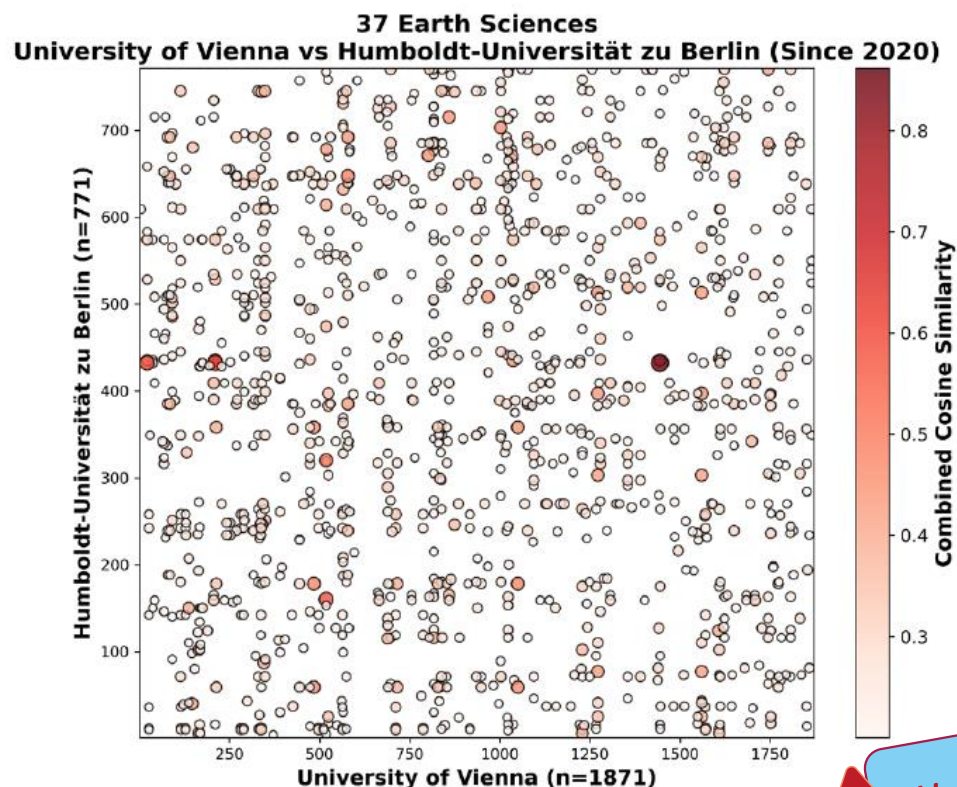created with you.com

We want to develop and use AI tools to:

- better understand the existing expertise and interests of researchers within the Alliance,

- identify new opportunities for collaborations,

- ideally linking these to relevant funding opportunities, and

- to create real added value for the research community?

Current challenges

- Gathering comprehensive data on researchers, targeting their research strengths, interests, publications, past projects, and potentially even their methodological expertise;

- Identifying the most appropriate data sources (e.g. publications) to find potential cooperations based on common interests and complementary skills;

- Connecting this information with funding opportunities;

- Developing the right use-cases in collaboration with researchers;

- Compliance with framework conditions such as GDPR or EU Digital Service Act.

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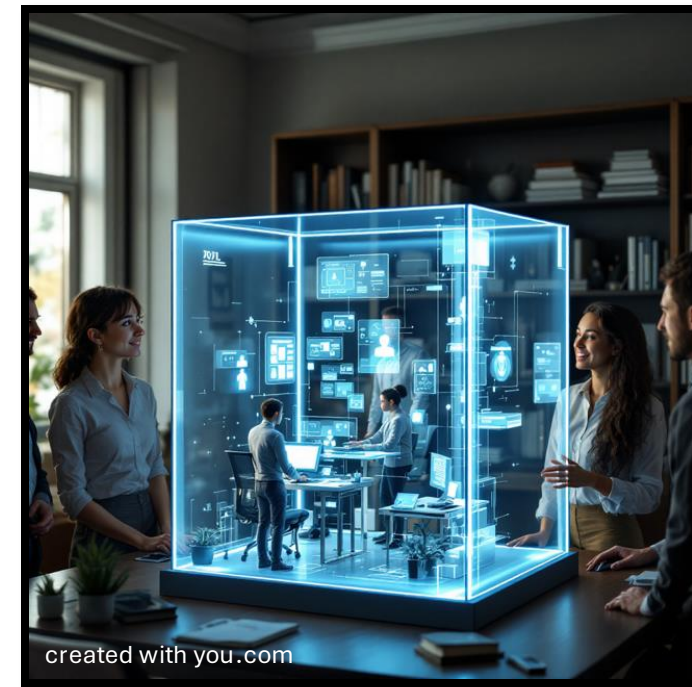
Searching for potential collaborations

37 Earth Sciences
University of Vienna vs Humboldt-Universität zu Berlin (Since 2020)

We are experimenting

1. Download all publications incl abstracts from CU universities.

2. Delete all joint publications

3. Converts each publication's text (title + abstract) into a numerical vector that reflects term importance (using TF-IDF Term Frequency –Inverse Document Frequency method)

4. Measure the cosine of the angle between these vectors and

5. Plot it in a heat map.

... and then start analyzing

What we hope to achieve

- Understand the CU research landscape by automatically processing and structuring information about researchers.

- Overcome traditional disciplinary and institutional boundaries and connect researchers who might not otherwise be aware of each other's relevant work.

- Identify funding opportunities by intelligently matching researchers and their potential collaborations with relevant calls for proposals.

- Increase the service level for researcher.

A promising strategy to significantly increase research collaboration and funding success within CU universities??

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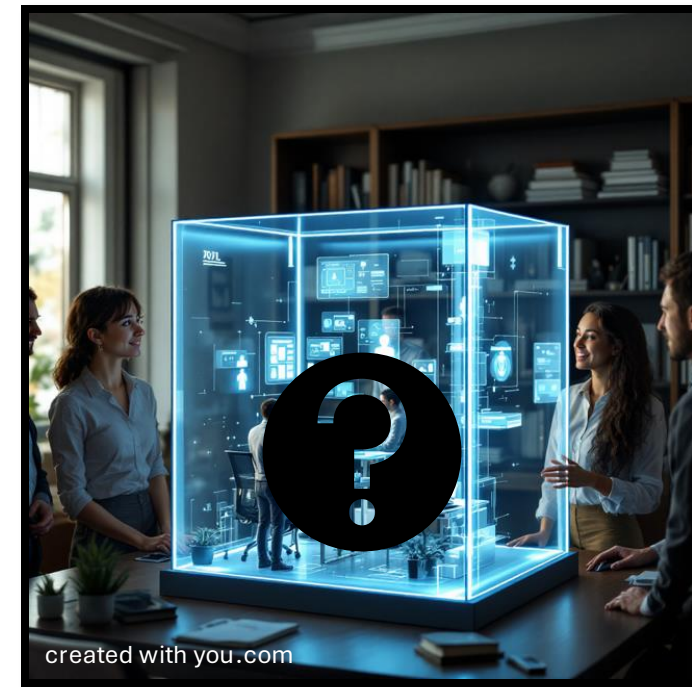
And in the "long" run... a little more courage

Why not implement a transformative hiring strategy across Circle U universities that fosters collaboration, enhances research impact, and aligns with the alliance's strategic goals?

Cluster hiring: Recruiting multiple faculty members in related fields to create a critical mass of expertise.

Possible implementation pathway:

- Identify strategic research areas with high synergy and strong interdisciplinary potential (e.g., *Climate Change* and *Democracy Studies, AI for Social Good*).

- Develop coordinated hiring procedures to attract and recruit faculty whose expertise strategically complements existing capacities, maximizes cross-institutional impact, and strengthens the identity and cohesion of research clusters.

Thanks

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