

Arqus European University
Alliance
Research and Innovation
dimension

Arqus I E+ (Oct 2019 – Sept 2022)



Arqus RI H2020 (Jan 2021- Dec2023)



Arqus II E+ (Oct 2022- Sep 2026)



RESEARCH AND INNOVATION DIMENSION OF THE ARQUS ALLIANCE

Colour code

- H2020
- Erasmus +
- Alliance

RESULTS TO DATE – at OCT 2022

CLUSTER MAP – at Sept 2022:

“Arqus partners acquired 18 shared H2020 projects in the last ~1,5 years of the H2020 framework programme, after having acquired 13 in the ~5 years leading up to that. + 5 joint projects in the Horizon Europe framework programme so far”

ANALYSIS OF RESEARCH COLLABORATION

- Regular updates of Cluster Map
- Other follow-up mechanisms of new joint research projects among Arqus partners

4 Large Networking Workshops (180 participants) on Climate Change and Artificial Intelligence:

- Resulting in promising research collaboration between Arqus universities
- Seed funding for research collaboration meetings

8 Research Focus Fora (RFF): 1) European Cultural Heritage, 2) Changing Societies 3) Climate Change and Biodiversity, 4) Digital Humanities, 5) Smart Materials, 6) Artificial intelligence, 7) Cancer diseases, 8) Healthy Ageing

200+ short term researcher exchanges (all career stages)

NETWORKING OF RESEARCHERS

- 2 Bridging Workshops to explore potential for interdisciplinary projects between climate change and artificial intelligence
- Objective: significant increase in research collaboration projects between Arqus Universities
- Future calls: e.g. Excellence Initiative in WIDERA (€5M, 20% for research activities)

NETWORKING OF VICE-RECTORS RESPONSIBLE FOR RESEARCH

- 5 High-Level Seminars bringing together VRs responsible for R&I at Arqus universities
- JOINT RESEARCH ACTION PLAN (v1 April 2022)

- Further growing together of Arqus research community
- 2nd version Joint Research Action Plan (May 2023)

RESEARCH ASSESSMENT REFORM

- Best practices Document
- Discussion Paper

- Recommendations on skills and competences for researchers in various assessment scenarios
- Adhesion to initiatives on Reform of Research Assessment

OPEN SCIENCE

OPENNESS POSITION PAPER - March 2022

Recommendations on Open Science development in Arqus, OS training materials and OS ambassador network

- Mentoring Programme for ESRs
- Summer/winter schools for ESRs on transferable skills
- PhD Career weeks Outside Academia

EARLY STAGE RESEARCHER DEVELOPMENT

- Mentoring Programme for ESRs
- PhD Advisory Board
- Training programme for careers outside academia
- ESR Development Resource Centre
- Visiting Scholar Scheme

STAKEHOLDER ENGAGEMENT/CITIZEN SCIENCE

- 7 workshops involving citizens and students in Open Research Agenda Setting (ORAS) on issues of Climate Change or Artificial Intelligence
- 1 Toolbox of co-creation methodologies + Recommendations on ORAS

INNOVATION IN TRANSFER

- Common training programme and knowledge platform
- 2 Pilot Co-Creation Labs in transfer

SHARING OF STRUCTURES AND INFRASTRUCTURES

- EuRep database for the sharing of rare research infrastructures
- Network of Research Support Officers (initiated)

GENDER, INCLUSION AND DIVERSITY

- Mainstreaming of gender, inclusion and diversity perspective

RESULTS FORESEEN BY END OF PROJECT – DEC 2023 and prospect for the future*

* Arqus II activities still in planning phase are not included here

Arqus Research and Innovation (Arqus RI) Project H2020 - Jan 2021-Dec 2023

Project Summary (Jan 2021)

The Arqus European University Alliance brings together seven* longstanding prestigious comprehensive research-intensive universities who share extensive experience in joint projects and a similar profile as internationalized institutions with deep regional engagement. Through this project, Arqus aims to **enhance the research and innovation dimension of the Alliance's activities** and to **address current global societal challenges through intensified joint research** characterised by the pursuit of excellence, openness, transparency and effective engagement with society.

Based on analysis of existing strengths, prior cooperation and shared strategic research interests, the Alliance will focus on the **fields of Artificial Intelligence/Digital Transformation and Green Deal/Climate Change** as transversal priority areas for **enhanced research collaboration**, characterised by their interdisciplinarity.

The project is organised around **three major challenges**, all intended to foster a context to nurture sustainable strengthened collaboration. The **first** addresses **Joint Science and Innovation**, through building an Arqus research community, and designing a roadmap for transformation(al) excellence. The **second** centres on **New Perspectives on Research**, seeking to strengthen human capital through alternative approaches to assessment and recognition, and to re-thinking transfer, with special reference to the Social Sciences, Humanities and the Arts. The **third, Open to Society**, focusses on the culture change brought by Open and Citizen Science.

Arqus Research & Innovation aims to complement and build on efforts already underway to foster scientific cooperation within the European University consortium, and to seek synergies between the education, research and innovation dimensions of Arqus.

* Currently eight universities

Extracts from the Arqus RI Midterm Review (Sept 2022)

“The project has delivered exceptional results with significant immediate or potential impact”.

“Overall the project has had a successful first phase that has laid the foundations for a programme of collaborative, joint research across the alliance, fostering mutual learning, capacity building for collaborative activities and a sense of joint strategic direction, with leadership buy in across the universities”.

“[...] commitment at leadership levels to enact institutional change over the medium to long term. This includes a visible and important commitment to Open Science and stakeholder engagement”

“Results in this reporting period include the development of a joint research action plan supported by the ClusterMap that was developed under Erasmus+ funding (and which includes a bibliometric analysis and analyses research status and collaborations for the last 10 years across the alliance).”

“The project has undertaken four researcher networking workshops [...] focused on the two societal challenges and has undertaken an insightful analysis of research assessment approaches across the alliance [...] and a helpful discussion paper to accompany this, and [under E+] has created a shared database for the use of research infrastructures and initiated a Research Support Officer Network. “

“A tool box for open research agenda setting approaches and methods for stakeholder engagement have been produced, candidate methods trialled from this and recommendations from these 7 pilots published, which in turn have been used to update the toolbox. ARQUS [RI] also intends to establish an open science ambassador network and open science training materials.”

I/ Research and Innovation in Arqus II (Oct 2022-Sept2026)

Introduction to Arqus II

Arqus II is the continuation of the Arqus European University Alliance initiated in 2019. Arqus is composed of the universities of Granada, Graz, Leipzig, Lyon1, Minho, Padua, Vilnius and Wroclaw. Its vision for 2032 is that of a forward-looking, open, integrated, and research driven European University, building transformative excellence with and for all.

Arqus II will upscale and institutionalize the pilot actions implemented in Arqus I.

Arqus II will deepen its focus on communities, promoting student and staff engagement through three separate initiatives: the **Arqus Living Lab** as a generator of innovative responses to three major and interconnected thematic priorities for the XXIst century: Climate Change & Sustainable Development; Artificial Intelligence & Digital Transformation; European Identity & Heritage. **Arqus Communities of Practice** will address domain-based challenges for professional and academic staff; the **Arqus Student Agora** will constitute a dynamic framework for student-led co-creation initiatives.

Arqus II will advance in joint flexible learning pathways, in innovative teaching, in **enhancing the experience of early-stage researchers**, and in synergies with its local eco-systems.

It will promote **three cross-cutting enablers**: traditional and innovative forms of mobility for all; inclusion and diversity; plurilingual and intercultural competence for democratic culture. In order to fulfil these tasks, Arqus II will develop a common digital environment for its collaborative work, as a joint virtual learning and teaching platform, digital tools for federated digital identity and secure certification. It will set up a **Talent & Innovation Fund** to attract excellent postgraduate students, to offer seed-funding for small scale bottom-up initiatives, and to test new forms of mobility. Finally, Arqus II will establish a development unit to facilitate data and evidence-based analysis for the strategic planning of the future of the Alliance.



II/ Research and Innovation in Arqus II (Oct 2022-Sept2026)

Work Package 02: Arqus Living Lab

The Arqus Living Lab (WP02) will be an open space for the promotion of multiple bottom-up groupings of students, academics, professionals, external stakeholders such as companies, non-governmental organizations, local and regional authorities, schools, museums and so on, working together towards the common goal of contributing to solve Europe's long-term challenges through education, research and innovation in a science-based and democratic way.

It is conceived as a **dynamic community generator of bottom-up initiatives** of all kinds leading to actual implementation in joint flexible academic offer of all kinds, including full joint degree programmes at EQF6, 7 and 8 (WP06), teaching innovation (WP05), seed funding applications for innovative learning activities (WP13), links with and between our local ecosystems (WP08), **doctoral activities** (WP07), or **research and innovation initiatives** (not included in this Work Plan and funded by other programmes and sources).

Work Package 07: Arqus PhD Pursuit

Continuing and expanding successful activities of Action Line 6 of Arqus I, this WP will provide early-stage researchers with the skills necessary to become internationally competitive in academia, to launch successful careers outside academia and to be prepared for existing and emerging grand societal challenges. These aims will be reached by setting up an **interdisciplinary mentoring programme**, establishing an **Early-Stage Researcher Development Resource Centre** and designing the framework for a **visiting scholar scheme for postdoc researchers**.

WP7 will also intensify the establishment of sustainable networks and collaboration involving Arqus early-stage researchers and will benefit from the support of a PhD Advisory Board to guarantee the quality of its actions.

Its ultimate goal is to contribute to the co-creation of new actionable knowledge, thus contributing to regional and European innovation strategies.

Work Package 13: Arqus Talent & Innovation Fund

This fund will aim to **attract talent at postgraduate level from around the world** to Arqus through a European University Scholarship Scheme, with an **annual call for a small number of Arqus Master's and doctoral scholarships** to be held at a minimum of two of the Arqus partner universities.

It will test **innovative mobility formats, including for researchers**, aim to produce joint calls an offer **seed funding** for: challenge-based teaching and learning with the possibility of having an associated research activity and other innovative initiatives, e.g. to allow **preparation of funding applications**, or to carry out small initial pilot runs.