

Impronta Granada: A Quadruple Helix Alliance for Regional Development

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Abstract

Impronta Granada is a quadruple helix alliance between the University of Granada and the Provincial Council of Granada that connects university expertise with territorial priorities across 174 municipalities. Building on participatory Urban Agendas, it combines a digital platform organising more than 1,000 measures with a portfolio of co-creation programmes (governance and agenda-setting, science-policy labs, living labs and open innovation, citizen science, challenge-driven entrepreneurship, and employability actions). Implementation is anchored in Medialab UGR and supported by institutional resources complemented by competitive European and national funding. The case reports strengthened municipal engagement, support to evidence-informed policymaking, and broader cultural and societal impact. It also highlights key enablers (facilitation and trust-building) and persistent challenges (political complexity, expectation management, and sustaining territorial presence), alongside priorities for improved AI-enabled matchmaking and expanded local university centres.



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Background and Institutional Context

The University of Granada (UGR) is a public university in southern Spain, founded in 1531. It is one of the largest and most internationally engaged universities in the country, with more than 57,000 registered students and a broader academic community that exceeds 70,000 individuals, including staff, researchers, and affiliates. The UGR's main campuses are located in Granada, with additional campuses in the Spanish autonomous cities of Ceuta and Melilla, making it one of the few European universities with a cross-continental presence.

TABLE 1 FACTS ABOUT UNIVERSITY OF GRANADA (2025)

Foundation year	1531
Programmes	370
Students (total)	57,320
International students incoming	~6,700
Administrative and support staff	2,842
Academic and research staff	3,901

Source: [UGR Analytics](#)

A key element of the UGR's current leadership structure is the **Vice-Rectorate for Social Innovation, Employability and Entrepreneurship**, which shows a broader understanding of innovation and entrepreneurship as a competence that supports social change, public innovation and local collaboration, not only business creation. The Vice-Rectorate brings together several units that support this work, including [Medialab UGR](#) (the university's social innovation laboratory), the [Centre for Employment and Internships](#), and [UGR Emprendedora](#), which supports entrepreneurial activity.

Within this context, [Impronta Granada](#) was created as an **alliance between the University of Granada and the Provincial Council of Granada**. Its aim is to strengthen cooperation between the university and the territory, and to make innovation activities more accessible to municipalities, organisations and citizens across the province. Impronta Granada was first developed with support from the European Commission's [Science Meets Regions programme](#), which aimed to strengthen links between scientific knowledge and public policy at regional level.

Motivation and Rationale

A key motivation for Impronta Granada was the recognition that the UGR already played a significant role in the province, but that cooperation with local actors was not always organised in a clear or accessible way. The main challenge was the lack of a structured mechanism enabling municipalities and territorial stakeholders to systematically connect with the university's expertise and innovation capacity. Collaboration often depended on

informal contacts or individual initiatives. Impronta Granada was developed to provide a more reliable and inclusive engagement framework, open to everyone, aimed at promoting and systematising the identification of opportunities and territorial involvement. It integrates a bottom-up approach to foster territorial development, engaging university stakeholders and actors across the region.

The initiative is grounded in the use of [Urban Agendas](#), which serve as an officially recognised planning instruments for national and EU funding frameworks. These agendas are developed through participatory processes and set out territorial measures and priorities for the coming years. Through this approach, Impronta Granada seeks to move beyond isolated projects and establish a common framework for university-territory collaboration, reinforcing the university's societal role and its commitment to public innovation and proximity.

Initiative Description

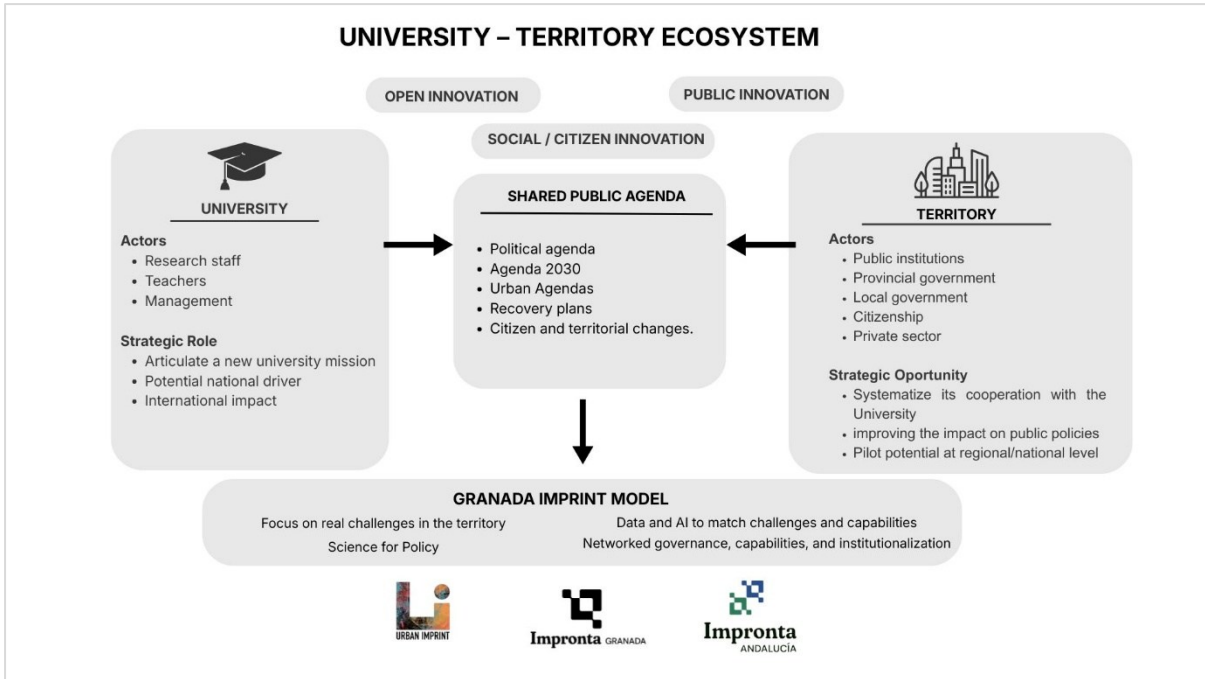
Digital Infrastructure and Ecosystem Activation

Impronta Granada is supported by [a digital platform](#) that functions as the operational backbone of the initiative. The website provides a shared space where territorial challenges and university expertise can be explored. It organises more than 1,000 measures and projects and translates them into a searchable challenge framework that users can navigate according to their interests and needs. To improve matchmaking, the platform applies data mining methods to connect challenge descriptions with the university's research outputs and areas of expertise. Ongoing developments include artificial intelligence tools that allow profile-based interaction and tailored suggestions. The platform also creates value beyond specific events, providing a continuous **entry point for cooperation** and keeping territorial priorities accessible over time.

Impronta Granada operates through a **quadruple helix model** that brings together the university, public sector, companies, and civil society in joint innovation processes (see Figure 1). This governance approach ensures that territorial challenges are addressed collaboratively and that innovation activities are shaped by a broad range of actors across the province.

Implementation follows a two-layer approach: the digital platform provides a permanent framework for identifying challenges and connecting them with relevant knowledge and expertise (1). The programme portfolio then translates this framework into action through participatory formats (2).

FIGURE 1 IMPRONTA GRANADA ALLIANCE



Source: Own elaboration.

Alongside the platform, Impronta Granada organises face-to-face co-creation activities where multidisciplinary stakeholders work together to develop proposals and projects linked directly to territorial needs.

Programme Portfolio and Key Activities

Within this framework, a set of interconnected programmes has been developed to translate academic knowledge into territorial development, public policy improvement and social innovation. These programmes provide multiple entry points for participation, enabling local actors to engage with university knowledge in practical ways and supporting innovation shaped by territorial priorities. They involve a wide range of stakeholders, including researchers, public administrations, citizens, companies and students, and are structured around six main pillars (see TABLE 2).

TABLE 2 MAIN PROGRAMME TYPES UNDER IMPRONTA GRANADA

Programme type	Main target groups	Purpose and contribution	Key Case Examples
Territorial Governance	Municipal actors, territorial intermediaries, all actors	Identify challenges, set priorities, and sustain coordination; align with institutional political agendas.	UGR County Councils, County Urban Agenda Forums, Impronta Granada Meeting.
Science–Public Policy	Public administrations, researchers, citizens	Translate evidence into decisions; improve “knowledge-based” public policies using scientific knowledge.	Innovation labs on challenges (e.g., climate change), Impronta Pilot (Ceuta/Melilla).
Open Innovation	Local stakeholders, researchers, communities	Design/test solutions with users; generate pilots and learning in real-life settings.	UGR Living Labs – Granada Tierra Viva.
Citizen Science	Citizens, schools, researchers, municipalities	Co-produce knowledge with citizens; strengthen open science, legitimacy, and social uptake.	Citizen Science Programme – Impronta Granada.
Entrepreneurship	Students, doctoral candidates, university community	Turn challenges into business/social opportunities; activate entrepreneurship with territorial purpose.	Ideas Factory 4.0, Impronta Awards, Red Emprende Programme.
Employability & Talent	Students, municipalities, employers	Connect talent with territorial needs; practical learning and talent retention in the province.	Internship Programmes, Urban Agenda Bridges Programme, Rural Campus, Political Talent.

Source: Own elaboration based on Impronta Granada activities.

Territorial Governance and Agenda-Setting

This pillar focuses on identifying territorial challenges, aligning priorities between institutions and sustaining long-term coordination between the university and the local territory. A key mechanism is the **UGR County Councils** (*Consejos Comarcales UGR*), which brings together researchers, technical staff, local authorities and other territorial stakeholders. Their objective is to detect local needs, identify development opportunities and connect these priorities with the scientific and innovation capacities of the university.

In parallel, Impronta Granada strengthens the active participation of the UGR in **regional Urban Agenda forums**. These events bring together municipalities, citizens, businesses and

academic actors to collectively reflect on development challenges. The goal is to design strategies that are aligned with the Urban Agenda and the Sustainable Development Goals.

Finally, the **Impronta Granada Meeting** serves as an annual platform to consolidate this governance ecosystem. The event gathers public institutions, researchers, companies and citizens to share progress, discuss territorial priorities and showcase projects with territorial impact. The [2nd Impronta Granada Meeting](#) brought together 132 participants: 43.18% from the University of Granada (including staff and students), 26.52% from public administration, 13.64% citizens, and 13.64% from the private and third sectors. These figures reflect a balanced quadruple helix representation.

Science–Public Policy Interface

The second pillar focuses on strengthening the interface between scientific knowledge and public decision-making. The **public policy innovation laboratories** promote collaboration between multidisciplinary researchers and public administrators to translate scientific evidence into actionable policy proposals for the provincial urban and rural agendas. One example was a climate change innovation laboratory organised in 2022, which led to concrete follow-up activities, including a collaborative chair on cave habitats involving researchers and municipalities, as well as a national project proposal developed with a participating municipality.

Furthermore, the **Impronta Granada–Ceuta–Melilla** pilot programme connects political and technical staff from public administrations with researchers from the UGR to improve evidence-based policymaking. In 2024, a one-and-a-half-day meeting was held with 15 political and technical representatives from the two Autonomous Cities of Ceuta and Melilla, who engaged with 40 researchers from the University of Granada around issues related to economic development and sustainability. This encounter has already produced tangible results in both campuses: in Ceuta, the creation of the Chair in Artificial Intelligence and Emerging Technologies for Wellbeing and progress towards an agreement for the development of Ceuta's Strategic Plan; and in Melilla, the creation of the Chair in AI, Digital Society and Territorial Innovation, together with ongoing work to establish the Melilla–Amazigh Chair to promote research, teaching and intercultural understanding around Amazigh language and culture.

Open Innovation, Living Labs and Missions

The third pillar is devoted to the experimentation and testing of solutions through open innovation ecosystems. In this model, complex social, economic and environmental challenges are addressed through **Living Labs**, collaborative environments where all stakeholders from the ecosystem co-create and test solutions in real-life contexts. One of the most emblematic examples is [Granada Tierra Viva](#), a living lab based on a European project which focuses on soil health, sustainable agriculture and territorial development.

Another relevant example of this approach is the development of the **Granada 2031 European Capital of Culture candidacy**, which functions as a large-scale cultural Living Lab. It shows that participatory innovation methodologies can also be used in cultural policy and creative ecosystems. Impronta Granada has implemented a Living Lab-inspired methodology to support the co-creation and shared governance of the cultural strategy through participatory workshops and collaborative processes that helped shape the candidacy and its programme. This approach ensures that the cultural strategy is not designed solely by institutions but emerges from a collective process involving the territory's cultural communities and social actors.

Citizen Science and Democratisation of Knowledge

The fourth pillar of the framework is the democratisation of knowledge production, which promotes citizen science initiatives. The **Citizen Science Programme** of Impronta Granada, funded by the [Spanish Foundation for Science and Technology](#) (FECYT), encourages collaboration between researchers, schools, social organisations and the public to address territorial challenges through participatory research methodologies. These initiatives strengthen public trust in science, increase the social relevance of research, support the uptake of scientific solutions in society, and promote open science and knowledge accessibility. Citizen science therefore becomes an important mechanism for connecting research with everyday social challenges.

Evidence of this approach can be seen in the programme's implementation across schools, municipalities and university centres. In 2024, citizen science activities engaged around 300 students across different educational levels and involved collaboration between UGR researchers, local schools and municipalities throughout the province. The programme has also been strengthened through agreements with local authorities, including the City Council of Guadix, and through the funding of more than ten Citizen Science projects across the university ecosystem.

Challenge-Driven Entrepreneurship

The fifth pillar aims to transform territorial challenges into entrepreneurial opportunities, viewing innovation not only as technological development but also as the creation of new economic and social initiatives that respond to local needs.

A central initiative in this area is the **Ideas Factory 4.0 hackathon**, organised by UGR Emprendedora. This event brings together students, researchers and entrepreneurs to develop innovative solutions to challenges identified within the Impronta Granada ecosystem.

Another important instrument is the **Impronta Granada Awards**, which recognise research projects with direct territorial impact. These awards encourage students and researchers

to translate academic work—such as theses and research publications—into practical proposals addressing social, economic or environmental challenges in the province.

Employability and Talent

The sixth pillar connects university talent with local needs through practical learning and talent retention. Key actions include internships in municipalities, the Urban Agenda Bridges Programme, the Rural Campus, and the Political Talent Programme, all linking student support with administrative and territorial opportunities.

A clear example of this pillar is the Urban Agenda Bridges Programme, launched in 2021 as a pilot initiative. Since then, it has supported 191 student internship projects linked to urban agenda priorities in participating municipalities. The programme combines training, practical experience and knowledge-transfer activities connected to strategic territorial development projects. By linking students directly with municipalities, companies, start-ups, spin-offs and non-profit organisations, it strengthens employability, supports talent retention and creates professional opportunities connected to local development needs, particularly in areas affected by depopulation. Implementation, Resources and Operational Capacity

Impronta Granada is implemented through a combination of institutional support, competitive funding and dedicated coordination structures within the UGR.

Funding and Human Resources

The initiative is supported by a basic budget allocation from the university. At the same time, many of the platform developments and programme activities have been financed through competitive European and national project funding. Operational coordination is anchored in Medialab UGR. The core implementation team consists of four project staff members working on Impronta-related activities, supported by one technical specialist funded directly by the university and one administrative staff member responsible for coordination and delivery. In addition to this core team, further university units contribute depending on the activity, including entrepreneurship support, employability services and participating research groups. This layered structure allows the initiative to mobilise expertise across the institution.

Managing Complexity Across the Territory

Impronta Granada operates in a province with 174 municipalities. Engagement levels vary across the territory, and implementation requires continuous communication, outreach and coordination. To strengthen local presence, the initiative is also developing university centres in municipalities across the province. These centres are designed to provide training for companies, employability support and cultural activities, responding to demand for a more distributed university presence beyond the city of Granada.

Outcomes and Impact

Impronta Granada has produced outcomes across cultural development, policy support, entrepreneurship awareness and municipal engagement. The scale of Impronta Granada's impact is evidenced by its capacity to mobilise both human and financial capital across the territory. At an international and national level, the programme has a massive reach with more than 30 partners and participation in high-impact projects such as Soilcrates, Urban Imprint and Engage Green. Together, these European and national projects represent an investment of more than EUR 1 million in funding, consolidating Impronta Granada as a major driver for regional development.

Cultural and societal impact: One concrete example is Granada's bid to become European Capital of Culture 2031. Impronta Granada played a leading role in organising citizen participation processes to support the bid. This strengthened collaboration between institutions and communities across the province and increased the capacity for collective cultural innovation. This participatory process, launched in March 2025, brought together over 100 participants in thematic labs and gathered more than 1,300 contributions through LabIN Granada, alongside other activities such as workshops with municipalities and youth political talent initiatives. In January 2026, Granada's candidacy, inspired and supported by the work developed through Impronta Granada, successfully passed the first stage of the European Capital of Culture selection process in Spain and is now among the four finalist cities.

Policy support and territorial development: Impronta Granada supports the Provincial Council in implementing large-scale territorial development projects. After the Council secured significant funding for regional investment measures, the initiative helped connect these needs with university research teams. This enabled practical implementation support and facilitated contracts that linked scientific expertise with local development priorities.

Entrepreneurial awareness: Impronta Granada increased awareness among students and researchers of entrepreneurial opportunities within the province. By focusing innovation activities on territorial challenges, it encourages proposals and start-up ideas that are grounded in local needs rather than disconnected from the regional context. A key example is the '**Ideas Factory by UGR Emprendedora**' hackathon, where 75 students use 'learning by doing' and mentoring to develop projects solving territorial challenges within the Impronta Granada framework.

Local engagement: Impronta Granada has also contributed to stronger engagement from municipalities. For example, one municipality funded the participation of 15 university researchers to deliver educational workshops for local schools. This reflects growing recognition of the value of university collaboration, even when longer-term impacts are difficult to measure immediately. Two examples in 2026 illustrate this role: the University's contributions to the draft Action Plan for the promotion of a sustainable local agri-food

system in Granada, and its participation in working groups for the design of cultural containers, an objective incorporated into public policy initiatives promoted by the City Council of Granada.

Developing approaches to measuring societal value: The initiative has highlighted the importance of evaluating social and policy impact beyond traditional academic outputs. As part of this effort, the University of Granada produced an early report tracking the university's influence on policy and public decision-making, supporting a broader understanding of social and policy impact. A key example is the 2024 [report on UGR's political influence](#), which used the Overton database to document over 8,200 citations of university research within global policy documents. By linking scientific outputs to public decision-making, this study provides a scalable methodology to quantify the real-world societal value of academic research.

Success Factors, Challenges and Lessons Learned

Key Success Factors

Creating a shared space for cooperation across institutional boundaries: By working through an alliance model, the initiative provides a stable interface between the university and territorial actors, making collaboration less dependent on individual contacts and more accessible over time.

Strong facilitation role played by the university: Impronta Granada is not only about delivering activities, but about enabling dialogue between actors with different responsibilities, incentives and decision-making cultures. This convening capacity has been essential for building trust and supporting joint work in complex governance environments.

Adaptability of the initiative: Rather than relying on a single instrument, Impronta Granada brings together different formats and funding streams under one coherent framework. This flexibility allows it to respond to emerging territorial needs, administrative requests or new policy priorities.

Credibility of the initiative: Impronta Granada's credibility has been strengthened through continuity and external recognition. The initiative's ability to sustain engagement over several years, combined with visibility in wider European and international contexts, has reinforced confidence among partners and supported further scaling.

Trust-building across institutional and professional cultures: A key success factor has been the gradual construction of trust among actors coming from very different worlds, particularly between the academic-scientific sphere and the political and policymaking sphere. These actors often operate with different incentives, languages, communication styles and timeframes, which can easily create distance or misunderstanding. In this

context, trust becomes an essential condition for meaningful collaboration, enabling dialogue, reducing friction and making it possible to sustain joint work over time despite differences in institutional logic.

Challenges Encountered

A central challenge is **managing the political and institutional complexity of territorial collaboration**. Public actors operate within party structures, administrative procedures and changing priorities. Effective engagement therefore, requires sensitivity to context, timing and governance processes.

Another challenge concerns **expectation management**. Many proposals must pass through political decision-making stages before they can be implemented. Progress can therefore be slower than anticipated, and partners need to be prepared for outcomes that may differ from initial ambitions.

Territorial presence is also demanding. Sustained engagement across a large province requires continuous outreach and incentives for participation, particularly in municipalities with fewer existing connections to the university.

Lessons Learned

Impronta Granada shows that territorial innovation depends as much on governance and relationships as on technical solutions. Universities need to understand the motivations and constraints of public institutions and recognise that collaboration is shaped by legitimacy, timing and political realities. The initiative highlights the value of constructive “soft influence”. Even without direct funding, universities can shape agendas by bringing evidence, credibility and long-term perspectives into local discussions.

A further lesson is the importance of realistic ambition. Complex ecosystems require patience, adaptability and sustained trust-building. Impact often emerges gradually through continued cooperation rather than through immediate results.

Sustainability, Transferability and Outlook

Impronta Granada’s sustainability depends on institutional anchoring, shared ownership with territorial partners, and the capacity to evolve beyond individual funding cycles.

Institutional Continuity and Long-Term Anchoring

Impronta Granada is supported at the Rectorate level as a strategic priority, with a strong focus on ensuring continuity beyond leadership, political and funding cycles. The experience of partner transitions at the provincial level has highlighted the importance of maintaining stable cooperation structures that can continue across electoral cycles. This continuity is reinforced through a shared alliance model, which positions Impronta

Granada as a joint initiative between the university and external partners, strengthening territorial ownership and reducing dependence on individual actors.

At the operational level, continuity is further supported by branding projects and activities under the Impronta Granada umbrella, with dedicated microsites hosted on the platform to maintain visibility and long-term use beyond individual project lifecycles. Local partners also contribute to certain activities, for example through support for events and prizes linked to territorial innovation and entrepreneurship.

Scaling and Transferability

Impronta Granada has already begun to expand beyond the provincial level. Building on the experience in Granada, the UGR has launched cooperation at regional level through [Impronta Andalucía](#), with the aim of connecting universities across the region to address public challenges. The initiative is also increasingly shared through national and international networks. Training sessions, presentations and peer exchange activities are used to communicate the model and support adaptation in other territorial contexts.

Outlook

Future priorities focus on strengthening both the digital platform and territorial presence. On the digital side, planned developments include improved use of artificial intelligence to support matchmaking between user profiles and local challenges, as well as new functions such as geolocation and mapping of projects across the province. Gamification tools are also being explored to increase student engagement and participation.

On the territorial side, the establishment of physical university centres in municipalities is expected to deepen local accessibility. These centres are intended to provide training, employability support and cultural activities, reinforcing the university's presence beyond the city of Granada.

Overall, the initiative's forward direction combines platform improvement, decentralised engagement and continued institutional anchoring to strengthen long-term territorial collaboration.

Contact Details and Resources

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Resources

- [Centre for Employment and Internships](#)
- [Granada Tierra Viva](#)
- [Impronta Andalucía](#)
- [Impronta Granada Website](#)
- [Medialab UGR](#)
- [Science Meets Regions Programme](#)
- [Spanish Foundation for Science and Technology](#)
- [UGR Analytics](#)
- [UGR Emprededora](#)
- [Urban Agendas at Impronta Granada](#)