# WWTF IMPACT EVALUATION 2025

REPORT BY THE INTERNATIONAL REVIEW PANEL

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# **Executive Summary**

This report presents the findings and recommendations of the external evaluation of the Vienna Science and Technology Fund (WWTF), conducted by an international review panel between June 2024 and February 2025.

The main objectives of the evaluation were to 1) assess WWTF's achievements over the past decade in relation to its strategic goals, and 2) to identify future challenges and opportunities to develop recommendations for its future direction. The evaluation process comprised a diverse range of materials, including: (1) a Self-Assessment Report (SAR) developed by WWTF, (2) an accompanying study conducted by the Austrian Institute of Technology (AIT) and the Centre for Science and Technology Studies at Leiden University (CWTS), and (3) interview sessions with 39 key stakeholders from Vienna's research area. All the materials and interviews formed part of the evidence available to the panel.

#### **Key Findings**

WWTF has played a catalytic role in strengthening and transforming Vienna's research area over the years, by supporting scientific excellence per se, convening relevant partners, and initiating new and timely interdisciplinary collaborations.

Guided by a board of leading scientific experts and supported by a strong network of stakeholders, WWTF has consistently brought emerging European trends and debates to the city, acting as a think tank embedded within Vienna's research and innovation landscape. By boosting scientific excellence in strategic fields such as digitalization, Smart City initiatives, and digital humanism, WWTF has contributed to the integration of these topics into local policy.

The impact of WWTF's activities over the years is clearly reflected in metrics gauging scientific quality. WWTF's metrics demonstrate levels of academic excellence that exceed Austrian benchmarks. WWTF's is progressively catching-up with the highest European excellence standards, as set by the European Research Council.

WWTF is recognized as a unique funder of interdisciplinarity in Vienna, fostering cross-disciplinary and cross-institutional collaborations, enhancing knowledge integration, and promoting alignment across universities, research institutions, and local policy bodies.

WWTF's selection and support processes are highly effective, enabling grantees to focus on producing excellent research outcomes. Its refined procedures for selecting top talent and interdisciplinary projects are widely acknowledged for their transparency, and quality. Furthermore, its continuous support of grantees during funding is valued for its responsiveness and solution-oriented approach, which created optimal conditions for scientific results.

Given the Fund's limited financial resources, it is evident that WWTF delivers outstanding value for the money it invests, a view unanimously shared by stakeholders across Vienna's research area, including universities, research institutions, and policy actors.

#### **Recommendations**

Looking ahead, the panel recommends continuing with the activities that have contributed to WWTF's notable success, whilst also considering the following suggestions for future strategic direction and decision-making:

- Continue building on WWTF's well-established operational strengths by preserving its agile, informal, flexible, and transparent approach.
- Continue to finetune the balance between curiosity driven and mission driven research.
- Create a peer community of excellence among the grantees by convening them in various networks.
- Focus on the most successful instruments: Vienna Research Group (VRG) and interdisciplinary research projects.
- Enhance international visibility through strategic communication and strong research ambassadors. Implement a coordinated strategy with key institutions and highlight research outcomes through targeted storytelling by grant holders.
- Position WWTF at the research–innovation interface by supporting translational formats like Proof-of-Concept instruments and thematic workshops to connect excellent research with innovation ecosystems and new funding partners.
- Maintain focus on interdisciplinary projects including clear quality criteria and tailored evaluation procedures, including reviewer training; initiate structural incentives, to embed interdisciplinarity more effectively in Vienna's research area.
- Develop a strategy to secure and increase funding for WWTF.

All in all, the Review Panel agrees that WWTF has performed outstanding work, highly relevant to Vienna's research area. Its contributions were overwhelmingly recognized and praised by members of the local research area and merit greater visibility and strategic recognition.

# Kurzdarstellung

Dieser Bericht fasst die Ergebnisse und Empfehlungen eines internationalen Begutachtungsgremiums zusammen, die im Rahmen der externen Evaluation des Wiener Wissenschafts-, Forschungs- und Technologiefonds (WWTF) zwischen Juni 2024 und Februar 2025 erarbeitet wurden.

Ziel der Evaluation war es einerseits, die Leistungen des WWTF in der Periode von 2014 bis 2024 im Hinblick auf seine strategischen Ziele zu bewerten sowie andererseits zukünftige Herausforderungen und Chancen zu identifizieren und darauf aufbauend Empfehlungen für die weitere strategische Ausrichtung des WWTF zu entwickeln.

Die Einschätzungen des Panels begründen sich auf unterschiedlichen Daten und Ressourcen, nämlich ein vom WWTF erstellter Self-Assessment Report (SAR), eine begleitende Studie, durchgeführt vom Austrian Institute of Technology (AIT) und dem Centre for Science and Technology Studies der Universität Leiden (CWTS), sowie Interviews mit 39 zentralen Akteur\* innen aus dem Wiener Forschungsraum. Alle Materialien und Interviews flossen als Evidenz in die Arbeit des Panels ein.

#### **Zentrale Ergebnisse**

Seit über zwei Jahrzehnten spielt der WWTF eine impulsgebende Rolle für die Transformation des Wiener Forschungsraums. Er fördert wissenschaftliche Exzellenz nicht nur unmittelbar, sondern auch durch die Vernetzung relevanter Akteure und indem er neue, zeitgemäße interdisziplinäre Kooperationen anstößt und einfordert.

Angeleitet von einem hochrangig besetzten wissenschaftlichen Kuratorium und unterstützt durch ein starkes Netzwerk von Stakeholdern hat der WWTF konsequent aufkommende europäische Trends und Debatten nach Wien gebracht und dabei als ein in die Wiener Forschungs- und Innovationslandschaft eingebetteter Think Tank agiert. Durch die Verbindung von wissenschaftlicher Exzellenz mit strategisch relevanten Feldern wie Digitalisierung, der Smart City-Initiative und digitalem Humanismus unterstützt der WWTF die nachhaltige Integration dieser Themen in die lokale Politik.

Kennzahlen wissenschaftlicher Qualität belegen die wirksamen Investitionen des WWTF: Bibliometrische Leistungsindikatoren weisen für vom WWT geförderte Forschung ein Maß an akademischer Exzellenz auf, das über österreichischen Benchmarks liegt. Zugleich nähert sich der WWTF zunehmend den höchsten europäischen Exzellenzstandards an, wie sie etwa vom Europäischen Forschungsrat (ERC) gesetzt werden.

Der WWTF wird für seine systematische Förderung interdisziplinärer Forschung als einzigartiger Akteur in der Wiener Forschungslandschaft anerkannt. Er unterstützt fach- und institutionenübergreifende Kooperationen, stärkt Wissensintegration und fördert die strategische und inhaltliche Zusammenarbeit zwischen Universitäten, Forschungseinrichtungen und Politikakteuren.

Die Auswahl- und Förderprozesse des WWTF sind äußerst effektiv und ermöglichen es Geförderten, sich auf exzellente Forschung zu konzentrieren. Seine ausgefeilten Verfahren für die Auswahl herausragender Talente und interdisziplinärer Projekte sind weithin anerkennt für ihre Transparenz und Qualität. Darüber hinaus wird die kontinuierliche Betreuung während der Förderlaufzeit für ihre Reaktionsfähigkeit und Lösungsorientierung sehr geschätzt – sie schafft optimale Bedingungen für exzellente Forschung.

Angesichts der begrenzten finanziellen Mittel ist es offensichtlich, dass der WWTF ein herausragendes Kosten-Nutzenverhältnis liefert – eine Sichtweise, die von den Akteuren einschließlich Universitäten, Forschungsinstitutionen und politischen Akteuren im gesamten Wiener Forschungsraum einstimmig geteilt wird.

#### **Empfehlungen**

Mit Blick in die Zukunft empfiehlt das Panel, die erfolgreichen Aktivitäten des WWTF fortzusetzen und dabei folgende strategische Weiterentwicklungen in Betracht zu ziehen: Weiterer Ausbau der gut etablierten operativen Stärken des WWTF durch Beibehaltung seines agilen, informellen, flexiblen und transparenten Ansatzes

- Weiterer Ausbau der gut etablierten operativen Stärken des WWTF durch Beibehaltung seines agilen, informellen, flexiblen und transparenten Ansatzes.
- Beibehaltung und weitere Feinjustierung der Balance zwischen erkenntnisgeleiteter und missionsorientierter Forschung.
- Förderung von Exzellenz innerhalb des Förderportfolios, z. B. durch gezielte Vernetzung der Geförderten.
- Fokus auf die erfolgreichsten Förderformate: Vienna Research Group Leaders (VRG) und der interdisziplinären Forschungsprojekte.
- Erhöhung der (internationalen) Sichtbarkeit des WWTF durch strategische Kommunikation und starke Forschungspersönlichkeiten als Botschafter\*innen; Sichtbarmachen von Forschungsergebnissen durch Storytelling von Geförderten; Nutzung von Schlüsselinstitutionen für koordinierte Kommunikationsinitiativen.
- Positionierung des WWTF an der Schnittstelle von Forschung und Innovation durch Unterstützung translationaler Formate wie Proof-of-Concept-Instrumente und themenspezifische Workshops zur Anbindung exzellenter Forschung an Innovationsökosysteme und neue Förderpartner.
- Beibehaltung des Fokus auf interdisziplinäre Vorhaben mit klaren Qualitätskriterien und maßgeschneiderten Evaluationsverfahren, inklusive Gutachterschulungen; Anregung von strukturellen Anreizen, um Interdisziplinarität nachhaltig im Wiener Forschungssystem zu verankern.
- Ausarbeitung einer Strategie um die Finanzierung des WWTF zu sichern und zu steigern.

#### **Fazit**

Das Review Panel ist sich einig, dass der WWTF herausragende Arbeit leistet, die von hoher Relevanz für den Wiener Forschungsraum ist. Seine Beiträge wurden von den Akteur\*innen vor Ort durchgehend anerkannt und gewürdigt – und verdienen größere Sichtbarkeit und strategische Anerkennung.

## Introduction

The Vienna Science and Technology Fund (WWTF) is a private, non-profit research funding organization dedicated to advancing science and innovation in Vienna. Established in 2002, WWTF has provided funding to support excellent research and top researchers, strengthening Vienna's position as a leading scientific hub. WWTF's mission as an independent funding organization is to advance science and research in Vienna through the organization's capacity to fund excellent research and to contribute to the thematic and structural dynamics of the Vienna research area.

The Vienna Science and Technology Fund (WWTF) operates with financial support from two primary sources: the private foundation AVZ Privatstiftung<sup>1</sup> and the City of Vienna, while maintaining full independence in governance and decision-making. This ensures that WWTF can operate autonomously, aligning its funding strategies with research excellence and innovation. Additional financial resources may come from private donations and cooperation agreements. As of 2024, WWTF has provided € 264 million in funding to support Viennese research and researchers since its foundation.

Over the years, WWTF's mission has evolved to address emerging scientific challenges, with its most recent strategic adaptation (2020/21) where its commitment to supporting outstanding researchers and research projects while actively fostering interdisciplinary collaboration across disciplines and institutions is being reinforced. WWTF implements long-term thematic programs, which are selected through a rigorous ex-ante evaluation process and structured discussions involving all governing boards.<sup>2</sup>

These programs include regular funding calls for individuals (Vienna Research Groups – VRGs) and projects, along with additional initiatives such as the calls for New Exciting Transfer Projects (NEXT) and funding for emerging research areas. Additionally, WWTF supports infrastructure development by funding research facilities at nine public universities in Vienna, ensuring that institutions have the necessary means to carry cutting-edge research.

WWTF's financial resources have grown significantly over the years, reaching today an annual budget of € 18–20 million, reflecting stronger institutional support.<sup>3</sup> Moreover, the contribution from the City of Vienna has grown over time, covering today over 50% of the annual budget. Since 2019, WWTF has expanded its regional impact through a cooperation agreement with Lower Austria, allowing institutions there to participate in WWTF projects with up to 49 % of the project budget, compared to the standard 20 % cap for non-Vienna research.

<sup>&</sup>lt;sup>2</sup> WWTF's organisational structure implies two boards, the Board of Directors (six members) and the Advisory Board (26 members incl. chair and vice chair) <sup>3</sup> See WWTF Office (2025) for detailed budget development

# 2. Evaluation Approach

WWTF's external evaluation, conducted between June 2024 and February 2025, assessed the organisation's work over the decade from 2014 to 2024. The evaluation was led by an international panel of experts and informed by a combination of independent analyses and direct engagement with the Vienna research community. The panel's assessment was based on their extensive expertise in relevant fields, complemented by an empirical study carried out by AIT and CWTS (Reiter et al. 2025), which systematically gathered evidence on WWTF's achievements. In addition, a Self-Assessment Report (SAR) (WWTF Office 2025) prepared by WWTF provided key data and insights from an internal perspective. To further capture perceptions, experiences, and WWTF's recognition within the local research landscape, the evaluation process culminated with a site visit, where panel members conducted interviews with a diverse range of stakeholders (see details on methods and sources in Chapter 2.2). The panel was composed of the following members:

- **Thomas Bjørnholm** (Panel Chair), Chief Scientific Officer, Villum Foundation, former Pro-Rector for Research and Innovation at the University of Copenhagen.
- **Nina Buchmann**, Professor at the Department of Environmental Systems Science, ETH Zurich.
- Susan M. Gasser, Director of the Foundation of the Swiss Institute for Experimental Cancer Research (ISREC), former director of the Friedrich Miescher Institute for Biomedical Research (FMI).
- **Regina Hodits**, Managing Partner, Wellington Partners Life Sciences, Munich.
- **Odej Kao**, Professor of Distributed and Operating Systems at the TU Berlin, former spokes-person of the board of the Einstein Center Digital Future.
- Sarah de Rijcke, Professor of Science, Technology and Innovation Studies at Leiden University and Dean of the Faculty of Social Sciences at Leiden University.
- **Robert Jan Smits**, President of the Executive Board of TU Eindhoven, former Director-General of Research and Innovation at the European Commission.

#### 2.1 Objectives of the Evaluation

This evaluation provides a comprehensive analysis of **WWTF's impact on Vienna's research area**, both in the specific fields it has funded and beyond. It seeks to generate strategic insights that will inform WWTF's future direction, ensuring its continued relevance and effectiveness in supporting research in Vienna.

The evaluation was guided by two key objectives: first, to **assess WWTF's past achieve-ments**, examining the extent to which its funding instruments and activities have contributed to reaching its overall strategic objectives, (i) funding excellent projects and research, (ii) strengthening Vienna as a city of science and innovation by the emergence of new fields and approaches, (iii) contributing to the thematic and structural dynamics of the Vienna research area through bridging disciplines and facilitating interdisciplinarity. The second objective was to **identify emerging challenges and changes** – within academia and in the wider societal and policy context – that may create new opportunities or pose potential risks, thereby shaping WWTF's future direction.

The resulting recommendations are designed to **support informed decision-making** within WWTF's boards and office **over the next 5–10 years**, ensuring that the foundation continues to be a key driver of innovation and excellence in Vienna's research area.

#### 2.2 Method and Data Sources

For its assessment, the panel had access to a diverse range of materials, including: (1) the Self-Assessment Report (SAR) provided by WWTF (WWTF Office 2025), (2) an accompanying study conducted by AIT and CWTS (Reiter et al. 2025), and (3) ten interview sessions with key stakeholders from Vienna's research community.

The **Self-Assessment Report (SAR)** provided information on WWTF's aims, governance structures, programs, and broader contextual framework, along with extensive data and statistics from the last 10 years. It outlined WWTF's organizational structure, its role within the Austrian and Viennese research area, as well as its funding instruments, thematic priorities, and quality assurance principles. A core component of the SAR was the self-assessment of impact, which is supported by comprehensive data and well-documented statistical evidence. This assessment is illustrated through five impact stories, demonstrating how WWTF contributes to Vienna's scientific and innovation landscape through its funding activities and other strategic interventions.

In addition, the evaluation panel reviewed an **accompanying mixed-methods study** conducted by AIT and CWTS, which provided empirical evidence on the impact of WWTF's funding activities from 2014 to 2024. This accompanying study integrated bibliometric analysis, survey responses from funding beneficiaries, insights from expert interviews and results from a focus group. It assessed WWTF's past achievements in relation to its mission and specific funding approach within Vienna's research area. Specifically, it provided evidence on (i) the quality of the scientific output of WWTF-funded projects, (ii) the role of WWTF in fostering new research fields and approaches in the Vienna research area, (iii) its contributions to interdisciplinarity and collaboration across disciplines, and (iv) the impact of funded research in selected fields. Additionally, (v) it examined the EU-Mission Orientation in WWTF's research.

During the evaluation's site visit (February 23–25, 2025), **10 group interview were conducted with a total of 39 interviewees** from various stakeholder groups from Vienna's research ecosystem. These included representatives from advisory boards, top and middle management of Viennese universities and research institutions, policy actors from the City of Vienna and relevant federal ministries, and other Austrian funding agencies – as well as Vienna Research Group leaders and researchers funded by WWTF. The interviews followed structured guides that were tailored in advance to align with the specific focus of the evaluation and the expertise of the interviewees. At the same time, the format of interviews allowed for targeted follow-up questions to deepen insights and validate findings. It should be emphasised that the management of the evaluated organisation was not present during the interviews, which helped to ensure an open discussion.

## 3. Evaluation Results

Over the past decade, the work of Vienna's Science and Technology Fund (WWTF) has stood out as exceptional. The organisation has been highly effective in leveraging local initiatives to generate a demonstrable national impact. By continuously refining its work, WWTF has established a lasting footprint in Vienna's research landscape. This footprint is defined not only by its key role in agenda-setting and policy advice, its unique approach to interdisciplinarity, and its success in attracting top talent and supporting excellent research – but above all, by its bridge-building and convening power, offering a space for dialogue within an otherwise fragmented research environment.

Perceptions of all those involved in this evaluation, including grantees, university deans, vice deans and faculty leaders, policy makers, and members of the boards, consistently coincide on the positive impact of WWTF.

The results of this evaluation will present WWTF's impact as follows:

- Excellence in research funding
- Broader impacts on Vienna's research area
- Catalysing new fields and interdisciplinarity
- · Processes and procedures

#### 3.1 Excellence in Research Funding

WWTF's focus on excellence in basic research is highly regarded within Vienna's research area, as it concentrates on fields of regional priority and strength. The impact of its funding is evident in both bibliometric analyses and the career advancement of its grantees. Scientifically, citation-based bibliometric indicators demonstrate that WWTF-funded projects have a higher impact compared to the regional average in Vienna and to other national funding agencies, such as the Austrian Science Fund (FWF). Research output from WWTF grants shows an impact level 80 % above the global average (MNCS) and double the world average in terms of publications among the top 10 % most cited (PP [top 10 %]) (see Figure 1, annex).

Beyond bibliometric success, WWTF's commitment to supporting top research talent is evident in the career trajectories of its grantees. Both Vienna Research Groups (VRGs) and Principal Investigators (PIs) benefit from enhanced career prospects, securing higher-profile academic positions and prestigious grants. Additionally, WWTF plays a crucial role in bridging the early-career gap, significantly benefiting young researchers and fostering groundbreaking, interdisciplinary research in emerging fields. By bridging early-career gaps and strengthening Vienna Research Groups (VRGs), WWTF plays a crucial role in attracting top talent from an international pool and retaining them.

Its dedication to creating optimal research conditions across all phases of a project has led to notable scientific achievements. The fund's genuine commitment to supporting innovative and high-potential proposals is widely recognized and valued within Vienna's research area. WWTFs ability to identify and support innovative projects has led to notable scientific achievements.

Moving forward, sustaining its independent, flexible approach will be essential in maintaining its high standards and impact. As research landscapes evolve, WWTF must continue to adapt

strategically, ensuring that its funding remains a catalyst for groundbreaking discoveries and a cornerstone of Vienna's research excellence.

#### 3.2 Broader Impacts on Vienna's Research Area

WWTF's active engagement and responsiveness as an organisation that "walks and talks", has earned it a high level of trust, making efficiency and relevance two of its most valuable assets. WWTF has played a key role in strengthening networks and fostering collaboration in Vienna's decentralized research funding landscape. By cultivating a cohesive and cooperative environment, WWTF has enabled competing institutions to align strategies, self-organize, and engage in high-level discussions for key research priorities.

WWTF actively engages in European-level discussions, leveraging its scientifically excellent advisory board and stakeholder network to channel international debates and emerging trends back to Vienna. This function effectively provides Vienna with a direct think-tank connection to European research and innovation strategies. Moreover, WWTF plays a key role in translating scientific advancements into strategic areas such as digitalization, Smart City initiative, and digital humanism. By integrating these topics into local policy discussions, it enhances Vienna's ability to develop forward-looking strategies.

Beyond transferring knowledge, WWTF actively connects relevant stakeholders, creating the necessary networks that enable progress in these areas. Its role as a platform for policy advice is particularly valuable in the city's fragmented research landscape, offering coherence and strategic direction. Beyond its formal funding mechanisms, WWTF provides an informal yet highly effective platform for exchange among all key actors in Vienna's research area, reinforcing collaboration and knowledge-sharing across institutions, creating impact beyond the local level.

The significance of the VRG program was repeatedly underscored by stakeholders across the Vienna research area. There was consistent praise for the program's role in attracting international research talent, which is viewed as an important factor that contributes both to scientific excellence and institutional visibility.

#### 3.3 Catalysing New Fields and Interdisciplinarity

WWTF's ability to effectively identify emerging fields of opportunity and strategically invest in strengthening and advancing thematic areas is also widely recognized as one of its greatest assets and goals. WWTF generates momentum in key research fields at critical times by providing incentives for targets that are identified through continuous communication with experts in each field. Its funding instruments, aligned with its thematic programs, are designed

to address sectoral needs and bridge human resource gaps. As a result, WWTF has played a pivotal role in building and reinforcing strong thematic areas developing processes for identifying, advancing, and supporting new fields with potential and relevance, such as precision medicine, Smart City initiatives, and digital humanism.

WWTF has made continuous efforts along the years to improve processes and instruments that can call for, address, recognize, and support interdisciplinary initiatives. This has resulted in its recognition as a unique funder of interdisciplinary research that responds to the needs of society and the city. To deliver such research results, WWTF has had to

#### **Bibliometric evidence:**

WWTF-funded research has a strong profile of international collaboration, with over 1,500 publications involving international partners. These publications have twice the global average impact (MNCS).

WWTF-funded publications show a strong diversity of research fields, reflecting an interdisciplinary engagement that integrates knowledge from different disciplines. One of the most significant forms of research collaboration is within the same institution.

develop sophisticated new call designs, evaluation processes, and funding mechanisms, that now enable the successful implementation of interdisciplinary and socially relevant research.

WWTF is recognized for its unique ability to fill a critical funding gap in Vienna by fostering cross-disciplinary and cross-institutional collaborations. Such efforts enhance knowledge integration and promote alignment across universities, other sites of research and political bodies. While WWTF's incentives have noticeably increased the readiness of universities to embrace interdisciplinary projects, further progress is still needed in this area.

Furthermore, WWTF's funding model successfully promotes high-impact international collaboration, reinforcing Vienna's research excellence on a global scale. Viewed globally, the interdisciplinary nature of WWTF-funded research is at an average level, and opportunities exist to further strengthen knowledge integration across fields.

#### 3.4 Funding Instruments

The evaluation panel recognizes the importance of thematic co-dependence between funding instruments. This co-dependence is a key factor in building strong research areas, forming the foundation for the development of critical mass and long-term scientific advancement. Within WWTF's design approach (for the thematic programs, instruments, and calls), there is a defining feature based on co-creation, being carried mostly through informal procedures of brainstorming (with members of the Vienna research area). This approach represents an impactful collaboration resulting in the development of common strategic planning. By inviting and gathering institutions and researchers to contribute to programming and align efforts, WWTF has set a cornerstone for joint initiatives that address common goals and strive for greater alignment.

WWTF's bottom-up approach to **instrument design** is deeply embedded in Vienna's research landscape, following a user-driven approach that ensures funding mechanisms remain responsive, effective, and highly relevant. Through its smart and original approach to curating science funding, WWTF plays a pivotal role in advancing research excellence.

Overall, **management procedures** (during funding) are recognized for their high flexibility and efficiency, enabling quick response and lean administrative procedures, both qualities highly valued by grantees and host institutions. **Review processes** also demonstrate transparent and reliable execution, ensuring the high-quality of funded projects and successfully supporting projects and individuals that produce excellent research. Furthermore, WWTF presents highly streamlined and excellent **procedures for selection and support** (before, during, and after receiving funding), enhancing funding experience and the capacity of grantees to concentrate efforts in the production of excellent results. The following processes can be highlighted:

- Selection mechanisms for young top-talent (VRGs) are highly refined, resulting in effective, transparent, and well-accepted procedures (appreciated by universities) that secure excellent research.
- Selection mechanisms for interdisciplinary projects are particularly noteworthy. Despite the complexity that interdisciplinarity entails, WWTF's selection process is efficient.
- Support processes during funding are extremely well regarded, in particular, responsiveness, solution-oriented approach, and a strong interest in fostering the production of quality results.

## 4. Recommendations for the Future

The panel identified several structural developments that are shaping the research landscape, and which are particularly relevant for WWTF's future direction. The panel recommends that the following considerations be taken into account when defining new activities.

First, the international competition for scientific talent has intensified significantly with cities and countries competing globally to attract and retain high-performing researchers, often under conditions of unequal resources, diverging academic cultures, and increasingly mobile career trajectories. At the same time, career pathways in many European systems remain constrained, which presents risks for long-term talent retention.

Second, the rapid deployment and diffusion of artificial intelligence (AI) is reshaping research methodologies, institutional priorities, and ethical frameworks. AI is not only a subject of research but increasingly a tool that transforms how science is conducted, and how results are validated and communicated.

Third, there is a growing demand for research to demonstrate relevance, accessibility, and societal impact. At the same time, increasing public scepticism toward science poses a threat to trust in knowledge institutions. These dynamics call for more transparent, participatory, and responsive models of research engagement.

Fourth, interdisciplinarity continues to gain importance as complex societal, technological, and environmental challenges require integrated approaches that transcend traditional disciplinary boundaries. Funding, evaluation, and institutional structures are adapting to support this shift, although considerable barriers remain.

These developments constitute a dynamic and challenging environment in which strategic funding organisations must navigate. They form the backdrop for the panel's recommendations, which follow.

#### 4.1 Future proofing: Retaining Most Effective Practices

WWTF has developed well-refined practices that clearly support the effective delivery of its mission. To build on this success, it is important to maintain the impact and continue strengthening Vienna's research landscape. This includes refining existing processes and ensuring targeted, ongoing support for excellent and interdisciplinary research, as well as for attracting and developing research talent. The panel recommends the following practices to be preserved and further enhanced:

- Continue the "walking and talking", nurturing the active dialogue and continuous give-and-take with all players in the Viennese research area; maintaining the high quality of informal bridging that has been built up over the years. Preserve WWTF's role as a convening force and ensure close ties with key actors in the research landscape, while expanding and strengthening connections with industrial and social networks, following panel recommendations.
- Keep up the substantial support for interdisciplinary and exploratory research, which is considered unique in Vienna and even throughout Austria. Focus on improving evaluation methods for interdisciplinary projects and enhance the collaborative develop-

ment towards more interdisciplinarity, particularly as universities evolve to include more interdisciplinary teaching and prepare for such project types.

- **Diversify funding sources** to reduce reliance on individual sources and strengthen partnerships with other national and international funders, in line with the panel's recommendations. Expanding private and philanthropic funding streams will enhance financial resilience and enable WWTF to sustain its unique role. At the same time, it is essential to preserve the organisation's flexibility and responsiveness, even in the face of potential funding growth. Maintaining agility and the freedom to act must remain a priority.
- Prioritize core funding activities and reduce operational distractions to maximise impact and ensure long-term sustainability. This includes phasing out instruments for infrastructure investments and discontinuing the management of recruiting programs for external entities (e.g. universities). These shifts will allow WWTF to concentrate its resources on proven instruments such (VRG) and high-impact research projects.
- Maintain effective exit strategies. Ensure that any withdrawal from a research area is
  conducted strategically, with safeguards in place to prevent critical gaps. Engage universities and other institutions early in the exit process so they can assume responsibility
  and sustain key initiatives. Implement handover procedures that empower stakeholders
  to further develop research structures initially supported by WWTF. Additionally, consider moving toward long-term institutional strategies, enabling research areas such
  as Smart City initiatives to transition smoothly to alternative funding bodies or policy
  frameworks.

#### 4.2 Continue and Reinforce the Focus on Excellent Scientific Research

A challenge for Europe lies in attracting and retaining top research talent, given that many European universities struggle with slow career progression, flat remuneration, and inadequate infrastructure (Draghi 2024, section 2 horizontal policies). For Austria to remain competitive and drive scientific excellence, it will be essential to attract and retain talent by strengthening research funding, infrastructure, and career incentives. In this context, WWTF can play a crucial role by fostering the establishment of highly visible and productive laboratories and research centres. Its strategic investments not only strengthen Vienna as a research hub, but also contribute to Europe's broader efforts to advance scientific leadership and innovation. Several elements within WWTF's portfolio of activities were identified as central to ensuring the excellence of research in Vienna: 1) the appropriate thematic focus of its programmes; 2) its support geared towards career advancement and young researchers; and 3) its unique emphasis on interdisciplinarity projects. Further striving for excellence will require finetuning and tailoring of existing instruments. Overall, due to the efficient and effective implementation of VRG and project funding, the panel recommends the continuation of these and makes the following suggestions:

#### **Enhance VRGs and Fill-in the Gaps:**

- Leverage the success of VRGs by securing even stronger commitment and involvement from universities and faculties. The terms and objectives of hosting VRG recipients should be renegotiated to include measures that will retain talent after VRG funding ends. This could be in the form of an excellence bonus, increasing co-financing, or establishing bridging mechanisms to aid the transition phase to a tenure track or permanent position. The creation of a structured "Continuation Package" for continued support at the end of VRG funding may be helpful.
- Align funding programs with international standards. Benchmark the productivity of those receiving WWTF funding with international standards (e.g., that of ERC recipients), and compare the attractiveness of the awards based on size and flexibility.

- Facilitate the creation of an exchange platform for VRG grantees. An exchange platform can serve as a knowledge hub where talents can access information, share best practices, and receive peer support on common challenges. Following panel suggestions, this platform could incorporate mentoring programmes, welcome initiatives, and investment opportunities. This platform could also support the harmonization of processes across faculties, improving integration and long-term career development opportunities. Furthermore, the close exchange among VRGs will keep WWTF abreast of current issues, potential program opportunities, and ways to improve existing programs.
- Use WWTF's expertise to develop and implement capacity-building activities that prepare VRG grantees for the next stage of their careers and bridge the gap after funding.
   Starting 18 months before grant ends, activities should help VRGs ability to secure follow-up funding and expand their networks and connections for collaborative research.
- Design and introduce follow-up mechanisms to support the continued exploitation of research outputs, including the funding of continuation projects based on prior work.
   In addition, the panel recommends establishing targeted mechanisms to maximise impact by promoting collaborations between VRGs and industry – facilitating the application and potential commercialisation of research outcomes.

#### **Strengthen Interdisciplinarity and Thematic Fields:**

- Expand operational and funding opportunities by actively pursuing new collaborations on funding instruments and joint calls. Strengthening synergies with other funding bodies may enhance research opportunities and broaden Vienna's access to international research networks.
- Continue targeting strong thematic areas relevant to Vienna's research landscape, while
  maintaining thematic openness. This strategic balance allows WWTF to leverage its lean
  structure as an advantage, ensuring agility in response to emerging research needs while
  reinforcing Vienna's scientific strengths. Notably, Vienna's research landscape already
  hosts well-established fields such as biomedicine. Established fields should be acknowledged and considered in shaping future priorities and funding decisions.
- Maintain interdisciplinarity and a serious commitment to high-quality projects. Stronger commitments include 1) hosting networking events with a focus on linking researchers to industrial partners in order to facilitate interaction on applied and translational opportunities; 2) refine and optimize the evaluation processes to ensure that projects receive fair and insightful assessments; 3) sustain collaboration beyond projects with follow-up measures such as "Coming-back-together" grants or workshops that reinforce established networks and/or facilitate further exchange and collaboration.
- Further develop and strengthen relevant thematic areas. Deepen interdisciplinary collaborations in fields such as digital humanism. This includes promoting cross-disciplinary partnerships among AI researchers, social scientists, ethicists, and policymakers. Following panel's recommendations, supporting activities include substantial, targeted funding aimed at positioning Vienna more prominently in the European landscape.

#### 4.3 Enhance Visibility and Uptake of Research Results

WWTF plays a crucial role in funding and supporting high-quality research in Vienna, yet its visibility could be strengthened to maximize its influence. Enhancing the visibility of funded research can increase its impact, ensuring discoveries are effectively shared with the broader scientific community, policymakers, and potential industry collaborators. A coordinated and collaborative approach is essential to ensure that research results gain the recognition they

deserve and contribute to Vienna's position as a leading scientific hub. The following panel's recommendations outline key steps to enhance visibility, outreach, and the long-term impact of WWTF-funded research:

- Establish a comprehensive communication strategy, by developing an integrated strategy working together with universities, Vienna's Business Agency, and other key institutions to enhance the recognition of research results. Use existing platforms and networks to strengthen visibility through cooperation with key stakeholders. Engage a science-focused communications company to ensure that research results reach both public and scientific audiences, increasing Vienna's appeal to new funders and research collaborations.
- Showcase research excellence through targeted outreach. Shift the focus from WWTF itself to the research outcomes, reinforcing that the true product of WWTF's efforts is the success of its funded projects. Increase outreach efforts by actively promoting success stories. Showcase the excellence of VRGs by using grant holders as ambassadors, demonstrating how interdisciplinary research contributes to scientific progress.
- Expand visibility beyond Vienna. Strengthen WWTF's visibility outside of Vienna, as broader outreach may lead to new funding opportunities and expanded research collaborations. Investigate whether extending WWTF's presence beyond Vienna could open up joint funding opportunities that benefit Vienna's research community. Contribute to a transformative narrative, positioning Vienna not just as a tourist destination but as a science and innovation hub.
- Measure and showcase impact. Develop new Key Performance Indicators (KPIs) to
  measure and highlight the impact of funded projects. Conduct a detailed impact study to
  calculate and document the benefits of WWTF's funding to Vienna, quantifying its impact
  in monetary terms (EURO value) to attract greater support from policymakers and the
  Federal Government. Use expanded KPIs and empirical evidence to leverage stronger
  commitments from the local and national research community, ensuring sustained investment in research excellence.
- Strengthen the link between excellent research and innovation. To support Vienna's position as a hub for innovation, the panel recommends that WWTF further develop its role at the interface between excellent basic research and its potential for application. This could include the targeted seeding of translational or mission-oriented research activities, the introduction of Proof of Concept (PoC) instruments, and the organization of thematic workshops or impact-oriented formats. Building on its strong convening power, WWTF is well positioned to facilitate new constellations across disciplines and sectors, and to connect with relevant researchers in the innovation landscape. This may also involve partner-ships with companies, i.e. to provide early access to research talent, or to develop follow-up opportunities for promising research results. Such activities could contribute to diversifying WWTF's funding base, while safeguarding its core focus on scientific excellence.

#### 4.4 Strengthen Support for Interdisciplinary Research

Interdisciplinary research is crucial for addressing complex societal and scientific challenges, yet it remains extremely difficult to implement this effectively. The evaluation highlights the need for WWTF to take a more active and strategic role in fostering interdisciplinarity, leveraging its unique position in Vienna's research landscape as a funder of collaborative, interdisciplinary research, considering the needs of society or the body politic. The following recommendations aim to strengthen interdisciplinary work and enhance WWTF's contribution in this field:

- Define and promote excellence in interdisciplinary research, by establishing clear criteria
  for what constitutes excellence in interdisciplinary research. This will ensure that highquality interdisciplinary projects are properly recognized and supported. The panel
  recommends the enhancement of selection processes, developing evaluation criteria
  that capture the unique challenges and contributions of interdisciplinary projects, and
  training evaluators to better assess interdisciplinary proposals.
- Foster a strong interdisciplinary research environment by adapting funding calls, organizing events, and providing structured opportunities for interdisciplinary networking and collaboration. Building on current efforts, WWTF should continue to support cross-institutional partnerships that connect different disciplines, helping to break down silos and strengthening the foundations for a thriving interdisciplinary research landscape.
- Engage universities in capacity-building for students and research staff, to ensure that interdisciplinary approaches are embedded in academic training and institutional structures. The panel advice the introduction of feedback mechanisms with VRG grantees to gain practical insights into challenges and successes, using this knowledge to inform institutional development in universities and other research institutions.
- Increase visibility and impact of interdisciplinary research, by ensuring that results extend beyond WWTF and are acknowledged within broader landscapes. The panel sees value in expanding collaboration with industry partners and large companies, fostering early engagement with research talent and long-term collaborations that benefit both academia and the private sector. Additionally, WWTF should consider introducing strategic instruments that reinforce priority interdisciplinary focus areas and enable long-term commitments (10–15 years) in particularly promising research fields.

#### 4.5 Relevance of Societal Challenges in Shaping WWTF's Agenda

WWTF operates in a landscape marked by significant challenges that are pivotal to its mission. At the European level, the quest for technological sovereignty, particularly in areas like AI, demands robust investment in basic research to reduce dependencies and bolster Europe's autonomy. Societies increasingly demand tangible impact from research, placing a stronger emphasis on societal relevance and the applicability of scientific findings. At the same time, science scepticism is on the rise, posing a risk to the credibility of research and democratic institutions. Findings from FORWIT 2024, highlight the urgency of maintaining Austria's position as an attractive global research hub, while also addressing the growing distrust in science and its role in society.

All of the above pose a fundamental challenge: How can WWTF uphold its commitment to responding to societal expectations without implementing too much of a top-down approach? The panel advises against a radical shift in its portfolio towards directly addressing societal challenges through an overemphasis on mission-oriented research. Instead, WWTF should continue its well-balanced approach between investigator driven research and mission-oriented research, maintaining scientific excellence while ensuring societal relevance. Evidence shows that WWTF is already delivering on this ambition through well-designed instruments and targeted incentives that not only support outstanding basic research but also help translate results and connect them with the right stakeholders. To continue addressing societal needs and navigate emerging challenges effectively, the panel puts forward the following recommendations:

Keep the focus on interdisciplinary research for addressing complex societal challenges.
 Many scientific challenges lie at the intersection of multiple disciplines, making WWTF's emphasis on interdisciplinary research both timely and impactful. The panel recommends continuing to foster interdisciplinary research that tackles complex societal and

technological issues. This includes reinforcing that excellent basic research is highly valued not only by the scientific community in Vienna but also by policymakers and industry leaders.

- Apply an iterative and self-reflective approach by adopting a cyclic model that allows WWTF programs to evolve in response to emerging research needs, continuously reinventing and refining funding priorities.
- Adapt to changing research cultures by closely monitoring how young researchers engage with science. As the next generation reshapes research practices and career trajectories, WWTF should align its funding mechanisms with these evolving patterns to remain supportive and relevant.
- Remain responsive and agile in the face of evolving policy frameworks and research
  environments. The panel highlights the importance of maintaining WWTF's agile
  responsiveness as means to safeguard long-term relevance and sustainability.

## **Annex**

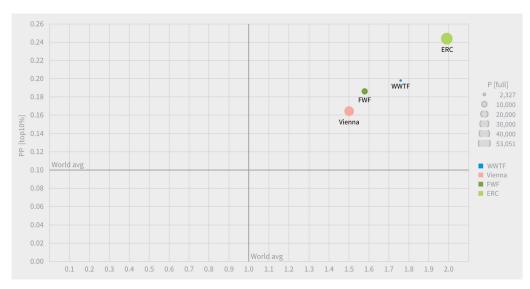


Figure 1: Citation-based scientific impact measurement as a proxy for research quality of WWTF and benchmarks.

CWTS WoS database version 2413

#### **Glossary**

AI	Artificial Intelligence
AIT (Austrian Institute of Technology)	Austria's largest research and technology organization, focusing on applied research and innovation.
AVZ (AVZ Privatstiftung)	A private foundation that, along with the City of Vienna, provides financial support for WWTF.
CWTS (Centre for Science and Technology Studies)	A research institute at Leiden University, specializing in bibliometric and scientometric analysis.
EC	European Commission
ETH (Eidgenössische Technische Hoch-schule Zürich)	Leading Swiss university specializing in science, technology, engineering, and mathematics (STEM).
EU-Mission Orientation	A strategic approach within EU research funding to address grand societal challenges through interdisciplinary and goaloriented research programs
FMI (Friedrich Miescher Institute for Biomedical Research)	A Swiss research institute focussing on biomedical discoveries and molecular biology.
FORWIT (Foresight in Science and Technology – Austria)	An initiative analyzing future trends and developments in science and technology, influencing research policies in Austria.
FWF (Austrian Science Fund)	Austria's central funding organization for basic research
ISREC	Swiss Institute for Experimental Cancer Research
MNCS (Mean Normalized Citation Score)	A bibliometric indicator measuring the citation impact of scientific publications compared to the global average.
NEXT (New Exciting Transfer Projects)	A WWTF funding initiative supporting knowledge transfer and innovation in emerging research fields.
PP (Top 10 %)	The proportion of a research entity's publications that belong to the top 10 % most cited publications worldwide.
SAR	Self-Assessment Report by WWTF (WWTF Office 2025)
TU (Technical University)	A term commonly used for technical universities, such as TU Berlin or TU Eindhoven, which specialize in engineering and applied sciences
VRG (Vienna Research Groups)	A WWTF funding program supporting early-career researchers in establishing independent research groups in Vienna.

#### References

Draghi, M. (2024): The future of European competitiveness. Part B | The future of European competitiveness – In-depth analysis and recommendations. European Commission.

Reiter, C. (AIT), Montalvo Rojo, A. (AIT), Kasztler, A. (AIT) and Noijons, E. (CWTS) (2025): WWTF Impact Evaluation 2025. Accompanying Research. Vienna.

WWTF Office (2025): WWTF Impact Evaluation 2025. Self-Assessment Report. Vienna.

#### **Terms of Reference**

#### 1. Subject of the evaluation

The subject of the evaluation is WWTF as an independent funding organization to advance science and research in Vienna in its capacity to (1) fund excellent research and (2) to contribute to the thematic and structural dynamics of the Vienna research area.

WWTF – as a relatively small player within a large and diverse research location – sees itself as a **persistent driving force** in and for Vienna as a research location and a strong partner for its universities and research institutions. Its main aim is to help to continuously increase **research excellence** through competitive funding. Scientific projects are selected according to the highest international standards, strict funding criteria and high-quality procedures. WWTF sees itself as a **bridge builder** for the Vienna Research Area. The fund helps to **connect research fields, disciplines and institutions, as well as to enable new and complementary approaches** in the existing strong landscape. WWTF leverages its funding activities with various other initiatives that are often related to policy, economic and societal actors to support its mission.

In pivotal fields, the fund helps to establish **new research groups**, by bringing in **exceptional talent** from abroad and, through funding **projects** with larger funding volumes in well-defined calls, foster interdisciplinarity and allow for key research fields to develop **critical mass**. To varying degree across its portfolio, WWTF programs also provide contributions to **societally and economically relevant issues and challenges** in the Vienna Research Area and beyond.

#### 2. Aims of the evaluation

The aim of the evaluation is to take stock of the achievements to date of WWTF in terms of its activities: To fund excellent research and to bridge fields, researchers and institutions in the Vienna research area through its core instruments as well as through its other activities. WWTF aims to understand its effects on its environment in Vienna, both with respect to the funded research fields and beyond.

Based on this assessment, the evaluation should provide recommendations for potential future directions for WWTF as a reliable and stimulating partner for Vienna research institutions and their researchers. For the last two decades, WWTF has successfully balanced a number of guiding factors and criteria in determining its direction and endeavours: research excellence, scientific renewal, contributions to the quality of the research location, and, in selected funding areas, societal relevance. The evaluation should help WWTF to, in the future, continue to strike this balance under changing policy discourses, namely with respect to societal demands on research.

The outcomes of this evaluation shall inform the discussions between the WWTF boards and office regarding the further development of the fund in the next 5–10 years.

#### 3. Evaluation questions

The evaluation shall cover two sets of questions. The first set is directed towards WWTF's past achievements<sup>4</sup> as a point for departure for the second set: providing orientation for WWTF's future directions.

#### Past achievements:

- a) In which ways and to what extent does WWTF as per its core mission fund excellent research?
- b) To what extent has WWTF contributed to the emergence of new fields and approaches in Vienna?
- c) To what extent has WWTF contributed to the bridging of research fields and facilitating of interdisciplinarity in the region?
- d) What are WWTF's impacts on the Vienna research area? Which exemplary broader impacts can be identified?
- e) Has the WWTF portfolio of instruments and activities been conducive to achieving its goals of funding excellent research, emergence of new fields and approaches, and bridging fields and facilitating interdisciplinarity?

Based on the evidence collected from answering the first set of questions, the evaluation shall provide recommendations/suggestions for WWTF's future directions, also considering its legacy, proven strengths, and position in the Viennese research system.

- f) How can and should WWTF continue to foster the emergence of new fields/approaches and interdisciplinary bridge-building in Vienna in the future (given this is still considered a worthwhile agenda)?
- g) To what extent and in which form should WWTF based on its own initial experiences consider and integrate selected societal challenges and needs in its core activity of funding excellent research? Which changes and discourses in relevant context areas have a poten-tial impact on WWTF's strategy and portfolio? Which of these should WWTF take into closer consideration?
- h) Are the current instruments and activities of WWTF still fit for purpose (see questions f-g)?
- i) Given the dynamics of the research landscape, how can WWTF remain responsive and open to long-term developments in science, without being embroiled in short-term fashions?

#### 4. Methods

A panel of seven international experts will perform the evaluation (henceforth: the Panel). The Panel is tasked with writing a conclusive evaluation report. The Panel will base its assessments and advice mainly on evidence from:

- I. a written self-assessment report by WWTF,
- II. a comprehensive, externally commissioned study that covers the central evaluation questions regarding past achievements,
- III. (individual and group) interviews with relevant stakeholders at the site visit. WWTF will suggest interview partners to the Panel.
- IV. various past evaluations on WWTF and its activities.

The Panel may ask WWTF to deliver further information and data upon request.

<sup>&</sup>lt;sup>4</sup> The period to be covered are, give or take, the last 10 years of WWTF's operations.

#### 5. Governance

- This evaluation is commissioned by the Board of Directors of WWTF.
   The Panel members will be appointed by the Board of Directors.
- The Panel reports to the WWTF Board of Directors.
- The Panel will be supported by an external secretariat. The secretariat will serve as the contact point between the Panel, WWTF and third parties.
- In finding evidence and providing directions, the Panel's assessment is carried out independently.
- The Panel is chaired by one of its members. The chair will be nominated by the Board of Directors.
- In case that decisions cannot be made based on a consensus within the Panel, the Panel can vote based on a simple majority in the Panel. In case of voting, the chair shall have one vote. In the event of a tie, the chair shall decide.
- The chair acts as spokesperson of the Panel. The chair is responsible for the allocation of tasks among the Panel members.
- The Panel has full authority over the content of the evaluation report. WWTF will receive a draft version of the report and may provide corrections of factual errors.

#### 6. Qualifications of Panel members

- The Panel shall be composed of renowned international experts with no current affiliation to an institution in Vienna that is a beneficiary of WWTF funding. Former participation in a WWTF selection committee is not considered as a conflict of interest.
- Panel members with an academic career shall make up the majority of the Panel.
   The background of academic Panel members shall include competences from life sciences & medicine, computer sciences (including digital humanism) and environmental sciences. In addition, the Panel should include expertise in research funding, innovation studies, science-society relationships, industry/venture capital relations and open science. Leadership experience in the context of science should also be represented in the Panel.
- The Panel composition should strive for gender balance and diversity in age and affiliation.

#### Deliverables of the Panel

- The main deliverable is a **conclusive evaluation report** of the Panel in English with approx. 20 pages, including a max. two-page executive summary. The report shall answer the eval-uation questions. It is the responsibility of the chair with the support of the secretariat to take oversight on the writing of the report.
- **Presentation** of the evaluation results to WWTF (office and boards) by the Panel chair or another appointed member of the Panel (either online or on-site).



