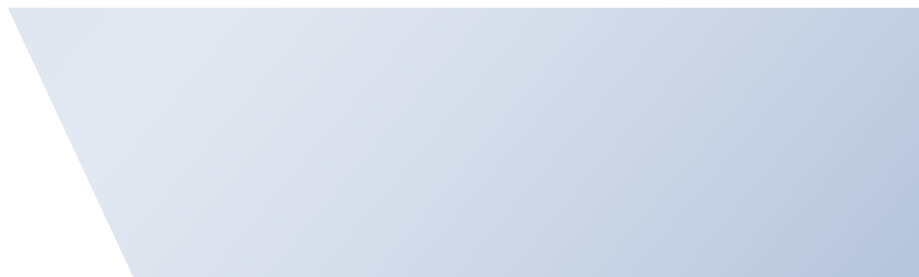
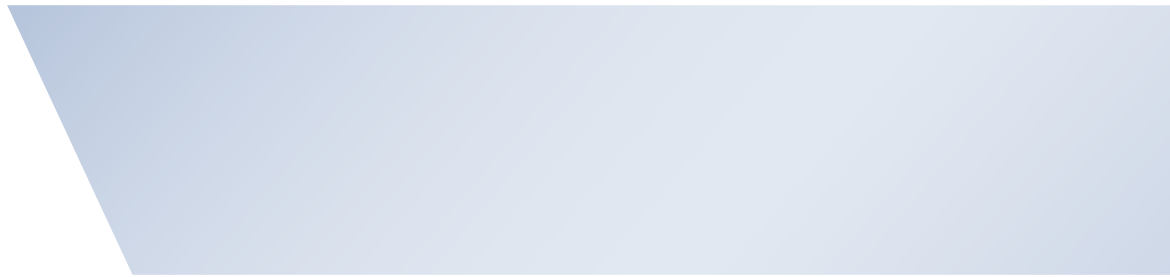


RTI-Pact 2027–2029



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Preamble

As required by the Research Financing Act (FoFinaG), the Austrian federal government has adopted a Pact on Research, Technology and Innovation (RTI Pact) for the period 2027–2029. The FoFinaG stipulates that the RTI Pact covers the Global Budget 31.03, the Budget Chapter (UG) 33 and the Budget Chapter (UG) 34. The RTI Pact operationalises the targets and fields of activity of the RTI Strategy 2030 and defines strategic research and innovation priorities. These priorities will subsequently be implemented by the Ministries through performance and funding agreements with the central institutions in line with their respective statutory mandates and through further measures.

1 Strategic framework conditions and priorities to achieve the objectives for 2027–2029

Research, technology and innovation (RTI) are key pillars of a democratic and resilient society that is geared towards the future, and they lay the foundations for an innovative economy focused on growth. At a time of immense geopolitical upheaval, mounting global challenges and intense international competitive pressure, they form the basis for safeguarding prosperity, competitiveness and social cohesion.

Austria is committed to upholding the freedom of research and democratic values, being a competitive place to do business and pursuing the aim of sustainable development built on knowledge. As a free, value-based and democratic community with the largest single market in the world, the European Union (EU) forms the central framework for scientific excellence, economic and technological competitiveness, international cooperation, and peace-promoting development.

With digital technologies ushering in a fundamental transformation of our society and economy, the focus must be on developing technologies in consideration of humanistic values while also bolstering our economic sovereignty vis-à-vis other countries.

The RTI Pact 2027–2029 serves to implement the RTI Strategy 2030 and key objectives of the Industrial Strategy 2035 in a consistent manner. The priorities are therefore excellence in basic research, economic and technological competitiveness, key technologies, climate action and faster transfer to day-to-day economic and social life—the aim being to improve the lives of everyone in Austria and secure its status as a sustainable centre for business and industry.

The RTI Pact 2027–2029 was prepared in consideration of current developments and underlying conditions as well as the recommendation from the Austrian Council for Sciences, Technology, and Innovation (FORWIT) regarding the Pact and the results of the mid-term evaluation of the RTI Strategy 2030.

The strategic priorities and packages of measures in the RTI Pact have been identified based on an overview and analysis of the available scientific evidence on the RTI system (strengths, weaknesses, opportunities and risks).

As international rankings demonstrate, Austria is now one of the most attractive locations for RTI in the EU and amongst the top 20 most innovative countries in the world. Nevertheless, the geopolitical situation, coupled with competitiveness that is increasingly under pressure and the challenges facing government finances, calls for an impact-oriented focus in the use of public funds and for the reduction of bureaucratic hurdles. In the long term, the federal government is committed to increasing R&D intensity to over 4%.

The RTI Pact 2027–2029 has thus set the following priorities:

The current geopolitical situation is making an active industrial policy and efforts to achieve technological sovereignty increasingly important. This is being played out against a fast-paced race to develop and master key technologies, which—besides an innovation base that is open to all topics and technologies—will form the mainstay of radical and disruptive innovations, democracy and resilience, increased productivity, and competitiveness.

→ **The RTI Pact establishes the framework for an overarching campaign for key technologies (“key technologies initiative”)**, focusing on a bundle of key technologies and strengths. The measures are to be coordinated amongst the RTI ministries and cover the entire innovation cycle, support for application across the whole economy, the transfer of technology and expert staff between academia and business/industry, the training of skilled workers and the strengthening of evidence-based decision-making.

Excellence in basic research stimulates social and technological advancements, patents, successful commercialisation in partnership with business and industry, and the formation of innovative companies and spin-offs as well as furnishing society with vital orientational knowledge.

→ The RTI Pact backs **strong, open-topic basic research**, the **ongoing further development of high-performance fields** in science and their infrastructures, and the **creation of long-term prospects for researchers and an attractive, competitive environment**.

Austria has been an EU member for over 30 years and **has enjoyed particular success taking part in European RTI schemes**. A new generation of Horizon Europe will launch at the start of 2028. With an ambitious **competitiveness fund** (the European Competitiveness Fund, or ECF), new opportunities and incentives will arise for leading innovators from Austria.

→ **Putting the RTI Pact into action will enable opportunities for RTI initiatives at European level to be leveraged in the best possible way**. Austria will play an active

role in shaping these initiatives and will ensure that stakeholders based in the country get efficient, effective support.

In the current geopolitical climate, efforts to promote **international networking**, openness and cooperation in science and research are increasingly countered by justified concerns over **research security**.

→ **The RTI Pact will promote international networking and cooperation while also bolstering research security.** Internationalisation remains an important topic, also in light of the current geopolitical situation. At the same time, **research security** is also being strengthened.

RTI activities are becoming increasingly relevant **in the context of security policy and dual-use technologies**. Many Austrian institutions are already enjoying success in these RTI fields and are continuing to expand capacity. The budgets for the dedicated Austrian funding programmes for security and defence research do not form part of the RTI Pact on account of how responsibilities are currently allocated amongst ministries.

→ **The RTI ministries have recognised the role played by technology policy in the context of security policy and the importance of dual-use aspects.** In coordination with the respective ministries, efforts will be made to ensure synergy-based and/or complementary cooperation with security and defence research initiatives being pursued outside the RTI Pact. This Pact will help to improve RTI skills for resilience and technological sovereignty. In this respect, it will also promote an understanding of the responsibility to be borne for potential defence and dual-use aspects of research and will complement and underpin this with research perspectives geared towards peacebuilding and conflict prevention.

Although Austria has the third-highest R&D intensity in the EU, findings show that the impact of the RTI system, especially the diffusion of technologies into the economy and society and thus the commercialisation of research results, could do with improvement. With the FoFinaG and the RTI Pacts, however, important steps have been taken towards simplifying governance and aligning it more closely with impact. Now it is time to build on these.

To achieve this, the application-oriented RTI programmes will focus on market- and problem-oriented development. The diffusion of products and services from basic research to the market does not follow a linear logic; development and innovation cycles are instead characterised by speed and flexibility. Flexible funding instruments that map the entire innovation process are therefore being developed in preparation for the next RTI Pact.

→ The RTI Pact will make the RTI system more efficient and effective and drive forward measures promoting diffusion, commercialisation and impact:

- **Rigorous simplification and greater use of artificial intelligence (AI) in the funding system:** optimising the funding institutions' portfolios of schemes and instruments and slashing red tape from them; simplifying how research funding is processed in a service-oriented way by coordinating data management across Austria in order to adhere to the "once-only" principle for research information and thus speed up funding decisions (e.g. the "no-stop shop" procedure). Within the funding system, the upheaval caused by AI calls for an in-depth analysis and a corresponding strategic reorientation.
- **Monitoring and evaluation:** monitor performance and financing agreements based on clearly defined indicators. The current practice for evaluating RTI initiatives, RTI funding and RTI institutions is to be maintained consistently and supplemented by new impact-oriented approaches.
- **Strategically coordinate** economic, higher education and research policy in order to leverage synergy effects as best possible.
- **Diffusion, commercialisation and impact:** promote approaches to improve the transfer of RTI results into practice; hone the focus on impact in applied research even further; and improve cooperation between RTI policy and sector-specific policies.

Meeting Austria's **climate and energy targets** is not only crucial from an environmental perspective but is also a decisive factor for innovation, competitiveness and the resilience of the economy and society.

→ The RTI Pact vigorously continues transformation initiatives already under way for the energy, resource and mobility transition, as well as a future-fit industrial sector.

Well-trained experts are a vital component of a strong RTI location, yet demographic change is producing an unmet need for expert staff, and these are being sought after around the world. Austria must therefore be positioned more clearly as an attractive place to do research. This will also strengthen public trust in science and foster an entrepreneurial mindset at higher education institutions and non-university research institutions.

→ The RTI Pact thus drives forward **upskilling, the promotion of young talent and gender equality** in the RTI sector while also strengthening international networking and mobility amongst researchers. Austria's reputation as an attractive place to do science and research and an innovative hub for business and industry will be increased, while strengthening **trust in science, social engagement, diversity, participation, and democracy**.

The strategic priorities of the RTI Pact 2027–2029 will also be implemented indirectly via the university objectives and fields of activity prioritised in the relevant Austrian University Development Plan. The direction of travel of the RTI system will be guided by the objectives and fields of activity laid out in the RTI Strategy 2030, the priorities of the RTI Pact 2027–2029 and the findings of the mid-term evaluation of the RTI Strategy 2030 as well as the Industrial Strategy 2035, the Higher Education Strategy 2040 and the recommendations from FORWIT.

Across the board, the holistic nature of the research funding system—with its direct and indirect funding mechanisms, especially the continuation of the research premium in its current form—is significant and a major factor in the international competition amongst locations.

The strategic objectives and corresponding practical measures from the RTI Pact 2027–2029 for each field of activity from the RTI Strategy 2030 are set out below:

1.1 Fields of activity for Objective 1: Become an international innovation leader and strengthen Austria as an RTI location

The key fields of activity for Objective 1 (“Become an international innovation leader and strengthen Austria as an RTI location”) are:

1.1.1 Expand research and technology infrastructure (RTIS) and facilitate access

Research and technology infrastructures are key to being a strong and competitive location for science, business and industry: they are important drivers of scientific excellence and innovation, help to develop, trial and scale up new technologies and thus accelerate the transfer of research results into day-to-day economic and social life. They form an integral part of innovation ecosystems in which research and technology organisations, public-sector institutions and companies work closely together. In addition, they enhance the international profile of research and make Austria a more attractive RTI location.

Access to appropriate test environments, experimental laboratories, pilot production facilities and demonstration systems is essential in order to speed up the development of innovations, test them and successfully introduce them into day-to-day economic and social life. At the same time, the increasing complexity of research questions demands solutions based on data infrastructure, high performance computing, secure transmission (for example, using quantum communication infrastructure), comprehensive data management and suitable data strategies.

Given the high costs of research, technology and innovation infrastructures, a coordinated, needs- and usage-oriented approach to procurement (at both national and EU level) is being pursued, alongside the leveraging of, in particular, transdisciplinary synergies and cooperation potential.

Measures:

- Targeted strategic participation in international and European research infrastructures based on the Austrian Research Infrastructure Action Plan 2030 and as part of the European Strategy Forum on Research Infrastructures (ESFRI) as well as continuing and further developing European and international memberships;
- Coordinated procurement, cooperative use and strategic expansion of research, technology and data infrastructures based on the Austrian Research Infrastructure Action Plan 2030 and the strategic orientation that it describes;
- Make optimal further use of infrastructures in line with the action plan, including the Vienna BioCenter Vision, the Austrian Health & Research Data Network, MedAustron, high-performance computing (HPC) and EuroHPC, and the European Open Science Cloud (EOSC);
- Secure access to collaborative research infrastructures, especially large-scale ones (“open for collaboration”), via the research infrastructure database;
- Facilitate access to technology infrastructures for start-ups, spin-offs, SMEs and research/higher education institutions;
- Provide strategic support for Austrian stakeholders to allow them to enter the EU’s planned technology infrastructure calls for proposals and networks; provide the country’s contribution for EU co-financing schemes; and establish an environment conducive to the use of technology infrastructures in the EU and its Member States;
- Safeguard the critical measurement infrastructures and data (including satellite-based data) related to national disaster protection, both for the prevention of natural hazards and for crisis management;
- Expand HPC infrastructures and, in particular, enable greater use of Multi-Site Computer Austria (MUSICA), Austrian Scientific Computing (ASC; formerly the Vienna Scientific Cluster, or VSC) and (experimental) services for use by public institutions and companies;
- Integrate additional services and interfaces into the AI Factory and connect data ecosystems to underpin the creation of relevant AI Factory applications and transfer them to business and industry;
- Continue on an ongoing basis to link all register data collected under federal law to the Austrian Micro Data Center (AMDC), until a legal basis is created for realising the options for expansion envisaged in the government’s programme, e.g. the European Health Data Space (EHDS) and funding for the Austrian Socio-Economic Panel (ASEP) and the AMDC;

- Establish a national EOSC Node Austria to complement the EOSC Node EU;
- Incorporate the European definition of research infrastructure (RI) and technology infrastructure (TI) into all ministries in Austria: by creating an Austria-specific map of the RI-TI ecosystem as part of the Research Infrastructure RTI working group (taking Austria's Research Infrastructure Action Plan 2030 into account), visibility and, consequently, access to RI and TI in Austria will be strengthened.

1.1.2 Make the best possible use of Europe for Austria and develop it further

Working together on RTI at the European level significantly improves Austria's scientific, economic and social problem-solving capacity. Horizon Europe is an important lever for generating added value for an Austria that is fit for the future by harnessing a global network of bright minds, ideas and projects. For many years, Austria's RTI community has been making targeted, successful use of the wide range of opportunities presented by the EU's Framework Programmes for RTI.

The European Research Area is still the legal and political frame of reference for improved permeability between the RTI systems in the individual countries. Involvement by Austria's RTI institutions in the national ERA action plans ensures dialogue and a comparison with the research policy standards applied by the other Member States as well as the country's ever-increasing attractiveness as an RTI location.

The research, technology and innovation debate at EU level has continued to evolve in recent years, with the Letta, Draghi and Heitor Reports all shaping the discussion to a significant degree by stressing the urgent need for a fundamental change of course. These reports made it clear that Europe can only secure its competitiveness and technological sovereignty through significant, coordinated investment in research, technology and innovation and, in so doing, injected fresh momentum into efforts to formulate an integrated industrial, innovation and location policy in order to defend Europe's position in the global innovation race. Basic research and collaborative applied R&D must be strengthened further, with greater emphasis placed on the commercialisation and social transfer of research results and, in particular, breakthrough innovation must be significantly accelerated. At the same time, RTI is playing an increasingly important role in many EU sectoral strategies, producing a large number of important interfaces. This is also being accompanied by more and more opportunities for Member States and private actors to co-finance measures at EU level.

The European Commission's proposals for the EU's next Multiannual Financial Framework (MFF; 2028–2034) include two priority programmes for RTI, namely Horizon Europe and the European Competitiveness Fund (ECF). The latter includes existing RTI and implementation-related programmes on a) the green transformation and industrial decarbonisation, b) health, biotechnology, agriculture and bioeconomy, c) digital

leadership, and d) resilience, security technologies, space and defence. Horizon Europe and the ECF are closely linked in these key and critical technology areas.

If Austria's performance to date in the EU Research Framework Programme continues at the same level in proportional terms, it could have access to RTI funding worth over 800 million euros per year from 2028 onwards based on the MFF being proposed by the European Commission for 2028 to 2034. This assumes that the funding is secured in a competitive process, which will require appropriate framework conditions to be established in the country.

Measures:

- Bolster suitable support structures in order to establish the conditions required for Austria's continued successful participation in European RTI measures (Horizon Europe, ECF, European Research Area);
- Actively help to shape a strong and independent Horizon Europe EU research programme for 2028–2034;
- Participate in and help to finance RTI projects at EU level (especially Horizon Europe and the ECF) to generate substantial added value for Austria, which must be secured accordingly in each case; and actively contribute to major European committees such as technology platforms;
- Implement the latest version of the Austrian National Action Plan for the European Research Area (ERA-NAP);
- Work with European partners on RTI policy initiatives of the EU (e.g. the ERA Act, the European Semester and the Competitiveness Coordination Tool);
- Participate in EU instruments to bolster European resilience and strengthen Austria as a research and production location (e.g. IPCEI, measures within the framework of the Chips Act, etc.);
- Promote excellence in Austria, effective inter-institutional co-operation and greater knowledge transfer from science and academia to business, industry and society in order to catch up with the innovation leaders on the European research scene;
- Implement legislative EU projects and EU strategies related to RTI (cross-cutting EU issues) at national level with as minimal an impact on the budget as possible in order to safeguard global leadership and sovereignty in Europe;
- Fund RTI measures for the “triple transition” (green, digital, social) and key technologies, ensuring alignment and coordination between the European and national levels;
- Space and security: promote the continued development of space infrastructures at European level; ensure a high degree of Austrian involvement in the programmes of the European Space Agency (ESA), the European Organisation for the Exploitation of Meteorological Satellites (EUMETSAT), in particular those ESA elective programmes that will make Austria even more competitive in the space

sector and in the application of space data and will help to build and enhance expertise and excellence;

- Enhance the value of European RTI results in Austria, focusing on harnessing them for the benefit of the economy and society, in particular through a portfolio approach and by considering the entire project pipeline from basic research (European Research Council, ERC) to risk financing (European Innovation Council, EIC);
- Conduct support activities at national level to complement and optimise the implementation of European initiatives for promoting start-ups and scale-ups (including the EU Startup and Scaleup Strategy), followed by implementation with the aid of the European Innovation Act;
- Consider whether national funding can be provided for top-rated projects in highly competitive EU programmes that were only rejected on budget grounds (Seal of Excellence/Seal of Competitiveness grants);
- Play an active role in European and international foresight and analysis projects in order to further strengthen strategic intelligence in Austrian RTI and, on this basis, fund technologies of the future from an early stage in order to carve out a competitive edge.

1.1.3 Promotion and strategic targeting of internationalisation

Increasing internationalisation in the RTI sector is a key issue for Austria, not least in view of the current geopolitical tensions. International cooperation, mobility and networking are crucial for a cosmopolitan mindset, understanding, cultural and intellectual dialogue, academic and scientific excellence, and economic and technological competitiveness. Austria lies well above the EU average for international scientific co-publications, for example, and this momentum must be maintained through continuous, targeted measures. The importance of this field of activity is also reflected in the fact that half of all R&D expenditure (totalling 4.5 billion euros) is done by foreign-owned companies operating in Austria.

Internationalisation is also important for non-university institutions in applied research and innovation as well as for companies in order to gain access to the best expertise in the world and to new markets.

Partnerships will only succeed over the long term if they are rule-based and conducted in line with shared values and principles, in a spirit of trust, fairness, reciprocity and mutual benefit. However, these fundamental principles of international cooperation are increasingly being called into question, because the intensifying global competition over technology has turned knowledge and innovation into hotly contested strategic resources. Thus it is becoming more and more important, firstly, to build resilience amongst Austrian institutions to targeted attempts by foreign countries to influence their science and research and, secondly, to protect intellectual property. Besides the

opportunities, therefore, the risks presented by international partnerships and mobility must also be weighed up and tackled via suitable measures to increase research security.

Measures:

- Continue – and make optimal use of—participations in international organisations;
- Support Austrian researchers and scientists in establishing closer international links and furnish information on employment opportunities in Austria to expand international cooperation and mobility and raise the country’s international profile as a research location; incorporate the results of the Higher Education Strategy 2040;
- Introduce bi- and multilateral cooperation schemes in research and innovation with strategically important partner countries and regions all over the world based on shared values and principles, and actively reach out to expand this field;
- Boost research security by promoting fair, reciprocal international cooperation and mobility as well as via active risk management, awareness-raising and support services for the RTI community in the context of internationalisation in science and research;
- Expand and establish internationally active technology firms and flagship companies, start-ups and scale-ups; apply a broad mix of instruments in combination with indirect research funding;
- Continue to strengthen Austria as a space hub (in particular the United Nations Office for Outer Space Affairs (UNOOSA), the European Space Policy Institute (ESPI) and the International Monetary Fund (IMF)).

1.2 Fields of activity for Objective 2: Focus on effectiveness and excellence

The key fields of activity for Objective 2 (“Focus on effectiveness and excellence”) are:

1.2.1 Promote excellence in basic research

Excellence in basic research is key to improving economic and technological competitiveness and tackling the big challenges of our times such as the triple transition, strengthening democracy and social cohesion, and Europe’s strategic autonomy. It stimulates social and technological advancements, evidence-based policymaking, patents, successful commercialisation in partnership with business and industry, as well as the formation of innovative companies and spin-offs. It further furnishes society with vital orientational knowledge. Appropriate funding for excellent basic research will thus create new jobs in the R&D sector and benefit the entire Austrian RTI system. The Austrian Science Fund (FWF) plays a key system-relevant role for all stakeholders involved in basic research with its competitive research funding.

Funding excellent fields of research and key technologies in which Austria already enjoys an international reputation (e.g. through its Clusters of Excellence), such as quantum science, life sciences, AI and materials research, must continue. In order to deepen our existing knowledge and compete successfully on the international stage, it is essential to continuously advance these high-performance fields of strength and their infrastructures, create long-term prospects for researchers and their projects, work closely with flagship enterprises in particular and, more broadly, to create an attractive and competitive environment in these areas of key future relevance.

Measures:

- Continue the competitively awarded research funding by the FWF in order to press ahead consistently with the development of excellent basic research that is competitive on the international stage and to create and promote spaces for high-risk basic research in an effective way;
- The focus on excellence and the corresponding mechanisms for enhancing competition as well as the transfer of knowledge and technology when awarding funds will be optimised under the performance agreements with the universities and the central institutions for basic research specified in the FoFinaG;
- The expansion of the Institute of Science and Technology Austria (ISTA), the ongoing continued development of the excellent new institutes at the Austrian Academy of Sciences (OeAW) and their establishment over the long term are doing much to improve Austria's international competitiveness as a research location and to address key fields of the future as well as economic and social challenges in a strategic way;
- Support the Christian Doppler Research Association (CDG), which forms a linchpin between business, industry and science in the field of application-orientated basic research;
- The "excellent=austria" excellence initiative is vital for building the country's structures for basic research and ensuring its attractiveness on the world stage. The nine COEs that have now been established bring together the best research groups in Austria in order to tackle complex research questions, cover a significant proportion of the key technologies of the future and promote technology transfer with business and industry. The FWF's "Emerging Fields" will conduct basic research for key technologies of the future and focus on high-risk research with a high degree of innovative potential;
- Strengthen non-commercial clinical research through the Ludwig Boltzmann Gesellschaft (LBG) in order to develop basic knowledge to underpin new prevention and treatment methods; support the development and delivery of an Austrian life sciences strategy and secure the country's status as an attractive base for life sciences in partnership with higher education institutions.

1.2.2 Applied research, key technologies and fields of strength for economic and technological competitiveness

Austria is undergoing profound societal and economic upheaval, with technological and geopolitical developments transforming its working world, value chains and business models and putting pressure on its competitiveness and prosperity.

The country has the third-highest R&D intensity in the EU, a strong industrial base and many companies that are successful players on the global market. Yet weaknesses are also evident, such as insufficient digitalisation amongst companies, declining innovation performance amongst SMEs and a failure to adequately exploit or scale up research results. Limited access to private growth capital is still seen as a major barrier facing highly innovative companies in the country.

Austria needs to increase its innovative potential and boost its productivity. When planning and implementing RTI measures, particular attention will be paid to maximising alignment with and utilisation of European programmes and funding pots. Putting the RTI Pact 2027–2029 in place will thus go a long way towards achieving the objectives of the Industrial Strategy 2035 and of an active industrial and location policy.

The inter-ministerial **campaign for key technologies (“key technologies initiative”)** is designed to enable Austria’s leading fields of strength to take – and keep pace with – the next steps in innovation at the global forefront. At the same time, capacity is being built and ecosystems developed in order to drive forward the adoption and commercialisation of up-and-coming technology sectors.

Key technologies harbour above-average potential for spillover effects. They not only increase companies’ direct innovative potential, but also boost knowledge, skills and technological advances in neighbouring industries and value chains. This stimulates productivity, opens up new areas of business and secures long-term competitive advantages for the whole of the country’s industry.

The expertise required for broad-based adoption across business, industry and society and for mastery of these technologies is also a key prerequisite for strategic sovereignty and resilience. Austria’s federal government is backing an overarching package of measures to strengthen key technologies in the country. Its Industrial Strategy identified the following key technologies and strengths, which are also addressed by the transformation initiative:

- Artificial intelligence and data innovation
- Chips, electronic components and systems
- Advanced production technologies and robotics
- Quantum technology and photonics
- Advanced materials

- Life sciences and biotechnology
- Mobility technologies
- Energy and environmental technologies
- Space and aviation technologies

Against the backdrop of industrial transformation, the aim is to broaden the innovation base overall and further increase the **RTI intensity of the corporate sector**. To this end, research-intensive flagship enterprises will continue to receive support in expanding their R&D activities, and Austria will be further developed as an attractive location for companies with a strong track record of research. SMEs will be helped to embark on research and innovation more easily through readily accessible funding programmes and transparent selection procedures. Bottom-up, open-topic funding enables companies to hone their strengths, venture into new areas of research or become more competitive through innovation, in a low-threshold manner. Mission-oriented funding tackles societal challenges head on and leverages areas of economic potential.

In order to achieve maximum impact with the resources employed and increase high tech's share of the overall economy over the long term, technology transfer, the permeability of research and other specialist careers and the use and commercialisation of R&D findings will be strengthened further, thus bringing about a lasting improvement in innovation performance. Action is also being taken to make the RTI system more effective and efficient.

Measures:

Adopt an integrated (“whole-of-government” approach) and a targeted key technologies initiative:

- Actively shape and support the whole innovation cycle (e.g. transfer from basic research, applied research and technology development, demonstration, market uptake, laying the foundations for broad-based application in business and industry, spin-offs/start-ups/scale-ups, upskilling);
- Reinforce collaboration between science and public bodies as well as science and industry in key technologies;
- Make targeted use of research and technology infrastructures and take part in (EU) initiatives and networks;
- Strengthen non-university RTI institutions in applied research (research and technology organisations, or RTOs);
- Build up strategic intelligence and foresight regarding the early cultivation of areas of key technologies of great future relevance, regarding their economic impact and regarding how they can help overcome the major challenges of our times;
- Build and support innovation ecosystems.

RTI intensity: strengthen applied research in companies and non-university research institutions (RTOs):

- Widen the range of funding available for entrepreneurial research, technology development and (open-topic, bottom-up) innovation in projects with ambitious innovative or technological aims and tangible potential for commercialisation. Support market and technology leaders who are helping to transform the economy;
- Make use of a broad range of instruments (e.g. grants, loans and guarantees on preferential terms, incubator services, protection of intellectual property, providing/mobilising growth capital, non-monetary support);
- Institutes at the cutting edge of applied research (especially the Austrian Institute of Technology (AIT) and Silicon Austria Labs (SAL)) will be expanded further and targeted infrastructure investments made in order to support transformation processes in the economy and society and improve competitiveness and technological sovereignty;
- Forge closer cooperation between science and academia on the one hand and business and industry on the other and develop the associated structures further, based e.g. on an analysis (“system mapping”) of the applied RTO landscape in Austria, taking the strategic focus of the higher education sector into account;
- Evaluate and continue to develop the easily accessible funding programme for SMEs on an ongoing basis;
- Provide targeted support for companies to participate in European initiatives and measures aimed at leveraging the potential of dual-use applications.

Transfer, use and exploitation:

- Provide support with the first steps following an R&D project so that new products or services can be brought into actual use or launched on the market (e.g. prototypes);
- Support the testing and system integration of new solutions, technologies, products and services in real-life applications (innovation labs; demonstrations; regulatory sandboxes; technology, testing and trial infrastructures; and experimental spaces);
- Make even more effective use of public procurement as a strategic lever for promoting innovation and developing leading markets for the Austrian economy, especially start-ups and scale-ups, e.g. through a clear political commitment to the promotion of innovation via, for example, pre-commercial procurement, objectives for public-sector clients and support services for innovation procurement;
- Promote the involvement of requesters and users in RTI activities and link RTI funding with implementation and investment programmes to accelerate the scale-up and roll-out of solutions;

- Promote strong start-up ecosystems by providing targeted support for start-ups and spin-offs from research and higher education institutions, particularly via Austria Wirtschaftsservice (aws);
- Aid the commercial exploitation and societal application of research findings; increase the representation and visibility of women in a targeted way and promote female entrepreneurship; improve the environment for establishing spin-offs; encourage interdisciplinary collaboration between spin-offs;
- Create and prepare practical knowledge for business, society and politics in order to use it as a basis for making decisions and recommending courses of action (e.g. for sector-specific policies, legislative and regulatory projects, standards and standardisation);
- Support the extensive application of space-based data to improve the sustainability and resilience of our economy and society;
- Strengthen transfer structures, especially via networking at central research and higher education institutions, in order to better harness research results with the involvement of business, industry, investors and public administration as well as central research institutions and regional areas of focus at the higher education institutions, taking particular note of the findings from the Higher Education Strategy 2040;
- Integrate the creative industries as the third pillar of innovation: promote technology skills, e.g. in generative AI and incentivisation, so that individual creative industries are brought on board by business, industry and the public sector to produce innovative solutions;
- Review the extension of the existing Clusters of Excellence funded by the FWF for the second phase of the ten-year project term as well as technology transfer and the permeability of research and other specialist careers in business, industry and society in partnership with applied funding agencies such as the Christian Doppler Research Association (CDG) and the Austrian Research Promotion Agency (FFG);
- Continue to develop tried-and-tested measures and consolidate strategic partnerships between business, industry, higher education institutions and non-university research institutions (e.g. the National Contact Point for Intellectual Assets and Knowledge Valorisation);
- Raise the profile of successful role models and promote gender equality in the start-up ecosystem in order to advocate and ensure equal opportunities systematically throughout the research, innovation and entrepreneurship processes.

Efficiency and effectiveness:

- Cut red tape from innovation funding and give it more impact: a structure focused on problem- and result-orientated design, based on the achievement of milestones and output indicators; promote lump-sum grants/flat-rate funding;

- Strengthen the flow of innovation across all levels of technological maturity, taking into account interdisciplinarity and the removal of existing barriers; new instruments are to be developed for this purpose.
- Optimise the funding institutions' existing programme and instrument portfolio, simplify access to RTI calls for proposals and enhance the service-oriented processing of funding. Focus on larger programmes instead of fragmentation;
- Analyse the impact of greater AI use on the application process and funding management; adapt internal processes in line with quality considerations; and leverage potential service benefits.

1.2.3 RTI for achievement of climate and energy targets

Achieving climate neutrality by 2040 is a stated aim of the Austrian federal government. To accomplish this, it will be necessary to accelerate the expansion of renewable energy sources, drive the circular economy forward and continue the mobility transformation.

Successful delivery of these initiatives is key if Austria is to remain fit for the future over the long term, and research, technology development and innovation have crucial contributions to make in this regard. They unlock new solutions and technological breakthroughs, support the necessary processes of change in the economy and society and help to seize and leverage new opportunities. The key technologies initiative has a major part to play in this.

In an international comparison, Austria has technological expertise, most notably a number of high-performance technologies in the fields of mobility, energy and environmental technologies. System innovations are being driven forward resolutely, and a number of flagship projects have already been launched (e.g. the RTI Initiative for the Transformation of Industry, the Mobility Labs, the Pioneer City Initiative, and the "100% renewable energy living labs").

Building on these strengths and this preliminary work, the transformation initiatives for the energy, resource and mobility transition, as well as for a future-proof industrial sector will be vigorously continued (transformation initiative). GeoSphere Austria will play a key strategic role in helping Austria to meet its climate and energy targets.

Measures:

Technology and system innovation for transformation:

- Strengthening value chains in Austria and Europe in strategically important fields of technology (especially mobility, energy, environmental, space and aviation technologies) and building relevant ecosystems (including platforms, networks, strategic alliances and mobility labs);
- Continue to build system innovations and /or the solutions that they consist of, especially in the fields of particular focus: future-ready construction and pioneer

cities, green energy and mobility technologies and systems; future- ready and climate-neutral industry and manufacturing);

- Integrate the principles of the circular economy across the board, especially in the specified RTI focus areas (“circular mainstreaming”, i.e. embedding the circular economy as a cross-cutting RTI issue);
- Coordinate measures across the whole innovation chain, from research to implementation, and establish domestic production while bearing in mind the opportunities presented by the country’s supplier industries;
- Support the energy transition in industry in conjunction with the Climate and Energy Fund measures;
- Develop space technologies that support the triple transition, and aviation technologies which support climate-neutral, sustainable aviation;
- Create a digital twin of the Earth by combining available geodata with satellite data in order to make comprehensive, up-to-date information available via a standardised geoinformation system (GIS) covering the whole of Austria;
- GeoSphere Austria will play a key strategic role in helping Austria to meet its climate and energy targets;
- Strengthen GeoSphere Austria as the national competence centre for climate research and public services in key areas such as resource management, renewable energy and climate change adaptation – based on cutting-edge measuring technologies, high-resolution weather forecasting models and the use of AI;
- Increase efficiency along GeoSphere Austria’s entire value chain;
- Ensure support for the government’s national crisis and disaster management and provide relevant information for society.

Establish an evidence base and increase the potential for impact:

- Align RTI funding initiatives with national and European targets and pursue a holistic, cross-sector, whole-of-government approach;
- Establish systematic monitoring of Austria’s climate resilience (including via the National Damage and Event Database CESARE) and redevelop and expand important GeoSphere Austria information portals and services, including an Austria-wide expansion of the geothermal atlas and provision of information on climate scenarios;
- Link national initiatives for meeting climate and energy targets to projects at European and international level (e.g. Mission Innovation, EU partnerships and ESA programmes);
- Focus above all on increasing the impact of RTI on climate and energy targets as well as competitiveness by promoting the commercialisation and transfer (including strategic public procurement that promotes innovation or results in innovative projects) of R&D results (scale-up, roll-out);

- Develop new demand-oriented RTI instruments and assess further intervention approaches;
- Consider sustainability, climate and environmental protection as evaluation criteria in RTI funding programmes;
- Green budgeting in the research sector (analysis of research expenditure in terms of its impact on the climate and the environment) will be continued as a contribution to the green budgeting annex to the federal budget appropriation;
- Deepening of monitoring, evaluation and learning processes in the transformation topics in order to assess the systemic impact of innovations at all impact levels (technology development, system integration and transformation).

1.3 Fields of activity for Objective 3: Focus on knowledge, talents and skills

The key fields of activity for Objective 3 (“Focus on knowledge, talents and skills”) are:

1.3.1 Develop and promote human resources

Demographic change, the transformation of the working world and the skills shortage that this has produced have prompted more measures in the education and training sector in recent years. Austria is performing well in this regard, with an increase in its numbers of university graduates and a comparatively high percentage of those being in the STEM subjects. Dual vocational education and training is vital for the development of STEM specialists, as are the Higher Technical Colleges (HTLs). However, they are not sufficient on their own to offset the skills shortage, and further efforts are needed.

Excellent RTI specialists cannot be trained without providing attractive offerings, getting **young talent** more interested in STEM and facilitating promising career prospects. The central institutions in the RTI Pact likewise help to **train scientific and technical specialists**, partly through their own doctoral programmes and by supervising master’s and bachelor’s theses and partly through a “transfer of minds”, i.e. researchers and technical staff moving into business, industry, society and the public administration.

Women are still significantly underrepresented in STEM subjects, STEM research fields and STEM professions, and there is insufficient recruitment to RTI careers in Austria amongst individuals from backgrounds that, traditionally, are educationally disadvantaged. Promoting and implementing an inclusive, diversity-oriented gender equality policy is crucial to success in the training, education and research sectors. This will require the active advancement of structural changes while at the same time breaking down outdated role models and prejudices.

The digital and green transformation, technological breakthroughs and growing future markets all require the rapid development of new skills, particularly in AI. Re- and up-skilling as well as training measures with a practical bent are continuing to gain in importance in the RTI sector and are a key component of this Pact.

Scepticism towards science and technology remains a challenge in Austria. Measures that strengthen **trust in science, social engagement, diversity, participation and democracy** are a high priority for Austria as an innovation hub and are also intended to exert an internationally stabilising effect on democratic societies through peace and conflict research.

Measures:

Skills development:

- Incorporate the results of the Higher Education Strategy 2040;
- Make working conditions and career prospects in science and academia more attractive (ability to plan for the long term);
- Hone digital and AI skills to ensure that these technologies are handled mindfully and competently in order to facilitate innovation; embed measures in the performance agreements (implementing the AI Action Plan) and make them part of adult education;
- Build skills and capacity to achieve the green and digital transformation by developing innovation ecosystems in a targeted way;
- Increase the number of university graduates via a package of measures to be included in the universities' performance agreements;
- The targeted promotion of young talent via structured doctoral programmes that provide a sound framework and high-quality support, that encourage international networking and that envisage cooperation with business, industry and public institutions—especially in the key technologies—is a vital strategic lever for securing scientific excellence and increasing innovative potential over the long term;
- Teach more transversal skills during doctoral training and in the subsequent postdoctoral phase in order to equip researchers optimally for careers outside academia as well;
- Support higher education-related initiatives that develop practical and transdisciplinary training, especially in the key technologies, autonomously and in close liaison with public bodies and companies (taking the Space Teams as a model);
- Strengthen the pipeline for innovative entrepreneurship and start-ups in a targeted way by helping budding founders—especially young people—to develop and implement innovative business models with the potential for growth and impact;

- Promote re- and upskilling in companies by establishing flexible training formats such as easy access to financial support for further vocational training and support for modular projects that build and hone new skills in companies;
- Promote sector-specific training centres and educational innovations in order to improve the training of expert staff in key and future-oriented sectors.

Young STEM talent and training scientific and technical experts:

- Have the Austrian Federal Ministry of Women, Science and Research (BMFWF) and the Federal Ministry of Education (BMB) work together to implement the “MI(N)Tmachen” (“STEM for all”) action plan along the entire education chain, i. e. right up to adult education, based on the ongoing collection of evidence (e. g. social survey of students) to identify existing target groups and meet their needs more precisely and then to adapt existing measures accordingly;
- Link existing STEM courses together on a nationwide platform to provide an overview, pool them and make them easy to find;
- Incentivise the establishment and expansion of self-organised, regional STEM networks, in particular through a nationwide award for STEM regions with the STEM Regions quality label;
- Introduce innovative, readily accessible formats that reflect real-life conditions and communicate STEM topics, degree programmes and professions effectively from the elementary education stage onwards;
- Make STEM training and degree programmes more attractive by injecting greater variety into the latter via the addition of arts and humanities elements (the “STEAM” approach). The aim is to inspire more students—especially women and underrepresented group—to pursue engineering and computer science, e. g. by fostering an inclusive and non-discriminatory STEM culture;
- Provide both young people and career changers with increased career guidance and support by means of internships and or an “orientation year” in the technology industry;
- Promote additional qualifications and encourage young innovators (especially in the STEM sector and primarily for key technologies).

Trust in science, social engagement, diversity, participation and democracy:

- Further professionalise, consolidate and strengthen trust and interest in science and democracy via a package of measures for teaching democracy and communicating science; promote science and entrepreneurship education (especially via the Austrian Science Communication Center and VISTA, inclusion in curricula and appropriate measures from the Agency for Education and Internationalisation (OeAD), e. g. science ambassadors);
- Introduce strategic measures to increase the percentage of highly qualified women in the various scientific disciplines, especially in technical subjects when applying for research funding and recruiting for managerial roles, in order

to strengthen diversity, inclusion and innovation capability in the science and innovation system;

- Consider the gender dimension and diversity aspects when dealing with research funding in order to make an even more effective contribution to bringing about socially sustainable innovations and fostering a strong culture of innovation;
- Continue or strengthen the consideration of gender and diversity criteria in the evaluation/review of funding applications, and raise awareness among those involved in evaluation committees (e.g. through e-learning offers);
- Maintain the Diversitec initiative to support companies and research institutions in the technology sector keen to develop their management and organisational culture further, in particular to attract more women and new target groups for jobs;
- Integrate gender equality measures, accompanied by a commitment from central institutions to implement them and safeguard them over the long term; develop effective, inclusive and diversity-focused career pathways and expanded performance assessment criteria for researchers at universities and research institutions that offer them long-term career prospects;
- Devise framework guidelines based on the European model (codes of conduct) to bring in agreements on the conduct to adopt when dealing with gender-based violence in science and research.

1.3.2 Support researchers and students in developing an international outlook

Internationalisation is a vital means of meeting global challenges and making Austria's higher education institutions visible and attractive in global competition. Thus the National Higher Education Mobility and Internationalisation Strategy 2020–2030 (HMIS 2030) adopts a holistic approach, promoting participation in international mobility programmes such as Erasmus+, expanding international study programmes and alliances and embedding intercultural aspects even more closely into learning and teaching. The aim is to teach international and intercultural skills to students and teachers alike so that graduates can hold their own on a globally interconnected job market. Mobility opportunities and international study programmes are strategically important as they make a country more attractive as a location and help to meet the demand for highly qualified experts. The OeAD provides comprehensive support with developing and delivering effective, high-quality mobility and internationalisation measures.

Measures:

- Enhance the visibility of Austria as a location for science and research under the banner “Study and Research in Austria” (including by putting a stronger focus on reputation, creating flagship institutions of a critical scale, and through targeted measures by the OeAD) and create attractive framework conditions in order to attract international talent.

Within the framework of governance instruments in higher education:

- Consistent implementation of the National Mobility and Internationalisation Strategy for Higher Education 2030, in particular by embedding international (“mobility window”) and intercultural aspects in the curricula and the teaching/study environment, reflecting the comprehensive understanding of the internationalisation of higher education;
- Active participation in international mobility programmes (in particular through increased use of the global dimension of Erasmus+) and further initiatives to increase the number of (STEM) graduates who have completed periods of study abroad;
- Increased expansion and further development of international collaborative projects, innovative alliances and networking activities, including by participating in European Universities Alliances within the framework of the EU’s Erasmus+ scheme and preparing joint study programmes to safeguard the synergy-oriented development of higher education and research within the framework of the European programmes;
- Facilitate networking (physical and virtual) by fostering cooperation, information exchange and connectivity among Austrian scientists and researchers working abroad, in order to promote an international outlook in research and teaching, encourage brain circulation and strengthen ties with the Austrian scientific community; increased provision of information about Austria as a higher education and research location for international scientists and researchers.

2 Central research institutions and research funding institutions

The Research Financing Act defines the eleven central federal government institutions with which this Pact will be implemented largely via performance and financing agreements.

The priorities of the three-year RTI Pacts are translated into concrete institutional objectives through negotiations and discussions between the organisations concerned and the relevant ministries. Implementation is then carried out in accordance with the respective legal mandate. Under the terms of Section 8 of the FoFinaG, monitoring of the central institutions is provided for in the annual Austrian Research and Technology Report.

- Austrian Institute of Technology (AIT)
- Austria Wirtschaftsservice (AWS)
- Christian Doppler Research Association (CDG)
- Institute of Science and Technology Austria (ISTA)
- Austrian Research Promotion Agency (FFG)
- Austrian Science Fund (FWF)
- Ludwig Boltzmann Gesellschaft (LBG)
- Austrian Academy of Sciences (OeAW)
- OeAD – Agency for Education and Internationalisation
- Silicon Austria Labs (SAL)
- GeoSphere Austria (GSA)

3 Other instruments and institutions

In addition to the central research institutions and research funding agencies, the Austrian Federal Ministry of Women, Science and Research (BMFWF), the Federal Ministry of Economy, Energy and Tourism (BMWET) and the Federal Ministry of Innovation, Mobility and Infrastructure (BMIMI) also rely on other institutions to support their activities in research, innovation and technology. To enable them to utilise additional technological and strategic expertise, to involve the key stakeholders in each field of activity, to ensure international compatibility and to respond to trends and circumstances, the ministries collaborate on specific issues with various experienced and skilled organisations, including the following:

- Austrian Business Agency (ABA) – targeted campaigns to promote Austria as an RTI location, and for the recruitment and retention of specialist professionals
- Austrian Cooperative Research (ACR) – targeted support for companies (particularly SMEs) with their innovation and digitalisation projects
- Austria Tech
- Complexity Science Hub
- Documentation Centre of Austrian Resistance (DÖW)
- Fraunhofer Austria Research (FhA)
- Institute for Human Sciences (IWM)
- Joanneum Research
- Austrian Society for Environment and Technology (ÖGUT)
- Platforms such as Industry 4.0
- Salzburg Research
- Vienna Wiesenthal Institute for Holocaust Studies (VWI)
- Austrian Energy Agency (AEA)

Ultimately, the BMFWF, in its capacity as the ministry for science, is responsible for the strategic management and (co-)organisation of the entire higher education sector. Above all in an international context, the interaction between all the organisations that shape Austria as a research, technology and innovation location are important. In addition to the central institutions, the higher education institutions also play key roles that are designed to complement one another.

4 Budget

The Research Financing Act stipulates that the RTI Pact covers the global budget 31.03, the Budget Chapter (UG) 33 and the Budget Chapter (UG) 34. For the purpose of strategic direction and management, the budgetary priorities defined therein are specified in the performance and financing agreements between the relevant minister and the agencies and central research institutions responsible for implementation. Furthermore, all institutions work on the tasks allocated to them in accordance with their statutory mandate, which is also reflected in the budget of the RTI Pact. Austria's international memberships and participation in international and European research infrastructures and other measures for implementation of the RTI Strategy or other research policy initiatives or strategies are likewise financed by the same budget.

Budgeting for the RTI Pact is based on the Federal Medium-Term Expenditure Framework Act (BFRG). It amounts to 5,238,829 million euros after factoring in a deduction of 196,554 million euros for the funding task force (an interministerial coordination platform for the screening of the federal funding system) and a reallocation of 450 million euros to the RTI Pact for basic research. This results in a total volume of 5,492,275 million euros for the RTI Pact. This will be supplemented by additional funds worth 76.6 million euros to be made available for applied research in 2026 through reallocations, producing a final total of 5,568,875 million euros.

