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Mini Country Report/Austria

**under Specific Contract for the Integration of INNO Policy
TrendChart with ERAWATCH (2011-2012)**

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Thematic Report 2011 under Specific Contract for the Integration of
INNO Policy TrendChart with ERAWATCH (2011-2012)

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Preface

The European TrendChart on innovation is the longest running policy benchmarking tool at European level. Since its launch in 1999 it has produced annual reports on national innovation policy and governance, created a comprehensive database of national innovation policy measures and organised a series of policy benchmarking workshops. The databases of INNO Policy TrendChart and ERAWATCH have been merged and a joint inventory of research and innovation policy measures has been created by the European Commission with the aim of facilitating access to research and innovation policies information within Europe and beyond.

With a view to updating the innovation policy monitoring, the European Commission DG Enterprise and Industry commissioned a contract with the objective to provide an enhanced overview of innovation and research policy measures in Europe and to integrate the INNO Policy TrendChart with the complementary ERAWATCH platform. This contract is managed by the ERAWATCH Network asbl. (<http://www.erawatch-network.com>) coordinated by Technopolis Group (<http://www.technopolis-group.com>).

During each of the two years of this specific contract three reports will be produced to complement data collection and to update the research and innovation policy measures: a trend report on innovation policy in the EU, an overview report on innovation funding in the EU and an analytical thematic report (the selected theme for 2011 is demand-side innovation policies). To this end, the objective of the present mini country report is to furnish those three reports with country specific information.

Executive Summary

Two major events characterised the RTDI development in Austria since 2009: first, the political post-processing of the findings of the system evaluation¹ of the Austrian research support and financing system; secondly, the budget consolidation decisions taken end of 2010² which induced R&D budget cuts in certain fields of intervention. Despite these cuts, there is political commitment to treat the field of RTDI preferentially. Since 2008 public R&D spending increased anti-cyclically and balanced the rather stagnating private R&D efforts of the last two years.

The most obvious change in the innovation policy mix was the inclusion of the education system into a broader innovation perspective. Regarding the narrower innovation policy arena little changed in terms of priorities and target groups since 2009. The service sector, however, became more explicitly addressed and integrated in the broader innovation policy context. The system of indirect R&D financing was substantially reformed. Direct public R&D funding for the corporate sector remained high at the agenda.

Compared to previous years, there is a clear budgetary shift from structural R&D programmes towards thematic R&D programmes, which to a certain extent reflects also an increased awareness concerning grand challenges and an insight that science-industry cooperation in Austria is not anymore a bottleneck. What we observe from the analysis of support programmes is a trend towards larger R&D programmes (both in terms of budget volumes and support activities), which corresponds also to the Austrian Research Promotion's (FFG) intention to change from a programme to a theme management approach. This approach also seems to lead to a more pronounced 'grand challenges' orientation. Moreover, some smaller programmes have been incorporated into larger ones and new initiatives have not been endowed with a particular programme, but were from the very beginning incorporated into existing programmes.

Regarding the activities of Austrian Wirtschaftsservice (AWS), whose major goal is to support structural change of Austria's economy, there is a tendency to allocate more budget volumes to erp-credits and liabilities and guarantees, which create a smaller burden in terms of the consolidation of the public budget. In 2010, AWS spent € 31.0m (or 3.8% of the funding volume) for start-ups and € 92.4m (11.2% of the funding volume) were spent on innovation projects. In total, however, the major focus of Austria's innovation policy funding remains on R&D, but the creation and growth of innovative enterprises gained more attention compared to previous years.

Demand-side innovation policy is gradually becoming more relevant in Austria. Up until now, it is mainly discussed in the context of public procurement. There are only a few overlaps between demand and supply-side innovation policies observable, e.g. in the field of energy efficiency. Interventions to mobilise private demand through catalytic procurement can be found in the field of thermal renovation and green electricity support.

The major future challenge for the funding of innovation policy in Austria is to balance the requirement to consolidate the public budget while at the same time improving the impact of the existing intervention portfolio. In addition, Austria is only beginning to deal with non-technological innovations. Social innovation remains a marginal topic in Austria. The debate in Austria concerning public sector innovation is focused on eGovernment activities.

¹ http://www.bmvit.gv.at/innovation/publikationen/forschungspolitik/endbericht_syseval.html

² So called „Loipersdorfer Beschlüsse“ (budget decisions of Loipersdorf).

1. Innovation policy trends

1.2 Trends and key challenges for innovation policy

Two major events characterised the development of RTDI policy in Austria since the publication of the *INNO-Policy TrendChart Innovation Policy Progress Report – Austria*³ in 2009: first, the political post-processing of the findings, conclusions and recommendations of the evaluation⁴ of the Austrian research support and financing system, which resulted in the publication of the Austrian government's RTDI strategy *“Der Weg zum Innovation Leader”*⁵ (“The path to innovation leader”). The second major development was the budget consolidation decisions taken in Loipersdorf⁶ in autumn 2010 to reduce the growing public budget deficit. This had the following repercussions: (i) budget cuts for the private (mostly) non-profit non-university sector (the R&D sector with least importance, but also least political resistance power in Austria); (ii) budgetary cuts regarding some support activities (e.g. in the spheres of R&D internationalisation, scholarships, publication subsidies etc.) affecting mostly publicly funded research organisations (iii); fears in the higher education sector for insufficient public budget allocations for the next performance contract period (2013-2015). At the same time a general commitment of the Austrian government for a preferential treatment of research, innovation and education in terms of reduced budget cuts (compared to other policy fields) was announced.

The financial and economic crises of the past years affected Austria to a lesser extent than most other EU countries. GDP shrunk by 3.9% in 2009, but increased by 2.1% in 2010 and is expected to rise by around 3% in 2011. The recovery was mainly driven by a sharp increase in exports, caused by a high demand on global markets (especially in medium-high manufacturing and subcontracting industries), a moderate unit labour cost development and high labour productivity. Domestic demand, however, almost stagnated. The crisis induced a growing public budget deficit, the consolidation of which should be partly based on sinking public expenditure according to the Austrian government.

Austria was able to sustain its R&D catching-up process over the last 3 years. GERD in % of GDP was 2.78% in Austria in 2010⁷. It is expected that total R&D expenditure in Austria will exceed € 8b in 2011. In terms of input, Austria ranks among the leading countries in the EU (together with Finland, Sweden, Denmark and Germany), but still lags behind in terms of outputs achieved. Regarding the Innovation Union Scoreboard (IUS) ranking, Austria scores in the group of ‘innovation followers’.

In order to strengthen the output-orientation of the Austrian innovation system, the Austrian government launched its long expected RTDI strategy (with a time horizon until 2020) in March 2011. One of the central goals stipulated in the RTDI strategy, however, is an input measure; namely to increase the R&D quota of 3.76% in 2020, to which the private sector is expected to contribute at least 66%, but preferably 70%. Given the actual distribution of R&D financing, this objective can be considered very ambitious.

The RTDI strategy also addresses other challenges which confront a continuous successful development of the Austrian RTDI system, such as ensuring an adequate provision of human resources in science and technology, expanding the relatively small basic research sector, contributing to economic structural change (including demand side policies), improving the competition framework and market access conditions (especially for new enterprises), increasing the provision of risk capital and guaranteeing a better aligned innovation policy governance.

³ <http://www.proinno-europe.eu/trendchart/annual-country-reports>

⁴ http://www.bmvit.gv.at/innovation/publikationen/forschungspolitik/endbericht_syseval.html

⁵ http://www.bmvit.gv.at/service/publikationen/innovation/forschungspolitik/downloads/fti_strategie.pdf

⁶ So called „Loipersdorfer Beschlüsse“ („decisions of Loipersdorf“).

⁷ Österreichischer Forschungs- und Technologiebericht 2011.

In order to address these challenges, concrete objectives have been set for 2020, such as to increase the share of higher education attainment (38% of all 30 to 34 years old persons), to increase the number of companies which systematically conduct R&D by 25% until 2020 and to increase the number of knowledge and R&D intensive new companies by annually 3% on average until 2020 etc.

The RTDI strategy confirms that priority setting in Austria is not yet systematically implemented, but rather based on ad-hoc decisions of the relevant ministries in charge, which leads to sub-critical interventions with a relatively low impact. Foresight, monitoring and roadmapping – instruments little used by Austrian RTDI policy makers until now - should be more commonly employed to guide evidence-based priority setting in the future.

Nevertheless, it can be observed that Austria's 'hot' emerging topics are broadly aligned with central issues of the European policy discourse: climate change, resource efficiency, ageing population and demographic change. Increasing emphasis is on renewable energies, alternative propulsion technologies and eMobility. Austria's RTDI strategy postulates that national strategies for enabling technologies should be developed in the future. Concepts like open innovation, social innovation or public sector innovation are discussed only in small, mostly academic circles and do not feature in the wider innovation policy debate.

Regarding the different types of innovation support, the last two years did not show major shifts. However, the increase of an R&D bonus, (the so called 'research premium'⁸) for companies from 8 to 10% (while concurrently abolishing other indirect financial support schemes) as of 1 January 2011 and the discussions concerning a holistic 'theme management approach' in RTD funding (instead of a 'programme super market approach') signal a simplification of the Austrian RTDI funding and support system. The government's RTDI strategy emphasises also the need for regulatory improvements and an extended provision of guarantees, liabilities, private equity and credit-based instruments. The extension of such financial support instruments, however, should not be based at the expense of direct financial support schemes (e.g. grants). Austria Wirtschaftsservice (AWS), Austria's major business-oriented innovation support agency and bank, has already started to shift its priorities (in terms of its support and funding portfolio) towards support for the start-up sector, technology transfer and exploitation and on company-centred stabilisation and restructuring efforts, with increasing budget allocations for loans, guarantees and liabilities as well as venture capital⁹. The extension of credit, guarantee and liability in terms of number of served cases during the last 2 years was primarily caused by the financial and economic crisis, which made access to bank loans for companies more difficult. AWS reported that in the last two years the investment focus of Austrian companies was rather on replacement than on extension investments.

Since mid-2010 a number of RTDI evaluations were conducted in Austria, such as the ongoing monitoring of CIR-CE¹⁰ to support the internationalisation of Austrian SMEs, clusters and other intermediary RTI organisations; the mid-term evaluation of the Laura Bassi Centres of Expertise¹¹, which have been established to support female scientists engaged in applied and industrial-oriented research; or the mid-term evaluation of the pilot programme 'Josef Ressel Centres'¹², founded to establish industry-demanded laboratories at universities of applied sciences.

⁸ The 'research premium' (dtsch: Forschungsprämie) stipulates that 10% of the monetary efforts for R&D (incl. experimental R&D) of enterprises can be received back as credit voucher from the tax office.

⁹ Wirtschaftsbericht Österreich 2010.

¹⁰ http://www.fteval.at/cms/assets/files/newsletter/NEWSLETTER_35.pdf

¹¹ FTEVAL Newsletter 36

¹² <http://presse.vorarlberg.at/land/servlet/AttachmentServlet?action=show&id=13801>

The largest evaluation concerned Austria's performance in FP7 and EUREKA¹³, which indicated a successful take-up and use of FP7. Austria's involvement in ERC is driven by a low number of applications, but significantly above average success rates. However, the evaluation also found, in general, that researchers consider national programmes more relevant to their needs than European programmes. Newer FP instruments such as JTI and ERA-NETs barely figure on the agendas of even the most experienced FP participants. EUREKA participation suffers from synchronisation problems, both at national and international level and a limited additionality compared to autonomous international R&D cooperation projects. Another focus of this evaluation was the assessment of Austria's support structures, in particular the FFG's unit for European and International Programmes, whose performance was judged excellent. A high level of free-riding was attested to the project proposal grant support scheme, which was terminated by 31 December 2010 (as a result of the government's budget consolidation).

1.3 Innovation governance

The institutional RTDI governance set-up, which was fundamentally reshaped in the first decade of this century, has not changed over the last 2 years. Despite the fact, that the RTDI system remained stable, the frequency of the science ministers in charge was accelerated. After the appointment of Johannes Hahn, Minister of Science and Research, as commissioner for regional policy in January 2010, Beatrix Karl took over his post. Karlheinz Töchterle became the new minister of science and research in April 2011¹⁴. The ministers in charge of transport, innovation and technology (Doris Bures) and economy, family and youth (Reinhold Mitterlehner) remained in office. Also the delegates for the Council for RTD were newly nominated in late 2010. The Council is now headed by Hannes Androsch, an entrepreneur and former finance minister.

The main development of the last two years in respect of innovation governance was the publication of the Austrian RTDI strategy. This strategy builds on the results of the Austrian 'research dialogue' (2008), the evaluation of the R&D support and funding system (2009) and the strategic recommendations of the Austrian Council for RTD (2010). It introduced for the first time a coordinated vision and strategy to which all relevant Federal Austrian ministries contributed. The strategy has the following cornerstones: a sustainable reform of the Austrian education system and a better integration between the education and the innovation systems; enhancing basic and applied research and respective institutions; improving the innovation capacities of companies (increasing technological capabilities, intensification of R&D and technology transfer, increased use of demand-sided measures such as innovation procurement); and increasing the efficiency of political governance (clear structures, high leverage effects of interventions, impact oriented usage of resources). Its minor downside, however, is the lack of budgetary figures.

¹³ Technopolis (2010): Final Report. Evaluation of Austrian Support Structures for FP7 & Eureka and Impact Analysis of EU Research Initiatives on the Austrian Research & Innovation System. (30 November 2010).

¹⁴ http://www.bmwf.gv.at/startseite/mini_menu/das_ministerium/bm_karlheinz_toechterle/

In order to avoid duplications and to better align interventions between the ministries in charge for RTDI as well as to bring forward the implementation of the strategy, a task force of senior officials was installed in summer 2011. No other changes to the RTDI governance system were introduced by the strategy. Following the comprehensive research dialogue¹⁵ which took place in 2008, a number of larger stakeholder consultations were implemented: (i) public consultation of the ‘Strategy 2020 – Research, Technology and Innovation for Austria’¹⁶ by the Austrian Council for RTD; (ii) public consultation on the future of the European Framework Programme¹⁷ (January to March 2010) and (iii) a public consultation regarding the Austrian energy research strategy in February 2010. A stakeholder consultation on the effects of the recently introduced cuts in public research funding is currently (as of August 2011) implemented by the ‘Austrian Science Conference’, a newly established platform of non-university research organisations.¹⁸

Arguably one of the main shortcomings of the present innovation governance system is its lack of clearly established procedures for priority setting. On the positive side, it can be observed that the country has well functioning and highly developed mechanisms for policy analysis, evaluation and monitoring. In this respect, a recent highlight was the publication of the evaluation of Austria’s R&D support and funding system the results of which fed into the subsequent policy debates and decision making. The evaluation concluded that in order for the country to advance from an ‘innovation follower’ to an ‘innovation leader’ it must:

- move from a narrowly defined innovation policy towards a broader approach including linkages with educational policies and other social and economic framework conditions,
- design coordinated and consistent public interventions based on a shared vision and a joint strategy,
- and move from imitation to a more radical innovation strategy.

These recommendations were mainly taken-up by the government’s RTDI strategy published in March 2011. Fundamental announcements (i) to overcome the fragmentation of competencies in public RTDI governance, (ii) to enhance the output-orientation (evidenced by evaluations with consequences and an explicit output-management), or (iii) budgetary commitments to improve the financial margin of the higher education sector and for fundamental research are not to be found in the strategy.

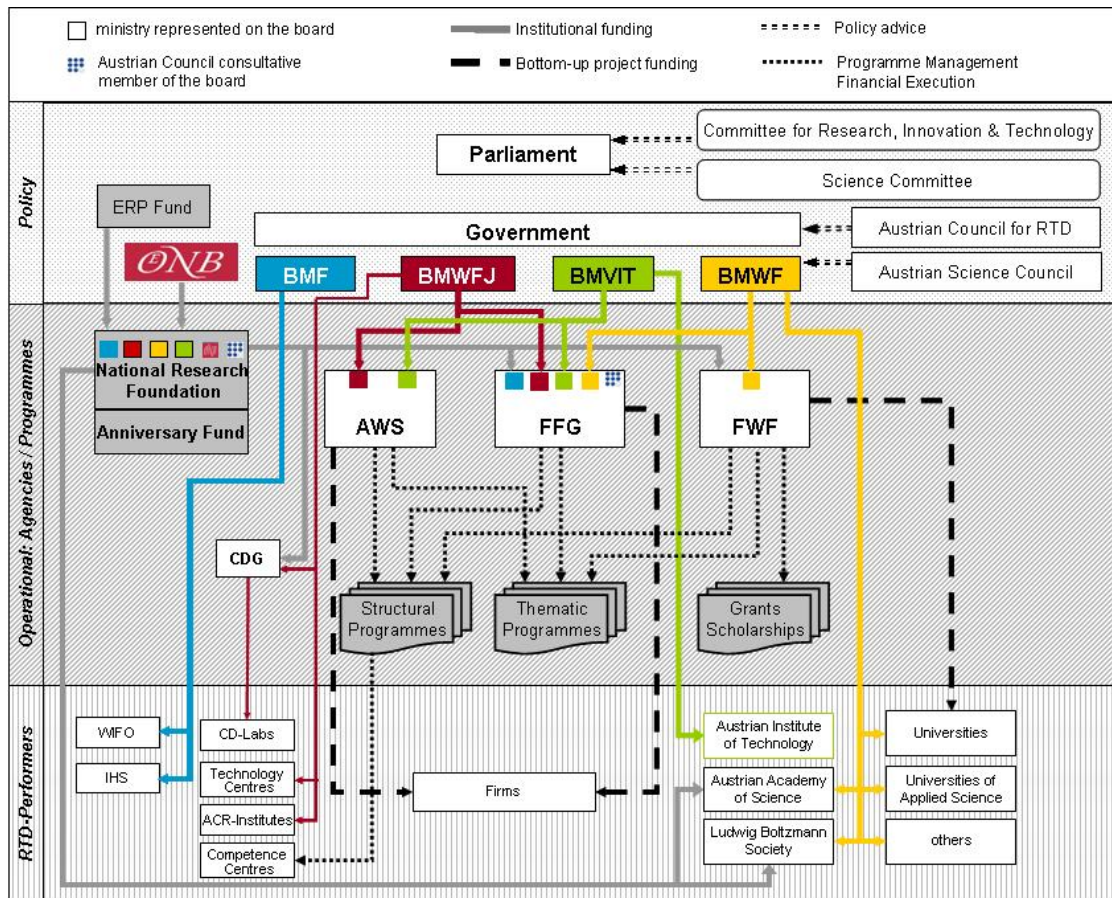
¹⁵ http://www.bmwf.gv.at/startseite/forschung/oesterr_forschungsdialog/

¹⁶ <http://www.forschungsstrategie.at/>

¹⁷ <http://www.era.gv.at/space/11442/directory/15239.html>

¹⁸ <http://www.wissenschaftskonferenz.at/?p=304>

Figure 1 Innovation governance system



Source: ERAWATCH country fiche Austria 2011

Legend: ÖNB (Austrian Federal Reserve), BMF (Ministry of Finance), BMWFJ (Ministry of Economy, Family and Youth), BMVIT (Ministry of Transport, Innovation and Technology), BMWF (Ministry of Science and Research); AWS (Austria Wirtschaftsservice), FFG (Austrian Research Promotion Agency), FWF (Austrian Science Fund), CDG (Christian Doppler Research Society), WIFO (Austrian Institute of Economic Research), IHS (Institute for Advanced Studies), ACR-Institutes (Austrian Cooperative Research Institutes).

1.4 Recent changes in the innovation policy mix

Since 2009 only a few changes in policy priorities took place. The chairman of the Austrian Council for RTD characterised the last two years as still stand compared to the pre-2008 period. The most obvious change was the more active inclusion of the education system into a comprehensive understanding of innovation, which is also evidenced by the government's new RTDI strategy. While the dual apprenticeship system in Austria, the low youth unemployment rate and the sufficient performance of vocational schools in Austria are considered as assets, the early differentiation and consequently segregation of pupils, Austria's mediocre performance in PISA tests, the low tertiary education rate and the low rate of STE students are often regarded as shortcomings. Ideas to overcome deficiencies are subject to ideologically charged disputes and political skirmish. Major developments in this policy domain are the introduction of a compulsory 'Kindergarten' year and the establishment of a new secondary school model¹⁹. The situation in the higher education sector (HES) remains strained, although – from a pure statistical point of view – Austria's traditional low tertiary rate continuously increases. Tensions in the HES are caused by

- a high rate of enrolment of freshman (increasingly also from Germany) while additional financial allocations to the universities are limited;
- emotionally charged disputes regarding a re-introduction of study fees;
- and the free choice of studies, while at the same time the demand for studies is skewed and cannot be balanced by initiatives such as MINT²⁰, which aims to attract more students to less demanded studies such as mathematics, informatics, natural and engineering sciences.

Regarding the narrower innovation policy arena little changed in terms of priorities and target groups since 2009, but the service sector became more explicitly addressed through a dedicated funding scheme. Due to the budget consolidations requirements some structural shortcomings re-appeared, such as the chronic under-financing of the HES²¹ or the thinned-out funding for social scientific research, which institutionally affected especially the non-university non-profit sector in Austria.

Compared to the years before 2009, a crisis-induced higher demand for guarantees provided by AWS to secure bank liabilities and loans of companies can be ascertained. The volume provided by AWS for guarantees to liabilities and loans should be sustained also throughout the next couple of years²². The system of indirect R&D financing was substantially reformed, characterised by an increased R&D bonus (so called 'research premium') and the abolishment of other 'older' tax exemption oriented instruments like the "Forschungsfreibetrag", which in general permitted the deduction of a percentage of the performed investment in R&D from the tax base during the tax period. The 'research premium' stipulates that 10% of the monetary efforts for R&D (incl. experimental R&D) of enterprises can be received back as credit voucher from the tax office. In general, direct public R&D funding remained high at the agenda, also for the corporate sector, whose allocations from public budgets remain at high level by international comparison. A reason for this are – amongst others - the substantial science-industry partnership programmes (such as COMET or COIN). Science-industry relations have recently been further expanded through the introduction of the Josef Ressel Centres Programme²³ to support joint R&D between universities of applied science and companies. Further emphasis was placed on efforts to get ideas to the market. The BMWFJ recently launched a 'triple I'-strategy (Innovation,

¹⁹ <http://www.neuemittelschule.at/>

²⁰ <http://www.mint.at/content/about.php>

²¹ HES abbr. higher education sector

²² Wirtschaftsbericht Österreich 2010.

²³ <http://www.ffg.at/josef-ressel-zentren-das-programm>

Investment and Internationalisation) which combined a bundle of several smaller support schemes, such as the innovation voucher plus²⁴.

Within the RTDI system, social innovation remains a marginal topic in Austria despite the fact that the world-wide first Centre for Social Innovation²⁵ was established in Austria already in 1990, which is firmly rooted in science/technology/society studies. Social innovations frequently occur in Austria, but usually in other policy spheres (e.g. social policy, labour market policy, education policy) and are hardly reflected in RTDI policy. Examples for recent social innovations in Austria which impact the economy are the needs-oriented minimum collateral or the microcredit scheme of the Austrian Ministry of Labour, Social Policy and Consumer Protection to support start-ups of unemployed persons or persons threatened by unemployment. In the field of RTDI, social innovation is more or less equalised with non-technological innovation in terms of organisational change, design and marketing innovations. Social entrepreneurship and alternative market models do hardly pop-up in RTDI discussions.

The debate in Austria concerning public sector innovation is dominated by eGovernment, whose services are already used by more than 80% of Austria's companies and an increasing number of citizens. The platform "digitales Österreich" ('digital Austria')²⁶ coordinates eGovernment in Austria. Within the European eGovernment benchmarking²⁷, Austria belongs to the leading countries ('saturated top' group²⁸) and is in pole positions in terms of full online availability and service sophistication. In terms of electronic public procurement Austria positions slightly above average²⁹.

To support innovation activities of Austrian creative industries, support measures were bundled under the 'evolve'-programme (2009-2013). Its aim is to capitalise the high innovation potential of creative industries. 'evolve' offers a broad instrumental portfolio to meet diverse needs, including financial subsidies, training, consultancy and networking activities. The planned introduction of 'creative vouchers' in 2012 is currently under preparation.

The service sector is of high importance for Austria. Its share in terms of value creation is 68%. 70% of all Austrian jobholders are working in this sector. 29% of corporate R&D funding originates from the service sector, which, however, is highly concentrated in a few branches (e.g. R&D-services, IT-services, and engineering services). The sector exhibits a high R&D dynamic. To support services innovation, the Austrian Ministry of Economy, Family and Youth (BMWFJ) launched the 'Service Initiative' ("Dienstleistungsinitiative") in 2009, a programme managed by the Austrian Research Promotion Agency (FFG). The programme aims to support service innovations which impact productivity, value creation and exports. It runs from 2009 to 2013 and had a budget of €9m for 2009 and 2010. In addition, the Ministry commissioned a study on the structure, capabilities, regulation and framework conditions, innovation activities and potentials of the Austrian service sector. Particular attention was put on the question how the existing funding system fits services innovation.³⁰ The study confirmed that the existing funding instruments get through to the service sector. This is also supported by the fact that knowledge and technology intense services are offered complementary to analogous technological

²⁴<http://www.bmwfj.gv.at/Wirtschaftspolitik/Documents/Fitnesspaket%20of%C3%BCr%20innovative%20Unternehmen.pdf>

²⁵ <http://www.zsi.at>

²⁶ <http://www.digitales.oesterreich.gv.at/>

²⁷ <http://www.digitales.oesterreich.gv.at/site/5247/default.aspx>

²⁸ http://ec.europa.eu/information_society/europe/i2010/docs/benchmarking/egov_benchmark_2009.pdf

²⁹ http://ec.europa.eu/information_society/europe/i2010/docs/benchmarking/egov_benchmark_2009.pdf

³⁰ KMU Forschung Austria (2010): Dienstleistungslandschaft in Österreich – Endbericht. <http://www.bmwfj.gv.at/ForschungUndInnovation/Publikationen/Seiten/Dienstleistungslandschaftin%C3%96sterreich.aspx>

products. However, the study also recommends additional generic support measures, like training offers in terms of innovation marketing and identification of innovation potentials. At the strategic level, the study calls for a fast implementation of the European service directive, a supportive regulatory framework (also in terms of start-ups and access to loans and guarantees) and an innovation friendly public procurement.

1.5 Internationalisation of innovation policies

The major innovation oriented internationalisation measure is the ‘go-international’-programme³¹ managed by the Austrian Economic Chamber. This programme consists of 6 measures, one of which focuses on international technology networking and transfer. In addition, early 2010 a support activity to internationalise Austrian clusters was established, which is promoted under the ‘internationalisation offensive’ (“Internationalisierungsoffensive”) and by the national cluster platform³². Yearly calls are launched. Further activities worthwhile to mention, but which have been implemented already a few years ago, are the headquarter programme of FFG to support research activities of multinational companies in Austria, the competence centre “Forschungsplattform Internationale Wirtschaft” (FIW), which regularly publishes studies with pre-dominantly foreign-trade content, or the ‘economy and development’-initiative (“Wirtschaft und Entwicklung”). Aligned with the latter is the development cooperation programme (“Wirtschaftspartnerschaften”), managed by the Austrian Development Agency, to support development aid oriented projects (including technology and know-how transfer). A particular innovation programme was CIR-CE, which supported R&D projects between Austrian companies and partners in Central, Southeast and Eastern Europe. A smaller share of funding was also possible for non-Austria based companies and intermediary organisations. This programme was recently subsumed under the COIN programme.

All these measures are unilateral by nature. The evaluation of Austria’s participation in FP7 and EUREKA confirmed that for international RTDI cooperation, European schemes are of utmost importance and also highly demanded by Austrian research organisations and companies as well. There seems to be a clear division of labour according to the European subsidiarity principle. Together with other partner countries, Austria participates also in a couple of ERA-NETs which have an industrial context and which are administered by FFG³³. Austria also participates in the AAL³⁴ Joint Programme (Ambient Assisted Living) and in the JTIs ARTEMIS (for embedded systems) and ENIAC (for nano-electronics)³⁵.

Regarding cross border public procurement platforms Austria actively participates in the PEPPOL project.³⁶

1.6 Evidence on effectiveness of innovation policy

The BMWFJ and the Austrian Ministry of Transport, Innovation and Technology (BMVIT) commissioned a comprehensive evaluation of Austria’s R&D support and funding system, whose results were published in 2009. Summarising its more than 1000 pages, the Austrian innovation policy seems to be by and large efficient and offers a differentiated funding system, which, due to its complexity, runs danger to produce overlaps and opportunistic behaviour. Moreover, bottom-up R&D funding for companies is little selective (66 – 80 % success rate) and has a limited interventionist effect. Indirect funding seems to be complementary to direct RTDI funding. It benefits especially technology intense companies (of all sizes) and large enterprises which

³¹ <http://www.go-international.at/go-international/index.php>

³² www.clusterplattform.at

³³ A list of such ERA-NET participations can be found under <http://www.bmvit.gv.at/innovation/internationales/eranet/index.html>

³⁴ <http://www.bmvit.gv.at/innovation/internationales/aal/index.html>

³⁵ <http://www.bmvit.gv.at/innovation/internationales/jti.html>

³⁶ PEPPOL (Pan European Public Procurement online), project funded by the EC CIP-ICT PSP Programme

systematically conduct regular R&D activities. The service sector benefits little from indirect funding measures. According to the evaluators, a more dedicated focus on excellence, a higher readiness to support more risky projects, the involvement of companies which do not conduct R&D yet and a qualitative upgrading of corporate R&D projects through an improved knowledge and technology transfer are needed in the future. The evaluators also recommend upgrading indirect R&D funding. This recommendation was quickly taken up by the government, which enlarged the R&D premium from 8 to 10% as of 1 January 2011. In general, however, the system's evaluation sees the biggest challenges for the Austrian innovation system not so much in its core areas but in its framework conditions, especially the education system and university-based research.³⁷

³⁷ Korez, S. (2010): Zusammenfassung der Veranstaltung "Systemevaluierung". FTEVAL, Newsletter 34, pp 76-91.

Case 1 Dienstleistungsinitiative (Service Sector Initiative)

The service sector initiative has been launched by the Austrian Ministry of Economy, Family and Youth to support innovative services. The initiative is administered by FFG. Operationally it is incorporated into two already existing programmes, namely COIN and the bottom-up “Basisprogramm” (‘general programme’). Both are thematically open schemes which provide grants. The idea of this initiative is to address new clients from the service sector, but it also addresses service innovations in the productive sector. Such innovations can be connected to product- or process-innovations, but also non-technological innovations are eligible.

There are, however, some conditions:

- The service can be systematically reproduced (multiple use).
- A development risk must exist characterised by complexity, degree of difficultness to reach the goals etc.
- The service creates added value for the company and for its clients.
- It must be a novel activity and not "business as usual".
- The service is novel for the entire market and not just for one single enterprise
- R&D activities have to fall under the category 'experimental development'.

The initiative runs from 2009 to 2013.. The overall budget is € 13.3m. A first call for proposals was launched in 2010, whose earmarked budget, however, could not be fully exploited.

It would be too premature to qualify this initiative as good practice. There are no evaluation results at hand. However, this initiative is remarkable, because it does not put technological developments into the focus of an applied RTDI programme, which is rather new in Austria. Moreover, R&D activities of the service sector in Austria grow more dynamically than in the productive sector. Overall, the R&D share of the service sector in Austria accounts around 29% of corporate R&D funding.

The initiative is accompanied by a study of KMU Forschung Austria about the service sector in Austria.³⁸ It analysed the structure and performance of the Austrian service sector, the regulatory framework conditions, its innovation activities and potentials and the accuracy of fit of the funding system. It concludes, inter alia, that public intervention rational is limited due to

- the low level of additionality generated through public interventions,
- the difficulty to cut off development costs from regularly occurring costs,
- and the short time-to-market time intervals of service innovations, which make an operationalisation of funding in terms of programme based calls for proposals difficult.

Because of these reasons, the authors perceive non-monetary interventions, especially concerning the regulatory framework, more important than traditional funding schemes. They also argue that more generic support schemes in terms of training, marketing and identification of innovation potentials should be employed in the future.

More information about the service sector initiative can be found under:
<http://www.ffg.at/dienstleistungsinitiative> (in German)

³⁸ <http://www.bmwfj.gv.at/ForschungUndInnovation/InnovationsUndTechnologiepolitik/Documents/rev%20FINAL%20Dienstleistungslandschaft%20in%20%C3%96sterreich.PDF>

2. Innovation policy budgets – an overview

The 2009 TrendChart reports included a detailed analysis of available budgets based on the data contained in the policy measure templates for each country. The findings were summarised in the European Innovation Progress Report 2009 (available at: <http://www.proinno-europe.eu/trendchart/european-innovation-progress-report>).

This section updates the 2009 analysis and further explores the issue of the budgets for implementing innovation policy. It is recognised that not all Government departments/agencies allocate specific budgets to specific measures and that actual expenditure year-on-year can vary considerably from that initially declared in policy documents or programming documents. Equally, not all important policy measures are based on significant direct public funding (e.g. the enforcement of a regulatory measure may have an indirect cost for public or private sector stakeholders that is not easily quantifiable prior to adoption).

2.1 Trends in funding of innovation measures

The share of the corporate sector in R&D financing is estimated to amount 44.6% in 2011. Corporate R&D financing decreased slightly in 2009, but increased already in 2010 and is expected to grow by 5.9% in 2011.³⁹ The public R&D financing share sharply increased anti-cyclically during 2009 and 2010. This is mainly caused by additional allocations at national level. Its expected share will be 38.7% in 2011. 16.2% will come from foreign (mostly corporate) sources and 0.4% from the non-profit sector. Due to budget consolidation requirements it is likely that the public R&D expenditure share will decrease in the next couple of years.

Although the share for R&D and innovation has tremendously increased within Austria's ERDF programme to a planned 43.5% of the total budget i.e. €524m compared to €143m or 14% in the previous planning period, EU Structural Funds, like funds from international donors, play a subordinated role in R&D and innovation financing in Austria. Less than 0.5% of total yearly R&D funding in Austria originates from Structural Funds⁴⁰. In terms of volume, approx. 20% of the available structural funds in Austria are earmarked to be spent on R&D in the current planning period, compared to total R&D expenditures of around € 8b spent alone in 2010, out of which 3b were provided by public sources.⁴¹ More than half of this budget came from the Austrian Ministry of Science and Research (BMWF). However, this budget is predominantly allocated to the public universities (€ 1.4b), the Austrian Academy of Sciences, a few other public research organisations and the Austrian Science Funds, which basically supports fundamental research on a competitive basis. Clearly more economically relevant are the R&D budget appropriations of the BMVIT, which was € 373m (2010), and the BMWFJ at the amount of € 110m in 2010. Both ministries increased their R&D budgets considerably compared to 2009. Being owners of FFG most of these ministries' budgets is disbursed by FFG on competitive basis. Differentiated by socio-economic objectives, BMVIT allocated in 2010 the majority of its R&D budget to the support of industry and trade (58%), followed by the objective to support health (10%), energy (9%) and to support the general extension of knowledge (7%). BMWFJ allocated almost its entire R&D budget to the socio-economic objective to support industry and trade (99%) in 2010. In total, compared to 2009, more emphasis was given to the socio-economic objectives to support industry and trade (+ 0.7 percentage points), health (+0.5), energy (+ 0.3) and environmental protection (+0.3%).

³⁹ Data from Wirtschaftsbericht Österreich 2011.

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http://erawatch.jrc.ec.europa.eu/erawatch/export/sites/default/search/countryprofiles/country_profile_AT.pdf

⁴¹ Österreichischer Forschungs- und Technologiebericht 2011.

In Austria corporate R&D is mostly funded by FFG. 55% of FFG's funding is allocated to companies, 27% to non-university research organisations and 15% to the HES. 50% of the funding volume (including guarantees) goes to bottom-up projects, 24% is allocated to thematic programmes, 22% to science-industry cooperation programmes (e.g. COMET and COIN) and 2 % to human resource development measures. The rest is allocated for accompanying measures of generic nature (e.g. FP7 – NCP consultancy). Compared to previous years, there is a clear budgetary shift from structural programmes towards thematic programmes, which to a certain extent reflects also an increased awareness concerning grand challenges and an insight, that science-industry cooperation in Austria is not anymore a bottleneck.

What we observe from the analysis of support programmes is a clear trend to larger programmes (both in terms of budget volumes and support activities), which corresponds also to FFG's objective to change from a programme management to a theme management approach. This theme management approach also shows a more pronounced 'grand challenges' orientation than in the previous years. Moreover, some smaller programmes have been incorporated into larger ones (such as CIR-CE into COIN) and new initiatives, such as the service sector initiative, have not been endowed with a particular programme, but were from the very beginning incorporated into existing programmes.

Apart from European programmes, transnational or inter-regional public funding plays a minor role in Austria, while corporate international funding is high and of utmost importance for corporate RTDI activities. An exception to the low role of transnational public funding is Austria's active role in ERA-NETs. Austrian organisations participate in 39 funded ERA-NETs, most of them in the fields of international cooperation (6), food and agriculture (5), new materials and production technologies (5) and actions of horizontal nature (5).⁴²

Finally, many innovation relevant services are provided by AWS, whose major goal is to support structural change of Austria's economy. In 2010 it supported 6,539 projects, which is an increase of 26% compared to the pre-crisis year 2008. At the same time the financial support volume decreased, which is caused by a higher demand for small loans by SMEs, who do hard to get access to the private bank based finance sector and to hesitating investment behaviour of firms in general. Still, the total financial support volume of AWS at the amount of 822m in 2010 is supposed to trigger total investments of 2.23b. In 2010, especially the area environment/climate/energy benefited as thematic priority from the support provided by AWS.

The financial support volume of AWS will be annually around € 1b between 2011 and 2013⁴³. Half of it is earmarked for credits, 35% for liabilities and guarantees, 8% for grants, 5% for venture capital, and 1% for consultancy services⁴⁴. Compared to previous years there is a tendency to allocate more budget to erp-credits as well as liabilities and guarantees, which less burden the public budget consolidation. Grants are mainly used for RTDI projects and venture capital is mostly earmarked for R&D intense companies. Consultancy services are to a very high extent also innovation relevant. In general, however, it cannot be clearly ascertained how much of the financial volume of AWS directly supports innovation activities. According to AWS statistics⁴⁵ € 31.0m (or 3.8% of the funding volume) have been allocated to start-ups and € 92.4m (11.2%) were spent on innovation projects.

The number of consultancy services in terms of high-technology advice; know-how, research and patent management; and for consulting of structural funds has increased from 1235 cases in 2008 to 1431 in 2009⁴⁶ and remained at this level in 2010 (1426

⁴² Proviso Überblicksbericht, Juni 2011.

⁴³ „Leistungsdaten 2010 – Leistungsbericht der Austria Wirtschaftsservice GmbH“.

⁴⁴ „Leistungsdaten 2010 – Leistungsbericht der Austria Wirtschaftsservice GmbH“.

⁴⁵ „Leistungsdaten 2010 – Leistungsbericht der Austria Wirtschaftsservice GmbH“.

⁴⁶ Österreichischer Forschungs- und Technologiebericht 2010.

cases). Within the category of high-technology advice, seed-financing projects for hi-tech start-ups increased from 126 (2008) to 137 (2010). The start-up initiative for life sciences (LISA) experienced a slump in 2009. The number of projects dropped from 114 (2008) to 54 in 2009, but recovered in 2010 (134). The intermediation projects to involve business angels continuously dropped from 54 (2008) to 31 (2010).⁴⁷

Figure 2 Broad share of available budgets by main categories of research and innovation measures

Broad category of research and innovation policy measure	Approximate total annual budget for 2010 (in euro)	Commentary
Governance & horizontal research and innovation policies	<ul style="list-style-type: none"> • € 19.3m in total (2010) 	<ul style="list-style-type: none"> • € 19.3m (2010) for mostly public sector innovation in the field of transport spent by Schieneninfrastruktur-Dienstleistungsges.mb.H. through means provided by the climate and energy fund
2. Research and Technologies	<ul style="list-style-type: none"> • € 531.4m in total (2010) • out of which FFG allocated € 531.4m (grants) 	<ul style="list-style-type: none"> • Basic bottom-up programme of FFG: € 226.5m (2010, including guarantees; cash funding was € 108m; service sector initiative is not included in this sum) • Service sector initiative of FFG: € 5.2m (2010; including guarantees) • Headquarter programme of FFG: € 27m (2010) • Bridge of FFG: € 11.8m (2010) • Eurostars support of FFG: € 1.5m (2010) • Structural programmes of FFG (without HRD schemes): € 117.8m (2010; includes budgets for A&E, COIN, COMET, SELP and wFORTE [LBC]) • Thematic programmes of FFG: € 134m (2010; includes budgets for Alpine Schutzhütten, AT:net, benefit, Energie der Zukunft, FIT-IT, GEN-AU, IEA, IV2Splus, KIRAS, Leuchtturm eMobilität, NANO, NAWI, Neue Energie 2020, Take off) • Austrian Space programme of FFG: € 6.2m (2010) • FP7 project preparation support programme of FFG: € 1.4m (2010)
3. Human Resources (education and skills)	<ul style="list-style-type: none"> • 5.7m in total (2010) out of which • FFG and AWS allocated around € 5.7m to human resource development (grants) 	<ul style="list-style-type: none"> • Brainpower Austria programme of FFG: € 0.3m (2010) • FEMtech programme of FFG: € 2.5m (2010) • Gender award of FFG: € 0.085m (2010) • Generation innovation Praktika programme of FFG: € 1.9m (2010) • It is likely that the gender oriented programmes will phase out in the nearer future • “Jugend innovative” (‘Innovative Youth’) programme of AWS: € 0.7m
4. Promote and sustain the creation and growth of innovative enterprises	<ul style="list-style-type: none"> • € 96.3m in total (2010) out of which • FFG allocated € 11.6m (grants) • AWS allocated around € 32.1m (grants) • AWS allocated € 3.5m to high-technology advice (consultancy) • AWS allocated € 49.1m (credit and loans) 	<ul style="list-style-type: none"> • Hi-tech start-up programme of FFG: € 11.6m (2010; including guarantees) • AWS consultancy services concerning high-technology advice: € 3.5 (2010; including accompanying measures but without ‘Jugend Innovativ’) • Budget allocation for the hi-tech start-up programmes increased since 2008 • The number of consultancy services of AWS concerning high-technology advice increased in total (compared to 2008), but fluctuates heavily concerning sub-categories (e.g. slump of life-sciences start-up consultancy projects in 2009)

⁴⁷ Österreichischer Forschungs- und Technologiebericht 2010, and „Leistungsdaten 2010 – Leistungsbericht der Austria Wirtschaftsservice GmbH“.

Broad category of research and innovation policy measure	Approximate total annual budget for 2010 (in euro)	Commentary
		<ul style="list-style-type: none"> • erp-Reg-Tech programme of AWS: €20.7m (2010; credits and loans) • erp-Technology programme of AWS: € 28.4m (2010; credit and loans) • “Jungunternehmerförderung” (‘young entrepreneurs support’) of AWS: € 7.7m (2010; grant; probably not 100%ly innovation relevant) • “KMU-Innovationsförderung – Unternehmensdynamik” (‘SME innovation support – enterprise dynamics’) of AWS: € 11.4m (2010; grants) • JITU of AWS: € 10.9m (2010; grant; on behalf of BMWFJ; including preseed programme for the service sector) • Seed financing for other technology fields of AWS: €2.1m (2010; grant; on behalf of BMVIT)
5. Markets and innovation culture	<ul style="list-style-type: none"> • € 71.5m in total (2010) out of which • FFG allocated € 3.8m (grants) • AWS allocated € 10.9m (grants) • AWS allocated € 4m (credit and loans) • AWS allocated 1.8m (consultancy) • KPC allocated 51m (different instruments) 	<ul style="list-style-type: none"> • Innovation voucher of FFG: € 3.8m (2010) • AWS conducts know-how-, research and patent management projects, whose efforts amount to € 1.8m in 2010 (incl. accompanying measures) • The number of know-how-, research and patent management projects increased compared to 2008 • erp-Internationalisation programme of AWS: 4m (2010; credit and loans) • “Innovationsschutzprogramm” (‘Innovation protection programme’) of AWS: 0.2m (2010; grant) • ProTrans of AWS: € 3.3m (2010; grant; on behalf of BMWFJ) • ‘evolve’ programme of AWS: € 7.4m (2010; grant; on behalf of BMWFJ; including creative industries lead projects and “Filmstandort Österreich” [Movie location Austria]) • KPC support includes a portfolio of very different instruments which can best be subsumed under this category (‘market penetration’)

Note: This table includes only measures of AWS which can be clearly attributed to the given innovation categories. This assignment was done on basis of AWS report 2010⁴⁸. In addition, AWS provided financial funding at the amount of € 21.3m for innovation relevant projects in 2010 which could not be attributed to the given innovation categories.

⁴⁸ Leistungsdaten 2010 – Leistungsbericht der Austria Wirtschaftsservice GmbH“.

2.2 Departmental and implementing agency budgets for innovation policies

Innovation relevant support in Austria is mainly organised via FFG and AWS. Both agencies operate on behalf of their owners, which are the Austrian Ministry of Economy, Family and Youth and the Austrian Ministry of Transport, Innovation and Technology. In addition, innovation support is provided at provincial level. This support, however, is considerably smaller in volumes and fragmented across 9 federal states (“Bundesländer”).

Figure 3: Innovation budgets of the main government departments and agencies

Name of the organisation (with link)	Number of staff responsible for innovation measures (% of total)	Innovation budget managed	Estimated share of budget earmarked for specific policy measures
FFG	83% (211 out of 255)	<ul style="list-style-type: none"> • € 552m in 2010 	<ul style="list-style-type: none"> • € 531.4m for research and technology • € 5m for HRD • € 11.6m for growth of innovative enterprises • € 3.8m for markets and innovation culture
AWS	N.a.	<ul style="list-style-type: none"> • € 123.4m in 2010 	<ul style="list-style-type: none"> • € 0.7m for HRD • € 84.7m for growth of innovative enterprises • € 16.7m for markets and innovation culture • € 21.3m which cannot be clearly allocated
Climate and Energy Fund	18 % (2 out of 11)	<ul style="list-style-type: none"> • € 44.2m in 2010 were handled by FFG (this sum is already included in FFG’s budget indicated above!) • € 51m⁴⁹ in 2010 were handled by KPC (Kommunkredit Public Consulting GmbH) for innovation relevant activities • € 19.3m in 2010 were handled by Schieneninfrastruktur-Dienstleistungsges.mb. H. (SCHIG) for innovation relevant activities 	<ul style="list-style-type: none"> • € 44.2m for research and technology (already included in FFG’s budget indicated above) • € 51m for markets and innovation culture⁵⁰ • € 19.3m for horizontal RTDI policies⁵¹

⁴⁹ € 51m are allocated to market penetration. KPC is also responsible for the Austrian Climate Research Programme, which is less innovation relevant and, thus, has not been taken into account. Its budget volume was € 4.5m in 2010.

⁵⁰ The funding administered by KPC cannot be clearly allocated. KPC supports the following different interventions:

- Demonstration projects (energy, alternative power engines)
- Model regions for eMobility
- Photovoltaic support
- Solar energy applications
- Energy efficiency
- Climate and energy model regions
- Austrian climate research programme

⁵¹ The funds administered by SCHIG fall mostly under public sector innovation activities.

2.3 Future challenges for funding of innovation policy

The major future challenge for funding of innovation policy in Austria is to balance the requirement to consolidate the public budget within the next 3 years while at the same time improving the innovation impact of the existing intervention portfolio. Moreover, Austria is just at the beginning of introducing demand-side measures and to deal with non-technological innovations. Non-technological innovation experiences are hardly available, thus, transfer of knowledge and good practices from outside is required and awareness on the virtues of non-supply side oriented measures has to be raised in Austria. This, however, must be based on evidence, which will also require some trial and error activities in the future, which should be carefully monitored and evaluated given the current budget constraints. Social innovation is most outside the mindset of the major stakeholders involved in innovation policy. Social service providers are hardly addressed by the existing portfolio of instruments and review panels lack understanding of benefits which are peripheral to the economic growth paradigm. To counteract this negligence of social innovation, also the Austrian Ministry of Science and Technology needs to become more active by providing new impulses for applied social sciences.

3. Thematic report: Demand-side innovation policies

For the purposes of this report, the following categorisation of demand-side innovation policy tools is adopted:

Figure 4 Categorisation of demand-side policies

Demand side innovation policy tool	Short description
Public procurement	
Public procurement of innovation	Public procurement of innovative goods and services relies on inducing innovation by specifying levels of performance or functionality that are not achievable with 'off-the-shelf' solutions and hence require an innovation to meet the demand. ⁵²
Pre-commercial public procurement	Pre-commercial procurement is an approach for procuring R&D services, which enables public procurers to share the risks and benefits of designing, prototyping and testing new products and services with the suppliers ⁵³ .
Regulation	
Use of regulations	Use of regulation for innovation purposes is when governments collaborate broadly with industry and non-government organisations to formulate a new regulation that is formed to encourage a certain innovative behaviour. ⁵⁴
Standardisation	Standardisation is a voluntary cooperation among industry, consumers, public authorities and other interested parties for the development of technical specifications based on consensus. Standardisation can be an important enabler of innovation. ⁵⁵
Supporting private demand	
Tax incentives	Tax incentives can increase the demand for novelties and innovation by offering reductions on specific purchases.
Catalytic procurement	Catalytic procurement involves the combination of private demand measures with public procurement where the needs of private buyers are systemically ascertained. The government acts here as 'ice-breaker' in order to mobilise private demand. ⁵⁶
Awareness raising campaigns	Awareness raising actions supporting private demand have the role to bridge the information gap consumers of innovation have about the security and the quality of a novelty. ⁵⁷
Systemic policies	
Lead market initiatives	Lead market initiatives support the emergence of lead markets. A lead market is the market of a product or service in a given geographical area, where the diffusion process of an internationally successful innovation (technological or non-technological) first took off and is sustained and expanded through a wide range of different services ⁵⁸ .
Support to open innovation and user-centered innovation	Open innovation can be described as using both internal and external sources to develop new products and services ⁵⁹ , while user-centered innovation refers to innovation driven by end- or intermediate users. ⁶⁰

⁵² NESTA (2007) Demanding Innovation Lead Markets, public procurement and innovation by Luke Georghiou

⁵³ http://ec.europa.eu/information_society/tl/research/priv_invest/pcp/index_en.htm

⁵⁴ FORA, OECD: New nature of innovation, 2009, <http://www.newnatureofinnovation.org/>

⁵⁵ Commission Communication: Towards an increased contribution from standardisation to innovation in Europe COM(2008) 133 final 11.3.2008

⁵⁶ Edler, Georghiou (2007) Public procurement and innovation – Resurrecting the demand side. Research Policy 36. 949-963

⁵⁷ Edler (2007) Demand-based Innovation Policy. Manchester Business School Working Paper, Number 529.

⁵⁸ COM 2005 "Industry Policy" http://ec.europa.eu/enterprise/enterprise_policy/industry/index_en.htm and Mid-term review of industrial policy

⁵⁹ Chesbrough (2003) Open innovation. Harvard Business School Press

⁶⁰ Von Hippel (2005) Democratizing innovation. The MIT Press, Cambridge

3.2 Trends in the use of demand-side innovation policies

Demand-side innovation policy is just about to become more relevant in Austria, whose innovation policy was predominately supply-driven throughout the last 15 years. Awareness on this issue is to a large extent triggered by European initiatives and policies. Due to the relatively limited Structural Funds, the regional level does not play a key role in driving demand-side initiatives in Austria. A major milestone towards demand-side innovation policy is its access into the RTDI strategy of the Austrian government published in March 2011. There the goal to increase domestic added value through demand-side instruments in procurement, regulation and standardisation for stimulating innovation is explicitly mentioned. On 6 April 2011, a presentation to the Council of Ministers on how to support innovation procurement in Austria was given by the two relevant ministers in charge⁶¹.

Demand-sided innovation policy in Austria is mainly discussed in the context of public procurement. Main national drivers in this respect are the Austrian Ministry of Economy, Family and Youth (to whom the Federal Public Procurement Office⁶² belongs to) and the Austrian Ministry of Transport, Innovation and Technology, which is the custodian for major public or semi-public large enterprises, such as the ÖBB (Austrian Railways) or ASFINAG, which is in charge for the planning, financing, maintenance and toll operations of the Austrian motorway and expressway system. The Federal Public Procurement Office was established as a self-assessing federal judicial review authority whose decisions may be appealed before the Austrian Verfassungsgerichtshof (Constitutional Court) and Verwaltungsgerichtshof (Administrative Court). Other important stakeholders are the Bundesbeschaffungsamt (Federal Procurement Agency⁶³) and the BIG (Federal Real Estate Agency⁶⁴).

By now, demand-side innovation policies are at the beginning to be conceptually rather than practically approached in Austria. The biggest attention is given to innovation procurement. The Austrian RTDI strategy stipulates, that demand-side innovation should be stimulated by

- innovation procurement (competitive dialogue and functional ToRs),
- public innovation (in terms of energy efficiency in public buildings, eGovernment, eHealth)
- infrastructure innovation (hi-tech investments in infrastructures).

The biggest barriers in implementing demand-side policies are risk-aversion⁶⁵ and information deficits. The latter is caused, inter alia, by

- the lack of dominating ‘national’ industries (incl. the lack of domestic lead markets),
- a certain hesitation to intervene into autonomous market processes with insufficient information availability (e.g. through demanding ‘wrong’ standards or imposing regulations which are contra-productive to future needs and future technological opportunities),
- the limited capacity to impose regulations autonomously, because of the necessity to harmonise most standards and regulations at European level,
- the lack of practical concepts and reliable tools regarding innovation procurement,

⁶¹ www.bmwfj.gv.at/.../Documents/Ministerratsvortrag%20IÖB.pdf

⁶² <http://www.bva.gv.at/English/Seiten/default.aspx>

⁶³ <http://www.bbg.gv.at/english-information/about-the-fpa/>

⁶⁴ <http://www.big.at/>

⁶⁵ Clement, W. and Walter, E. (2010): Innovationsfördernde öffentliche Beschaffung in Österreich: Beiträge für ein Leitkonzept zum Aktionsprogramm im Auftrag des BMWFJ. Wien: November 2010

- and finally the no easily applicable happy medium between cost-efficiency (which is stipulated by the Austrian Court of Auditors and requested by limited public budgets) and innovation-stimulation in public procurement could not be experienced at sufficiently large empirical value.

The latter does not come as a surprise, because public innovation procurement just emerged in the policy discourse during the last few years.

There is no clear picture in Austria that demand-side innovation policy is linked and aligned with supply-side innovation policy, which is mainly due to the fact that demand-side innovation policy is a rather new concept in Austria. However, there are some overlaps between demand and supply-side innovation policies observable in the field of energy efficiency. A good example is the issue of ‘passive houses’, for which over the last 10 years considerable public R&D funding was allocated, while during the last two years also subsidies for demand-pulled thermal renovation were provided.

The vagueness of this statement is also caused by the fact that by now no evaluation of demand-side innovation policies in Austria took place.

Although the Austrian Ministry of Economy has issued a practice oriented guideline for innovation supportive public procurement already in 2007 to further innovation procurement and to contribute to an innovation friendly procurement culture in Austria, neither impact of demand-side innovation policies nor indicators have been identified yet. However, a broad ex-ante estimation of innovation relevant public procurement budgets exists, which amounts to € 0.8b to € 2b annually⁶⁶. This would complement the supply-side public funding for RTDI at the amount of € 3.3b.

To create new momentum, to substantiate a declaration of the Council of Ministers and to promote innovation procurement in Austria in general, a few studies have been published, notably by Buchinger, E. and Steindl, C. (2009)⁶⁷ and by Clement, W. and Walter, E. (2010)⁶⁸. The latter study prepared concrete input for the development of a future comprehensive “Leitkonzept” (‘conceptual guideline’) for innovation procurement. A working group has been installed to prepare the concept until 2012.

3.3 Governance challenges

No clear conceptual approach exists in Austria to align demand-side and supply-side innovation measures. As mentioned above, the discussion of demand-side innovation policy in Austria is predominantly limited to innovation procurement, of which pre-commercial procurement receives most attention by RTDI policy makers. It is also the field of intervention which is least unobjectionable by the public procurement law.

From a governance point of view, the most essential task is, firstly, to establish a political commitment for innovation procurement⁶⁹. This has been accomplished by a declaration⁷⁰ to the Austrian council of ministers on 6 April 2011. Its main message is to prepare a concept for innovation oriented public procurement until 2012, whose goals are (i) to stimulate innovation and strengthen the competitiveness of Austria’s economy, (ii) to modernise public infrastructures (e.g. railways and telecommunication infrastructures) by taking future needs into account, (iii) to foster public sector innovation in order to provide sustainable, efficient and effective public services for the citizens, (iv) to create reference markets to increase the market penetration of innovations and to stimulate the demand for innovative goods and services and (v) to develop innovation stimulating procurement practices. Secondly,

⁶⁶ BMWFJ und BMVIT: Entwicklung eines österreichischen Leitkonzepts für eine innovationsfördernde öffentliche Beschaffung. Vortrag an den Ministerrat, 97/13 vom 6. April 2011.

⁶⁷ www.ait.ac.at/uploads/media/Publikationen_FuPD_2000-2010.pdf

⁶⁸ www.bmwfj.gv.at/.../Documents/Studie%20IÖB%20in%20Österreich.pdf

⁶⁹ Clement, W. and Walter, E. (2010): Innovationsfördernde öffentliche Beschaffung in Österreich: Beiträge für ein Leitkonzept zum Aktionsprogramm im Auftrag des BMWFJ. Wien: November 2010

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<http://www.bmwfj.gv.at/ForschungUndInnovation/InnovationsUndTechnologiepolitik/Seiten/Beschaffung.aspx>

there is a need to overcome the fragmentation of stakeholders responsible for public procurement in Austria, at least at the information exchange level. The study of Clement and Walter (2010)⁷¹, thus, recommended employing flexible forms of governance and monitoring in Austria, which should be based on task forces, platforms and working circles. In a row, guiding concepts and platforms need to be established, thematic objectives of innovation procurement have to be identified as potential areas for lead market and supply-side driven interventions, and a too narrow interpretation of the public procurement law which could be hindering for innovation procurement must be overcome, eventually resulting in an adjustment of the law.

Both relevant ministries, the Austrian Ministry of Transport, Innovation and Technology and the Austrian Ministry of Economy, Family and Youth agreed to prepare a guiding concept for innovation procurement until the beginning of 2012. For this purpose an inter-ministerial task force under the leadership of both ministries has been established, which includes other ministries, the Federal Procurement Agency, the Austrian provinces and communities, further stakeholders according to the Austrian public procurement law (like public and private sectoral awarding authorities) and also representatives of the side of potential contractors (innovation oriented enterprises, especially SMEs).⁷²

3.4 Recent demand-side innovation policy measures

There is no official lead market initiative in Austria. Demand-side innovation policy measures are currently concentrated on energy efficiency to contribute to climate protection and to reach Austria's greenhouse gas reduction goals.

Based on the 'Guide on dealing with innovative solutions in public procurement'⁷³, the Austrian Ministry of Economy, Family and Youth issued the guideline 'procure inno'⁷⁴ to stimulate innovation oriented public procurement in 2007. This guideline includes also some good practice examples to tackle risks. There are no studies available which investigate cost differences induced by innovative public procurement in Austria. The Austrian Court of Auditors mentions in its report 2006/12 that under the viewpoint of sustainability additional costs can be justified, especially if macroeconomic and ecological effects are induced which would not be attained by lower input of resources.

Innovation oriented public procurement has been implicitly integrated into the 'Austrian Action Plan for Sustainable Public Procurement'⁷⁵, which was adopted by the Council of Ministers in July 2010. According to the declaration to the Council of Ministers⁷⁶, the objective of the Action Plan is to procure products and services which meet sustainable development requirements, and, thus naturally, call for innovative solutions. The Action Plan addresses territorial authorities, the Federal Procurement Agency (FPA), the Federal Real Estate Agency, the AFINAG and other important public procurers. Expert groups have been installed to investigate budgetary issues and to develop social criteria for public procurement as well as to monitor and evaluate the implementation of the Action Plan. There are no publicly available findings yet published.

However, a concept guideline, explicitly dedicated to innovation supportive public procurement will be established by an inter-ministerial task force until 2012, whose aim is to stimulate innovation as contribution to societal challenges, to modernise public infrastructure by taking future needs into account, to force innovation in the

⁷¹ Clement, W. and Walter, E. (2010): Innovationsfördernde öffentliche Beschaffung in Österreich: Beiträge für ein Leitkonzept zum Aktionsprogramm im Auftrag des BMWFJ. Wien: November 2010

⁷² BMWFJ und BMVIT: Entwicklung eines österreichischen Leitkonzepts für eine innovationsfördernde öffentliche Beschaffung. Vortrag an den Ministerrat, 97/13 vom 6. April 2011.

⁷³ Commission Staff working document, SEC (2007) 280

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<http://www.bmwfj.gv.at/ForschungUndInnovation/InnovationsUndTechnologiepolitik/Seiten/Beschaffung.aspx>

⁷⁵ www.nachhaltigebeschaffung.at/

⁷⁶ www.bka.gv.at/DocView.axd?CobId=40215

public sector, to create reference markets (including standards and regulations) to foster a faster market penetration and to stimulate demand for innovative goods and services and to develop innovation friendly procurement procedures.

Public procurers are informed and trained by the Public Procurement Competence Centre (“Vergabekompetenzcenter”) of the FPA.

There are only a few initiatives in Austria to mobilise private demand through catalytic procurement. Actually, the most noticeable exceptions are thermal renovation and green electricity support. Thermal renovation was included in Austria’s economic stimulus package, which was created to absorb the negative effects of the financial and economic crisis in 2009. € 100m were provided by the government to subsidise thermal renovation activities of households and companies, which generated an investment volume of € 667.5m.⁷⁷ This instrument considerably contributes also to CO₂ reduction and reduced the thermal heat demand by 46%. Thermal renovation support will be continued until 2014 with a yearly budget of around € 100m. The further development of green electricity was boosted through increasing the supply tariffs for energy produced by renewable energy power stations. Besides hydro-electric power, wind energy accounts by far for the largest part (1850 MW), followed by biomass (430 MW). The share of green electricity (without hydro-electric power) in Austria was 8.4% of the total production of electricity in 2010. Another example of a public subsidised demand generation was the granting of a premium to replace older cars by newer ones (so called “Abwrackprämie”), which was a short-term help for automotive industries in 2009.

Key stakeholders for demand-side policy measures at the policy level are the BMVIT and the BMWFJ. At the level of implementation, a key stakeholder is the ‘Federal Procurement Agency’⁷⁸ (“Bundesbeschaffungsgesellschaft”) (FPA). FPA was founded in 2001 to provide central procurement services to federal agencies, in particular to negotiate framework contracts. Its primary tasks are to bundle requirements to obtain better prices and terms from suppliers and to standardise public purchasing to reduce processing costs and legal risks. Federal Ministries are obliged to order from these contracts - unless they are able to obtain the same product to better conditions. Other public sector organisations like universities, communities, states, state-owned organisations may take advantage of FPA’s contracts and services for a modest fee. Delivery and payment is done directly between the supplier and the demanding public body. The central aim of the FPA is the reduction of costs of public procurement by standardisation and bundling of needs. Since its establishment in 2001 the FPA bought products and services with an accumulated volume of € 5b and saved a total amount of € 890m, which means an averaged saving rate of 14 percent. FPA introduced ecological standards in its procurement activities⁷⁹.

Other large public procurers are the Federal Real Estate Agency (BIG), which will invest € 1.7b between 2011 and 2013 for construction works, the ASFINAG which will invest around € 6.5b between 2011 and 2016 and the Austrian Railways (ÖBB), which will invest € 12.8 between 2011 and 2016.

The FPA participates in a number of national and international projects, such as ‘Peppol’ (Pan-European Public Procurement Online) and expert groups. The Peppol project, established in 2008, is expected to facilitate and promote e-business between public entities and suppliers across Europe. Austria is participating in this initiative with the Federal Ministry of Finance (BMF), the Federal Procurement Agency (FPA) and the Federal Computing Centre (BRZ). The long-run and broader vision of Peppol⁸⁰ is that any company (incl. SMEs) in the EU can communicate electronically with any EU governmental institution for all procurement processes.

⁷⁷ Österreichischer Wirtschaftsbericht 2010

⁷⁸ <http://www.bbg.gv.at/english-information/about-the-fpa/>

⁷⁹ <http://www.nachhaltigebeschaffung.at/node/185>

⁸⁰ <http://www.peppol.eu/>

Figure 5 Key demand-side policy measures

Measure name (duration)	Short description of objectives, main activities or types of funding support, etc.	Key implementation details
Thermal renovation (part of the Austrian economic stimulus package)	<ul style="list-style-type: none"> The objectives are to reduce CO₂ emission through thermal renovated buildings, and to trigger public investments. Funding is given as grant based on specific regulations and conditions 	<ul style="list-style-type: none"> € 100m were provided by the government to subsidy thermal renovation activities of households and companies, which generated an investment volume of € 667.5m Home loan banks are responsible for private households; for the corporate sector the instrument is implemented by KPC-Kommunalkredit (state-owned bank for community projects) http://www.bmwfj.gv.at/EnergieUndBergbau/Energieeffizienz/Seiten/NeuerSanierungsscheck.aspx
Abwrackprämie ('car demolition premium')	<ul style="list-style-type: none"> The objective was to support the automotive industries in Austria (mostly first and second-tier subcontractors) by subsidising the private procurement of new cars. 	<ul style="list-style-type: none"> € 22.5m of public budget were earmarked to support the procurement of new cars in Austria in 2009. A limit of 30,000 cars was set. The Ministry of Finance was responsible. The entire premium was paid via "FinanzOnline" to the customer. Target groups are private consumers with old cars (> 13y). € 1,500 were given as premium. (€ 750 by public budgets and € 750 by the car dealer). The effect was rather to support a high level of domestic private consumption as well as car dealers, while the targeted subcontractors did not benefit that much. An immediate impact on industrial innovation is not traceable. http://www.bmf.gv.at/steuern/fachinformation/neuegesetze/archiv/2009/koprmiengesetzversch_9322/oekopraemiengesetz_end_vorberl.pdf?q=Verschrottungspraemie
National Action Plan to support sustainable public procurement	<ul style="list-style-type: none"> The objectives of the National Action Plan, which was endorsed in July 2010, are to support environment and climate protection through sustainable public procurement and to implement the principles of Austria's sustainability strategy from 2002. The total-cost-of-ownership-approach shall be applied (incl. costs for recycling) to secure cost truth. 	<ul style="list-style-type: none"> For this initiative no additional budget is foreseen. The following tasks are to be implemented: networking of public procurers, establishment of expert groups to solve budgetary questions and to elaborate social criteria for public procurement, enlarging the knowledge of the budgetary impact of sustainable public procurement, provision of relevant information to service and works providers, monitoring and evaluation of the national action plan, etc. Main organisations responsible are the Federal Procurement Agency, the Federal Real Estate Agency, state-controlled large companies such as ÖBB and ASFINAG, the federal ministries etc. The political responsibility lies with the Ministry of Agriculture, Forestry, Environment and Water. It further develops the national action plan in consultation with the Ministry of Finance and the Chancellery on basis of future evaluation insights. It is intended to support also more innovation relevant procurement by applying the National Action Plan. www.bka.gv.at/DocView.axd?CobId=40216

3.4.1 Sectoral specificities

By now demand-side measures in Austria are mainly justified by climate, energy and environmental rationales. In these fields a sectoral focus to demand side innovation policy is perceived as beneficial by policy makers.

3.4.2 Good practice case

Case 2 Ökostromgesetz ('green energy law')

The objective of the green energy law is to increase the share of renewable energy, to reduce greenhouse gases, to mitigate the negative effects of climate change, to efficiently use the available funding instruments and to support the development of green energy technologies to reach marketability.

The green energy law and its support instruments should contribute to reach Austria's benchmark of 34% green energy share of total energy supply in 2020.

Different delivery methods are employed, such as investment allowances for small hydro power stations, but the main financial engineering system is subsidised fixed line entry-tariffs of green energy into the energy supply systems. These subsidised entry-tariffs are financed by the consumers and the electricity dealers through higher transfer prices.

For managing the financial support a green energy management organisation (OeMAG⁸¹) was established in 2006.

The target groups of the law and its financial instruments are economic suppliers of green energy, especially in the field of wind energy, biomass, biogas, small hydropower stations and solar energy.

Through the support of green energy through subsidised entry-tariffs, technological progress in terms of efficiency could be attained, whose success can best be seen in terms of wind energy and small hydro power stations. Here technological progress enabled almost to draw level with market prices. This attainment, however, depends mainly on the volatile commodity market prices of traditional energies, especially raw oil. The distance of subsidised entry-tariffs and real market prices could also be reduced in the field of biomass, but still almost doubles the market price (in 2008)⁸².

On 30 June 2011, 6,027 green energy stations (plus 1,699 small hydro-power stations) have a contract with OeMAG. They produced 1451,6 megawatt, which is an increase of 10% compared to 2006.

Since no evaluation is available, do and don't lessons for policy makers cannot be made.

For further information: <http://www.e-control.at/de/marktteilnehmer/oeko-energie> (in German)

⁸¹ <http://www.oem-ag.at/>

⁸² <http://www.e-control.at/de/marktteilnehmer/oeko-energie/zahlen-daten-fakten/kosten-der-oekostromentwicklung/einspeisetarife>

Appendix A : Research and innovation policy measures for Austria

Name of the Support measure	1st Priority	Start date	End date	Status (CC to complete)	Estimated public budget in 2010 in euro	Comment
Action of Assistance of Young Entrepreneurs	4.3.1 Support to innovative start-ups incl. gazelles	1999	No end date planned	To be updated	€ 19,529,000	<ul style="list-style-type: none"> Budget provided for 2007
AplusB - Academia plus Business	4.3.1 Support to innovative start-ups incl. gazelles	2001	2017 Prolongation planned	To be updated	€ 3.812.175,-	<ul style="list-style-type: none"> Co-financed by the private sector Total budget for 10 years: € 77 m 8 AplusB centers are being supported, 2010 the course has been set for a continuation of the programme (end of support for several AplusB centres by mid 2012). 2010: 2 centres have received the confirmation to receive funding for 5 more years. Budget includes the actual support for the centres provided in 2010.
ASAPv2 - Austrian Space Application Programme	1.3.1 Cluster framework policies 1.3.1 Cluster framework policies Even better: 2.2.3 R&D cooperation (joint projects, PPP with research institutes) ?	2002	No end date planned	To be updated	€ 6,550,000	<ul style="list-style-type: none"> Budget provided for 2004 http://www.ffg.at/austrian-space-applications-programme-0
AT:net	2.2.3 R&D cooperation (joint projects, PPP with research institutes)			New to be created		
Austrian NANO Initiative	2.2.3 R&D cooperation (joint projects, PPP with research institutes)	2004	2011	To be updated	€4.55m	<ul style="list-style-type: none"> Budget for 2004-2008: €50m 2008/2009 call budget € 500.000 2010 :4.55 m no structural funds are used Co-financing of the private sector is approx. 25% The programme ends at the end of 2011,.2 new programmes will start: - NANO-Environment-Health-Safety" (NANO-EHS) with a first call in 2011 - Intelligent Production ("Intelligente Produktion") No more calls are to be expected http://www.ffg.at/nano-das-programm http://www.nanoinitiative.at
AWS: Life Science Austria (LISA)	4.3.2 Support to risk capital	2002	No end date planned	To be updated	€ 3.5 M€/y	

Name of the Support measure	1st Priority	Start date	End date	Status (CC to complete)	Estimated public budget in 2010 in euro	Comment
Benefit	2.2.3 R&D cooperation (joint projects, PPP with research institutes)			New to be created		
brainpower Austria	3.2.3 Mobility of researchers (e.g. brain-gain, transferability of rights)	2004	2011	To be updated	€0.3m	<ul style="list-style-type: none"> • overall budget €1.5 m • 2010: 188 grants have been awarded • “brainpower austria” is going to phase out in 2011 and will be integrated into the programme “Talente” (talents) of FFG
BRIDGE Initiative	2.2.3 R&D cooperation (joint projects, PPP with research institutes)	2004	No end date planned	To be updated	€11.8m	<ul style="list-style-type: none"> • Approximately €10 m/year are allocated • 2010: 2 calls have been open, 58 projects supported with €12.26m • http://www.bmvit.gv.at/innovation/strukturprogramme/bridge/index.html • http://www.fwf.ac.at/de/projects/translational_research.html
Christian Doppler Research Association (CDG)	2.2.3 R&D cooperation (joint projects, PPP with research institutes)	1994	2012	To be updated	€	<ul style="list-style-type: none"> • €12.508m in 2005 • €15.269m in 2006 • Overall budget 36.6 • Co-financed by the private sector • The CDG’s budget includes contributions from industry partners (about 50%) and approx. the same share of public funding, mainly through the Federal Ministry of Economics and Labour (BMWA). The programme has evidently been expanded significantly in recent years, not only in terms of budget but also in the variety of thematic fields dealt with by the CD-laboratories. • http://www.cdg.ac.at
CIRCE Cooperation in Innovation and Research with Central and Eastern Europe (CIR-CE)	4.1.1 Support to sectoral innovation in manufacturing	2005	2010	To be archived/deleted	€	<ul style="list-style-type: none"> • Co-financed by the private sector • Budget 2005: €2,1m • CIR-CE is now part of COIN
COIN - Cooperation & Innovation	4.2.3 Support to technology transfer between firms	2008	2013	To be updated	€22.7m (funding granted for 4th call Cooperation and Networks and 3rd call Aufbau)	<ul style="list-style-type: none"> • Co-financed by the private sector • Overall budget 170.000.000 • COIN is operated in two funding lines <ul style="list-style-type: none"> – Cooperation and Networks – “Aufbau” (build-up) • Cooperation and Networks: • http://www.ffg.at/coin • http://www.ffg.at/coinnet_4.AS

Name of the Support measure	1st Priority	Start date	End date	Status (CC to complete)	Estimated public budget in 2010 in euro	Comment
COMET - Competence Centres for Excellent Technologies	2.2.3 R&D cooperation (joint projects, PPP with research institutes)	2006	No end date planned	To be updated	€84.9m	<ul style="list-style-type: none"> Overall budget: 691m. out of which 220m come from the federal level and another 112m from the Austrian provinces. Public budget in total amounts to €333m. Funding is allocated from national (Bund) and regional entities (Länder) at a ratio 2:1. Private sector co-funding is usually approx. 45% (private sector and universities: approx. 50%) No EFRE funding is involved.
Dienstleistungsinitiative (DLI)	4.1.2 Support to innovation in services	2009	2013	New to be created	€ 4.3m	<ul style="list-style-type: none"> Starting April 2011, overall budget till 2013: €9m – to be handled via the existing programmes: <ul style="list-style-type: none"> – Basisprogramme – COIN In 2010 €5.6m have been made available, 31 projects have been supported with €4.3m (the rest of the budget 2010 has been re-allocated to 2011)
Doctoral Programmes plus (DK-plus)	3.1.3 Stimulation of PhDs	2007	No end date planned	To be updated	€ €16.13m	<ul style="list-style-type: none"> Budget for 2008 DK-plus is now named “Doktoratskollegs DKs”
Equity Capital Guarantees	4.3.2 Support to risk capital	2007	2013	To be updated	€ 3.5m	<ul style="list-style-type: none"> Budget for 2011
ERP Technology Programmes	1.3.2 Horizontal measures in support of financing	1994	No end date planned	To be updated	€ 556m	<ul style="list-style-type: none"> Budget for 2009. The programme provides low interest loans between 350,000 and 7.5m Euros. The budget refers to the total amount of loans granted, i.e. the financial means used by the state. Around € 184m were dedicated to technology and innovation support. http://www.awsg.at/Content.Node/48412.php
evolve		2009	2013	New to be created	€ 7.4m	<ul style="list-style-type: none"> Consists of evolve, and lead projects in the field of creative industries and FISA (“Filmstandort Österreich” – ‘Movie location Austria’)
Feasibility Studies	2.3.1 Direct support of business R&D (grants and loans)	1998	No end date planned	To be updated	€ 485,000	<ul style="list-style-type: none"> 2008: € 307.000 2009: € 419.000 2010: € 485.000 http://www.ffg.at/feasibility-studies-im-basisprogramm
FFG General Programme (“Basisprogramm”)	2.3.1 Direct support of business R&D (grants and loans)	Ongoing	Ongoing	To be updated	€108m	<ul style="list-style-type: none"> This amount (2010) is the cash equivalent for direct bottom-up funding, which has not been earmarked for other “sub-programmes” of the FFG General Programme, such as “service sector initiative”, headquarter-programme, high-tech start-up programme, BRIDGE, Eurostars of innovation voucher. All of these subprogrammes have an own budget allocation, which is not included in the € 108m

Name of the Support measure	1st Priority	Start date	End date	Status (CC to complete)	Estimated public budget in 2010 in euro	Comment
FFORTE Women in Research and Technology	3.2.2 Career development (e.g. long-term contracts for university researchers)	2002	No end date planned Phasing out in different stages (ending possibly 2013/14)	To be updated	€ not available	<ul style="list-style-type: none"> FFORTE is an 'umbrella' initiative, comprising a large number of support measures, many of which are coaching, training and awareness measures, funded by four different ministries and implemented by a variety of agencies and institutions. FFORTE does not have a central budget and no aggregated data about the budget are available. Measures of BMWF / BMUKK are currently phasing out, measures of BMVIT and BMWFJ are continuing. For example FEMtech, a programme of BMVIT, will continue under the umbrella of "Talente". Under the sub-programme w-FFORTE, 8 so-called "Laura Bassi Centres" have been awarded contracts
FIT-IT	1.2.1 Strategic Research policies (long-term research agendas)	2001	2013	To be updated	€18m	<ul style="list-style-type: none"> 2010: FIT-IT (incl. Mod-Sim, ARTEMIS, ENIAC, PIANO+) has been continued, support has been provided to the transnational European programmes (23 projects in ARTEMIS, 11 ENIAC, 3 PIANO+) and in national FIT-IT calls (incl. ModSIM). ICT research in total (including the 3 programmes FIT-IT, benefit, AT:net) has received €30m in 2010. http://www.ffg.at/fit-it-open-call
FWF Support for Stand-alone Projects	1.2.1 Strategic Research policies (long-term research agendas)	1994	No end date planned	To be updated	€ 83m	<ul style="list-style-type: none"> average sum per year: 90m, e.g. budget for 2008: 89.88m The Support for Stand-alone Projects does not have a dedicated annual budget. On average, approx. 70% of FWF's total annual funding is committed to such projects. The budget is not further split down, e.g. for different fields of science. http://www.fwf.ac.at/de/projects/index.html http://www.fwf.ac.at/de/projects/einzelprojekte.html
GEN-AU - Genome Research in Austria.	2.2.3 R&D cooperation (joint projects, PPP with research institutes)	2001	2012	To be updated	€1.3m	<ul style="list-style-type: none"> The overall budget planned for a programme duration of nine years of the programme is approx. €100m. http://www.gen-au.at
i2 - Business Angel Network	4.3.1 Support to innovative start-ups incl. gazelles	1997	No end date planned	To be updated	€ 500.000	<ul style="list-style-type: none"> budget 2007 There is a positive growth rate of the budget with the starting year 1997 where the budget amounted 179,480 EUR. In the last available year the budget frame was set to 500,000 EUR. http://www.business-angels.at/
Industrial Competence Centers and Networks (K-ind/K-net)	2.2.3 R&D cooperation (joint projects, PPP with research institutes)	1998	2010	To be archived / deleted	€	<ul style="list-style-type: none"> is now in COMET programme (COMET Competence Centers for Excellent Technologies)

Name of the Support measure	1st Priority	Start date	End date	Status (CC to complete)	Estimated public budget in 2010 in euro	Comment
Innovation Programme Enterprise Dynamics	4.3.2 Support to risk capital	1996	No end date planned	To be updated	€ 37.2m	<ul style="list-style-type: none"> • Co-financed by the Structural funds (ERDF, ESF, etc.) • Co-financed by the private sector • The funding amounts up to EUR 750.000 for a firm and a year. Guarantees till up to 2,500,000 • Guarantees (private co-funding 20-50%) 2010: €25.8 m (for 124 cases) • Co-funding of loans (private co-funding 80-95%) 2010: €11.4 m (for 678 cases) • EFRE (2010): €117,250 (3 cases) • 2010 figures are actual figures • http://www.awsg.at/Content.Node/46931_1.php bzw. http://www.awsg.at/Content.Node/46931.php
Innovation Voucher Austria	2.2.2 Knowledge Transfer (contract research, licences, research and IPR issues in public/academic/non-profit institutes)	2007	2011	To be updated	€9.4m	<ul style="list-style-type: none"> • 2010: 954 vouchers have been awarded and 790 final reports have been received. • Overall 1,915 final reports have been received till end of 2010 and €9.4m have been awarded. • http://www.ffg.at/innovationsscheck
Gründungsinvestitionsscheck		2011	2012	New to be created	Not applicable	<ul style="list-style-type: none"> • max. of €1,000 will be supported (for investing €5,000) • max. 1,000 cheques can be awarded • Programme is running 1. 05. 2011 till 30. 06.2012 • http://www.awsg.at/Content.Node/sonderprogramme/Gruenderscheck/52546_2.php
Gründungstechnologiescheck (GTS)		2011	2012	New to be created	Not applicable	<ul style="list-style-type: none"> • Max. €1,000 per project can be awarded • http://www.awsg.at/Content.Node/sonderprogramme/Gruenderscheck/52546_2.php
Innovative Youth, best ideas contest for students	3.1.1 Awareness creation and science education	1994	No end date planned	To be updated	€	<ul style="list-style-type: none"> • Participating projects receive up to €500 of financial support. • Winners receive awards of up to €5,000, some of which are sponsored by private companies. • Typically for the top-three the following awards are provided: 1. € 2.000,- 2. € 1.500,- 3. € 1.000,- • Co-financed by the private sector • Overall more approx. €1.3 m have already been awarded in the course of the programme.
innovatives-oesterreich.at	3.1.1 Awareness creation and science education	2001	2006	To be archived/deleted	€	<ul style="list-style-type: none"> • 12,000,000: The overall budget is for 3 years (2nd phase), therefore about 4 million are spent per year, including management fees and the evaluation of the activities. • Started 2001, 2d phase 2004-2006,

Name of the Support measure	1st Priority	Start date	End date	Status (CC to complete)	Estimated public budget in 2010 in euro	Comment
IV2Splus	2.3.1 Direct support of business R&D (grants and loans)	2007	2012	To be updated	€20.4m	<ul style="list-style-type: none"> The strategy programme IV2Splus contains four programme lines. The programmes A3plus and I2V are the main programme lines. Additionally there are the programmes ways2go and impuls. 2010: 3 calls have been launched in 2010 in A3plus I2V ways2go http://www.austriatech.org/index.php?id=19
Intelligent Transport Systems and Services (iV2S)	2.2.3 R&D cooperation (joint projects, PPP with research institutes)	2002	2006	To be archived / deleted	€	<ul style="list-style-type: none"> Overall budget €42m Co-financed by the private sector http://www.austriatech.org/index.php?id=116&L=http%3A%2F%25...osConfig_absolute_path%3D%2F%2F%3FmosConfig_absolute_path%3D IV2S ran from 2002 to 2006.
IV2SPLUS-A3Plus Strategy Programme on Mobility and Transport Technologies for Austria impulse programme A3plus Alternative propulsion systems and fuels	2.3.1 Direct support of business R&D (grants and loans)			To be deleted?	€	
IV2SPLUS-i2V Strategy Programme on Mobility and Transport Technologies for Austria - Intermodality and Interoperability of Transport Systems	2.3.1 Direct support of business R&D (grants and loans)			To be deleted?	€	
IV2Splus-ways2go - Intelligent Transport Systems and Services plus Innovation and Technology for Evolving Mobility Needs	2.3.1 Direct support of business R&D (grants and loans)			To be deleted?	€	

Name of the Support measure	1st Priority	Start date	End date	Status (CC to complete)	Estimated public budget in 2010 in euro	Comment
JITU	4.3.2 Support to risk capital	2007	2013	To be updated	€10m	<ul style="list-style-type: none"> Overall budget: 36,340,000 JITU has three sub-programmes: seed-financing, PreSeed and “Management auf Zeit” http://www.bmvit.gv.at/innovation/foerderungen/foerderungsrecht/jitu_richtlinien.html The earmarked budget for 2011 to 2013 is € 11m annually. Structural funds are not included. private sector co-financing is expected in later financing rounds of the funded companies, initially adequate private funding founders is required
Josef Ressel-Zentren	2.2.3 R&D cooperation (joint projects, PPP with research institutes)	2008	A continuation has been recommended	New to be created	€ -	<ul style="list-style-type: none"> 1 call (18.02.2008 11.04.2008): 3 projects have been supported for 5 years with approx. €2 m. http://www.ffg.at/josef-ressel-zentren-o
K plus	2.2.3 R&D cooperation (joint projects, PPP with research institutes)	1998	2011	To be archived/deleted	€	<ul style="list-style-type: none"> K plus is now part of COMET Co-financed by the Structural funds (ERDF, ESF, etc.) Co-financed by the private sector Funding €2.5-5m per centre, up to 60% of eligible costs. Up to 35% of eligible costs could be funded through the K-plus programme (i.e. federal money) and up to 25% could be added by the Länder (provinces). At least 40% had to be financed by participating companies. Funding was granted for four years and extended for another three years upon a positive interim evaluation of each centre.
KIRAS - Austrian Security Research Programme	1.2.1 Strategic Research policies (long-term research agendas)	2005	2013	To be updated	€6.2m	<ul style="list-style-type: none"> The planned budget for nine years is €110m. – initial planning only: Overall budget for the first phase 2005-2013: approx. €60m 2010 : Available budget for calls €6,2m In 2010, 11 projects have been funded in 2 calls. A third call started 1.12.2010. 2011: Available budget for calls €8.3 m http://www.kiras.at/kontakt/
Laura Bassi Centres of Expertise (LBC)	2.2.3 R&D cooperation (joint projects, PPP with research institutes)	2009	2014	New to be created	€6.6m	
LISA (Life Science Austria)	4.3.2 Support to risk capital		No end date planned	New to be created	€3.3m (2009)	<ul style="list-style-type: none"> LISA includes <ul style="list-style-type: none"> - BOB (Best of Biotech), a Business-Plan competition (Prizes with the amount of approx. 90,000 are available) - LISA-PreSeed, financing pre-competitive research projects and - consulting for start-ups and companies in several fields. http://www.lifescienceaustria.at/ http://www.awsg.at/Content.Node/46839.php http://www.bestofbiotech.at/

Name of the Support measure	1st Priority	Start date	End date	Status (CC to complete)	Estimated public budget in 2010 in euro	Comment
National Innovation Award	5.1.2 Innovation prizes incl. design prizes	1979	No end date planned	To be updated	€	<ul style="list-style-type: none"> The prize is comprised of a non-cash support including works of art from the University of Applied Arts, a certificate and winners are entitled to participate in the „go international“ initiative of the Austrian Chamber of Commerce. Special prize: ECONOVIVUS is awarded €10,000 in cash and a €1,000 voucher for participation in the programme tecnet. “VERENA powered by Verbund” (first time awarded in spring 2012) is amounting to €12,000 in cash http://www.bmwfj.gv.at/Ministerium/Staatspreise/innovation/Seiten/default.aspx www.staatspreis.at
National Multimedia and eBusiness Award	5.1.1 Support to the creation of favourable innovation climate (ex. roadshows, awareness campaigns)	2001	No end date planned	To be updated	€	<ul style="list-style-type: none"> Co-financed by the private sector annual price; 11,000 in 2008; in 2011: award = label and recognition, for young innovators 3,000 http://www.multimedia-staatspreis.at http://www.bmwfj.gv.at/Ministerium/Staatspreise/multimedia/Seiten/default.aspx
PEEK – Programme for Arts-based Sciences	? – not classifiable 2.2.3 R&D cooperation (joint projects, PPP with research institutes)	2009	No end date planned	New to be created	€1,74m	<ul style="list-style-type: none"> 2010: in the 2nd call of the programme 7 projects have been supported
PFEIL10 - Programme for Research and Development in the Ministry of Agriculture, Forestry, Environment and Water Management, 2006-2010	1.2.1 Strategic Research policies (long-term research agendas)	2006	2010	To be archived / deleted	€	<ul style="list-style-type: none"> 94.8m (plan 2006-2010) http://www.lebensministerium.at/article/articleview/17619/1/5107 http://buergerservice.lebensministerium.at/article/articleview/81220/1/27888 http://www.dafne.at/dafne_plus_homepage/index.php?section=dafneplus&content=browse_by_program
Pfeil 15	1.2.1 Strategic Research policies (long-term research agendas)	2011	2015	New to be created	Not applicable	<ul style="list-style-type: none"> The Ministry of Agriculture, Forestry, Environment and Water plans to spend on external project related research in 2011: €3.546.000 and on internal research (research-relevant budget of the departments) in 2011: €18.731.000
ProTrans	2.2.2 Knowledge Transfer (contract research, licences, research and IPR issues in public/academic/non-profit institutes)			New to be created	€ 3.3.m	
proVISION for nature and society	2.2.3 R&D cooperation (joint projects, PPP with research institutes)	2005	2013	To be updated	n.a.	<ul style="list-style-type: none"> The budget provided by the Ministry of Science and Research for the first two calls in 2004 and 2007 respectively was €7.1m. Overall budget: €7,4m http://www.provision-research.at

Name of the Support measure	1st Priority	Start date	End date	Status (CC to complete)	Estimated public budget in 2010 in euro	Comment
Research Headquarters	2.3.1 Direct support of business R&D (grants and loans)	2005 Redesign 2011	No end date planned	To be updated	€27,2m	<ul style="list-style-type: none"> • 2005: € 20m • 2006: € 24m • 2010: 33 projects have been supported with €23.49m (in the programme "headquarter strategy") • Headquarter strategy programme in 2010 had a special focus on research in the automotive sector: €5m have been allocated by BMWFJ. • http://www.ffg.at/competence-headquarters • http://www.bmvit.gv.at/innovation/strukturprogramme/headquarter.html • In 2011 a redesign of the programme is planned as 'Competence Headquarters'
Research Premium ("Forschungsprämie")	Indirect funding			New to be created		
Research Studios Austria (RSA)	2.1.2 Public Research Organisations	2008	2013	To be updated	€ 12,9 m	<ul style="list-style-type: none"> • In the second call for proposals 2010/2011 (call open 15.12.2010 - 18.3.2011), 20 Research Studios have been funded with approx. €12,9m (for studios having a run-time of 3 years). • In the first call for proposals in 2008, 14 Research Studios have been allocated a total funding of approx. € 8.6 million for a project duration of three years. • http://www.ffg.at/research-studios-austria • http://www.ffg.at/content/research-studios-austria-1-ausschreibung • http://www.ffg.at/ausschreibungen/research-studios-austria-2-ausschreibung-0
Sparkling Science	3.1.1 Awareness creation and science education	2007	2013	New to be created	€ 3m	<ul style="list-style-type: none"> • 3m annually, From the preparatory phase of the programme and the first two calls for application in the years 2007 and 2009 a total of 107 projects (67 research projects and 40 school research projects) have resulted, 72 of which (36 research projects and 36 school research projects) have already been completed successfully. With the completion of the third call for application in 2010 another 46 research projects and 14 school research projects have started; the duration of the longest-running projects will be until March 2013.
Special Research Programs (SFB)	2.1.1 Policy measures concerning excellence, relevance and management of research in Universities	1994	No end date planned	To be updated	€15m	<ul style="list-style-type: none"> • 900,000 = average /year • 2008: €10.98m • There is no specific annual budget for the SFB programme in advance. According to the FWF's 2007 statistics, approx. 1/7 of the funding granted went to SFB projects in 2007, but that share can fluctuate, depending on the number and quality of proposals received in this and other FWF programmes.

Name of the Support measure	1st Priority	Start date	End date	Status (CC to complete)	Estimated public budget in 2010 in euro	Comment
Start-up Funding Initiative	2.3.1 Direct support of business R&D (grants and loans)	2007	No end date planned	To be updated	€26.47m	<ul style="list-style-type: none"> • Co-financed by the private sector • Overall budget- 230.000.000 EUR. No detailed data on yearly budget. • 2007: 27,766,000 • 83 projects have been supported with €26.47m (out of which 33 projects are high-tech-projects, supported with €15.6m) • in 2010 high tech-start-up support has been continued in the frame of the general "Start Up-Förderung" • http://www.ffg.at/content/start-up-im-basisprogramm
Talente	3.2.2 Career development (e.g. long-term contracts for university researchers)	2011	No end date planned	New to be created	not applicable	<ul style="list-style-type: none"> • Talente will combine the three existing programmes supported <ul style="list-style-type: none"> - brainpower Austria - generation innovation - FEMtech (which was part of the programme FFORTE)
TAKE OFF - The Austrian Aeronautics Programme	2.2.3 R&D cooperation (joint projects, PPP with research institutes)	2002	2012	To be updated	€5m	<ul style="list-style-type: none"> • 2010: the budget has been cut from originally planned €9m to €5m (which resulted in high oversubscription) • http://www.ffg.at/en/take-off
Tax allowances for R&D	4.3.2 Support to risk capital	1994	2010	To be archived/ deleted	€	<ul style="list-style-type: none"> • There are no official figures. Figures reported are estimations Austrian Audit Court (2005: 418,000,000). However, estimates by WIFO differ from these numbers. "Fiscal support for R&D for assessment year 2005 cost slightly more than € 250 million when measured at constant prices of the year 2000. Measured in current prices, total cost of R&D funding for the year 2005 amounted to € 276.7 million. This falls far behind the forecast figures of the Austrian Court of Audit (€ 418 million)."Source: http://www.bmvit.gv.at/innovation/downloads/report4.pdf
TechnoKontakte	1.3.1 Cluster framework policies	1996	No end date planned	To be archived/ deleted	€	<ul style="list-style-type: none"> • No more information available • http://www.technokontakte.at/ • This is an accompanying measure and not a programme

Name of the Support measure	1st Priority	Start date	End date	Status (CC to complete)	Estimated public budget in 2010 in euro	Comment
Technologies for Sustainable Development	1.2.1 Strategic Research policies (long-term research agendas)	2000	No end date planned	To be updated	€57.9m (these are the cash funding sums of the subprogrammes "Energie der Zukunft", "Leuchttürme eMobilität" and "Neue Energie 2020")	<ul style="list-style-type: none"> • Co-financed by the private sector • The budget is split along the three sub-programmes: <ul style="list-style-type: none"> – Building of Tomorrow, second programme phase from 2008-2011 Energy Systems of Tomorrow – Factory of Tomorrow • 2010: The programme "Neue Energien 2020" launched a 4th call with a budget of €35m. The programme "Technologische Leuchttürme der Elektromobilität" funded 3 projects. The programme "Haus der Zukunft Plus" launched a 2nd call and an additional call for demonstration projects. "Smart energy demo – fit4set" is a new national programme in the field smart city/ smart urban region, in 2010 a 1st call was launched. • http://www.nachhaltigwirtschaften.at/ • http://www.bmvit.gv.at/en/innovation/sustainable.html
TOP.EU		2011	2013	New to be created	€	
uni:invent	2.2.2 Knowledge Transfer (contract research, licences, research and IPR issues in public/academic/non-profit institutes)	2004	2009	To be archived / deleted	€	<ul style="list-style-type: none"> • http://www.uniinvent.at/ • http://www.awsg.at/Content.Node/service/patent/48295.php?discover-ip?