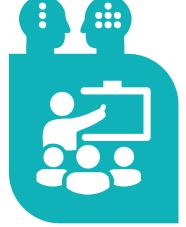






# ANNUAL REPORT 2015 / 2016













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### PREFACE

Austria is a country with substantial innovative power. The purpose of policy is to create the ideal framework conditions for developing new innovative products and services. In addition to the established portfolio of supply-side RTI measures, public procurement plays a central role here as an approach from the demand side.

Through Public Procurement Promoting Innovation (PPPI), Austria puts a mixture of all kinds of measures in place. These are intended to increase the proportion of public procurement funds used for innovation. This stimulus should improve economic growth and employment and make public administration more efficient and modern.

Back in 2013, we established the PPPI Service Center as a central point of contact. Complemented by a wide network of competence centers and contact points, the PPPI Service Center offers tailored advice and training and assists public clients with innovation procurement.

Establishing the PPPI online platform, a market place specifically for public administration and innovative businesses, and the only one of its kind in Europe, contributes significantly to activating innovation potential within the economy and administration. The Open Innovation approach applied here affords public clients new opportunities for finding innovative solutions to existing challenges.

In this way, we apply targeted stimulus to open up additional opportunities for local businesses to position their innovative products and services on the market. Public customers are often important reference clients who make it easier for companies to increase their national and international client base.

The present Annual PPPI Report gives an overview of achievements to date and provides a glimpse of the future of innovation procurement in Austria. The projects presented demonstrate how successfully innovation power can unfold in economy and administration in the procurement practice. We would especially like to thank all those who are already working actively in innovation procurement.

**Harald Mahrer**Federal Minister of Science,
Research and Economy

Jörg Leichtfried Federal Minister for Transport, Innovation and Technology

The felt



### **OPENING REMARKS**

OECD countries spend on average 12% of their gross domestic product (GDP) and 29% of their entire government expenditures via public procurement. These figures highlight the immense reach and potential impact associated with public spending. No wonder governments increasingly recognise public procurement as a means to boost innovation. Alongside sustainability and inclusiveness, innovation, which underpins jobs, productivity and growth, remains a policy imperative for all countries. Indeed, through a more strategic use of procurement for innovation, countries can demonstrate quality governance worthy of citizens' and suppliers' trust and engagement, while delivering innovative solutions for servicing the public.

The OECD framework, supporting countries in their efforts of using public procurement strategically for innovation, was launched in a very recent report "Public Procurement for Innovation: Good Practices and Strategies" (October 2016). Nine areas for action are proposed for a comprehensive strategy, drawing on the principles of the 2015 OECD Recommendation of the Council on Public Procurement and a survey in which 35 OECD and non-OECD countries participated.

One of the key findings from this survey is that 80% of responding countries take measures to support innovation procurement, but only 50% have developed an action plan to do so, indicating significant room for doing better.

Austria is one of the countries that implemented a strategy early on. Valuable lessons can be learned from Austria, for example, how the mix of policy instruments boosts innovation via public procurement. Austria can be considered an interesting rich source of how adequate strategies can help effective implementation of procurement for innovation and contribute to better use of public resources.

Enabling procurement officials to realise and measure the benefits can also support the diffusion of good practices of procurement for innovation. However, much remains to be done in this area: the OECD survey found that only 44% of the countries surveyed actually monitor the impact of their policies on public procurement for innovation. Austria has again been a pioneer in this area in developing a monitoring system, contributing to evidence-based policy making, a key element of OECD's Better Policies for Better Lives.

# **Rolf Alter**Director Directorate for Public Governance and Territorial Development OECD – Organisation for Economic Co-operation and Development







### OPENING REMARKS

The Federal Procurement Agency [BBG] has the ambitious aim of becoming the best purchasing services provider for their public clients. Since the BBG's founding, innovation has been viewed as an important cornerstone and brought to the public sector on various levels. At the beginning of this year, the BBG made their strategic orientation more fit for the future and implemented a new, more efficient development and organizational structure.

In realizing this, intensive work has been done to expand a contract and quality management system so that even better solutions can be guaranteed for the public sector. Furthermore, the BBG is currently undergoing a digital transformation: From October 2018, all public clients across Europe will have to tender electronically. From that point on, the automation of the entire procurement process, from the call for tender and the order process to the rendering of accounts, will be a reality.

Innovative ideas and projects are still a welcome challenge in a typical core business where innovative solutions are always considered. In this regard, we are especially proud of the BBG for winning the European Commission's "EU GPP Award" with their innovative project "Video interpreting" last year.

**Andreas Nemec**Chief Executive Officer
Federal Procurement Agency

In international procurement as well, the BBG aims to further their objective of becoming a role model in the EU. A study of "cross-border-procurement" is being carried out at the present time, which sheds light on the interplay between procurement associations in Europe.

With the support of the PPPI Service Center, the synergy effects in the field of innovation are also being well-used. These offer the service of implementing "Open Innovation Challenges" via the platform www.innovationspartnerschaft.at. This enables the public sector to post their challenges/problems or future prospects online. Subsequently, businesses are invited to develop and post their solution approaches online. This creates a win-win situation, as it enables businesses to make their products or services more well-known and to gain the public sector as a reference customer.

As a result, the innovation power of public procurement is strengthened and the BBG is able - together with support in the form of renewed contracting from the BMWFW and BM-VIT for the PPPI Service Center – to make a significant contribution. This is something we are proud of and we would like to thank our committed employees who are pushing this topic ahead.

**Gerhard Zotter**Chief Executive Officer
Federal Procurement Agency





### "NUMEROUS PPPI EXAMPLES SHOW THE BENEFITS FOR THE INVOLVED STAKEHOLDERS ONCE THE PUBLIC SECTOR PROCURES INNOVATION"

### **EXECUTIVE SUMMARY**

Public Procurement Promoting Innovation (PPPI) has become a cornerstone of demand-side innovation policy in Austria. After the adoption of the Action Plan on PPPI by the Austrian Federal Government in 2012, consistent work regarding the PPPI setting and its development in the years 2013 and 2014 followed, creating the basis for the established and well-functioning PPPI service network. This bi-annual report describes the PPPI activities and developments during the years 2015 and 2016, which were characterized by the refinement and expansion of the PPPI measures. In accordance with the primary objective of the PPPI initiative, the focus is on an increase in the share of the public procurement volume used for innovation. These innovative products and services, in turn, support the modernization of the public sector.

The PPPI initiative is led by the Federal Ministry for Transport, Innovation and Technology (BMVIT) and the Federal Ministry of Science, Research and Economy (BMWFW). It is supported by a network of PPPI competence centers and contact points, complementing the central PPPI service center that has been established in September 2013.

Since then, the PPPI service center has evolved into the top address for PPPI issues. Besides the implementation of new service offers and their further development, the PPPI online platform www.innovationspartnerschaft.at has been established as a novel and promising instrument in Europe for supporting innovation-friendly procurement.

In this report, the PPPI service center and the other partners of the PPPI service network provide insights into their activities.

Numerous examples show that PPPI is effective and features advantages for all parties (purchasers, companies, citizens) when the public sector procures innovative solutions. Several success stories can be found in this report, e.g. from ministries, city and district administrations, universities and public enterprises. This demonstrates that innovation in public procurement can be justified at every level and in every area, as long as there is a corresponding need.

In order to further exploit this potential in the future, established services will be continued and new measures implemented within the framework of the PPPI initiative in the coming years. These include, amongst others, the support of pilot projects on the new procedure "innovation partnership" or the development of a training programme for public procurers.

Please visit our website www.ioeb.at for the latest developments regarding PPPI in Austria.



# THE PPPI ACTION PLAN FORMS AN IMPORTANT CORNERSTONE OF DEMAND-SIDE INNOVATION POLICY IN AUSTRIA





# PUBLIC PROCUREMENT PROMOTING INNOVATION (PPPI) IN AUSTRIA

SINCE THE BMVIT AND BMWFW BEGAN THEIR JOINT PPPI ACTIVITIES IN 2011, WHEN THE PREPARATION OF THE PPPI ACTION PLAN WAS GREEN-LIT ON THE BASIS OF THE FEDERAL GOVERNMENT'S RTI STRATEGY, THE SUBJECT OF PPPI HAS BECOME AN ESTABLISHED FEATURE OF THE INNOVATION AND PROCUREMENT LANDSCAPE.

# 1.1 THE PPPI INITIATIVE AS A CORNERSTONE OF DEMAND-SIDE INNOVATION POLICY

The demand-side stimulation of innovation is steadily gaining prominence as a complement to supply-side approaches such as the direct and indirect funding of Research, Technology and Innovation (RTI). In Austria, the "Action Plan for Public Procurement Promoting Innovation" forms an important cornerstone of demand-side innovation policy.

The objective of this plan is to increase the proportion of public procurement volume that is used for innovation. With a volume of around 40 billion euros and an estimated PPPI share of approximately 2 to 3%, the role of public procurement as a driver of innovation is evident.





# 1.2 THE PPPI ACTION PLAN AS THE STRATEGIC FRAMEWORK OF PPPI IN AUSTRIA

The PPPI Action Plan was developed in a large-scale process involving around 90 people from over 40 institutions. It was adopted by the Austrian Council of Ministers in September 2012.

To date, there have been many crucial milestones in the implementation of the PPPI Action Plan under the joint responsibility of the BMVIT and BMWFW. These include establishing a PPPI Service Center as a central point of contact for PPPI queries, creating a network of PPPI competence centers and contact points, the consideration of innovation as an additional procurement objective under the Austrian public procurement law, initiating and monitoring numerous PPPI pilot projects and creating an online platform for providers and consumers of innovative solutions that is unique across Europe.

In addition, the initial steps in developing a comprehensive PPPI monitoring concept have been made and, already, valuable practical experience has been gained in the course of a PPPI Pilot Survey by Statistik Austria.

Scientific monitoring guarantees the constant further development of and self-critical reflection on the PPPI policy. In implementing this, the BMVIT and BMWFW have benefited from the international networking of innovation expert Eva Buchinger (AIT), who is involved in scientific monitoring.

Nowadays, references to innovation procurement can be found in numerous government strategic documents including the Open Innovation Strategy, Life Science Strategy, Creative Industries Strategy and the national strategic framework of "Cleaner Energy in Transport".

An award in the form of a certificate of recognition from the Austrian Public Sector Award 2016 highlights the role of PPPI as a tool in modernizing public administration.

## 1.3 THE PPPI INITIATIVE IN AN INTERNATIONAL CONTEXT

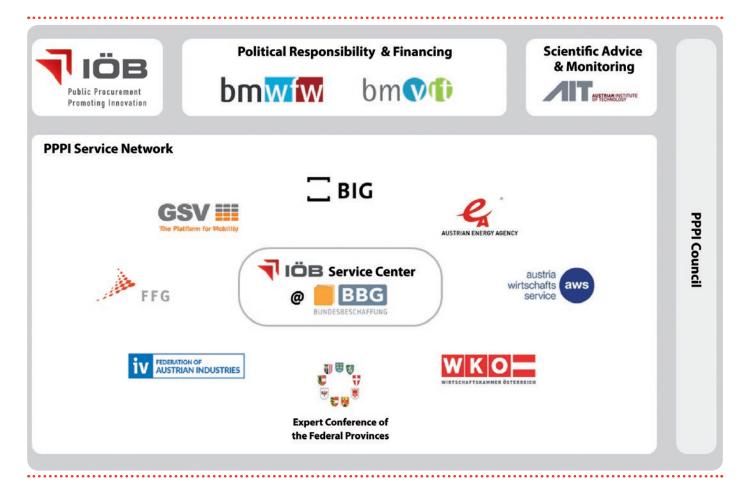
The efforts of recent years have not gone unnoticed in the EU and the OECD. Today, Austria is widely viewed as a positive example of implementing measures of demand-side innovation policy. By participating in the European Commission's "Mutual Learning Exercise on Innovation Procurement", Austria will be setting up an exchange of experiences and knowledge with other member states going forward.

### 1.4 THE PPPI SERVICE NETWORK

The state needs to adopt a strong, strategic leadership role in order to shape the public procurement system in Austria into a more innovative form. PPPI management in Austria follows a holistic approach which is reflected in the far-reaching "PPPI Service Network".

The PPPI Service Center, which was established within the BBG in 2013, offers a wide range of support services for public procurers. Its performance portfolio consists of strategic PPPI consulting, the execution of a project competition, information and networking measures, tailored training and qualification services and the operation of the PPPI online platform, www.innovationspartnerschaft.at.





In support of the PPPI Service Center, PPPI competence centers and contact points drive PPPI thinking forward in their respective specialist areas and areas of responsibility.

Within the framework of implementing the PPPI Action Plan, **PPPI competence centers** are nominated institutions that work in partnership with the PPPI Service Center. Their task is to introduce complementary know-how in the form of specialized sectoral or thematic competence, as each PPPI competence center has a specific competence profile.

The following institutions are currently nominated as PPPI competence centers:

- Austria Wirtschaftsservice GmbH (Commercial PPPI)
- Austrian Research Promotion Agency (Pre-commercial PPPI)
- Austrian Association for Transport and Infrastructure (Mobility)
- Austrian Energy Agency (Energy)
- Bundesimmobiliengesellschaft m.b.H. [Federal Real Estate Company] (Building construction)

The function of **PPPI contact points** is firstly, to publicize the subject of PPPI and support services of the PPPI Service Center within their sphere of action, and secondly, to introduce interests from the sphere.

Currently functioning as PPPI contact points are the Austrian Federal Economic Chamber, as an interface to the economy, and the Expert Conference on "Public Procurement within the Federal Provinces" as an interface to the Federal Provinces of Austria.

Since the beginning of 2017, the Federation of Austrian Industries has been supporting the PPPI Service Center as an interface to industry.

The BMVIT and BMWFW, the ministries responsible for PPPI, have established a council for the coordination of PPPI measures. The PPPI Council has an advisory function and is in charge of considering the interests of affected PPPI stakeholders and ensuring that they play an active role in PPPI measures. During the bi-annual sessions of the PPPI Council, current developments are reviewed, measures coordinated and new support formats for PPPI are discussed.



### 1.5 OUTLOOK

Considerable progress has been made in implementing the PPPI Action Plan in the past few years. Nevertheless, it is important to work on individual themes in more depth and to develop new approaches for strengthening Public Procurement Promoting Innovation (PPPI) in Austria.

The Austrian Council for Research and Technology Development (RFTE) issued a positive report on the PPPI initiative in their recommendation of September 2016, while also indicating thematic areas where they saw a need for action: Political support and concrete, across-the-board implementation, an improvement to the data situation for (innovative) public procurement, improving awareness and qualification of all those involved in the procurement process, motivation and risk sharing.

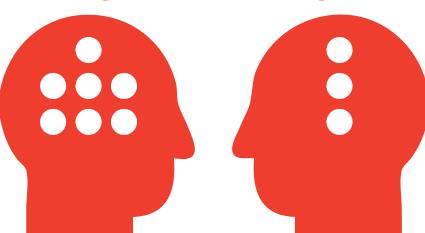
In November 2016, the Austrian Federal Government agreed on further measures to use the potential of public procurement as a lever for innovation.

Acting on the RFTE recommendation, these measures include the introduction of the new "Innovation Partnership" procurement process comprising the realization of pilot projects, the expansion of the PPPI project competition as an incentive element, the development of a training course for public procurers and the improvement of the data situation for procurement and PPPI respectively.

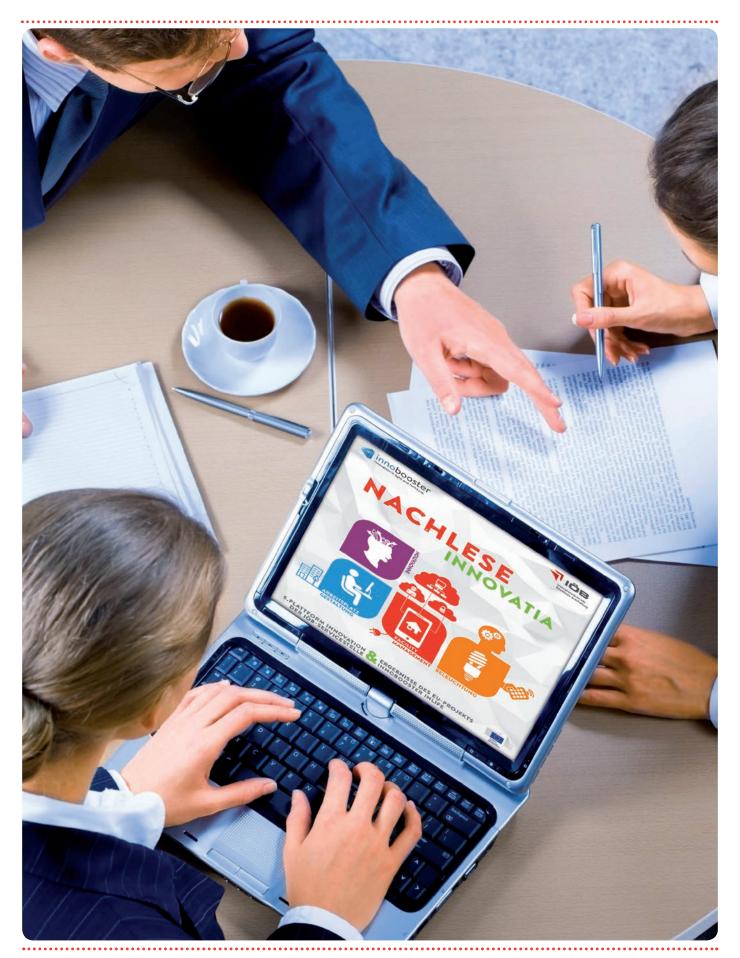
A total of 10 million Euros of Federal funding has been made available for this purpose for the 2018–2021 period.

## 1.6 MONITORING AND EVALUATION

After individual PPPI measures (PPPI events,
PPPI Service Center) have already been
examined and positively evaluated
as part of individual assessments, a
comprehensive evaluation of
the implementation status of the PPPI Action
Plan and the effects
achieved thus far are
planned for 2017.









NUMEROUS EXAMPLES
SHOW THAT
PPPI CAN BE APPLIED
TO ALL LEVELS
AND IN ALL AREAS







### PPPI SUCCESS STORIES

EXAMPLES FROM MINISTRIES, CITIES, DISTRICTS, UNIVERSITIES, SCHOOLS, HOSPITALS AND OUTSOURCED LEGAL ENTITIES SHOW THE POTENTIAL BENEFITS OF PPPI.

Public Procurement of Innovative solutions (PPI) is based on products or services that are already marketable or close to the market. These can be procured using the procedures provided by the Austrian public procurement law. These include "functional performance specification" (in contrast to "constructive performance specification"), "negotiation processes" and "competitive dialog".

Since autumn 2015, the PPPI Service Center has provided an additional service: the PPPI online platform www.innovationspartnerschaft.at.

The platform helps procurers to get to know new businesses and their innovative solutions during the market exploration stage. Selected examples demonstrate the added value that this kind of market exploration can bring.

Following up on the first project competition in 2014, both ministries responsible for PPPI again provided financial resources to support procurement projects. The winning projects from the competition complete the selection of PPPI success stories.





### **ELECTRIC LIGHT GOODS VEHICLE WITH SELF-SUSTAINING SIGNALING UNIT**

Project sponsor:ASFINAGProject duration:4 monthsProcurement volume:45,000 Euro

### INITIAL SITUATION

This project incorporates the evaluation of an electrically-powered light goods vehicle including a signaling and warning guidance system to be used for up to 120 km. The objective was to obtain comprehensive knowledge on the potential uses of alternative power in the field of light trucks.

### INNOVATIVE CHARACTER

The innovative character of the project is evident in the self-sufficient energy supply for the warning guidance system to prevent losing range and potentially invalidating the warranty. The PowAir Charging System automatically ejects the charging cable as soon as the vehicle's ignition has been switched on. It is therefore not possible to unintentionally leave the charging cable plugged in, and this prevents the vehicle from being driven away while still connected to the power. This in turn prevents accidents and saves time when the vehicle is needed.



### **PROCEDURE**

The vehicle has been fitted with a separate electrical circuit for the warning guidance system. A 105A AGR battery and PowAir Box automatically eject the charging cable when the vehicle is started, meaning it is not possible to unintentionally leave the charging cable plugged in.

A jump-start box built into the vehicle allows you to restart the warning light system if the AGR battery is flat. This self-sufficient energy supply provides up to 5 hours of operation of the warning guidance system.

### Project partners:

- · Nissan Austria (Vehicle)
- Porsche Neudorf (Labelling & modification)
- Bott Co. (Control system for interior fittings)
- Janschitz Co. (Warning guidance system)

### **RESULT AND ADDED VALUE**

The added value of the project lies in the sustainable reduction of  $CO_2$  emissions within ASFINAG's fleet operation in terms of the functionality of our utility vehicles. This special vehicle is to be used within the Vienna area, while its scope of application falls under electromechanical maintenance. The reduction in  $CO_2$  emissions amounts to around 150g per kilometer. With an annual output of approx. 40,000km, this accounts for at least 6 tons of  $CO_2$  p.a. Significant savings can be made in fuel and maintenance.

### >> CONTACT

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### LIGHTING UP VIENNA

**Project sponsor:** ...... MA 33 – City of Vienna **Project duration:** ..... start of 2013 – start of 2014 **Procurement volume:** ..... approx. 4,000 lights

### INITIAL SITUATION

Technological developments in the lighting sector introduce new themes to public lighting. Operational aspects, the goal of reducing energy requirement and ecological interactions are raising new questions.

### INNOVATIVE CHARACTER

The answer from MA 33 is a comprehensive standardization concept with a strong focus on the merits of LED technology. The core element of the concept is a universally compatible interface between lamp housings and light inserts. This system conserves resources, as the lamp housing can remain in use for many decades. The "insides" can quickly and easily be replaced without the need for any tools.

### **PROCEDURE**

The standardization concept of this lighting technology was created by the Bartenbach company. 26 so-called standard cross-sections represent the geometry of Vienna's streets and have been compiled by MA 33.

A catalog with approx. 80 criteria from the fields of mechanics, lighting technology and electrical engineering provides the basis for the procurement and specifies standard lighting solutions from the requirements described.

Utility protection has been sought from the Austrian Patent Office for this redeveloped interface for Vienna's standard lamps.



### RESULT AND ADDED VALUE

This standardized lighting technology together with the universally compatible interface ensure the long-term, manufacturer-neutral procurement (in compliance with Austrian public procurement law) of lamps and lamp inserts.

Due to the uniform technology, replacement parts are readily available. This simplifies repair measures and reduces maintenance costs in the long term.

The longer product life cycles of the components used, combined with durable lightbulbs – so-called long-life products – in turn lead to longer maintenance cycles. The effects of brightening the night sky and attracting nocturnal insects are significantly reduced by means of "full cut-off technology", which prevents light from radiating horizontally.

### >> CONTACT

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### ELECTRONIC LOCATION OF EMERGENCY PERSONNEL FOR BMI

### INITIAL SITUATION

Emergency response organizations must be able to maintain an overview of the situation and the personnel deployed even in complex situations. It is the logical next step to explore support for these situations through information technology. For this purpose, the operative needs of a police officer were simulated and brought to life as part of special deployment training in cooperation with the TU Graz and the Styrian State Police Headquarters. Especially major events, such as the organization of the Alpine Ski World Cup in 2013, were a chance for cooperation between the TU Graz and the BMI to provide a system for presenting locational and graphical data on emergency personnel, obtained using the BMI's infrastructure.



### INNOVATIVE CHARACTER

This EMC service allows radio devices to be located within the BOS digital radio network via GPS and for the information to be displayed in a geographic information system (GIS). The locations of the radio devices are regularly updated and visible as points on a map. A user management system ensures that

the signals on the map are only visible to users with observer access to the respective personnel. Strategic decision processes receive a tremendous amount of support through real-time location tracking.

### **PROCEDURE**

As part of preparations for the KIRAS ISKOS (Information system concept for public safety) study, the core processes and estimations for the initial tools for supporting the information technology process have already been developed. During the subsequent project ISOS (Information System for Public Safety), the results obtained were further developed into a demonstration (POC Proof of Concept), where the BMI infrastructure was implemented and jointly operated during the Alpine Ski World Cup in 2013.

### RESULT AND ADDED VALUE

Every second is vital for emergency services to be able to react appropriately and as quickly as possible. Information means using valuable time to gain an overview of the situation. A depiction in interactive graphics makes the information easier to comprehend when processed into the BMI's geographic information system (GIS). The real-time information increases the efficiency of resource use and therefore promotes confident action. In funding the foundational ISKOS study, the KIRAS research promotion program has contributed significantly to the success of both projects and this has led to extremely productive and sustainable cooperation between the two partners.

### >> CONTACT

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### ISTMOBIL SYSTEM IN THE KORNEUBURG DISTRICT

Project sponsor:	ARGE ISTmobil – Municipality of Stockerau /"10vorWien"
Project duration:	April 2016–March 2018
Procurement volume:	annual contribution of 462.31 euros per municipality

### INITIAL SITUATION

Communities around Stockerau and Korneuburg, located away from the agglomeration area, are dependent on shuttle systems to and from public transport. A daily connection between the peripheral districts and main residences through to the transregional public transport system needed to be guaranteed.

### INNOVATIVE CHARACTER

The solution was to implement a "call and collect" taxi system, with the greatest amount of flexibility (not bound to lines or timetables), whose reach was to extend across municipalities. The system contains a range of innovative elements which simplify the administrative effort required of local municipalities:

- Maximizing collection potential and increasing occupancy rates using software ("ISTdis")
- Avoiding empty vehicle kilometers by means of an automatic disposition based on ecological and economic criteria
- Ordering journeys via an online booking platform, by telephone or through a smartphone application
- Customer service via mobilCard, service hotline, online customer section and app

### **PROCEDURE**

During the initial phase, regional implementation concepts were developed. These primarily include the area of service, a stop system, times of operation and a tariff structure. In addition, it was important to generate a financing plan for participating municipalities, as well as to negotiate and conclude contracts with local taxi and rental car companies. ISTmobil GmbH was commissioned to create an implementation concept for this district-wide micro-mobility solution. ISTmobil has been operating within the Korneuburg District since 01/04/2015. An evaluation following the first year of operation

shows that the system has been adopted by the population and, above all, that the available connections to public connection hubs are being used. The 3-year pilot stage of the project will end on 31/03/2018. To permanently enhance the district's mobility options, strong efforts are being made to continue with the ISTmobil system.

### **RESULT AND ADDED VALUE**

- 64% of those asked were satisfied or very satisfied with the ISTmobil system.
- There is potential for a reduction of around 36.2 tons of CO<sub>2</sub> emitted per year.
- Key public transport hubs, particularly railway stations, are frequented most often. This guarantees connections to public transport.
- In the first year of operation, the number of journey rose from around 1,100 to 1,500.



### >> CONTACT

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### NABE PRIZE 2016: VIDEO INTERPRETING AT THE BBG

**Project sponsor:** ...... Federal Procurement Agency **Project duration:** December 2015 – December 2020 **Estimated contract value:** 20 million euros

### INITIAL SITUATION

International integration in everyday professional life is increasing demand for translation services. For specialist matters, however, it is often difficult to find qualified interpreters. Translation services are usually required on-site, resulting in high travel expenses for interpreters and additional strain on the environment due to CO<sup>2</sup> emissions.

### INNOVATIVE CHARACTER

Video-interpreting is a booking platform for qualified interpreters in the following specialist areas:

- Health
- Criminal investigation and security police as well as judicial matters (Courts and correctional facilities)
- · Asylum systems
- Local authorities
- · Labor market

All that is required is a technical aid such as a PC, notebook, tablet or smartphone – and the interpreting service can be booked in less than 5 minutes and utilized immediately.

### **PROCEDURE**

A call for tenders was issued for a "Video-interpreting" service. In detail, it consisted of a video-interpreting software solution and a network of several hundred interpreters that could be connected within minutes. For the procurement process, the BBG chose a negotiation process with prior public announcement.

### RESULT AND ADDED VALUE

The switch to video interpreting services reduces interpreters' travel expenses and results in estimated savings of 359.5 tons in CO<sub>2</sub> emissions per year, or 1,798 tons throughout the

duration of the project. Energy consumption can be cut by 114 tons per year and by 554.6 tons during the entire 5-year period (Calculation: GPP 2020). In 2016, the BMLFUW issued a pioneering competition for sustainable public procurement in cooperation with the ÖGUT. This "naBe Prize for Sustainable Procurement" is aimed at all public clients including municipalities, provincial and federal administration bodies, public institutions, sectoral clients, etc.



The BBG was the winner in the competition category for "Procurement of Sustainable Products and Services with a Contract Value of over 100,000 euros", in contention with a total of 27 other projects.

### >> CONTACT

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### "INTELLIGENT TRAMS" WITH FREE WIFI

Project sponsor: .....Linz AG LINIEN GmbH Procurement volume: ..... approx. 100,000 euros

### INITIAL SITUATION

For a long time, tram passengers in Linz have not had the opportunity of reliably surfing the internet seamlessly and at no cost. Across the board, the city of Linz pursues a strategy of offering free public hotspots and free internet access to everyone. The LINZ AG LINIEN are also focusing on permanently increasing efficiency and conserving resources during operation.



### INNOVATIVE CHARACTER

Over the period from January 2011 to 2013, free WiFi became a reality on all 56 trams of the LINZ AG LINIEN network, allowing passengers free internet access on all routes. These fittings transformed vehicles into "intelligent trams": Sensors continually transmit around 50 system parameters on the energy flow within the vehicle to the operating center in real time. These sensors are also able to capture the position and occupancy of individual carriages - from empty and half-full to full. In future, it is conceivable that this real-time information will even be available to passengers via apps. The projects "Real-time transfer of system information" and "WiFi in Linz trams" are now advancing the use of innovative and resource-conserving

technologies in public transport. With this pioneering project, Linz has become a worldwide example of "Best Practice".

### **PROCEDURE**

After the breakthrough success of the free WiFi hotspots in the city, with over 1 million hits per year, the first WiFi-equipped tram went into test operation in January 2011. The LINZ AG LINIEN carried out the project together with telecommunications providers and IT companies. Up until 2013, WiFi technology was being gradually installed in all trams and fitted with additional sensors, contributing to improved use of the tram system.

### **RESULT AND ADDED VALUE**

The deployment of free WiFi in trams meets users' expectations of a web connection that is as unbroken and seamless as possible. Passengers on the LINZ AG LINIEN can enjoy free added benefits and modern customer comfort. The more efficient use of acceleration and braking processes and heating systems have reduced the energy requirements of operation by up to 14% and saved 115 tons of CO<sub>2</sub> per year. Maintenance work can also be carried out in a more targeted way as the data available online continually transmits information about the state of the vehicles.

### >> CONTACT

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### **ELECTRONIC LOCKING SYSTEM**

### INITIAL SITUATION

Manual key systems and the associated issuing of keys have their downsides: a great number of key losses and fluctuating usage of marginal room capacities result in high expenses.



### INNOVATIVE CHARACTER

To facilitate administration in the main building of the Mozarteum University in Salzburg and to reduce personnel expense, the building has been refitted with a digital locking system. This is integrated into the student information system and allows students to view free capacity and book rooms. They can book both internally, through display monitors, and externally – for example, from home – and without a specified time allocation. The room capacity is then optimized and utilization times can be chosen more easily. For the purposes of security, a motion sensor registers any unauthorized use, for example, outside of opening hours. An interface between the locking system and newly-installed Facility Management software (CAFM) makes the networking of facility management complete.

### DESCRIPTION OF THE PROCEDURE

Various users including lecturers and students worked together to create a profile of requirements and subsequently establish a project description using these, together with iC Consulenten Ziviltechniker GmbH (Interdisciplinary Consultants of Civil Engineering). An innovative call for tenders was issued in conjunction with the BBG. In the course of a parallel-running project on CAFM, seven universities registered a high level of interest in an electronic locking system. A negotiation procedure in cooperation with the BBG assessed the price at 60% and the quality at 40%. Within the framework of the quality assessment, five companies were invited to the demonstration at the Mozarteum University, where they carried out prescribed works on sample doors. The Mozarteum University selected one implementation partner from among the best three providers. More universities will benefit if they are able to make use of the three best providers in future.

### RESULT AND ADDED VALUE

- Increased flexibility of room occupancy rates
- No key losses or associated lock changes required
- The three best providers can also be commissioned by other universities
- Networking with FM software
- · Guaranteed security with motion sensors
- · Rooms may be booked both externally and internally

### >> CONTACT

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### 2.2 CHALLENGES OF THE PPPI ONLINE PLATFORM



### DOOR LOCKED, LIGHTS OUT



"Why is the light on, but the door locked? Why is the projector running even though the students have already left the room?" asks Stefan Wohlfarter, head of Facility Management at Innsbruck Medical University (MUI). Of one thing, he is certain: "In the newly-renovated MUI building on Fritz-Pregl-Straße, this must be different."

At the beginning of 2016, he set out with a PPPI challenge to look for suitable solutions to his problem - with the goal of minimizing operating costs through seamless communication between in-house systems such as heating/cooling, ventilation, lighting and technical user devices including projectors, loudspeakers, door signs and the door locking system.

Seven businesses took part in the PPPI challenge at MUI, including well-known businesses such as Kapsch as well as smaller enterprises like Erfinderei. At the beginning of July, project partners at MUI and the Bundesimmobiliengesellschaft (BIG) opened an innovative dialog to shed light on solution approaches with the company. The MUI is currently working on realizing the project.

### >> CONTACT

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# 2.2 CHALLENGES OF THE PPPI ONLINE PLATFORM



### **CREATING SPACE FOR IDEAS**



Two dedicated students approach the Operations Manager of Johannes Kepler University (JKU), Alexander Freischlager, with one request: They want a space to work on their start-up idea. It is a timely request, as the JKU has been planning to increase their support for entrepreneurial spirit for some time. It quickly becomes clear that the old bank branch on campus will be closing in the summer, and this could be the perfect place for an ideas space. After the initial euphoria comes disillusionment: "We have no idea how to design such a room to stimulate creative potential!"

Alexander Freischlager contacts the PPPI Service Center. After a short workshop, the problem is clarified and a challenge is posted at www.innovationspartnerschaft.at. Six businesses present their room concepts. The MINIMAL WHITE concept from the architectural office of Spazio 3 and their partners at Smart Wall Austria makes the cut. At the beginning of the winter semester in 2016, the bank branch is transformed into the new entrepreneur.base.

A new coat of paint and multifunctional furniture offer a space designed to maximize creative thinking. One special feature: Idea can be written down anywhere in the room, whether on the table, chairs or cupboards. There are no limits to creativity.

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# 2.3 EXAMPLES FROM THE PPPI PROJECT COMPETITION



# ESTABLISHMENT OF A "LABORATORY FOR MANUFACTURING INNOVATION (LMI) FOR 3D METAL PRINTING"



While creating the RTI strategy for the Federal Province of Lower Austria, the "Manufacturing and Automation Technology" task force identified a need for a "Laboratory for Manufacturing Innovation (LMI) for 3D Metal Printing" among companies in the region. The goal of the LMI is to satisfy the topicality and relevance of 3D printing and offer companies a point of contact for technology queries: from initial contact with technology and processing R&D plans, to support for the protection of future investment decisions.

The FOTEC Forschungs- und Technologietransfer GmbH (Research and Technology Transfer) and the University of Applied Sciences Wiener Neustadt have emerged as a central point of contact in Eastern Austria for all questions concerning 3D metal printing. Important criteria such as the feature of neutral position, know-how and R&D skills gained from years of experience, the availability of machines and infrastructure, a national and international network and the combination of training and research were sound reasons to establish the LMI at FOTEC. For this purpose, FOTEC procured two laser melting systems (metal and plastic 3D printers), a heat treatment furnace for 3D-printed components and a test chamber for vacuum experiments.

### RELEVANCE OF 3D PRINTING

3D printing is gaining increased prominence across all areas of production technology. The 3D metal-printing process has enormous potential: from increasing the functionality of components to minimizing waste and faulty parts. The correct use of the 3D printing of metal components opens up a variety of new opportunities that could lead to innovative products in all metal-working or processing industrial or commercial operations. Furthermore, 3D printing supports and facilitates the realization of individualized products with a production size of 1 with significantly lowered prices than conventional manufacturing techniques.

### **FUTURE PERSPECTIVES**

By operating the LMI, FOTEC will gain additional income as a result of projects and orders from industrial and commercial operations. Furthermore, its new laboratory infrastructure will attract more nationally- and European-funded research projects and expand its knowledge further. Last but not least, FOTEC will provide the necessary qualifications for 3D printing at the levels of future academic personnel and technical specialists. The rapid application of 3D printing is leading to innovative and competitive products in industrial and commercial operations and ensuring consistency in the value chain, from research and management to the training of skilled workers. As part of the 2015 project competition – the second application stage – the project was able to secure first place and has been supported financially with a PPPI check worth 14,320 euros.

### >> CONTACT

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# 2.3 EXAMPLES FROM THE PPPI PROJECT COMPETITION



# E-VEHICLES EXPAND THE FLEET OF THE FEDERAL PROVINCE OF UPPER AUSTRIA



At the time of the project kick-off, projects on e-vehicles with satisfactory mileage were almost unheard of in the vehicle fleets of public institutions. The Federal Province of Upper Austria now wishes to examine whether, and under what framework conditions, conventionally driven service vehicles could be replaced by alternatively powered vehicles in the long term.

The core concept had to develop solution approaches, such as enabling organizational measures and/or management tools to counteract the limited operational capacity of e-vehicles as much as possible in regard to environment and sustainability. To remedy the problem of operating distance, a mileage of around 15,000 km per year has been targeted - a substantial improvement to the actual situation, as currently e-vehicles in similar fleets are only used for a few thousand kilometers per year. Three vehicles were purchased between December 2015 and March 2016. In 5 district authorities, 22kW charging stations have been or will be set up within the project period. One of these is "intelligent" and provides data readings and remote access. Project partners in the directorates of UWD (Environmental Umbrella Organization), Committees and Road Construction and Traffic are responsible for the vehicles' innovative allocation concepts. The project is being managed by the department of GBM/Directorate of Committees – group procurement. "With around three to four months before the project's completion, we are able to estimate that we are covering around 10,000 to 12,000 kilometers annually with the 2 VW models and around 15,000 km with the Renault Zoe," declares Hannes Pöcklhofer from the Upper Austrian administration. The expected mileage is, therefore, slightly lower than the planned figure.

The calculation models made estimates of maintenance costs, electricity costs, fuel costs, interest rate movements, residual values in accordance with Eurotax etc. Initial projections for the individual models, in comparison to diesel-operated vehicles, show that the cheapest model is not much different from a diesel-operated vehicle. The specific model used for comparison and the residual value set for the respective e-vehicles nevertheless have a significant impact on cost-effectiveness in Upper Austria, for instance, Renault Zoe, eGolf or VW eUP. In conjunction with existing Eurotax values, assessments from leasing banks must also be taken into account here. Other relevant points include to what extent current high purchase prices affect the total number of vehicles in comparison to diesel models, or how the impending fleet reduction can be avoided. Support in the form of funding from the Klimaaktiv program must also be considered. CO<sub>2</sub> savings should be assessed separately. These currently amount to 77.13g of CO<sub>2</sub> per kilometer traveled. Projections indicate that 15,000 km a year traveled results in savings of 1,156 kg or 1.16 tons of CO<sub>2</sub> (values for Renault Zoe model). During the PPPI project competition in 2015 - first submission phase - the project was able to secure first place and was financially supported with a PPPI check to the value of 15,400 euros.

### >> CONTACT

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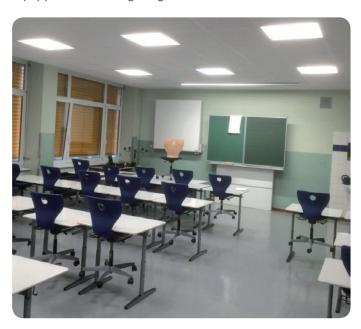
### 2.4 EXAMPLES OF **PPPI MATCHINGS**



The PPPI Service Center considers itself to be a builder of bridges between innovative companies and public institutions. Successful PPPI matches were achieved during the 2015/2016 reporting period, which resulted in innovation procurement projects. The following are three examples of beneficial matchings:

### **ECOCAN MEETS GRATKORN** MUNICIPALITY AT THE **ECOVATION CONFERENCE**

September 2016: The new school year begins at the Neue Mittelschule Gratkorn. But something is different. The students are puzzled: it is not the classroom itself, and the teachers are still the same. Then they realize: it is the light! The old lights are a thing of the past and instead, all rooms in the school are equipped with LED lighting.



Through a combination of reflectors, lightbulbs and light-controlling foil, LED booster technology generates more efficient light radiation values, without exceeding acceptable light density values. This is not just great for the children, who feel comfortable in the classroom and can concentrate on their work - the municipality of Gratkorn, which is responsible for school maintenance, is also captivated by the new lighting from EcoCan. By switching to LED, not only is uneconomical, high-maintenance and old-fashioned lighting banned from the school, but new, highly efficient technology has reduced energy costs by more than two thirds. Both the school and the municipality are therefore taking the lead in setting a good example both ecologically and economically.



How did this cooperation between the municipality of Gratkorn and the EcoCan company come about? Daniel Strohrigl, representative of the community and Werner Färber, Manag-



# 2.4 EXAMPLES OF PPPI MATCHINGS



ing Director of EcoCan, met during the PPPI Service Center's ECOVATION conference. They began talking over coffee and cake. Mr. Strohrigl learned about the technology from EcoCan, while keeping in mind that the school urgently needed new lighting. Werner Färber was delighted at this interest from Gratkorn and, a short time later, received an invitation to submit a tender for a lighting concept for the school. This resulted in EcoCan overcoming two competitors with the "LightWay" concept.

# COMPURITAS GIVES NEW LIFE TO OLD I.T. DEVICES

"You are too old and slow to do your job." I used to hear remarks like this in my old company all the time. But now that's in the past. I am needed again. And in a Bundesrealgymnasium (secondary school) in Vienna, no less! Recently, a pupil employed me to design a colorful new logo for the training company..."



You guessed it: this is not a person, but a computer. Many Austrian companies replace their IT hardware with brand-

new devices after 3 to 4 years. Although the once high-quality business hardware they purchased is still, for the most part, functional, the devices end up in the garbage dump. The company Compuritas is striking new, innovative paths in this area. They obtain outdated computers, screens and other IT hardware no longer in use in Austrian companies and professionally recycle them.



Within the BBG, a direct procurement platform has been set up to provide favorable conditions for old IT devices to be purchased by public institutions. This can reduce costs by up to 70%. For example, a Bundesrealgymnasium in Vienna can quickly and easily purchase the devices in just a few clicks from the BBG's e-shop – good for the pupils, as well as the environment, as the lifespan of the recycled IT devices is usually



# 2.4 EXAMPLES OF PPPI MATCHINGS



doubled. You can find further information on the Compuritas company in the Innovation Marketplace, where the company has maintained a presence since autumn 2015, at www.innovationspartnerschaft/loesungen

# DIALOG BETWEEN SURGEBRIGHT AND KAV

Anyone who has ever had to endure a broken bone knows the unpleasant consequences. During the first operation, metal screws are used to fix the bones and then a second operation is necessary to remove these materials. Thanks to the humane "Shark Screw" bone screw made from human donor tissue, this process could soon be at an end.

This saves the patient the need for a second operation, as the body recognizes the familiar bone matrix of the Shark Screw and adapts it so that one year later, it can no longer be seen in an X-ray.

Are you interested in this solution from Surgebright? Prof. Ritschl from Gersthof Hospital noticed the Shark Screw on the Innovation Marketplace of the PPPI online platform, www.innovationspartnerschaft.at, and contacted the PPPI Service Center, who put him in contact with Dr. Klaus Pastl from Surgebright.

Initial discussions will take place at the beginning of 2017 and – who knows – perhaps metal screws in the hospital will soon be replaced with humane Shark Screws.



# THE PPPI SERVICE CENTER IS YOUR COMPETENT CONTACT PARTNER

FOR ALL QUESTIONS
ABOUT INNOVATION
PROCUREMENT







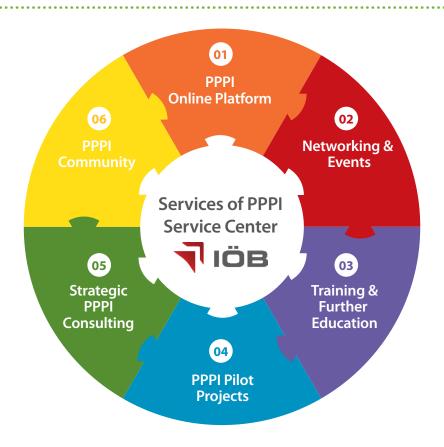
# THE PPPI SERVICE CENTER AND ITS SERVICE PORTFOLIO

# THE PPPI SERVICE CENTER SUPPORTS PUBLIC PROCURERS IN THE PROCUREMENT OF INNOVATIVE PRODUCTS AND SERVICES

The PPPI Service Center is the central point of contact for questions about PPPI. It provides support in every stage of the procurement process, from the market exploration stage to the actual procurement. In doing so, it brings its expertise in the fields of innovation, project management and procurement to bear, catering in particular to the special requirements of the public sector.

Read more about the concrete service portfolio and how the PPPI Service Center can support you. Examples of already completed projects illustrate the individual services in detail. References from clients reflect their satisfaction with the support services that are offered.

# THE PPPI SERVICE CENTER AND ITS SERVICE PORTFOLIO



### 1 PPPI Online Platform

70 solutions, 8 challenges, 27,943 visitors

### **102** Networking and Events

**538** participants from: the Federal Government, regional governments, municipalities, outsourced legal entitites, the health sector, universities and suppliers

### **13** Training and Further Education

- 1.33 average rating -"Very good"
- 9 internal and external training options

### **PPPI Pilot Projects**

10.1 million euros in funding

### **OD Strategic PPPI Consulting**

References incl. aws, FFG, BMWFW

### **66** PPPI Community

2,366 PPPI contacts

The PPPI Service Center was established as a central point of contact for procurement and innovation in September 2013. Since then, it has constantly been expanding its services, offering challenges and an innovation marketplace on the online

platform www.innovationspartnerschaft.at, project competitions, events, consulting workshops and further education. A newsletter keeps interested parties up to date with the latest developments.



### 3.1 TRAINING AND FURTHER EDUCATION

### Seminars on "Innovative and sustainable procurement"

A seminar at the Austrian Federal Academy of Public Administration was very well received in early 2014. This was considered reason enough to expand the range of training opportunities in autumn 2015 and develop a basic and advanced seminar under the title "Innovative and sustainable public procurement". During the eight-hour basic seminar, participants gained initial insights into the definition of Public Procurement Promoting Innovation (PPPI) and sustainable public procurement (naBe). Best Practice examples demonstrated their implementation in practice and attendees heard presentations on the legal framework conditions and support services of the PPPI Service Center.

VIEWS ON THE BASIC AND ADVANCED SEMINARS AT THE **AUSTRIAN FEDERAL ACADEMY OF PUBLIC ADMINISTRATION:** 

"Through both seminars, I was made aware of diverse options as to how I can receive support on PPPI."

**Christine Gaunersdorfer** Federal Ministry of Science, Research and Economy -**Department BA/3 Office Equipment** 

"I especially liked the illustration and run-through of PPPI processes. Concrete Good Practice examples also contributed to PPPI becoming even more tangible."

### **Gerrit Thell**

Municipal Authority of the City of Vienna – MA 23 **Economy, Labor and Statistics und Statistik** 

Bernd Zimmer (BMWFW), Karin Hiller (BMLFUW) and Wolfgang Pointner (BBG) supported the PPPI Service Center team on-site as trainers. In addition to the basic seminar, an advanced seminar was organized for the first time in 2015. This examined more closely the essential aspects of innovation management in general, as well as the framework conditions and funding opportunities for PPPI in particular.

A presentation on PPPI competence centers and contact points and discussions of the challenges of public administration completed the program.

Participants got to know the PPPI online platform www.innovationspartnerschaft.at as a new service and identified approaches to innovation procurement projects.

### **PPPI tools and guidelines**

The guidelines "PPPI & Legal Framework Conditions" were developed and published in 2015 as a PPPI tool, in close cooperation with the legal departments of the BBG and the Austrian Research Promotion Agency (FFG). Inspired by a stimulus workshop on innovation, a draft for an "Innovation Manual for the BBG" was drawn up to promote the subject within the BBG.

A cooperative effort with the WU Vienna was dedicated to the subject "Impact of autonomous driving on individual transportation" and rendered an initial analysis of "Cost models in technological comparison and advances".









### **Innovation Arena on E-Mobility**

On the 7<sup>th</sup> of May, 2015, an event from the "Innovation Arena" series was held for the fourth time. Around 130 procurers, innovative businesses and experts came together and used the opportunity to conduct an active exchange and dialog on the subject of e-mobility.

IÖB Innovation

WIR VERBIN öffentliche Besch und innovative Unte

### **ECOVATION** conference

The highlight of 2015 was the ECOVATION conference for innovative and sustainable procurement, which took place in Graz on the 30<sup>th</sup> of September and 1<sup>st</sup> of October 2015. 168 procurement managers, experts and innovative companies attended this event to discuss the procurement processes of the future. A program feature was the live start of the online platform www.innovationspartnerschaft.at for companies, startups and public authorities. Both the conference and the live-start of the platform are considered milestones in the establishment and dissemination of innovative and sustainable public procurement in Austria.

"If we demand courage from our local companies, then we in public administration also have to be courageous. Innovation in public procurement is politically desirable in compliance with the guidelines of economic efficiency, practicality and frugality. Through PPPI, the public sector can increase efficiency and reduce long-term costs."

Thomas Stelzer
Governor of Upper Austria

### Training module "Purchasing Course" and "BBG Onboarding"

During internal training sessions, employees at the BBG worked on the various aspects of innovation. The training brought concrete approaches for daily work into focus and was aimed at clarifying basic terminology on the subject of innovation and its framework conditions. Skills covered included the application of functional performance specifications and the formulation of concrete service requests to the PPPI Service Center.

### 3.2 NETWORKING AND EVENTS

### Providing input and participating in external events

In 2015 and 2016, the PPPI Service Center provided diverse input into external events such as the following:

- 4<sup>th</sup> BBG Day for Suppliers on 21<sup>st</sup> October 2015
- Villach Innovation Congress on 12th November 2015
- Specialist trade fair "Nutzen.Leben & Verwaltungsmesse" on 21st April 2016
- INNOVATE 2016 Conference on Innovation Management in the Public Sector on 17<sup>th</sup> May 2016
- Expert Panel of the Federal Provinces on 19th May 2016
- KIRAS Steering Committee on  $7^{th}$  June 2016
- PPPI recommendation to the RTD Council on 14<sup>th</sup> September 2016
- 5th BBG Day for Suppliers on 13th October 2016
- Management of Cities and their surrounding area (SUM)
   Conference on 30<sup>th</sup> November 2016
- KIRAS Specialist Conference on 18th October 2016







# Launch of the PPPI Tour through the Federal Provinces

The PPPI Service Center declared 2016 to be the year of the PPPI online platform www.innovationspartnerschaft.at and set off on a tour through the Federal Provinces. The first stop in Upper Austria in the Redoutensäle in Linz allowed for a lively exchange between innovative companies from the region and public procurers interested in innovation to take place. The PPPI online platform was presented together with examples of the implementation of innovation procurement, and these stimulated exciting discussions on the significant of PPPI for Upper Austria.

# **Electromobility Innovation Arena**

Another highlight in the first half of 2016 was the Electromobility Innovation Arena on the 16th of June in Munich. This event was organized in collaboration with the German Competence Center for Innovation Procurement (KOINNO) and brought public procurers from Germany and Austria together with innovative businesses.



### **INNOVATIA Conference**

The INNOVATIA Conference on the 29th of November finished off the events calendar for 2016. 163 procurement managers,

experts and innovative companies came together to exchange their experiences. The subject covered in the talks, workshops and discussions ranged from workplace design and lighting to facility management. Two keynote speakers gave inspiring insights into the focal points of the subject. With Phillippe Le Quément, representative of DG GROWTH of the European Commission, participants looked beyond Austria's borders and discovered European perspectives on innovation procurement. Stefan Wurm, Coordinator of the Innobooster inLIFE project in the BBG, presented the EU project and pointed out that products from the Innobooster project could be accessed in future.



As a BBG expert on international projects, Dana Mitea shared her experiences in cross-border procurement. After these initial presentations, participants were able to further develop their knowledge in the course of six workshops. In between filling up on food for thought and delicious meals, there were plenty of networking opportunities. 15 innovative businesses showcased their products on-site and stimulated the sharing of ideas: The businesses Spazio 3 Architektur, Smart Wall Austria and hali enjoyed numerous conversations with clients, as well as the title "Company of the Day". You can find more details and records of all current events at:

www.ioeb.at/leistungen/vernetzung-und-veranstaltungen/archiv





# 3.3 STRATEGIC PPPI CONSULTING

More modern, efficient, publicly accessible and transparent; more satisfied clients... public institutions are usually measured according to these strategic goals. However, the central role of purchasing is often neglected in the process. From the perspective of the PPPI Service Center, this is unjust, as innovation procurement projects can play a crucial role in achieving strategic goals. To this end, the PPPI Service Center supports cities, regions, ministries, hospitals, etc. through the "Strategic PPPI Consulting" service. In the past two years, both administrative areas of the BMWFW ("Science and Research" and "Economy") along with Monopoly Administration GmbH have profited from strategic consulting of this kind. The focus has been on identifying approaches for future innovation projects in public procurement.

### Yes, and ... ... a helpful example?

Federal Ministry, Stubenring 1, 2nd of December, 8:30 a.m.: The room is still empty. The chairs are arranged in a circle, each chair holds a pad of paper, a pen and a small card with the inscription "Yes, and...".

"Yes, and..." is the motto of today's workshop. In 30 minutes, 10 employees from the Ministry will fill the seminar room. Together with the PPPI Service Center, they will work out the potential for innovation procurement projects in their organization over the long term. The sentence "Yes, but..." is banned from the room for the next three hours. Ultimately, only a constructive "Yes, and..." is important when developing new ideas.

At the end of an interactive half-day, each of the 10 ministry employees will take at least one idea for a potential innovation project home with them.

This includes exciting ideas to make administration more modern, efficient, publicly accessible, sustainable and transparent and to improve customer satisfaction. One example is the project idea from Simon Tobler of the BMWFW, who wants to automate the management of all furniture, paintings and other furnishings. Thanks to the PPPI matrix, he already knows the next steps in realizing his project and the employees of the PPPI Service Center are supporting him with their knowhow. Have we caught your interest? Then pick up the telephone and call us at +43 1 245 70 817. We will be happy to set off on a journey of discovery with you, in search of project ideas within your organization.

# 3.4 PPPI PROJECT COMPETITION

According to the motto "Enough of 08/15!" public procurers have the opportunity to submit their innovation projects to the PPPI Service Center. The most innovative submissions will be awarded a total of 80,000 euros each year in the form of PPPI checks, by way of financial support for public procurers in carrying out their procurement projects. Online tools and info on the website www.ioeb.at make participation easier: a form for submitting the project to the PPPI Service Center, a quick test and a description of the minimum criteria help to make the PPPI project competition more transparent. The project competition is explained in a video on the PPPI website and on YouTube. In 2015 and 2016, the PPPI Service Center distributed the available sum to the winners in the form of a PPPI check. During the first submission phase in 2015, two innovative ideas received financial support: First place went to the Office of the Upper Austrian Regional Government in cooperation with the Carinthian Regional Government. The development of a management tool was needed for the switch to an e-mobile fleet, in order to evaluate ongoing operations in terms of sustainability





and innovation for one year. The Vorarlberg Environmental Association was able to convince judges in the "Mobility" category with the project idea for extensive expansion of the e-bike charging station system for all battery types throughout the Federal Province of Vorarlberg.

In the second submission phase of 2015, four innovative ideas were selected: First place went to FOTEC GmbH (Research and Technology Transfer) of the University of Applied Sciences Wiener Neustadt for procuring a laboratory including equipment for 3D printers. The school Mittelschule Leipziger Platz in Vienna was able to claim second place for developing and implementing a "Participative learning space design concept".

The Federal Ministry of Finance achieved 3rd place for procuring a mobile scanning device to combat fraud. In fourth place was the school BHAK Baden for expanding their photovoltaic system and procuring a battery storage system. The first submission phase of the 2016 PPPI project competition received the highest number of submissions to date. The Central Institution for Meteorology and Geodynamics (ZAMG) was able to achieve first place with a high-performance computer system (HPC) for time-sensitive short-term weather and atmospheric chemistry forecasting including an innovative cooling concept. Second place was awarded to the Austrian Mint, which was seeking an automated handling method for coins.

# 3.5 PPPI ONLINE PLATFORM

Innovative public clients and innovative businesses need a communal space where they can exchange their offers, challenges and experiences in innovation. For this purpose, a EU-wide unique virtual marketplace for public procurement and innovative businesses was launched in October 2015 at www.innovationspartnerschaft.at.

# Certified products and services in the innovation marketplace

Companies can introduce their innovative products and services to the marketplace of the online platform for free. A panel of PPPI experts decides which products and services are actually suitable for PPPI and could be appropriate for the public sector. The marketplace creates a win-win situation for both sides: Public procurement agents can view certified innovations online in just a few clicks. Start-ups and established innovative businesses benefit from easier access to public clients through an improved information exchange. On the first anniversary of the platform, the marketplace is already offering 70 PPPI-suitable products and services from the fields of mobility, energy, PR & marketing and medicine, among others.

### Easier access to public procurement

The new virtual marketplace is already yielding results. The first PPPI-suitable solutions were accepted onto the Federal Procurement Agency's newly-established direct procurement platforms during the year 2016. Examples include a skin analysis device from Viennese company Vasema, as well as an innovative IT service for recycling old IT devices from the company Compuritas in Graz.

# Solve challenges with open innovation

If a public procurer is unable to find a suitable solution in the marketplace of the PPPI online platform

www.innovationspartnerschaft.at, they can publish their problem as a "challenge". A "challenge" invites innovative companies to submit new and individual solutions. The procurer receives a variety of ideas on how to cope with their challenge. Eight innovative procurers have already issued their "challenges" and have connected with 79 new companies and creative minds.





Alexander Freischlager of Johannes Kepler University is convinced by the open innovation approach of the platform: "Within the scope of designing an idea space on the JKU campus (Entrepreneur.Base), we commissioned a challenge. In addition to the excellent support, we were also highly satisfied with the results. We can only recommend this service further!"



As a public client, the Austrian Mint is also capitalizing on the platform's potential. As a "challenge", they looked online for a flexible and innovative handling system that could automatically sort coins into coin carrier systems. A total of twelve companies submitted their ideas and concepts and were pleased with the low-threshold access: "I registered using the quick form and noticed that participation is very easy," says Herbert Ritzer, Managing Director of Mechatronik Maschinenbau GmbH. "The dialog with companies in this early stage helps us to explore the market and makes it easier for us to efficiently prepare an order placement in accordance with the Austrian public procurement law," says Florian Hofer, Procurer at the Austrian Mint, describing the advantages of the platform.

### Unique within the EU, on location in Austria

With its open innovation approach, the online platform is unique in public procurement EU-wide. For this reason, the PPPI Service Center is conducting a tour throughout Austria to give procurers from all nine Federal Provinces a better understanding of the subject. At the successful kick-off of the tour in Linz, Governor of Upper Austria, Thomas Stelzer pointed out: "If we demand courage from our local companies, then we in public administration also have to be courageous." Therefore it is important for public administration as a pioneer to create spaces for innovation much earlier in the value chain than it was previously the case. The "challenges" of the online platform are already facing a concrete problem or need for this reason. The solutions can be versatile and open up — in the sense of open innovation — new and innovative paths.

### **Become part of the PPPI Community**

The innovation partnership depends not only on innovative procurers and businesses, but also interested private individuals. During the community phase of the "challenge", they can support, comment on or share their favorite ideas directly on the platform via social media. An active community reflects the needs of citizens and supports public procurers in reaching a decision concerning which ideas to pursue further or directly implement. The monthly PPPI newsletter provides an overview of new PPPI-suitable solutions and current "challenges". You can subscribe to the PPPI newsletter at www.ioeb.at.













# THE PPPI SERVICE NETWORK

IN ADDITION TO THE PPPI SERVICE CENTER,
THE PPPI COMPETENCE CENTERS AND CONTACT POINTS
DRIVE PPPI SENTIMENTS IN THEIR RESPECTIVE TECHNICAL
SPHERES AND AREAS OF RESPONSIBILITY.

The cooperative partnership of the PPPI service network not only allows an active exchange of know-how across areas of competence, but also contributes to the subject of PPPI having an even greater impact.

Together, all members of the PPPI service network form the PPPI Council. This council meets twice a year and is aimed at exchanging current developments, as well as working out and discussing measures and support formats for PPPI.

However, numerous joint measures are taken not only twice a year, but throughout the whole year to drive PPPI forward.

The following pages describe these measures in detail.





"WE HAVE SUCCEEDED

SEVERAL TIMES
IN CREATING LINKS
BETWEEN PUBLIC PROCURERS
AND INNOVATIVE COMPANIES"

# 4.1.1 AUSTRIA WIRTSCHAFTS-SERVICE GMBH

The Austria Wirtschaftsservice GmbH (aws) is the Federal development bank. By allocating low-interest loans, grants and guarantees, they support companies in implementing their innovative projects, especially when the required means cannot be raised through other funding. In addition, they offer specific informational, consulting and other services to prospective, existing and expanding companies.

With a comprehensive package of PPPI measures, the aws contributes significantly to increasing the share of public procurement volume used for innovation. All activities at the aws are aimed at linking trends in technology and innovation with the needs of innovative procurers. Their judging of the PPPI project competition and Innovationspartnerschaft.at provide valuable support in this area. Through communication channels such as the newsletter and social media, the aws keeps potential applicants informed on PPPI activities such as PPPI events, the PPPI project competition and Innovationspartnerschaft.at. Furthermore, the aws fund service distributes information on opportunities to take part in challenges as well as solutions offered on Innovationspartnerschaft.at. Within this framework, the aws has succeeded several times in creating links between public procurers such as BBG and other public clients on one side and potential suppliers such as innovative SMEs and start-ups on the other side.

In terms of PPPI activities, the aws intends to lead by example. Accordingly, the service not only brings innovative partnership closer to clients, but also presents it within companies: with the tangible result that an aws department participated in the "Designing and producing a give-away" challenge as a sponsor. Additionally, in 2016, a pilot project was carried out with an innovative company to evaluate accessibility.

At aws, the year 2016 focused on social business companies. In the course of close cooperation between the aws PPPI competence center and the aws Social Business team, they succeeded in significantly increasing awareness of PPPI activities among social entrepreneurs.

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"THE PCP PROCESS IS AN IDEAL FUNDING INSTRUMENT FOR PUBLIC PROCURERS TO CALL FOR THE DEVELOPMENT OF INNOVATIVE PRODUCTS AND SERVICES THAT ARE NOT YET ON THE MARKET"

# 4.1.2 AUSTRIAN RESEARCH PROMOTION AGENCY M.B.H.

The Austrian Research Promotion Agency m.b.H. (FFG) is the government's national funding agency for company-related research, development and innovation. Within the role of a PPPI competence center, our main field of responsibility is pre-commercial procurement (PCP). The PCP process is an ideal funding instrument for public procurers to call for the development of innovative products and services that are not yet on the market. Businesses and clients work closely together and test innovative solutions for feasibility, which can then lead to a prototype stage.

Among the first few Austria-wide PCP pilot projects to be developed in 2014 was a mobile traffic management system for construction sites and major events for the ASFINAG, and a system for recording natural dangers in railway infrastructure for the ÖBB. In 2016, the second and central prototype phase of the second large PCP pilot call for tenders began: The development of an eHybridlok (eHybrid locomotive) for ÖBB Production, which can manage short feeder stretches electrically without overhead cables. In 2016, the realization of both prototype locomotives started: They were placed on the tracks and tested for performance and practical feasibility in real operation. These research projects ended in December 2016. The results are currently being prepared and will be available from mid-2017.

As part of the second PCP pilot project of 2016, "Innovative heating and cooling of historic buildings", on behalf of Burghauptmannschaft Österreich 3 feasibility studies and 5 concepts were selected. They were completed in 2016 and their results are already available. Subsequently, 2 concrete project results are to be implemented. The FFG also informs and advises active procurers, political players and sister agencies. Effective aids here include a separately established subpage on the FFG website at www.ffg.at/beschaffung, information, advice and analyses on the EU Program for Research and Innovation, Horizon 2020 (H2020) and expert contributions and events from the TAFTIE (international network of research promotion) Academy, which is run by FFG.

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"NEW EU REGULATIONS ON ECO-DESIGN MEAN HIGHER DEMANDS FOR ENERGY-EFFICIENCY FOR THE MANUFACTURER, AS WELL AS GREATER TRANSPARENCY FOR PUBLIC PROCUREMENT."

# 4.1.3. AUSTRIAN ENERGY AGENCY

The Austrian Energy Agency (AEA) is the PPPI competence center for the energy sector. The agency's focus is on energy efficiency, renewable energy and new, more efficient technologies.

During the 2015/2016 reporting period, the Austrian Energy Agency supported three events on electromobility and lighting, among others:

 4<sup>th</sup> Innovation Arena: E-mobility – Everything that has a plug! (07/05/2015, Vienna).

A workshop sketched out the framework conditions for e-car sharing as a successful alternative to conventional sharing systems and opened the subject up for discussion.

• ECOVATION conference (30/09–01/10/2015, Graz).

As part of the ECOVATION event, the AEA and the Eco-procurement Service of Vorarlberg conducted a "Hot Topic" workshop on innovative indoor and outdoor lighting. New EU regulations on eco-design mean higher demands for energy efficiency and therefore an increasing need for action from public administration.

• INNOVATIA conference (29/11/2016, Vienna)

"How well-developed is LED technology in street lighting at this point in time?" This was the central question of the workshop, where important aspects and criteria for procurement and the operation of sustainable LED systems were discussed by participants, and concrete examples were presented. Undoubtedly, the dominating advantages of this technology are its long life and high energy efficiency.

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"THE PUBLIC SECTOR HAS ALSO
RECOGNIZED THAT INNOVATION REPRESENTS
AN IMPORTANT SUCCESS FACTOR
THAT BRINGS ADDITIONAL
SOCIAL AND ECOLOGICAL BENEFITS"

# 4.1.4 BUNDESIMMOBILIEN-GESELLSCHAFT M.B.H

As the owner of numerous public buildings including schools, universities and offices, the Bundesimmobiliengesellschaft m.b.H. (Federal Real Estate Company - BIG) is well aware of its responsibilities and position as a role model. This corresponds to their goal of being perceived as a leading company for sustainability in the property business, with a focus on educational institutions and energy, by 2020.

The use of innovative solutions, new technologies and smarter concepts allows the realization of projects characterized by excellent sociocultural, economic and ecological qualities. The public sector has also recognized that innovation is an important success factor that brings additional social and ecological benefits. In July 2013, "innovation" was adopted into the Austrian public procurement law as a procurement objective.

The Bundesimmobiliengesellschaft was present at the ECOVA-TION conference for innovative and sustainable procurement in Graz on 30/09–01/10/2015, conducting two workshops on the following themes:

- MED CAMPUS GRAZ: An innovative and sustainable city district for health
- HOLISTIC BUILDING PROGRAM: Building projects with integrated focus

At INNOVATIA – the Conference for Innovation Procurement on 29/11/2016, the BIG designed a workshop on "CAiFM systems - Where do they lead?". During the workshop, participants gained insight into the complex world of Computer-Aided Integrated Facility Management systems (CAiFM). One example of a joint project in object management and IT demonstrated the future of data use in the area of "augmented reality". Through the precise knowledge and optimum use of information, it is - as the pilot attempt shows - already possible to implement features such as "indoor navigation" or "predictive maintenance". "New technologies and systems generate innovative thinking and ideas. In turn, these provide stimulus that has not yet been explored, which creates space for the future," explains Winfried Lahme, who is responsible for "Sustainability and Materials Handling" in the BIG's Architecture and Contracting department.

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"FURTHER SPECIALIST EVENTS
IN THE COMPETENCE AREA OF
INTELLIGENT MOBILITY
ARE PLANNED FOR
THE COMING YEARS"

# 4.1.5 AUSTRIAN ASSOCIATION FOR TRANSPORT AND INFRASTRUCTURE

The Austrian Association for Transport and Infrastructure (GSV) is a platform for all relevant transport carriers – roads, railway, waterways, aviation and pipelines. As an economically and politically neutral association, the organization is solely dedicated to the interests of its members and the beneficial further development of the Austrian location. In pursuit of this goal, it links together all fields of mobility and organizes separate specialist mobility events several times a year. Since January 2016, the GSV has been putting its comprehensive experience to use as a competence center for intelligent mobility within the PPPI initiative.

Even as a young competence center, the GSV has already carried out numerous activities including the repeated marketing of PPPI activities and participation in the event "Innovation Arena Electromobility - What happens in communities?". At this event, public procurers and innovative companies from Germany and Austria gathered in Munich on 16/06/2016. The focus of the workshop was on exchanging experiences concerning e-mobility.

The GSV assisted in acquiring speakers and marketing the event and was even actively involved in the podium discussion on "Electromobility - we make it easy", besides acting as a workshop moderator. Further specialist events in the competence area of intelligent mobility are planned for the coming years.

From the GSV's point of view, innovation and innovation procurement through public clients have great significance for Austria's economic position. "The GSV is therefore pleased to be able to help shape this important topic in the coming years," declares General Secretary Mario Rohracher.

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# 4.2 PPPI CONTACT POINTS



# "COMPANIES VIEW THE PPPI INITIATIVE AS A HIGHLY INTERESTING MULTIPLIER FOR THEIR MARKET LAUNCH AND SALES"

# 4.2.1 EXPERT CONFERENCE OF THE FEDERAL PROVINCES

From the perspective of the Federal Provinces, the years 2015 and 2016 were busy and successful in terms of PPPI. In intensive cooperation between the Federal Government and the Federal Provinces, reinforced efforts were made to anchor PPPI within public procurement.

The PPPI contact point for the Federal Provinces has initiated projects and identified innovative companies and products that can be used in the public sector.

An initial step is aimed at establishing a qualified pool of innovative businesses. With support from regional innovation stakeholders such as cluster and start-up initiatives, contacts have been established with management of qualified companies during events and networking events. Many of the companies contacted were greatly interested in this initiative, as the high potential of public procurement as an entry market first became visible to many companies.

The e-FIN (innovative and sustainable electro-mobile fleet management) project, which is also quoted as a PPPI success story in this report, received the main prize at the PPPI project competition. Examples like this indicate the high level of interest in PPPI. Companies view the PPPI initiative as a highly interesting multiplier for their market launch and sales.

In 2017, one concept is to be tested in Upper Austria, which should generate additional stimulus for innovation. At the Innovation Prize in 2016, the first attempts have already proven successful in identifying and implementing projects in the public sector with award-winning companies.

In short: In the coming years, it will be crucial to "polish the doorknobs" in order to sow the seed among all market participants. In 2017, in any case, the spotlight will be on public procurement to give the platform an intensive boost from the demand side.

A brief glance at www.innovationspartnerschaft.at should be standard practice in the case of any procurement - as well as the readiness to procure innovative solutions.

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# 4.2 PPPI CONTACT POINTS



"IN COOPERATION WITH
THE BMWFW AND VERBUND,
THE WKO SET A CHALLENGE FOR AN
AS-YET UNSOLVED PROBLEM
ON THE ONLINE PLATFORM"

# 4.2.2 AUSTRIAN FEDERAL ECONOMIC CHAMBER

The Austrian Federal Economic Chamber maintains an ongoing commitment to identifying existing PPPI potential for both its member businesses and public procurers on all levels of administration. Since the PPPI Service Center was founded, the Austrian Federal Economic Chamber has acted as a "PPPI contact point for Economy" and informs businesses about current and upcoming activities.

Specifically, the Austrian Federal Economic Chamber assists in the search for suppliers, manages innovative businesses at the PPPI Service Center and initiates and supports joint information events - such as the pilots of the PPPI Tour of the Federal Provinces in Linz on the 8th of April 2016 and the ECO-VATION conference in Graz from the 30th of September to the 1st of October 2015.

Another primary focus of the Austrian Federal Economic Chamber is to publicize the services of the PPPI online platform www.innovationspartnerschaft.at. The chamber itself cooperated with the BMWFW and Verbund to set a challenge for an as-yet unsolved problem on the platform. The processing and result achieved were extremely positive, which is why further challenges are already being considered.

The Austrian Federal Economic Chamber is also involved as partner in the planning and coordination of further activities by the PPPI Service Center. The greatest potential exists wherever public clients represent a high proportion of total demand, and innovative solutions optimally support the fulfillment of their tasks in a partially modified form.

Public Procurement Promoting Innovation requires all the support it can get if it is to locate updates on the state of technology and use them for the public sector. From the point of view of the Austrian Federal Economic Chamber, the PPPI Service Center has a highly important role to play as a competence center for potential providers and procurers: The innovativeness and adaptability of companies and administration play a key role in economic success, as well as social development, and must be reinforced tirelessly.

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# 4.3 INTERNATIONAL COLLABORATIONS

# "INNOVATION FEEDS ON INTERNATIONAL NETWORKING AND COOPERATION ACROSS NATIONAL BORDERS"

Innovation does not stop at Austria's borders. This is why key stakeholders of the PPPI initiative are constantly exchanging information with international partners in order to promote the topic of PPPI together. The following are the most important working partnerships at a glance:

### **Electromobility Innovation Arena with KO-INNO:**

Together with the German Competence Center for Innovation Procurement (KO-INNO), the PPPI Service Center organized the "Electromobility Innovation Arena" in June 2016. Public procurers from Germany and Austria met with innovative companies to exchange experiences in the area of e-mobility. A wide range of Good Practice examples from both countries were presented and participants were able to establish valuable contacts.

# INNOVATIA conference with Innobooster inLIFE and the European Commission

In December 2016, the EU Innobooster inLIFE project was wrapped up after four years in operation. To celebrate its final act and pass on the experiences and lessons of the successful project, the INNOVATIA Conference was organized jointly with the European Commission. Philippe Le Quément, member of DG Grow at the European Commission, sketched an outline of the European perspective on innovation procurement as an input provider.

In addition to local partners such as the Federal Ministry of Finance (BMF), Linz Airport, the Austrian Institute of Technology (AIT) and the municipality of St. Johann in Tyrol, the Innobooster project also involved the "Hansel" central procurement center in Finland.













# **EXPERT OPINION**

# PPPI WORKS! PUBLIC PROCUREMENT PROMOTING INNOVATION IN THE CASE OF THE PLUS-ENERGIE-BÜROHOCHHAUS BY THE TU-WIEN

A prominent example of Public Procurement Promoting Innovation (PPPI) in recent times is the Plus-Energie-Bürohochhaus (Plus-Energy Office tower building) from the Vienna University of Technology (TU). This innovation consists of over 9,000 system components and its name speaks for itself: According to model calculations, the building is supposed to produce more energy than it uses.

According to the TU mission statement, it should also provide an optimum environment for learning and research with lecture halls, seminar rooms, offices, library and function room. From a PPPI perspective, this is a highly ambitious project, which was regarded with great uncertainty in the beginning. Today, however, it is a success story that should encourage other public procurers to tackle equally ambitious projects.



# "IT IS HIGHLY IMPORTANT TO REPRESENT THE VARIOUS EFFECTIVE DIMENSIONS OF PPPI. THIS IS CURRENTLY UNDERGOING INTENSIVE NATIONAL AND INTERNATIONAL WORK."

IDENTIFICATION OF UPCOMING NEEDS & UNSOLVED PROBLEMS

DEVELOPMENT OF AN INNOVATION PROCUREMENT STRATEGY

HANDLING OF THE INNOVATION PROCUREMENT PROCESS

IMPLEMENTATION & USE OF ACQUIRED KNOWLEDGE FOR FUTURE PROCUREMENT

IDEAL INNOVATION PROCUREMENT PROCESS IN A PUBLIC INSTITUTION

TU development plan & locational decisions & survey of user needs & "TU Univercity" increased location density concept 2006

Determination of "lighthouse project" Plus-Energie-Bürohochhaus as a building stock renovation & modeling & planning & development of energy standards & submission to the authorities 2010–2012

> Market consultation & call for tender Awarding audit & tender vetting & testing Beginning of Plus-Energie-Renovation: 2012–2013

End of Plus-Energie-Renovation & Start of research & teaching activities 2014 Monitoring: Set-up & execution 2015–2017

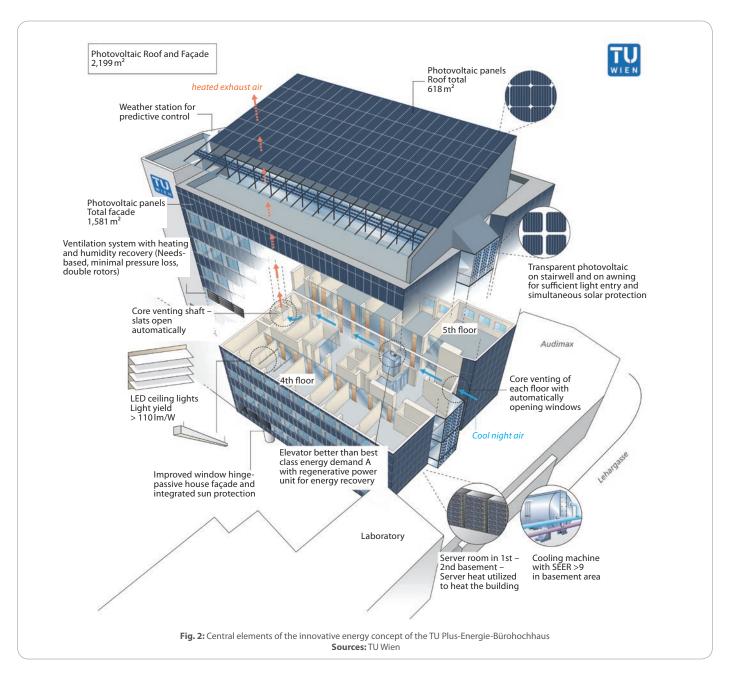
Plus-Energie-Bürohochhaus Innovation Procurement Process at the TU Wien

Fig. 1: Process of Innovation Procurement in the TU Plus-Energie-Bürohochhaus example
Sources: TU Wien & adapted by Buchinger, Schieg, Unger & Ylipalo (2017)

The Plus-Energie-Bürohochhaus had its origins in the development plans of the TU Wien and in the UNIVERCITY increased location density concept, where the mission statement and building plans for improving the quality of research and teaching were set out. They formed the central foundation for the first stage in the ideal innovation procurement process (cf. Fig. 1) and also gave an indication of the corresponding

budget. After the TU had decided on its locations in 2006, 14 working groups were set up to survey the needs of users for the various locations over a period of eight months. One of the locational choices was the renovation of the former TU Chemistry Tower, constructed in the 1970s, and adapting it for use by the around 800 students, educators and researchers of the Faculty of Mechanical and Industrial Engineering.





As a lighthouse project, TU Plus-Energie-Bürohochaus should not only offer users excellent conditions (utilization concept), it should also showcase the scientific and technical performance of the TU (energy concept), without losing sight of economic efficiency (TCO Total Cost of Ownership). The system innovation (Fig. 2) has a central core of energy recovery both on and within the building. Energy is produced using the largest photovoltaic system integrated into a building in Austria. This system not only occupies the roof, but also features as an integral component of the façade and even the window areas of the stairwell and roof projections. To recover energy, the braking energy of the elevators is utilized using a regenerative power unit. This allows for intelligent heating/cooling solutions. For example, the building is heated using exhaust heat from the server room, which in turn uses the cooled re-

turn flow to cool the servers; a night cooling system is used, which works using the thermal lift and does not require any additional energy; a highly-effective cooling machine has been installed; and – important for user comfort – a ventilation system is operated using heat and humidity recovery. In addition, the Plus-Energie-Bürohochhaus has achieved the passive house standard (maximum reduction of heat loss and heat inputs). Last but not least, internal strain is reduced. This means that energy efficiency is increased, from the lighting, coffee machine and microwave to the computer and printer. The Plus-Energie-Bürohochhaus is energetically networked. Surplus energy is transferred to the neighboring TU buildings (Audimax, laboratory building) and used there. When there is an energy deficit, electricity is drawn from the electrical network





After the TU Management (Rectorate) came up with the idea for a "lighthouse project", a strategic concept was developed for the Plus-Energie-Bürohochhaus, involving over 20 partners from research and industry. The Energie-Plus team was led by the internal TU "Institute of Building Construction and Technology - Research Field of Building Physics and Sound Insulation" and supported by the company Schäberl & Pöll GmbH in building physics and research.

"With the Plus-Energie-Bürohochhaus we are showing that at the TU Wien, we are capable of realizing a lighthouse project in which the latest scientific findings flow into the building and offer a high-quality working environment for our students and teaching staff."

ADir. RegRat Gerald Hodecek
Director of TU-OE Building and
Technology GuT and Project Manager
for UNIVERCITY

The general planning was managed by ARGE Architects Hiesmayr Gallister-Kratochwil. All experts involved were focused on the goal of making the high standards of a virtual overall model (generated by simulation) a reality. The result of the second stage and thus the foundation for the third phase of this ideal innovation procurement process was a catalog of construction and fittings. The Plus-Energie-Bürohochhaus was approved and commissioned by TU Management on the basis of this catalog. Within the TU, the operational responsibility for all four phases of the innovation procurement lay and lies with the organizational unit "Building and Technology GuT", in close cooperation with general planning. The principal and building owner of the Plus-Energie-Bürohochhaus is, however, not the TU Wien, but the Bundesimmobilienge-sellschaft (BIG).

For this reason, amendments were required to be made to the rental contract between BIG and the TU so that this ambitious innovation procurement process could be carried out. These included the obligation of the TU to cover testing costs for new components and inventory records to apply photovoltaic installations to the façade. Funding for research and development also came into play here.

"It is not always the case that research activity leads to clear results that can be examined in practice. It is all the more satisfying that the TU Plus-Energie-Hochhaus was created from numerous research results to become a pilot project with international regard and a signaling effect. I congratulate all parties on this outstanding accomplishment."

## **DI Michael Paula**

Department Head "Energy and Environmental Technologies" in the Federal Ministry for Transport, Innovation and Technology

This was provided by the Federal Ministry for Transport, Innovation and Technology BMVIT (processed by the Austrian Research Promotion Agency FFG within the "House of the Future" program), the Federal Ministry for Agriculture, Forestry, Environment and Water Management BMLFUW (processed by Kommunalkredit Public Consulting KPC as part of the "klimaaktiv" program) and the City of Vienna Administration (processed by the MA20 Department of Energy Planning), and therefore relieved the Federal Ministry of Science, Research and Economy BMWFW, BIG and the TU of the financial burden. Together with the Audimax building, the procurement project Plus-Energie-Bürohochhaus has an investment volume of 26 million euros, 65% of which is innovation-related. Of this, 23 million euros were spent on building renovations (building costs incl. professional fees) and 3 million euros on



the interior fittings. After the planning and submission stage was complete, work on the innovation procurement process could begin. As the awarding process was carried out without any intermediate negotiation stages, the audit (awarding audit and tender vetting), component evaluations and testing were of enormous importance. The interest of the City of Vienna Administration, monitoring the building code, also became more intense during this phase, as it recognized the project's potential as a prototype for future building/renovation plans.

"Right from the beginning, the Plus-Energie-Bürohochhaus was a thrilling challenge. Since it is an innovative project, it was always about finding out whether even better solutions existed and how high efficiency objectives could be set. In future projects, we will optimize this further."

DI Gerhard Kratochwil ARGE Architects Hiesmayr-Gallister-Kratochwil

The call for tenders for building renovations was handled by the BIG, while that for the interior fittings was processed by TU GuT. To satisfy the procurement principles of free and fair competition for all applicants and providers, for example, all test and examination results were made public. Overall, around 60 companies were retained as best providers for the building renovations - within the framework of the EU-wide open tendering procedure (for all major works) and some closed procedures and direct allocations according to Austrian public procurement law (for building claims settlements, small orders, etc.). Around 20 companies were retained for the interior fittings. Building renovations began in March 2012 and were completed in October 2014. The TU Plus-Energie-Bürohochhaus entered operation in the winter semester 2014 and was ceremonially opened on the 6th of November 2014. The commencement of research and teaching activities was accompanied by information and training for users. Three user assemblies took place and a weekly newsletter was published during the first year of operation.

From 2015 onwards, a monitoring and optimization system was implemented to capture and analyze the production and consumption of electricity, heating and cooling separately according to the various user groups. Continual improvements are carried out on the basis of this technical monitoring and user feedback. It is understood that an approx. three-year optimization process is required to achieve maximum energy efficiency in the interplay of all technical and human processes.

In conclusion, heading "PPPI works" should be recapitulated once again. Firstly, the TU and BIG profit from managing to combine energy efficiency and economic efficiency into one intelligent system, and in setting a new standard with the Plus-Energie-Bürohochhaus. The operating energy costs com-

pared before and after the general renovation and energy optimization will be approx. 90% lower by the end of 2017 (as the monitoring shows). Secondly, users profit as their needs were taken into account right from the beginning.

"It was an exciting experience for the BIG project management team to consider the sustainability of the property in the interplay of ecological, economic and social aspects in addition to the innovative ideas of the Plus-Energie team – from conceptualization, planning and execution to the ongoing operation and maintenance."

Ing. Christian Krottendorfer
Project Management Bundesimmobiliengesellschaft

Thirdly, the environment profits by the use of renewable energy and simultaneous reduction in energy consumption. Fourthly, the companies who asserted themselves as best providers and were able to win the contracts profit. Fifthly, the TU profits because it can demonstrate the excellence and application relevance of its own research. Sixthly, the Administration of the City of Vienna (Building and Fire Safety Authority) profits, for example, from the tests for façade technology innovations (compliance). Last but not least, the general public can profit from this reference project, especially since the results of the scientific monitoring and documentation are available to all other interested parties. The prizes and awards that the Plus-Energie-Bürohochhaus has now won confirm the success of the project and contribute to its further dissemination: State prize 'Environment and Energy Technology'; klimaaktiv GOLD Plaque from the BMLFUW (1,000 points out of 1,000); ÖGNB TQB Rating (986 points out of 1,000); 'EU-ROSOLAR AUSTRIA' Austrian Solar Prize 2015; 'The Innovative Building of 2015' (together with the LISI Building, TU Wien) Platform for 'Innovative Buildings'.

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BIG (2014) Institutsgebäude der TU Wien. Bundesimmobiliengesellschaft, Vienna.

BMVIT (2016) Das Plus-Energie-Bürohochhaus der TU Wien: Gebäudeinnovationen in der Praxis. Federal Ministry for Transport, Innovation and Technology, Vienna.

Buchinger, Schieg, Unger & Ylipalo (2017) Towards optimal public procurement of innovation: Case based success & failure learnings. INNOBOOSTER Consortium, Vienna-Helsinki-Linz.

David (2016) Weltweit erstes Plus-Energie-Bürohochhaus made in Austria'. Presentation as part of conference 'Highlights der Energieforschung 2016', Vienna, 22nd June 2016.

Hodecek & Kratochwil (2016) TU Plus-Energie-Bürohochhaus. Presentation as part of INNOVATIA Conference, Vienna, 29th November 2016.

http://univercity.at/standorte/getreidemarkt/ [2017-01-31]

https://nachhaltigwirtschaften.at/de/hdz/projekte/plus energie-buero-plus-energie-buerobau-der-zukunft.php [2017-01-31]

Schloffer (2016) Mensch gegen Maschine. BIG Business(20), 30-37.

Schöberl, Hofer, Leeb, Bednar & Kratochwil (2014) Österreichs größtes Plus-Energie-Bürogebäude am Standort Getreidemarkt der TU Wien. Federal Ministry for Transport, Innovation and Technology, Vienna.

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