



in collaboration with



and

Arthur D Little

Call for Papers - "5G Vienna Use Case Challenge"



Submission and submission form

All components of the Call for Papers must be submitted exclusively in electronic form to the organiser's procurement portal at https://schiefer.vemap.com All components of the Call for Papers must be completed electronically (in particular enclosures) or created, scanned and uploaded electronically to the procurement portal (in particular enclosures).

Paper documents will not be considered, nor will submission by fax or e-mail.

Enquiries

can be made during the entire duration of the Call for Papers.

Inquiries or answers to inquiries are to be made or downloaded exclusively via the procurement portal.

Submission of the applications by 15.9.2019, 12:00 o'clock (to be received by the stipulated deadline)

Start Pitch-Week expected week 40

Call for Papers

Organiser City of Vienna - MA 01 - Vienna Digital

Stadlauer Street 54-56, 1220 Vienna, Austria

Representative Schiefer Attorneys at Law GmbH

1090 Vienna, Rooseveltplatz 4-5/5

Content supervisor Arthur D. Little Austria GmbH

Rotenturmstrasse 25/22, 1010 Vienna, Austria

Name of the project Call for Papers "5 G Use Cases"

Contact RA Mag. Martin Schiefer
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1. Introduction

Vienna - one of the most livable cities in the world and a pioneer in digitisation

As a frontrunner in digitalization, the City of Vienna aims at expanding its digital offering to its citizens and local businesses. The key element of this expansion is a city-wide roll-out of 5G, the new telecommunications standard, and the testing of progressive 5G-enabled solutions with the goal of further increasing the population's quality of life, making their life easier and safer.

The City of Vienna has therefore launched the **5G Vienna Use Case Challenge** to find 5G-enabled solutions, which shall be tested in pilot projects in 2019. The City of Vienna is looking for pilot projects in the following four areas:

Areas	Use cases
Mobility and public transport	e.g. Parking management in real time
Public places / security	e.g. real-time video streaming from first responders
Healthcare	e.g. Telemedicine and telerehabilitation
Education	e.g. Virtual Reality / Broadband in the classroom

The City of Vienna thus invites startups, technology companies and corporates from across the world to apply for the opportunity to shape the city by piloting a state-of-the-art solution in cooperation with one of the three Austrian telecommunication operators that have acquired 5G licenses in Vienna - A1, Hutchison Drei or Magenta. The operators will provide the 5G infrastructure necessary for the implementation of a 5G-enabled solution and will act as sparring partners to the winning teams.

2. Legal conditions of the Call for Papers

2.1 Purpose of the Call for Papers

The aim of this Call for Papers of the **5G Vienna Use Case Challenge** is to

- Identify innovative 5G-enabled solutions that will further increase the quality of life of Vienna's residents and local businesses;
- Choose bold and original ideas that will disrupt the traditional way of providing the services;
- Allow the winners of the challenge to pilot their high-tech solution in one of the most vibrant European cities with the support of national telecom operators that are building the 5G infrastructure used for the purpose of the pilot project.

The City of Vienna does not acquire the intellectual property rights to the submitted concepts and ideas, nor can a company be commissioned directly to provide a service based on this Call for Papers.



2.2 Scope of use cases

The **5G Vienna Use Case Challenge** aims to find solutions leveraging the opportunities offered by 5G in the following 4 subject areas:

- Mobility and public transport: For example, the new technologies should simplify the search for parking spaces for Vienna's residents, at the same time lead to an increase in efficiency in parking space management and contribute to the avoidance of unnecessary exhaust fumes.
- **Public places / security:** For example, solutions such as e.g. video-streaming of emergency responders by mobile cameras attached to first responders' clothing to further increase public safety or service provision for example to monitor the safety of the emergency personnel in real time or to increase the effectiveness of the provided healthcare services by sending livestreams of patients' treatment to the hospital that will administer onsite treatment, etc. There is also interest in solutions in the area of carbon monoxide hazards and also in crowd-management solutions.
- **Healthcare:** For example, telemedicine and telerehabilitation, i.e. new solutions that enable remote diagnosis, treatment or rehabilitation. The solutions should contribute to creating efficient, user-friendly and widely accepted e-Health services and minimize time delays for patients.
- **Education:** For example, broadband in schools / virtual reality. The expansion of 5G broadband technology in schools to enable much faster access to the Internet in the future, which will enable the use of applications such as virtual reality glasses for virtual tours in museums, places of interest or foreign cities and can thus make a significant contribution to increasing the motivation to learn.

The size and complexity of each project pilot can vary depending on the subject area and is to be suggested by the companies submitting applications. As an example, a company could suggest the pilot of offering real-time parking management for a number of pre-defined streets, an area or district. Likewise, a broadband project pilot could be implemented in one selected school. The City of Vienna is also open and interested in ideas that go beyond the cases mentioned above, as long as they are in the 4 listed areas.

2.3 Organiser

The organiser of the Calls for Papers is the

City of Vienna - MA 01 - Vienna Digital,

Stadlauer Straße 54-56, 1220 Vienna.

The organiser will be represented at the Call for Papers or accompanied by the

Schiefer Rechtsanwälte GmbH,

Rooseveltplatz 4-5/5, 1090 Vienna.

The organiser will be accompanied by the call for papers by the

Arthur D. Little Austria GmbH,

Rotenturmstrasse 25/22, 1010 Vienna.

Requests or responses to requests are to be made or downloaded exclusively via the procurement portal.



The organiser is also supported by the following telecommunications companies, which have acquired a 5G licence for the City of Vienna area:

A1 Telekom Austria AG

1020 Vienna, Lassallestraße 9

Contact person: Michael Seitlinger

Phone number: +43 664 6627826

E-mail: michael.seitlinger@a1.at

Contact person: Mario Mayerthaler

Phone number: +43 664 6632326

E-mail: mario.mayerthaler@A1.group

Hutchison Drei Austria GmbH

1210 Vienna, Brünner Straße 52
Contact person: Juergen Pillinger
Phone number: +43 660 66010552
E-mail: Juergen.Pillinger@drei.com
Contact person: Michael Grübl
Phone number: +43 660 66082119
E-mail: michael.gruebl@drei.com

Magenta: T-Mobile Austria GmbH

1030 Vienna, Rennweg 97-99 Contact person: Ewald Kiss

Phone number: +43 676 82007620 E-mail: ewald.kiss@magenta.at

2.4 Role of telecommunications operators

The telecommunications operators A1, Hutchison Drei and Magenta will build the 5G infrastructure in Vienna and will provide the infrastructure required for the pilot project.

In order to verify the eligibility and feasibility of the idea and its 5G requirements, telecommunications companies are available for initial discussions with parties interested in discussing their idea and possibly entering into a partnership for the purpose of the pilot project. If one or more telecommunications companies are interested in cooperating with a participating party, this company can select the desired partner and initiate the application procedure. The telecommunications operator will then assist the participants as a valuable sparring partner during the application and selection process described in Section 2.6.

2.5 Eligibility

The Call for Papers is open to all interested parties (natural or legal persons and registered partnerships) who have submitted a submission and who have not realized any grounds for exclusion and who meet the following minimum requirements:

2.5.1 Grounds for exclusion

The organiser will exclude interested parties from (further) participation in the Call for Papers if they have committed conduct, which would constitute a reason for exclusion pursuant to §78 Federal Procurement Act 2018, Federal Law Gazette I No. 65/2018 as amended, in an award procedure. The organiser will give interested parties the opportunity to comment on the (alleged) reasons for exclusion before any exclusion takes place.

2.5.2 Project of the participants

A mandatory **minimum requirement** for participation in the Call for Papers is proof that the interested party has in the past already developed at least one demo version or a fully functional prototype of the service or product in the areas defined in Section 1. Projects at the idea generation stage or purely conceptual products or services will not be considered. A project that infringes the intellectual property rights of third parties is also not considered.

The interested party must provide the proof of eligibility in the **Supplement ./1** provided for this purpose.



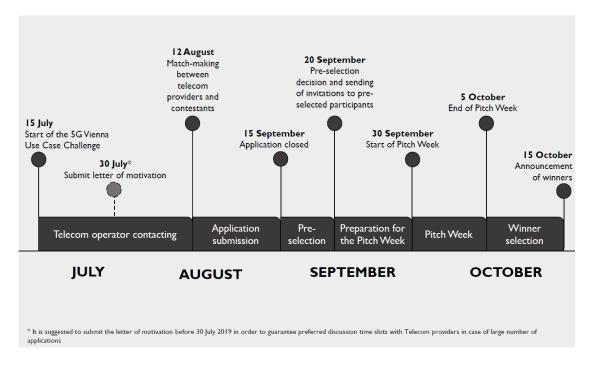
2.6 Application and selection procedures

Interested parties have the possibility to submit the applications in one or more areas outlined in Section 1 (call per lot).

The classification of the lots shall be as follows:

Area	Lot
Mobility and public transport	Lot 1
Public places / security	Lot 2
Healthcare	Lot 3
Education	Lot 4

The planned procedure for the Call for Papers is expected to look as follows:



2.6.1 Matchmaking phase

The matchmaking phase between interested parties and telecommunications companies is planned from the start of the Call for Papers until 12.8.2019. In this phase, interested parties are free to contact the three telecommunications companies that have acquired a 5G licence for the City of Vienna area (see Section 2.3), to present the project idea made possible by 5G technology and to win a telecommunications company as a partner for this Call for Papers. The submission and any presentation of the project can be made jointly by the participants and the telecommunications company.

It is not a prerequisite for successful participation in the Call for Papers that participants submit their project idea together with a telecommunications company. If participants submit the project without a telecommunications company, they must state in the project description (see Section 2.8) that the project can be implemented with the available technology of any telecommunications company.

If participants want to submit their project together with a telecommunications company, a letter of motivation can be sent to the procedural email address <a href="mailto:mailt



30 July in order to guarantee preferred discussion time slots with the telecommunication operators. The contents of the letter should contain the following:

- Name of the project made possible by 5G technology;
- Contact person of the participants (name, telephone number, e-mail);
- The advantages to be expected from the solution (max 100 words);
- Brief description of the functions of the solution (max 100 words);
- Presentation of the development stage of the solution (max 100 words);
- Optional listing of comparable reference projects already carried out for other public clients or companies.

The letter of motivation must not exceed one page. After receipt of the letter, it will be made available to all telecommunications companies. The letter of motivation can be written in English or German.

2.6.2 Submission phase

Submissions of the concept (supplement ./2) must be uploaded to the procurement portal by 12:00 noon on 15.9.2019. The (completed) expression of interest (Supplement ./0-1), the proof of eligibility (Supplement ./1) and the obligatory documents provided therein must be enclosed.

The organiser reserves the right to request further documents from interested parties during the procedure.

2.6.3 Pre-selection

The pre-selection is expected to take place in calendar week 38. For this purpose, the organiser will evaluate the solutions of all interested parties who have submitted a submission to the procurement portal in accordance with all specifications in due time according to the specified evaluation criteria.

The organiser will then inform the interested parties of the admission/non-admission to the Pitch Week, announcing their assessment and providing suggestions for improvement. For each area (for each lot) the three best rated interested parties will be admitted. If there is a tie on one position, the following rank is omitted. If there is a tie of points at the third position, all interested parties ranked on this rank will be admitted to the Pitch Week.

2.6.4 Preparatory week

Participants who have been admitted to the Pitch Week (probably calendar week 40) have one week to incorporate the feedback received into their concept and prepare the pitch.

2.6.5 Pitch week

Participants admitted to the Pitch Week (probably calendar week 40) will present their solutions to an expert evaluation commission of the organiser and will again subject their solutions to an evaluation according to the defined evaluation criteria. The presentation must not last more than 30 minutes. The evaluation commission is then free to ask questions about the presentation for up to 15 minutes. The presentation and round of questions will be held in German only. Telecommunication operators will be available to support.

Technical requirements for the presentation, such as projectors, are provided at the premises.

2.6.6 Winner Selection - Conclusion of the Call for Papers

After completion of the evaluation the organiser will announce the winners of the lots as well as the further placements of the Calls for Papers.



2.7 Application requirements

2.7.1 Expression of interest

Participants must complete the attached form for expression of interest (Supplement ./0-1) and upload it to the procurement portal. It asks for general information. The form can be completed in German or English.

2.7.2 Eligibility form

Participants must complete the enclosed eligibility form (Supplement ./1) and upload it to the procurement portal. The eligibility criteria are queried. The form can be completed in German or English.

2.7.3 Concept - General Information

Participants are required to submit a concept of the project. A concept can only cover one area as defined in Section 1. If the participants submit a submission for several areas (several lots), a separate concept must be attached to the submission for each lot.

The submission of the written concept is a mandatory prerequisite for participation in the pre-selection (MUST criterion). Interested parties who do not submit a concept will be eliminated from the Call for Papers.

The elaboration of this concept may comprise a maximum of 15 pages (excluding visualizations and tables). Interested parties whose concepts exceed the maximum number of pages will be eliminated from the Call for Papers.

The submitted concept will be evaluated - subject to the fulfilment of all minimum criteria - by an expert evaluation commission.

The number of points for the evaluation criteria at the pre-selection stage is determined exclusively based on the content of the concept submitted.

At the Pitch Week, the final evaluation is based on the content of the presentation and the question and answer session / discussion with the evaluation commission. The concepts are evaluated according to the following system:

- The degree of fulfilment in each criterion defined in the following is assessed with a range of points from 0 to 5, 0 being the worst possible and 5 the best possible.
- The evaluation commission of the organiser will carry out the evaluation of the commission in a joint discussion. The aim is to achieve a uniform assessment.
- The evaluation by the evaluation commission is documented in a protocol, in which the points of the concept are documented per criterion. The awarding of points is justified verbally by the evaluation commission. The reasons shall be recorded in the minutes. A separate verbal justification by each member of the commission is not foreseen.

2.8 Contents of the concept

The concept must at least take the following contents into account or contain the following information:

- Detailed description of the proposed solution;
- Description of the envisaged timeframe of the pilot project including a detailed timetable;
- Milestones and results of the project expected;
- Presentation of the business case and the costs associated with the pilot project;



- High-level representation of the expected costs for a Vienna-wide roll-out;
- Presentation of the required support and assistance by telecommunications companies;
- Presentation of the 5G requirements necessary for the project;
- Disclosure of the funding obtained at the time of submission of the project;
- Naming of the team members involved in the project including a description of their experience with similar projects;
- Reference projects, if available.

The concept can be submitted in German or English.

Participants have to attach the concept as a **Supplement ./2** of their submission. The supplement must be completed separately for each concept.

2.9 Evaluation of the concept

The evaluation of the concept will be based on the following criteria:

• **Feasibility of the project:** This criterion assesses the plausibility of the planned project and the credibility to implement the pilot project within 2019 to early 2020. This includes credibility of technical know-how, financial and human resource resources. The more detailed and comprehensible the presentation is and the more credible the feasibility can be communicated, the better the evaluation.

This criterion also assesses which lead times the participants need before the pilot operation can commence, with the organiser aiming to start the pilot operation at the end of 2019 / beginning of 2020. The shorter the estimated lead time the better the evaluation.

- **Degree of innovation:** This criterion assesses the extent to which the project is better suited to meeting the needs of the population than existing solutions. The more innovative the project, the better the evaluation.
- **Impact of the project:** This criterion assesses to what extent the idea of the participants can improve or facilitate everyday life of the population. The greater the impact of the project on the population group addressed in the respective area, the better the evaluation will be.

To determine the result, the points from the individual scores are multiplied by the factors listed in the following table and then added together.

evaluation criteria	factor	Points to reach
Feasibility of the project	10	50
Degree of innovation	5	25
Impact of the project	5	25
Sum		100

A maximum of 100 points can therefore be achieved.



2.10 Conclusion of the Call for Papers

The organiser will announce the winners as well as the other placings in the respective areas (lots) after completion of the evaluation of all submissions. For each area, one submission is chosen as the winning submission. The organiser reserves the right not to select a winner in one or more areas if no submitted idea is able to convince sufficiently.

2.11 Monetary prize

A total prize money of EUR 100,000 is available per area (per lot), the distribution of which (to one or more interested parties) is the responsibility of the evaluation commission.

When distributing the prize money, the evaluation commission will consider the placement of the participants according to the evaluation criteria, the effort made by the participants and the degree of innovation of the project.

3. General terms and conditions

3.1 Language of proceedings

The Call for Papers will be processed in German. The letter of motivation and the concept can be submitted in German or English. The Pitch Week presentation and the subsequent questions & answers, however, must be given in German.

3.2 Non-disclosure

During and after the execution or termination of the Call for Papers, the participants undertake to keep confidential the documents and business and company secrets of the organiser. This obligation of the participants applies locally and temporally without restriction and to companies associated with the participants or commissioned third parties. Participants have to transfer these obligations if necessary (e.g. to subcontractors such as consultants).

In addition, participants should not to provide any information about the circumstances of their participation in the Call for Papers, its status or other circumstances of the Call for Papers in question.

Participants must delete any documents and test data received by the organiser, which were not part of the documents of the Call for Papers at the request of the organiser, but no later than three months after transmission.

The organiser will protect the confidential character of all information concerning the interested parties and their documents vis-à-vis third parties.

3.3 Rights of use and exploitation

The organiser acquires the ownership of the provided documents of the participants including all enclosures and all other documents handed over by the interested parties within the scope of the Call for Papers. These documents will therefore not be returned to interested parties. Furthermore, the organiser does not acquire any rights of use or exploitation.

3.4 Lack of clarity in the documents

Participants must check the Call for Papers documents for completeness. By submitting the submission, participants confirm that the services are fully described in the Call for Papers documents and that no partial services are missing that are necessary for the proper submission of a submission. If, in the opinion of the participants, there are several possibilities for interpreting the Call for Papers text or if something appears unclear, participants must clarify the matter with the organiser before submitting the submission. (Questions are to be submitted via the procurement portal)



Should the participants encounter contradictions, other ambiguities or (suspected) infringements of legal provisions during the examination of the Call for Papers documents, participants must inform the organiser immediately.

3.5 Applicable law and place of jurisdiction

Claims resulting from or in connection with this Call for Papers shall be governed exclusively by Austrian law to the exclusion of the international reference standards; the application of the UN Convention on Contracts for the International Sale of Goods shall be excluded.

All disputes arising out of or in connection with this Call for Papers (including the question of the validity and termination of the Call for Papers) shall be subject to the exclusive jurisdiction of the competent court in Vienna.

3.6 Public relations

In addition to Section 3.2, the organiser is entitled after completion of the Call for Papers to disclose to third parties (in particular also to the media) the advantages to be expected from the solution as well as the brief description of the function of the project as stated by the participants and the identity of the participants.

Furthermore, the organiser is entitled at any time to request information on the implementation status of any pilot project and to disclose this to third parties (in particular also to the media). When passing on information, the organiser will always ensure that no intellectual property rights of the participants are infringed.

If the participants unjustifiably refuse to pass on the above information to the organiser, the organiser may claim a contractual penalty of EUR 5,000 per case.

4. LIST OF SUPPLEMENTS

side dishes	designation (pdf-files have to be completed and uploaded to the procurement portal)
Supplement . /0-1	Expression of interest
Supplement ./1	Proof of eligibility
Supplement . /2	Concept