



5G-SOLUTIONS for European Citizens

D9.3A Information package for external SMEs to facilitate the design of new applications.

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Glossary of terms and abbreviations used

Abbreviation / Term	Description
5G PPP	5G Public Privat Partnership
API	Application Program Interface
AR	Augmented Reality
AWU	Annual Work Unit
EU	European Community
GDP	Gross Domestic Product
GDPR	General Data Protection Regulation
H2020	Horizon 2020
ICT	Information and Communication Technology
IoT	Internet of Things
KPI	Key Performance Indicators
SME	Small Medium Enterprise

1 Executive Summary

The overall aim of 5G-SOLUTIONS (also named 5G-SOLUTIONS) is to accelerate the European ICT (Information and Communication Technology) ecosystem by creating and supporting new businesses by unlocking the commercial potential of high-value solutions. The aim of SME involvement is to onboard innovative companies fitting innovations and knowledge skills developed by 5G-SOLUTIONS consortium.

This deliverable describes the content and the plan that 5G-SOLUTIONS project will operate to facilitate external SMEs (Small and Medium-sized Enterprises) in the design of new applications. In fact, in line with the stakeholders' engagement and community building strategy, this task identifies the right stakeholders in order to reach the most relevant SMEs and research institutes and will organize specific events for SMEs, startups and spin-off of research institutes who are willing to contribute to the project with new ideas in order to address new use cases.

Supported by an online application, the best ideas to exploit 5G-SOLUTIONS results (Calls for Ideas) will be selected. In order to meet the goals that are detailed in Task 9.2 "Involvement of SMEs" of the Grant Agreement and the Amendment (AMD-856691-12) this version D9.3A addresses:

1. 5G-SOLUTIONS project description, dedicated to SMEs to better understand the impact of this project on the market and how to propose their ideas considering the architecture, the services provided by the project and the vertical applications of 5G services in the field of:
 - a) Factories of the Future;
 - b) Smart Energy;
 - c) Smart Cities & Ports;
 - d) Media & Entertainment.
2. The procedures for managing the online application, detailing how external SMEs will be involved in providing ideas to develop new vertical features on the service platform including:
 - a) Condition of participation to the Calls for Ideas, including IPR policy;
 - b) Tools that will be used for idea submission and evaluation;
 - c) Information required to properly submit the SME Idea;
 - d) Proposed event roadmap to pitch selected ideas and to participate un SME involvement workshops.
3. Providing information about initiatives like 5G PPP (5G Infrastructures Public Private Partnership) and NetWorld 2020² that will provide valuable source of information and guidance on how the EU is supporting 5G development across Europe and the importance of SME involvement in generating additional value.

5G-SOLUTIONS partners involved in T9.2 and more in general in WP9 will address these goals by undertaking the following actions:

1. Collaborate in SME involvement events Organization with the purpose to create an effective and real match between 5G-SOLUTIONS Industrial Partners and more promising SMEs applying to the Call for Ideas. To effectively meet this goal for each event a Local Partner has been identified to manage local relationships with organizers and make the event happen successfully. The Consortium partners that have accepted to support a local event organization, and will be the local owners for the event are:
 - a) APPART accepted to organize an event in Athens, Greece in Autumn 2020.
 - b) A2T accepted to organize an event in Milan, Italy in Spring 2021,
 - c) EBOS accepted to organize an event in Nicosia, Cyprus in Summer 2021.

² <https://www.networld2020.eu/>

The detailed event information for these meetings is documented in Annex I and might be subject to change if better solutions are identified or chosen events are delayed.

2. Support the promotion and the involvement of SME involvement Call for Ideas to local SMEs, Startups and Research Spin-offs, which include defining local promotional activities.
3. Engage in evaluating the proposed ideas and identify the ones that might be proposed to Consortium industrial Partners to evaluate application of specific experiments.

2 Introduction

The purpose of this deliverable is to provide a guide is to inform interested parties, such as SMEs or Start-ups, on how to submit an Idea proposal to the 5G-SOLUTIONS and to understand the overall approach and opportunities proposed.

Interested parties are therefore requested to read this Guide carefully before they start preparing the Application. In addition to this guide a Submission Guide is provided with specific information on how to submit a proposal to the Call for Ideas.

2.1 Mapping Projects' Outputs

Purpose of this section is to map 5G-SOLUTIONS Grand Agreement commitments, both within the formal Deliverable and Task description, against the project's respective outputs and work performed.

Table 1: Adherence to 5G-SOLUTIONS GA Deliverable & Tasks Descriptions

5G-SOLUTIONS Task		Respective Document Chapter(s)	Justification
Task 9.2 – Involvement of SMEs	<i>The aim of SME involvement is to onboard innovative companies fitting innovations and knowledge skills developed by 5G-SOLUTIONS consortium. In line with the stakeholders' engagement and community building strategy, this task will identify the right stakeholders in order to reach the most relevant SMEs and research institutes. This task will organize a specific event for third parties (non-partners of the consortium: especially SMEs and spin-off of research institutes) who are willing to contribute to the project with new ideas in order to address new use cases. After an online application, the best ideas to exploit 5G-SOLUTIONS results (Calls for Ideas) will be selected. This task aims at preparing the information package for the SMEs. Specific attention will be given to IPR issues.</i>	WP9 - Task 9.2 – Involvement of SMEs. Pages 45-46 of AMD-856691-12	<i>This document describes how SMEs will be engaged setting the approach for effective "Idea-based" interaction between 5G-SOLUTIONS project Partners and SMEs.</i>
5G-SOLUTIONS Deliverable			
D9.3A: Information package for external SMEs to facilitate the design of new applications (A2T) [M12]: A report (D9.3A) consolidating the information package for the SMEs and procedures for managing the online Application. Reference AMENDMENT Reference No AMD-856691-12 for Grant Agreement number: 856691 – 5G Solutions for European Citizens (5G-SOLUTIONS)			

2.2 Deliverable Overview and Report Structure

In the following document, we first introduce in Chapter 2 the importance of SMEs for the project and the value that 5G-SOLUTION can deliver to SMEs.

In Chapters 3, an overview of 5G-SOLUTIONS is provided to SMEs with the goal of giving a general understanding of project structure.

Chapter 4 is dedicated to a description of the importance of 5G services provided by 5G-SOLUTIONS to the market and why it is relevant to SMEs. Chapter 5 describes the characteristics of eligible SMEs propose their ideas to 5G-SOLUTIONS Consortium via “Call for Ideas”.

Chapter 6 describes “Call for Idea approach and procedures” to support participating SMEs to better fit the Consortium requirement for good idea selection and presentation. In this chapter the 4 phases of the selection process are described and information for continuous contact and IPR management are provided.

Chapter 7 is dedicated to describing and reference the importance of 5G PPP initiatives for the SMEs ecosystem, providing referenced to gather addition information and submit better fitting business ideas to the call application.

Chapter is 8 describes NetWorld 2020 initiative and the relevance of academy in research and innovation about 5G topics.

Finally, three annexes are included in this document with:

- Annex I: has been structured to give an overview of events dedicated to externa SME involvement
- Annex II: documents the KPI that will be tracked to quantitatively monitor the SME involvement task execution
- Annex III: illustrates the call for ideas minimum set of information that will be asked to SMEs during Call for Ideas submission.

2.3 SMEs Involvement is a Win-Win Opportunity

SMEs have an important role to play in developing, piloting and deploying 5G technologies to address the needs of various vertical sectors. If, on one side, the 5G PPP is aiming at 20% participation from SMEs in the projects, on the other side, ideas and features proposed by SMEs are a strategic opportunities to provide industry and academia with a simple view of what expertise and skills that SMEs can bring to 5G innovation and knowledge of vertical sectors.

The win-win opportunity for 5G-SOLUTIONS, and interested SMEs are:

1. SMEs have the potential to provide great added value in terms of innovative concepts and solutions that could be used in various places of the 5G value chain;
2. SMEs are important stakeholders in the overall development chain towards future communication networks. In particular, the development of innovative applications for the support of vertical sectors requires SME involvement;
3. High-tech SMEs can be early adopters of 5G technology and leverage it to build the future market of 5G services.

3 5G-SOLUTIONS Project Description

5G-SOLUTIONS aims at **maximising the impact to the realisation of the 5G Vision** by conducting advanced field trials representing key segments of the 5G market in complementary and combined ways in order to demonstrate and prove the capabilities of the 5G technology. The domains listed below collectively represent **~46%**³ of the European GDP (Gross Domestic Product). 5G-SOLUTIONS is therefore likely to generate business and economic impact in key sectors, as well as accelerate 5G network deployment that would transform **many aspects of the life of European citizens**, e.g. the way they work, entertain themselves, etc. In addition, the project will endorse a business analysis, based on the Living Labs ecosystem approach. As an impact paradigm, the business model that 5G-SOLUTIONS will follow is the open innovation one. This paradigm developed in recent years is particularly suited to the 5G context, both for the virtualisation approach of the network, as well as for the possibility of **having a strong impact on future developers and especially on SMEs**.

The project's operational scope is to provide industry verticals with access to a range of advanced services, conducting different trials of innovative use cases and involving end users (industrial and their customers) across five significant industry vertical domains:

- Factories of the Future;
- Smart Energy;
- Smart Cities & Ports;
- Media & Entertainment.

The vertical domains are grouped in three complementary clusters (i.e. Industry 4.0, Smart Urban Environment and Enhanced User Experience) as shown in the picture below.

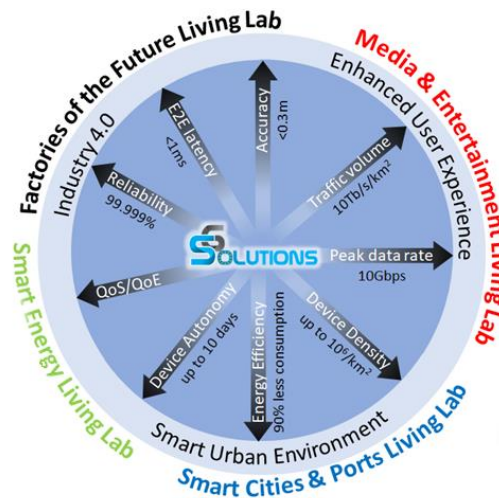


Figure 1: 5G-SOLUTIONS Vertical Living Labs

³ Manufacturing industry: 16%; Smart Energy: 12%; Smart Cities: 10%; Smart Ports: 3%; Media and entertainment: 5%.
Sources: Mastering digital transformation, Nagy K. Hanna;

[http://europa.eu/rapid/press-release MEMO-14-193_en.htm](http://europa.eu/rapid/press-release_MEMO-14-193_en.htm) ;

http://ec.europa.eu/research/industrial_technologies/factories-of-the-future_en.html;

https://ec.europa.eu/energy/sites/ener/files/documents/20160712_Summary_Ref_scenario_MAIN_RESULTS%20%282%29-web.pdf;

www.eurocities.eu/eurocities/issues/cohesion-policy-issue&newsstart=21&newscount=10&contentURL=cohesion-policy-issue .

Moreover, 5G-SOLUTIONS project will provide:

1. Validation of different KPIs for innovative and heterogeneous use cases with 5G performance capabilities and a high future commercialisation and business potential and economic impact.
2. Technological enablers for facilitating the execution of the trial, such as:
 - a) A unified cross-domain service orchestrator enabling 5G service lifecycle automation.
 - b) An innovative smart KPI visualisation system.
 - c) Intent-based APIs for stimulating innovation and fostering the development, portability and provisioning of new innovative applications.
3. Flexibility to adapt new interfaces, data sources, GDPR compliant data processing, machine learning.

3.1 Factories of the Future

In 2020 factory digitization is having a central role for the innovation of industry, leading to an increase in production efficiency and the emergence of new manufacturing scenarios based on increased sensing, as well as the introduction of a new generation of robots. Exploiting the life cycle data of products coming from connected goods, factories move toward a path in continuous evolution based on data and business intelligence. Through future communication solutions there will be real-time and secure connectivity between different production sites distributed globally and the new players in the value chain. Moreover, Augmented Reality (AR) offers new remote services to facilitate the effective sharing of knowledge in the factory.

3.2 Smart Energy

The introduction of competitive electricity markets derived from the unbundling (process of splitting utilities into different companies), the introduction of active demand concept, the increase of renewable energy sources, large-scale deployment of telecommunications infrastructures and the advent of plugin electric vehicles have led to a complete transformation of industry, then to new opportunities and challenges. This vertical aim to provide evidence of the potential benefits of large-scale adoption of 5G technology in the smart grid sector.

3.3 Smart Cities & Ports

The continuous increase of the population leads to a new vision of city. This vision is represented by smart cities and it is achieved by a smart network connecting sensors, machines and citizens to cloud-based Internet of Things (IoT) applications. The concept of a smart city incorporates the six “s”, i.e. a shared, secure and scalable infrastructure that enables human possibilities in a manner that is smart, safe and sustainable.

In this context, ports are becoming increasingly interested in smart solutions because of the increase of complexity and volumes. This will help optimise and improve their operational efficiency and reduce logistics costs and to be able to respond to the smart cities of the future.

3.4 Media & Entertainment

5G technology will increase demand in terms of data rates, number of simultaneous connected users and higher quality of service, which are relevant factors for Media and Entertainment services and it will provide high quality, high resolution and low costs for audio-visual services. 5G will enable the area of cellular and IP-based live media production to grow further, supporting high-quality transmissions and new business models, such as production in the cloud, at lower costs. Moreover, 5G will integrate services over different network

technologies (fixed, wireless), topologies (including e.g. unicast, multicast and broadcast) and capabilities (e.g. caching and multi-link).

3.5 Deeper Exploration of 5G-SOLUTIONS Project

Additional information on 5G-SOLUTIONS project can be found on:

- 5G PPP website at the link <https://5g-ppp.eu/5g-solutions/>
- 5G-SOLUTIONS website at the link <https://www.5gsolutionsproject.eu/>

4 The Potential Impact on the 5G Services Market

The 5G-SOLUTIONS consortium will endorse the idea to advance further the telecommunications industries from the classic value chain model to a more innovative one; through the employment of its open source components, the project will impact the business **with a sustainable community of SMEs and institutions, both collaborating and/or competing, whilst creating value for customers and end-users**. The dissemination & communication activities are geared towards reaching these communities.

4.1 Impact on the European Economy

Apart from the ICT sector, 5G has the potential to create new jobs and stimulate growth in all industries that are able to exploit wireless mobile technology to become more competitive, to create new business models and to offer new services⁴. **At European level**, according to the study *“Identification and quantification of key socio-economic data to support strategic planning for the introduction of 5G in Europe”*⁵, aiming at forecasting the qualitative and quantitative socio-economic benefits of 5G.

In particular, in the vertical industries, 5G is expected to generate **economic benefits of €62.5 billion/year** by 2025. 63% of these benefits will arise for business and 37% will be provided for consumers and society. Input-output analysis⁶ suggests that 5G investment in the EU will lead to **multiplier effects with a value €141 billion**. These effects are likely to create **2.3 million jobs in EU**.

The vertical domains, covered in 5G-SOLUTIONS, address industry segments directly related to **46% of the European GDP** and which will benefit from the Pan-European 5G network deployments. As such, verifying the 5G KPIs in the content of those industry segments is expected to have a substantial business and economic impact for the partners, and to the EU when disseminated through 5G-PPP.

5G-SOLUTIONS’s indirect impact on the European economy will be to contribute to accelerate 5G deployment in Europe, by demonstrating that 5G KPIs are feasible and attainable, starting from 5 key industrial segments, where 5G business practical applications carry tremendous potential.

⁴ [http://www.europarl.europa.eu/RegData/etudes/BRIE/2016/573892/EPRS_BRI\(2016\)573892_EN.pdf](http://www.europarl.europa.eu/RegData/etudes/BRIE/2016/573892/EPRS_BRI(2016)573892_EN.pdf)

⁵ https://connectcentre.ie/wp-content/uploads/2016/10/EC-Study_5G-in-Europe.pdf: the study was prepared for the European Commission DG Communications Networks, Content & Technology by Tech4i2, Real Wireless CONNECT, Trinity College Dublin, InterDigital.

⁶ Input-output analysis is a quantitative economic technique that examines the interdependencies between different parts of an economy to examine ‘trickle-down’ impacts.

4.2 Scientific impact: Improving European Innovation Capacity and Integration of New Knowledge

The challenge-based third pillar of H2020 emphasises the need to take the societal problems themselves as a starting point for research and innovation work. The technical work of the project requires an interdisciplinary approach (high-impact vertical use cases, fusing telecom big-data graphical analytics with cognitive machine learning techniques with cloud-computing approaches for near real-time presentation of 5G network multi-perspective KPIs, data privacy, etc.) that can only be provided by a combination of researchers, technology suppliers and industrial end-users.

In order to interpret and illustrate the process of knowledge creation, several concepts have emerged, particularly related to the non-linear nature of innovation and the multiple input and feedback loops required between the stakeholders in an innovation system. For example, 5G-SOLUTIONS will allow us to construct, study and analyse data on graphs, which represent the performance capabilities of pre-commercial 5G networks illustrating in the field the interactions between vertical industry companies and end-user customers. Such developments would not only be useful to 5G-SOLUTIONS project but also to the broader 5G research communities which would benefit from the results of the project.

In addition, Europe presents a linguistically inhomogeneous environment, which is also reflected in the way the telecommunication industry is evolving. This multilingual and multi-cultural aspect will allow 5G-SOLUTIONS to provide real data from real end-users in the field, which reflect this diversity and provide better adaptability to 5G markets outside of Europe. **This will provide 5G-SOLUTIONS with a significant competitive advantage when compared with US-centric 5G technologies and services.** The innovations identified in the project will complement its shared commercialisation strategy and will be evidenced by formal EUPC and USPTO patent filings.

4.3 Societal, Environmental and other Impacts

5G-SOLUTIONS has considerable potential to create positive societal and environmental impact, ultimately through the deployment of 5G technologies in a wide number of sectors. Such impacts will fundamentally reshape not only the way European citizens work, communicate, travel, keep healthy or entertain themselves, but also the societal design of the entire European countries. This could be implemented in such a way that the structural and infrastructural differences between the single EU states could be reframed by the key driver of a **more efficient, well-being oriented, socially accepted, and environmentally friendly European way of life.** According to the study *“Identification and quantification of key socio-economic data to support strategic planning for the introduction of 5G in Europe”*⁷, a wide array of benefits, of societal, environmental and other types, are foreseen. During 5G-SOLUTIONS, impacts of societal, environmental nature and for citizens will become apparent during the field trials.

4.4 How SMEs Can Get Information About the Project

The integrated approach to communication adopted by 5G-SOLUTIONS combines a mix of traditional and disruptive communication channels as listed below:

- **Online presence:** The 5G-SOLUTIONS website is the portal for public dissemination of project information and results. The web portal is regularly updated and employs state-of-the-art **social media**

⁷ https://connectcentre.ie/wp-content/uploads/2016/10/EC-Study_5G-in-Europe.pdf: the study was prepared for the European Commission DG Communications Networks, Content & Technology by Tech4i2, Real Wireless CONNECT, Trinity College Dublin, InterDigital.

mechanisms (e.g. Twitter account is available at https://twitter.com/5g_solutions) to announce new information concerning the project, its results, upcoming events, etc. and to engage the target audience groups: see <https://www.5gsolutionsproject.eu/>

- **Events:** The project will engage in the organisation of established conferences and workshops. In this context project consortium members, having the necessary experience and track record, will organise special sessions, panels, and workshops in top conferences as appropriate
- **SME focused Workshops:** The project will organise 3 industrial workshops dedicated to SME involvement jointly with other 5G-PPP projects, to draw a complete picture of the achievements in Europe
- **Showcasing:** The 5G-SOLUTIONS consortium has **plans to use and** showcase its results **in at least 2 public events** (e.g. Patra carnivals in 2021 & 2022). This is expected to generate the largest industrial and societal impact on the various involved stakeholders, hence paving the way to a faster adoption of 5G technologies
- **Participation in large industrial international exhibitions:** The 5G-SOLUTIONS showcases will serve as the instrument to document and quantify the benefits of the 5G-SOLUTIONS results and to communicate these to industry stakeholders in relevant industrial exhibitions
- **White papers** in conjunction with the European Technology Platform Network2020 and industry fora
- Interactions with worldwide forums, institutes, and standardisation organisations
- Project documentation: Deliverables, technical reports, posters, and presentations are made publicly available in the project website and through social media channels
- **Newsletters:** Two electronic newsletters per year are released presenting the main achievements, where interested parties can subscribe for free⁸.

4.5 Training Activities for SMEs

Training in 5G-SOLUTIONS will be designed and delivered through dedicated activities to support SMEs across Europe, maximising the use and impact of the project's outputs. It will be used to provide the opportunity for hands-on experience on how to use its KPI visualisation system to conduct innovative use case validation, as well as its APIs for enabling easy interfacing of new services to the 5G interworking layer.

Training will be offered to a selected number of external SMEs through workshops, webinars, online documentation and community mailing lists. Training supports and facilitates academic and international collaboration and helps the adoption of 5G-SOLUTIONS results, in particular, in open source communities (e.g. OpenAirInterface⁹). Training will aim at keeping participants' knowledge and capabilities sharp during and after the project.

Therefore, training activities include:

- Agreeing on a concrete methodology for the design of the training programmes;
- Developing "dynamic" online courses in a modular format so that they can be continuously updated;
- Developing an official enrolment process, controlled by a secure authorisation system;
- Developing a *competencies matrix and credit system* for all courses, linked to on-line assessment activities, to allow certification (and periodical re-certification) of participants;
- Setting up *online workshops* and *hands-on training labs* (as an integral part of the curricula), to allow experimentation and piloting with the 5G-SOLUTIONS KPI visualisation system, APIs and services on its use cases, amplifying the opportunities to learn, develop, and apply the new skills;

⁸ SMEs can subscribe to at <https://listserv.rediris.es/cgi-bin/wa?SUBED1=5GSOLUTIONS-NEWSLETTER&A=1>
Previous version of the newsletter are available at: <https://www.5gsolutionsproject.eu/newsletter>

⁹ <https://www.openairinterface.org/>

- Creating a *trusted community of knowledge exchange* to encourage the interactive sharing of knowledge and best practices between participants.

4.6 Management and Protection of Knowledge and Data

For the success of the cooperation with the interested SMEs, the partners already agreed on explicit rules concerning IP ownership, access rights to any Background and results for the execution of the project, the protection of Intellectual Property Rights (IPRs) and confidential information.

For the 5G-SOLUTIONS project, the consortium is committed to regulate IPR and confidentiality issues in line with H2020 guidelines. To achieve this, the partners built a legal agreement on the basis of the MCARD-2020 model by DigitalEurope¹⁰. In this agreement the 5G-SOLUTIONS partners agreed upon the following IPR items:

- Background provided by partners in the agreement. This is a major step to enable the deployment of both open source building blocks (the open source components must be specified with their associated license) and equipment vendors functions or equipment (proprietary solutions with an R&D license that must be granted to a dedicated list of project partners) in the Living Labs.
- Foreground developed in the course of the project will be owned by the partner producing it (ownership and joint ownership rules will be defined in CA). Such development could also take the form of open source contributions, which are leveraged by the 5G-SOLUTIONS project especially if they create or enhance modules that could lead to de-facto standards. In such a case, it will be every partner's responsibility to comply with the license scheme of the targeted open source alliance.

5 How You Can Propose Your Idea

The business-fit between SMEs and 5G-SOLUTIONS Consortium Members will be based on up to 3 iterative **"Calls for Ideas"** in which the applying SMEs will be able to propose how their Product/Service concept can be applied, using the 5G platform made available by 5G-SOLUTIONS, to a specific vertical.

Idea proposals will be managed with periodic application campaigns with the aim to collect and evaluate best ideas to be presented in specific event to the 5G PPP community and to 5G-SOLUTIONS project members.

SME involvement will be mainly focused to interact with SMEs and Start-ups who already have a working solution, and which should see 5G-SOLUTIONS more as a market opportunity and are really interested in:

- Develop a competitive advantage on 5G technology applied to a specific vertical;
- Concrete opportunity to meet new potential customers;
- Increase market visibility in 5G field;
- Opportunity to promote their business.

Ideas and concept application will be managed via YouNoodle¹¹, "the global leader in startup engagement., backed by a powerful technology platform and a growing network of 200,000+ startups, trusted partner to execute startup and innovation programs at scale", launching specific calls for proposals.

¹⁰ <http://www.digitaleurope.org/Services/H2020-Model-Consortium-Agreement>

¹¹ <https://younoodle.com/>



the #1 startup selection platform

YouNoodle Compete is a customizable startup program management platform that has powered more than 1000 competitions/programs run by corporations, accelerators, governments universities, foundations and more.

Figure 2: YouNoodle call for ideas' application platform

To support application a “5G-Solution Idea contest handbook” will be provided. In each event a Call for Ideas will be proposed to collect application proposals of best 5G “verticals” products and solutions. Ideas will be evaluated by a committee composed by the representatives of 5G-SOLUTIONS industrial partners and selected SMEs will be invited to present their idea in events dedicated to SMEs.

Ideas selected will give the proposing SME the opportunity to pitch their solution in front of the 5G PPP community, including potential customers from telecommunications and from specific verticals (e.g. energy) and will have the opportunity to a preliminary one-to-one meeting with interested 5G-SOLUTIONS Consortium Partners.

5.1 Eligibility Criteria

All applicants will have to abide to all the general requirements described below in order to be considered eligible for the SME Involvement Call for Ideas must respond to the following criteria:

- Be an active legal entity located in eligible Countries¹² according to HORIZON 2020 – WORK PROGRAMME 2018-2020 General Annexes;
- Be considered as an SME¹³ according to the Commission Recommendation 2003/361/EC1.

5.2 Applicable language for the “5G-SOLUTIONS Call for Ideas” is English

English is the official language for the “5G-SOLUTIONS Call for Ideas”. The proposal, in order to be eligible, must be in English in all its mandatory parts; part of the proposal submitted in any other language will not be evaluated for the ranking.

¹² https://ec.europa.eu/research/participants/data/ref/h2020/other/wp/2018-2020/annexes/h2020-wp1820-annex-a-countries-rules_en.pdf

¹³ As a summary, the criteria which define a SME are:

- Headcount in Annual Work Unit (AWU) less than 250;
- Annual turnover less or equal to €50 million OR annual balance sheet total less or equal to €43 million.

English is also the only official language during the event participation; this means that for selected SMEs the Pitch presentation during the event and any interaction with involved Partners will be in English.

5.3 Multiple Submissions are Permitted

Multiple submission per Call for Ideas are permitted when matching the following rule:

- Only one submission per vertical;
- The idea has not been previously selected in a previous “5G-SOLUTIONS Call for Ideas”.

5.4 Continuous Information About 5G-SOLUTIONS Opportunities for SMEs on Project Website

SMEs can be continuously informed about activities of 5G-SOLUTIONS Living Labs, and SMEs opportunities via the following project website <https://www.5gsolutionsproject.eu/>. Specific information about events dedicated to the SMEs are published in the section “News & Events”.

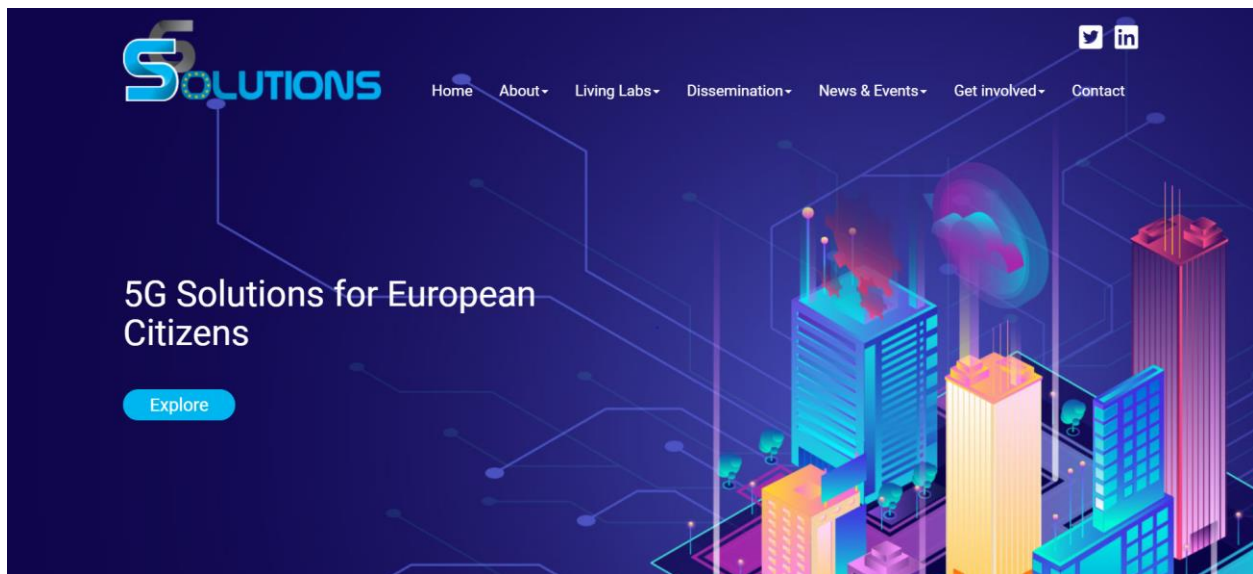


Figure 3: 5G-SOLUTIONS Website

SMEs contact points can also subscribe to 5G-SOLUTIONS Newsletter which includes information about actions and events dedicated to the SMEs.

6 Call for Idea Approach and Procedures

6.1 Idea Maturity

Eligible ideas respecting the above-mentioned Eligibility Criteria, “5G-SOLUTIONS” will prioritize the projects which are closer to the following profiles:

- Where the use of 5G technologies is particularly meaningful;
- With an available working prototype;

- With a market application, even if on different communication network technology;
- With an international target market.

6.2 How Ideas Will be Evaluated - The Selection Process

The procedure of evaluation includes the following sequential steps for Idea evaluation:

1. Application Submission;
2. Eligibility Check;
3. Evaluation by Internal Expert Committee;
4. Event participation.

Each application submission will explicitly define the time planning of the above selection process.

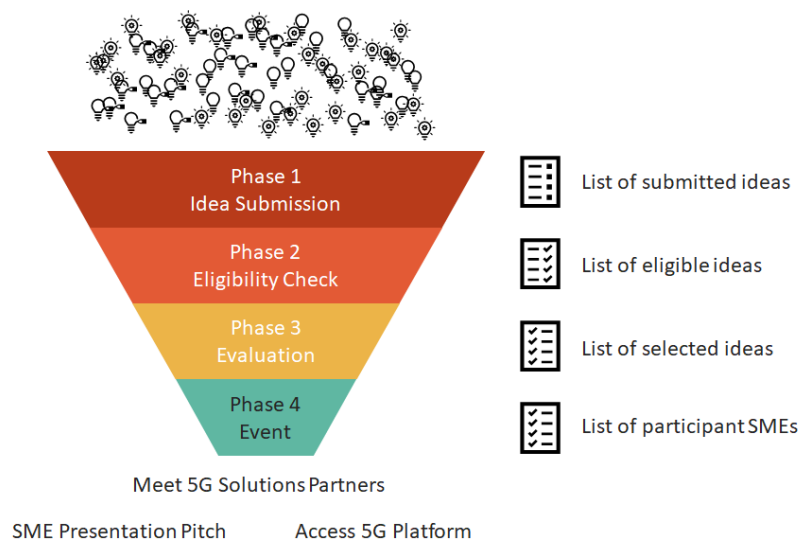


Figure 4: Phases of Selection Process

6.2.1 Phase 1: Application Submission

Idea proposals will be submitted exclusively online through the Application Platform (YouNoodle), which is linked to the 5G-SOLUTIONS website. Applications submitted by any other means will not be considered.

Proposals will be submitted in a single stage, by submitting an online application which will include:

1. General SME information: including basic information about the applicant SME and their contact information.
2. Idea proposal: information about the Idea Concept connected to the evaluation criteria
3. Attached document: presentation pitch for the event.
4. Honour declaration on property of the idea and absence of conflict of interest: accepted by the SME.
5. Official contact point: each SME will nominate a contact point to whom communications from the Consortium will be addressed.

The online application form contains one additional section that will not be evaluated, namely a Statistical Section including questions required by the European Commission for statistical purposes.

Applicants are strongly recommended not to wait until the last minute to submit the proposal. Failure of the proposal to arrive in time for any reason, including extenuating circumstances, will result in rejection of the proposal.

6.2.2 Phase 2: Eligibility Check

In order to be eligible for evaluation, applications will be checked for compliance with the following:

1. Comply with all the Eligibility Criteria.
2. Be submitted through the Call for Ideas management tool. Proposals submitted by any other means, will not be evaluated.
3. Be submitted before Deadline. Applications must be submitted by the closing time and date of the contest round. The time recorded by the FundingBox Platform, as submission time of the proposal, will be the official one. Late proposals will not be evaluated.

The output of this stage will be an “Eligible List of Applicants”.

All participants will be informed about the result of the “Eligibility Check”; non eligible applicants will be eliminated from the selection process.

6.2.3 Phase 3: Evaluation by Internal Expert Committee

All applications that pass Phase 2 will be assessed and scored by a committee of at least 4 internal experts of consortium participants. A proposal admitted to this phase will be given scores on the basis of the following criteria:

1. Business Potential (30%): each project will be evaluated under a business perspective, to identify those with more opportunities of creating real market value.
2. Quality of the SME (30%): a great idea needs great people, this is why 5G-SOLUTIONS will evaluate the quality of each SME, in order to assess their ability to generate innovation and to react to changes.
3. Strategic Fit (40%): 5G-SOLUTIONS looks for Start-ups with a strong focus on the 5G sector, which fit within the areas identified in Section 3.4 and which develop services and applications with a high societal and business value using 5G technologies.

Each evaluator will score the applications from 0 to 5 for each criterion. The final score of each proposal will be calculated as an average of the individual assessments provided by Internal Evaluators.

The 30% top scoring proposals, with a maximum of 25 proposals, will pass to the next step.

The output of this phase will be a “List of pre-selected ideas”. All applicants reaching this stage will be notified about the result of the evaluation with specific communication will be sent to the applicants after phase 2 completion.

Ideas passing the Check will be included in the “List of pre-selected ideas” and proposing SMEs will be invited to the meeting.

6.2.4 Phase 4: Event Invitation

SMEs selected after the evaluation process will be contacted and invited to join the meeting as SMEs Presenters.

Attached to the invitation SME’s contacts will receive:

- Information about location;

- Meeting agenda;
- Pitch template to present the idea;
- Planning of one-to-one meeting with Consortium members (if selected);
- Lunch voucher;
- Eligibility for flight voucher.

The invitation will be considered effective once the SME has confirmed its participation. The output of this phase will be a **“List of confirmed SMEs”**.

6.3 Where to Get in Touch with 5G-SOLUTIONS Consortium Partners

The SME involvement actions are distributed in 3 events that will take place in different locations as illustrated in the planning below

- Greece, November 2020, Athens APPART and A2T;
- Italy, April 2021 - IOTThings, Milan - A2T and PIU;
- Cyprus, July 2021, Nicosia, EBOS and A2T;



Figure 5: Event Roadmap for SME Involvement Event

6.4 SME Involvement Package

Up to 75 SME involved in 5G-SOLUTIONS events; up to 25 per event will receive the following service opportunity package:

1. Present SME's products and services to the Consortium Partners and the audience (only for SME applicants selected by the Call for Ideas);
2. Access to one-to-one meetings with Consortium industrial partners;
3. Information & support to understand funding opportunities in 5G domain;
4. Meet potential investors and corporate venture capital;
5. Have an overall understanding of the project and 5G PPP initiative;
6. Understand how 5G-SOLUTIONS can help in promoting SMEs' products and services;
7. Be introduced to available facilities of 5G-SOLUTIONS and learn how to use 5G-SOLUTIONS facilities.

6.5 5G-SOLUTIONS Contact References for SMEs

SMEs interested in receiving more information can reach us on:

- 5G-SOLUTIONS website: <https://www.5gsolutionsproject.eu/>
- Contact us web page: <https://www.5gsolutionsproject.eu/contact-us>
- Call for Ideas web page: prepare a specific web page to drive the Call for Ideas
- Contact email: marketing@ares2t.com

6.6 Intellectual Property Rights

The applicants must base the ideas on original works and their foreseen developments shall free from third party rights, or, if not so, such rights shall be clearly stated.

5G-SOLUTIONS consortium is not obliged to verify the authenticity of the ownership of the foreseen products and services and any issues derived from third party claims that arise as a result of the sub-granted projects are the solely responsibility of the sub-granted parties.

7 Importance of 5G PPP Initiative

The 5G PPP is a joint initiative between the European Commission and European ICT industry (ICT manufacturers, telecommunications operators, service providers, SMEs and researcher Institutions)¹⁴.

5G PPP delivers solutions, architectures, technologies and standards for the ubiquitous next generation communication infrastructures of the coming decade with the aim to maintain and secure European leadership or unleash the potential of 5G for creating new markets, new business models and innovative products and services in specific sectors such as:

- Energy & utilities;
- Smart and connected cities;
- Intelligent transport and smart mobility;
- E-health;
- Entertainment & media;
- Education.

The goals for the 5G Infrastructure PPP are to succeed in:

- Providing 1000 times higher wireless area capacity and more varied service capabilities compared to 2010;
- Saving up to 90% of energy per service provided with a focus will in mobile communication networks where the dominating energy consumption comes from the radio access network;
- Reducing the average service creation time cycle from 90 hours to 90 minutes;
- Creating a secure, reliable and dependable internet with a “zero perceived” downtime for services provision;
- Facilitating very dense deployments of wireless communication links to connect over 7 trillion wireless devices serving over 7 billion people;

¹⁴ Source <https://5g-ppp.eu/>

- Ensuring for everyone and everywhere the access to a wider panel of services and applications at lower cost.

5G PPP has chosen a pragmatic approach to field-test the 5G applications in the above-mentioned vertical sectors with a structured and standardized approach.

The 5G Infrastructure Association launched an activity in 2016 to first, generate a strategy for developing a Pan-European 5G Trials Roadmap, and to prepare the comprehensive Trials Roadmap. For SMEs interested in learning more about these trials more information area provided on 5G PPP website at <https://5g-ppp.eu/5g-trials-roadmap/>

The 5G Trials Working Group was launched by 5G Infrastructure Association in September 2016 after the publication of the 5G Manifesto of industry in Europe and in the context of the 5G Action Plan of the EU Commission. According to the 5G Manifesto industry in Europe will develop by beginning of 2017 a European trial roadmap on technology trials and Pan-European trials with vertical sector use cases.

5G Infrastructure Association is hosting this Working Group in order to provide a neutral place for such discussions. The Working Group is open for

- Members of 5G Infrastructure Association members;
- Organisations from the European ICT domain;
- Vertical sector organisations.

The objectives of the Working Group are as follows:

- To develop the European Trial Roadmap based on the 5G Manifesto;
- To facilitate the involvement of verticals in the trial roadmap;
- To discuss and define business principles underpinning the economic viability of trials;
- To consider and coordinate the activity on trials with other relevant initiatives at international level (e.g. Proposal from China Mobile);
- To investigate and propose how to link trials to Horizon 2020 5G PPP Phase 3 in order to get funding for parts of the overall trial roadmap.

The 5G Trials Working Group (Trials WG) of 5G PPP¹⁵, is also the working group that coordinates the experimental platforms for 5G developments and trials in EU as the results of private and public efforts at national and EU level.

In fact, accelerating trial capabilities and other pilots, the platforms remain subject to continuous efforts targeting the full 5G picture and future evolutions creating synergies and economy of scale within the 5G PPP perimeter. As such, the future roadmap of actual 5G infrastructure deployment is highly dependent on the capability to update existing or deliver a new relevant and comprehensive set of platforms addressing the remaining gaps and challenges. One should also consider platforms as valuable and demonstrated set of 5G enablers, beyond trial objectives.

In order to increase the value and the complementarity of the available platforms and the forthcoming developments, tight coordination is needed and is of tremendous importance to describe the matching elements of each platform compared to the complete 5G landscape. This documented orientation helps 3rd parties, such as SMEs, to assign their interests to the respective platform purpose.

To boost access to 5G platforms, it is necessary to help different stakeholders on their knowledge level to identify the right platform targeting their interests.

Therefore, a common classification and documentation for 5G platforms addressing different target groups provide to third parties information like:

¹⁵ As detailed in the [5G Pan-EU Trials Roadmap Version 4.0](#)

- Name of the platform;
- Countries of deployment;
- Platform features;
- Business capabilities.

In this phase of development 5G Trials infrastructure will provide the adequate level of openness to make it possible for vertical industries and in particular for SMEs, to test their innovative 5G business cases using ad-hoc network resource control.

The key platforms and cities of the PPP Phase 3 platforms projects are summarized in the geographic cartography presented in the following Figure. The key capabilities and features and availability dates of the 3 platforms projects are summarized on 5G PPP website at the following link <https://5g-ppp.eu/5g-ppp-platforms-cartography/>.

Platforms Capabilities	5G EVE				5G VINNI				5G GENESIS					
Locations	TUR	MAD	PAR	ATH	OSL	MAR	PAT	MAD	AVE	ATH	BER	LIM	MAL	SUR
Rel15-5G NR in Non Standalone (NSA) mode														
Rel15-5G NR with Rel15-5GCore in Standalone (SA) mode														
Rel16-5G NR and 5GCore (NSA or SA)														
Network Slicing as a service														
Customized network slice (e.g. SFC, security)														
Hosting of 3rd party VNFs														
Interworking with other ICT17 facilities														
Integration of additional gNB to ICT-17 facility														
Edge Computing														
Distributed Data fabric service for analytics														
3.5 GHz 5G Radio														
26 GHz 5G Radio														
Millimeter wave for Backhaul														
End User Testing														
Automatic testing framework														

Figure 6: Key capability & features of 5G Infrastructure Phase 3

Locations Legenda: TUR: Turin, MAD: Madrid, PAR: Paris, ATH: Athens, OSL: Oslo, MAR: Marteslam, PAT: Patras, AVE: Aveiro, BER: Berlin, LIM: Limassol, MAL: Malaga, SUR: Surrey.

An inventory of available 5G platforms in EU and their functionalities, describing the supported technologies and functions of platforms compared to the complete 5G target landscape can be consulted at <https://www.ip45g.de/en/5g-testbeds/>.

This inventory will help interested SMEs to accelerate the understanding of 5G platforms and identify the right platform of interest to propose ideas and contributions.

SMEs who want to be engaged with 5G-SOLUTIONS are invited to analyse this Roadmap Version 4.0 which highlights the key EU cities that are targeted for 5G early deployments, already engaged in 5G pre-commercial and commercial trials and pilots.

The 5G Pan-European Trials Roadmap has been elaborated and is supported by the Trials Working Group (WG) Members organizations. The 5G Pan-EU Trials Roadmap Version 4.0 has been released and can be downloaded here: [5G-PPP Trials Roadmap Version 4.0](#).

5G generation of mobile technologies aims to represent for *industrial* communications the enabler to digitise the economy and contribute towards the global digital transformation. Vertical sectors¹⁶ such as transportation, energy, media and manufacturing will be among the early adopters.

¹⁶ Source <https://5g-ppp.eu/verticals/>

Within this context, the 5G Infrastructure Association (5G-IA), representing the private side in 5G-PPP, includes *verticals engagement* as a main objective. The 5G-PPP Vertical Engagement Task Force (VTF) was therefore established to coordinate and monitor activities related to working with vertical sectors. Specifically, it has the following objectives:

- Enhance verticals engagement in 5G-PPP;
- Promote relevant funding Calls within verticals industries;
- Gather verticals feedback on 5G needs and potential barriers for adoption;
- Raise awareness of 5G potential.

8 NetWorld2020 Overview and Role

NetWorld2020¹⁷ is the European Technology Platform for communications networks and services. Communications networks enable interaction between users of various types of equipment, either mobile or fixed. They are the foundation of the Internet. The NetWorld2020 European Technology Platform gathers players of the communications networks sector: industry leaders, innovative SMEs, and leading academic institutions.

The communications networks industry is supporting the following NetWorld2020 vision for the further development of mobile and wireless, fixed and satellite communications:

- Contribute to collaborative research programmes on European and national level for collaborative research in the domain of mobile and wireless, fixed and satellite communication networks by a regularly updated research agenda.

Future communication networks will provide significantly higher mobile and wireless area capacity and more varied service capabilities compared to 2010, which will be supported by fixed backbone and access networks and complemented by satellite networks. Thus:

- Saving 90% of energy per service provided;
- Reducing the service creation time cycle significantly;
- Creating a secure, reliable and dependable Internet with zero perceived downtime for services;
- Facilitating very dense deployments of mobile and wireless communication links for over 7 trillion wireless devices serving over 7 billion people;
- Ensuring User controlled privacy;
- Support for business & government processes improves the competitiveness of the European economy;
- Services hide complexity from the user with interoperability between different access systems;
- Multi-layered mobility – users move & change devices, sub-networks in trains & cars move, software moves;
- Peer-to-peer communities emerge to empower people to collaborate;
- Opportunities for social applications expand through always-with-you qualities and reducing isolation.

This results in the mission statement of the NetWorld2020 Platform:

- To develop position papers on technological, research-oriented and societal issues, which are agreed in NetWorld2020 bodies to receive a joint mandate;
- To seek discussion of issues with decision makers in the political and public domain as well as in the industry and research community to bridge the gap between research and innovation and the expectations from the European society;
- To regularly develop an updated Strategic Research and Innovation Agenda (SRIA) for Europe in the communication networks domain in an open process in order to guide industrial and long-term

¹⁷ Source: <https://www.networld2020.eu/overview/>

oriented research and to provide means for future economic exploitation in global standards and the widespread deployment of communication systems and networks;

- To strengthen Europe's leadership in networking technology and services so that it best serves Europe's citizens and the European economy;
- To support the 5G PPP initiative by:
 - Providing the Association members, representing a broad spectrum of the 5G stakeholders, through an open election process;
 - Producing a comprehensive Strategic Research and Innovation Agenda for the 5G domain with frequent updates;
 - Promoting the active involvement of the ETP community in 5G initiative proposals and projects.

9 Conclusions and Next Actions

This deliverable provides as widely illustrated in the previous 9 chapters and the following 3 annexes all the information that, according to the goal of Task 9.2 and deliverable D9.3A, have been considered valuable for SMEs to support a full comprehension of the opportunity that SMEs, start-ups, research spin-off can access cooperating and interacting with 5G-SOLUTIONS.

Considering that a D9.3B version of this deliverable a more specific focus will be done to the participation of SMEs in dedicated events, according to the data and information that will be collected according to Annex II, during the events, and Annex III, during the Call for Ideas.

Next steps require mainly to focus on:

1. Event Organization that will be performed by local Partners mentioned in Annex I, with the support of A2T;
2. Local Event Promotion that will be performed by local Partners with the contribution of Event Organizers at local level and with the support of A2T to have a homogeneous approach;
3. Call for Ideas event promotion that will be managed by A2T in coordination with the Dissemination Team, using others' event opportunity dissemination, project website;
4. Event Participation that will be facilitated by the local Partner, with support of Organizers, and that will require the presence of Industrial Partners;
5. Reporting (D9.3B) of results that will be managed by A2T with the support of T9.2 Partners.

Even if at the moment the risk connected with COVID-19 virus spreading is expected to be low, considering that the first event will be in Autumn 2020 and that previous tasks can be performed remotely, a continuous risk monitoring activity will be performed to provide the maximum effectiveness of the SME involvement initiatives. For this reason, the planning and the tools that are mentioned in this document are subject to change if required.

10 Annex I: SME Involvement Event Plan

10.1 Planned Events

The essential role that SMEs play in enabling the widespread benefits of the 5G communication technology is acknowledged by the 5G-SOLUTIONS Project through the inclusion of the WP.9 that focuses precisely on the SMEs contribution. It is expected that the high-tech SMEs selected to take part in the 5G-SOLUTIONS Project will further develop 5G based solutions for the five verticals of the project, resulting in increased benefits for the European citizens.

The Call for Ideas will require the organization of periodic events and workshops where the SMEs will have the possibility to present their products/services and contribution to diverse use cases for the 5G technology. The objective is to collaborate with SMEs and Start-ups that already have a working solution, and which consider 5G more as a market opportunity and are really interested in:

- develop a competitive advantage on 5G technology applied to a specific vertical
- concrete opportunities to meet new potential customers
- increase market visibility in 5G field

Ideas and concept application will be managed via YouNoodle, “the global leader in startup engagement., backed by a powerful technology platform and a growing network of 200,000+ startups, trusted partner to execute startup and innovation programs at scale”, launching specific calls for proposals.

In each event a Call for Ideas will be proposed to collect application proposals of best 5G products and solutions. The ideas will be evaluated by a committee composed by the representatives of 5G-SOLUTIONS partners and selected SMEs will be invited to present their idea in events dedicated to SMEs.

Ideas selected will give the proposing SME the opportunity to pitch their solution in front of the 5G PPP community, including potential customers from telecommunications industries and will have the opportunity to a preliminary one-to-one meeting with interested 5G Consortium Partners.



Figure 6: SME Involvement events timeline

10.2 APPART Event

10.2.1 Conference Information

- Name of the conference/workshop: Infocom World
- Hosts: Smart Press S.A. (Greek company)
- Location: Athens
- Preliminary Dates: November 2020, exact date is not defined yet.
- Link: <https://infocomworld.gr/en>

Participation Statistics¹⁸ (Average of the 3 last years):

- Telco and IT (Engineers, Managers, CIOs, COOs, CEOs, Equipment Distributors): 1.813
- Start uppers & Entrepreneurs: 309
- University or Post Graduate Students: 223
- Marketing, PR & Media: 218
- Banking & Finance: 199
- Developers: 184

10.2.2 General Description of the Event

Infocom World is an annual conference, which takes place in Athens, usually during autumn period. It's about an IT Conference with great participants, sponsors, workshops from IT area, in Greece and worldwide.

In general, the conference InfoCom World, brings together the business communities, such as: Telecommunications, IT & Media executives, CEOs, CIOs and IT Directors, Operation Managers, Data Center & Cloud Experts, Network Engineers, S/W Engineers and Developers, IT Strategists & Solution Architects, Technology Equipment & Consumer Electronics Manufacturers and Suppliers.

In practice, the conference applies to all business sectors, as ICT is horizontally, involved in all markets. Thus, it addresses among others to: Companies from all Business Sectors, as well as System Integrators, Service Providers, Financial Managers, S/W Developers, IT Security Officers, IT Auditors, Telecommunications & IT Engineers, Business Consultants, Data Analysts, Sales Executives, Advertising & Marketing, HR & PR Executives, Legal Advisors etc., meaning a great variety of professionals.

Various Workshops with different themes/topics take place at a variety of rooms, in parallel. Each year the participants of Infocom World conference, is estimated to be more than 3.000.

During the last Infocom World that took place on November 26th, 2019, under the title «Economy 4.0: Connected Future», various topics were discussed in detail, new ideas were presented about technological evolution in 5G Technology, e-government, smart home, etc. Reference was made to the fiber optic networks and ultra-fast speeds offering to reach consumers more quickly and with 5G coming into the short-term business plans of telecommunications and IT companies, the communications infrastructure in Greece has changed.

New opportunities were discussed for citizens and new challenges and opportunities for businesses, which are shaping the new landscape of the Greek economy which, equipped with modern digital tools, appears to be ready to attract new investments.

Taking into consideration that digital development is transforming all sectors of the economy, and this global transformation have been also be the crucial pillar on which the last Infocom World, entitled 'Economy 4.0: Connected Future', was headed. Already focused on 'smart living', the retail sector is undergoing a number of business developments that aim to give new force to the technology market.

¹⁸ Source Smart Press S.A. Event Organiser.

At this Infocom World, there were also mentioned suggestions, implementations and plans for the development of the Smart Home market, its challenges, opportunities and prospects. Infocom World for another year was the conference that showed the future, confirming its title: Connected Future.

Sponsors during the last Infocom World

Main sponsors during the last Infocom World were Greek, well known, companies from IT sector such as: Space Hellas (a Cisco Partner company), GENERETAIION Y (an Internet Consulting company), Mobile Operators like Comsote, Vodafone GR, Wind GR, other IT companies like Ericsson, Intracom Telecom, worldwide known companies like Lenovo, Nokia, Samsung, etc.

10.2.3 Target Audience

Companies, Enterprises and Professionals from a great variety of business sectors due to ICT involvement into almost all markets. The estimated participants at Infocom World are over than 3k.

10.2.4 Industry Participants

Ares2t and AppArt, others to be defined at a later stage.

10.2.5 Planned Agenda

Based on experience from previous Infocom World conferences, every session/workshop lasts mainly for 1 hour and in some cases for up to 8 hours (break included).

Proposed sections for the agenda at Infocom World are as follows:

1. Overall presentation of 5G Solutions
2. How 5G PPP can promote SMEs' product and services
3. Funding tools in 5G domain
4. 10 minutes presentation of SMEs products and services (dedicated to selected SMEs via call for ideas)
5. One-to-one meetings with industrial and business partners of 5G Solutions (dedicated to selected SMEs via "call for ideas" procedure)

10.2.6 SME Call for Ideas Promotion Method

Some options could be:

- Reference at 5G-SOLUTIONS web page
- Posts at 5G-SOLUTIONS LinkedIn page
- AppArt may post at its web site a relevant reference (other members may also do the same).
- Posts at Infocom World's Facebook page
- At Infocom World site, there is always related info for every workshop that is going to take place and it's easy for everyone to find details for a specific coming workshop.
- At Infocom World site, they also keep a track record from previous conferences with reference to main info related to the program, the workshops that took place, the sponsors, etc.

10.2.7 Planned Outcome Evaluation

Possible options of the Planned Outcome Evaluation:

- Gather info related to number of registered SME's.
- Recording the number of meetings that will be held individually with members of the Consortium, keeping in mind that such an option necessitates the existence of a booth/stand that should have been set up at the conference.
- Recording the number of Ideas submission during the Call for Ideas. (the time period of the "Call for Ideas" has to be defined in relation also with the Infocom World timing).

10.2.8 Budget for Possible Sponsorship.

Preliminary organization requirement to be discussed with Infocom World organiser (Smart Press) includes the following:

- Ability to use a conference room all day long including infrastructures. This will allow 5G-SOLUTIONS involved parties to have presentations, one-to-one meetings and other networking activities throughout the day.
- A 2m stand/booth in the exhibition area of the conference, with a logo/drawing having relevant information for the participants.
- A Facebook post at Infocom World Facebook page, with relevant info about SME Involvement activities.
- Logo printed on all conference papers, on both sides of the speech panel and on the conference schedule.
- A special invitation with our 5G-SOLUTIONS logo, to promote it to friends and partners, eventual customers, etc.
- Ability to insert promotional material into conference bags
- Ability to place 2 banners in the conference room.

Available budget up to 6,000 €.

10.3 ARES2T EVENT

10.3.1 Conference Information

- Name of the conference/workshop: IOTHINGS
- Hosts: ARES2T (event organizer Innovability)
- Location: MILAN
- Preliminary Dates¹⁹: (SPRING 2021)
- Link: <http://www.iothingsmilan.com/?lang=en>

10.3.2 General Description of the Event

Applied Research to Technologies will organize a half day conference within the IOTHINGS 2021 event in Milan that aims to gather a diverse SME and start-ups audience interested in further enhancing the development of the 5G European technology.

The company Innovability, is the organiser of the IOTHINGS, and is the leading event organizer within digital “disruptive” technology industry – such as M2M / Internet of Things, Robotics, Wearable and Wireless, managing trade shows, events, conventions and workshops that gather more than 3000 attendees. The expertise that Innovability brings in the field of IOT/M2M is essential for the diffusion of innovative technologies at both local and international level given their diverse know-how and collaborations with prestigious associations and scientific partners.

Within the IOTHINGS 2021 event it will also be organized a parallel session on 5G Italy and the 5GPP that will explore the state of the art of current 5G facilities, the roadmap for dissemination of the technology and the opportunities that it will bring for the whole ecosystem.

10.3.3 Target Audience

The target audience is represented by SMEs and start-ups that are active within the 5G technology field and are interested in developing existing or new products that can positively impact the advancement of 5G.

10.3.4 Industry Participants

Among the industry participants we will have: TIM, ENEL-X, IREN, ARES2T

10.3.5 Planned Agenda

The agenda of the event could include the following:

- Presentation of the 5G-SOLUTIONS project
- Presentation on the current development status of 5G technology
- Opportunities for SMEs within the 5G-SOLUTIONS
- Selected SMEs 5G technology related projects presentation
- Industrial and business partners meeting with the selected SMEs

10.3.6 SME Call for Ideas Promotion Method

The event will be promoted through social media channels, as well as through the websites of ARES2T and IOTHINGS.

10.3.7 Planned Outcome Evaluation

The metrics taken into consideration are the following:

¹⁹ The 2021 Spring slot has already been planned by Ares2t to hold the Event inside the IOTHINGS conference that will take place April 2021 in Milan.

- Number of Experiment submission during the Call for Ideas,
- Number of Registered participants via Innovability Subscription form
- Number of Participants to the Event
- Number of Selected Ideas presented for experimentation
- Number of one-to-one meetings with 5G-SOLUTIONS Consortium members

10.3.8 Budget for Possible Sponsorship.

Available budget up to 6000 euros.

10.4 EBOS Event

10.4.1 Conference Information

- Name of the conference/workshop: Information and Communication Technology Conference & Exhibition.
- Hosts: IMH²⁰
- Location: Nicosia, Cyprus
- Preliminary Dates: This is a yearly event organized usually in June. So, we are targeting June 2021.
- Link: <https://www.imhbusiness.com/en/9th-information-communication-and-technology-conference-exhibition>

10.4.2 General Description of the Event

The organiser of this event is IMH Cyprus. IMH is the largest business knowledge and information transfer organisation in Cyprus. Its services include the coordination and running of conferences, seminars and commercial exhibitions, specialist business media publishing and human resources consulting.

The Information and Communication Technology (ICT) industry, a key element of the fourth industrial revolution; has evolved greatly over the last century and has managed to remove geographical boundaries in communication. Communication is key in every relationship and given that the industry's technological infrastructure affects the culture, efficiency, relationships and functions of businesses, it is imperative that businesses be up-to-date with the trends and innovations of their time. Thus, the 9th ICT Conference and Exhibition will present all the services, products and ICT solutions available to the Cypriot market today.

At its 9th edition, the Information and Communication Technology Conference & Exhibition remains the leading industry event in Cyprus aiming to gather together all industry stakeholders – including, businesses, multinationals, professionals, government and academia – to discuss recent trends and developments in the field, as well as the challenges facing the ICT industry globally and locally. By inviting visionary leaders to present the latest cutting-edge global trends, the event seeks to break the barriers and cultivate higher aspirations at all levels. The 9th Information and Communication Technology Conference & Exhibition aspires to promote a more sustainable entrepreneurship environment in Cyprus to help drive innovation and attract more investment.

10.4.3 Target Audience

The conference is addressed to professionals and more specifically senior executives from the following:

- Businesses
- Stores and Department Stores
- Supermarkets
- Clinics and Hospitals
- Banks and other financial institutions
- Accounting/audit/tax firms
- Law firms
- Insurance companies
- IT and ICT companies
- Relevant governmental bodies and associations

10.4.4 Industry Participants

N/A at the moment. It will be finalised by March 2021.

²⁰ www.imhbusiness.com

Usually, telecommunication and information technology related companies are participating. Here²¹ is the information about the relevant ICT event performed in June 2019 (including the agenda, participants and description of the event).

10.4.5 Planned Agenda

N/A at the moment. It will be finalised by March 2021.

10.4.6 SME Call for Ideas Promotion Method

N/A at the moment. It will be finalised by March 2021.

10.4.7 Planned Outcome Evaluation

N/A at the moment. It will be finalised by March 2021.

10.4.8 Budget for Possible Sponsorship.

Available funding up to 6000 euros.

There are 2 available options:

- 5000€ for participation as a sponsor, speaker (15 minutes) and booth (4x2m) in the exhibition area.
- 3000€ for participation as a sponsor, and booth (4x2m) in the exhibition area.

²¹ https://drive.google.com/file/d/1T6097MM_LTIOHoV_XmV-ggwd1u6Wmf6k/view

11 Annex II: Data Collection for Reporting Template

The performance of the SMEs Involvement events could be analyzed based on:

- Number of submissions during the Call for Ideas.
- Number of Registered participants via the subscription form.
- Number of Participants to the Events.
- Number of Selected Ideas presented for experimentation.

12 Annex III: Call for Ideas Framework

The business-fit between SMEs and 5G-SOLUTIONS Consortium Members will be based on up to 4 iterative **“Calls for Ideas”** in which the applying SMEs will be able to propose how their Product/Service concept can be applied, using the 5G platform made available by 5G-SOLUTIONS, to a specific vertical.

Idea proposals will be managed with periodic application campaigns with the aim to collect and evaluate best ideas to be presented in specific event to the 5G PPP community and to 5G-SOLUTIONS project members.

SME involvement will be mainly focused to interact with SMEs and Start-ups who already have a working solution and which should see 5G-SOLUTIONS more as a market opportunity and are really interested to:

- develop a competitive advantage on 5G technology applied to a specific vertical
- concrete opportunity to meet new potential customers
- increase market visibility in 5G field
- opportunities to promote their business.

Ideas and concept application will be managed via YouNoodle, “the global leader in start-up engagement, backed by a powerful technology platform and a growing network of 200,000+ start-ups, trusted partner to execute start-up and innovation programs at scale”, launching specific calls for proposals.

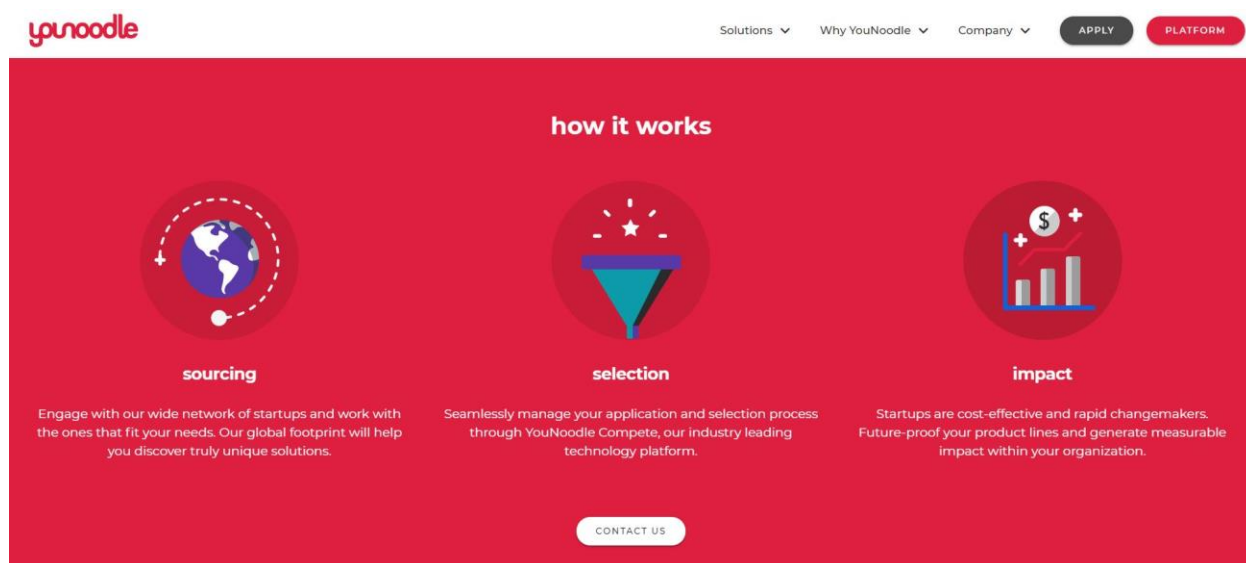


Figure 7: YouNoodle platform “how it works” page

To submit their proposals, the SMEs will have to fill in the below fields, available on the YouNoodle website.

Table 2: Call for Ideas information set

Call for Ideas	
General Information	
Legal name:	
Country:	
Market vertical:	
Number of employees:	
Address:	
Website:	

Contact Information	
Contact person:	
Email:	
Phone number:	
Idea Description	
Name:	
Brief Description (500 characters)	
Idea Presentation Upload	
Video Presentation Upload (Optional)	
Use of 5G technology (500 characters)	
Addressed Vertical	
Years of experience in your vertical	
Current status technological level	
Is your product developing existing free and open source software and hardware?	
Business Model Description (500 characters)	
Privacy consent	

Drop down list from option base responses will include:

Addressed Vertical:

- Smart Transport
- Smart Tourism
- Smart Energy
- Smart City
- Industry 4.0
- Media and Entertainment

Years of experience in your vertical:

- Less than 1 year
- 1 to 3 years
- More than 3 years

Current status technological level:

- Experimental proof of concept
- Component and/or breadboard validation in laboratory environment
- Component and/or breadboard validation in relevant environment
- System, subsystem, model or prototype demonstration in a relevant environment
- Other

Is your product developing existing free and open source software and hardware?

- Yes
- No

Privacy Consent:

- Yes
- No