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5G Agile and flexible integration of Satellite And cellular (5G-ALLSTAR)

Deliverable D6.1

Dissemination plan and project website

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Editor(s):	Stephan Jaeckel (FhG-HHI)
Authors:	Stephan Jaeckel (FhG-HHI), You-Jun Choi (KATECH), Nicolas Cassiau (CEA), Leszek Raschkowski (FhG-HHI), Antonio Pietrabissa, Francesco Delli Priscoli, Federico Lisi, Antonio Ornatelli (CRAT), Emilio Calvanese Strinati (CEA)
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Abstract

This deliverable has been created as part of the work in the project Work Package (WP) 6 “Promotion”, and reports in detail the dissemination activities planned by the 5G-ALLSTAR consortium during course of the project.

Keywords

Dissemination, Publication, Exploitation, Standardization, Regulation.

Executive Summary

This deliverable presents the dissemination activities planned for all the duration of the 5G-ALLSTAR project. This deliverable has as first intent to prepare and plan effective communications in line with the project objectives. Moreover, due to the joint Korean-European framework, this deliverable is intended also to overcome potential cultural mismatch by jointly brainstorming and formalizing the target communication activities and the related target audiences. As this is a public document, this deliverable is also an important mean for the project to disseminate the 5G-ALLSTAR vision and achievements. The 5G-ALLSTAR accomplishments will be extensively disseminated towards different organizations such as research communities, stakeholders, industry, and regulatory bodies, as well as to other funded projects. In particular, the 5G ALLSTAR consortium will identify projects in the 5GPPP family in order to create visibility to the project and to spread the knowledge and results in the context of 5G wireless communication networks.

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List of Abbreviations

3GPP	3 rd Generation Partnership Project
5GPPP	5G Infrastructure Public Private Partnership
KPI	Key Performance Indicator
MAC	Medium Access Control
NR	New Radio
PMT	Project Management Team

PoC	Proof of Concept
QoS	Quality of Service
RAN	Radio Access Network
SA	System Architecture
SI	Study Item
V2X	Vehicle-to-Everything
WP	Work Package

1 Introduction

5G-ALLSTAR will dedicate part of its activities to spread the knowledge and achievements obtained by the project and make it available to the European and Korean research community. Emphasis will be put on joint European/Korean dissemination activities to best-in-class conferences, journals and other suitable events. The dissemination strategy will be supported through broad-scale open access publishing and self-archiving through the project website. The website will be available at least three years after the project lifetime (i.e., beyond the year 2023). The dissemination of 5G-ALLSTAR results is planned thoroughly to achieve a significant impact in the whole world.

This deliverable D6.1 “Dissemination Plan and project website” provides a coherent and comprehensive description of the dissemination and exploitation activities planned by the 5G-ALLSTAR consortium during the course of the project. The present document outlines the strategy and planned actions of the 5G-ALLSTAR consortium in order to

- contribute to key and best-in-class conferences and journal papers,
- organize and contribute to workshops, conference tracks, tutorials, special sessions, summer/winter schools and other dissemination events,
- contribute to key exhibitions and
- influence media perception of 5G satellite technology.

5G-ALLSTAR partners are committed to produce best-in-class technical results and to provide thought leadership in the field of 5G technology and its further evolution. Key international scientific conferences and high-profile journal papers are identified within this document as candidates for contributions by the 5G-ALLSTAR consortium. The objective is to exploit cross European/Korean synergies in order to maximize the visibility and impact in the scientific community and beyond.

Beyond contributing to scientific conference through paper presentations, the 5G-ALLSTAR consortium will furthermore organize workshops, conference tracks, tutorials, special sessions and other dissemination events.

Finally, the consortium interacts with media representatives in order to disseminate results beyond the scientific and industrial community. The objective is to educate the public on the potential of 5G technology and to facilitate the acceptance of this technology leap.

2 Planned dissemination activities

The dissemination plan designed for 5G-ALLSTAR is described in detail in this chapter. The dissemination activities planned for the 5G-ALLSTAR project are thought for reaching the highest possible audience for spreading the 5G-ALLSTAR results and knowledge. The information about the project can be disseminated in two ways:

- *Internal dissemination:* The cooperation and communication among WPs is an essential part of a project. In fact, the 5G-ALLSTAR project is structured to create the right communication among the WPs and the main *intra*-project results will be shared with all the involved partners, enabling active discussions for improving and reaching always better results.
- *External dissemination:* The consortium will be active in participating in the most important international private and public events, conferences, exhibitions, international venue and workshops. For the external dissemination, the website will be available from the beginning of the project and a social profile will be created, with the objective of effectively reaching the interested audience

For sake of the clarity, the dissemination activities will be reported in a more structured way by clustering them in consistent sections.

2.1 Internal dissemination

The 5G-ALLSTAR research project is composed of 10 partners distributed over 2 continents. All the activities will run and will be aligned in an efficient way, aimed at executing the complex and different technical tasks composing the project. In order to accomplish these objectives, a set of intercontinental conference calls will be set-up and a set of actions has been already put in place, as is described in the following paragraphs.

2.1.1 Repository server: 5G-ALLSTAR members-only access

All the information such as important documents, deliverables, software, publications, research activities, obtained results, project data, meeting organization, conference calls and related minutes, and dissemination activities performed, will be shared in an internal and members-only access repository created for the project. The main scope of such a repository is to make the main content of all WPs available to all the authorized members and also to monitor the status of all the on-going parallel activities. Each member of the project will have its own private account and all the published content authored by the project members will be stored to take trace of the members activities. The repository will be organized in folders, each one strictly dedicated to a WP, and managerial aspects for a smooth and easy comprehension. For this reason, since the beginning of the project, a 5G-ALLSTAR members-only, access-restricted repository is available, as shown in Figure 2-1.

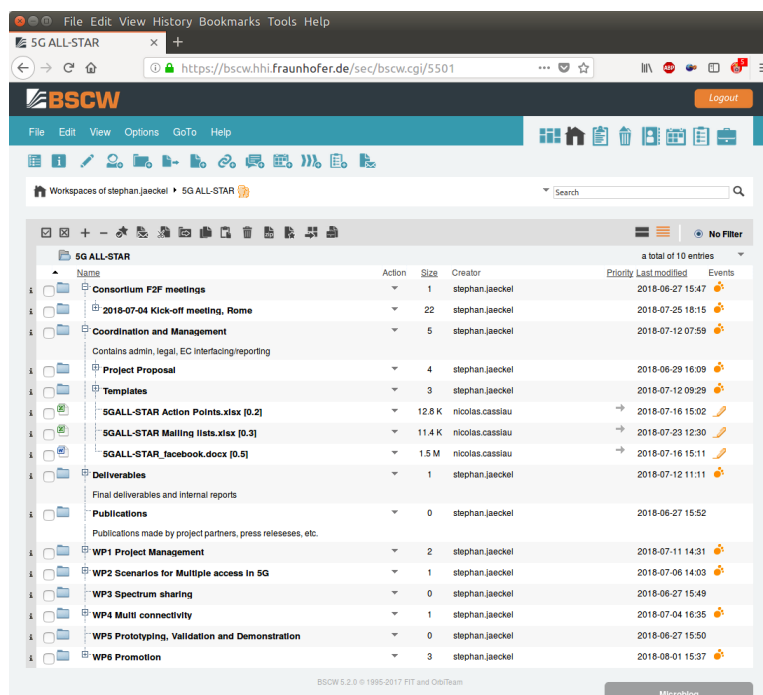


Figure 2-1: Access restricted repository

2.1.2 Distribution lists and internal communications

In order to foster the communication among WPs and partners involved in the project, a set of mailing list has been created. A dedicated mailing list for each WP will be used for reporting the status of the WP, arranging conference calls, open discussions for important issues and main results, sharing deliverable drafts during the writing activities. Each mailing list dedicated to a WP includes a selected subset of the whole consortium.

Each WP leader will also organize calls among the WP participants, either bi-weekly or monthly (depending on the WP status) to organize the work and to monitor the status of both technical and non-technical aspects. The activities and main information that involve all the participants of the project will be made available by means of with a dedicated mailing list which contains all the consortium members. The call minutes will be stored in a dedicated folder in the private part of the 5G-ALLSTAR website.

Finally, monthly calls, including all the project partners will be organized for exchanging the most important information. This will provide a further opportunity for each partner to express ideas, new technical aspects to be investigated, questions and proposals. The calls are held in a very open and collaborative mood. Even in this case, all the discussions addressed in the open calls will be stored in reporting documents.

Table 2-1: Project internal distribution lists

Scope	Address
Management	5g-allstar-management@5g-allstar.eu
WP1	5g-allstar-wp1@5g-allstar.eu
WP2	5g-allstar-wp2@5g-allstar.eu
WP3	5g-allstar-wp3@5g-allstar.eu
WP4	5g-allstar-wp4@5g-allstar.eu
WP5	5g-allstar-wp5@5g-allstar.eu
WP6	5g-allstar-wp6@5g-allstar.eu
Whole Consortium	5g-allstar-all@5g-allstar.eu

2.2 External dissemination

This Section presents the main vision about communication and dissemination activities to promote the main results of the 5G-ALLSTAR project. In particular, the 5G-ALLSTAR consortium will disseminate the main achievements and concepts regarding the use of satellite technologies in 5G.

The overall efficiency and impact for communication activities of the 5G-ALLSTAR project will be maximized through a coordinated approach. Emphasis will be laid on joint European/Korean communication activities, including in particular joint contributions to best-in-class conferences, journals, keynote speeches, talks to expert groups, fora and standardization meetings, etc. Furthermore, public show-casing of prototype platforms at key events will be used in order to provide a further emphasis on the project results. Corresponding messages will further be communicated broadly in press releases and through similar communication means.

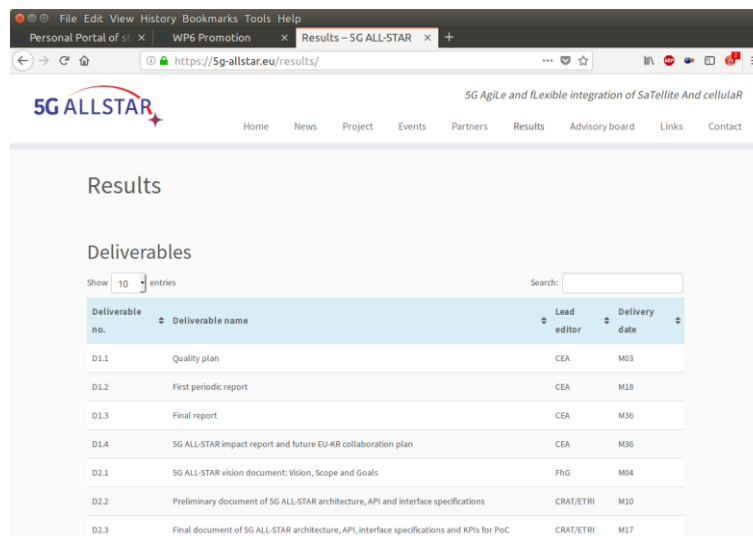
5G-ALLSTAR will take the effort from the early stages of the project to create a basic set of necessary presentation materials targeted for various audience types: a dissemination package will be used as the core communication measure to promote the project to different organizations and fora. The project logo, website, newsletters, poster and leaflets will be designed during the first 3 months of the project and will be used by all partners of the project consortium during the whole project duration. Table 2-2 summarizes the main communication measures.

Table 2-2: Summary of the main communication measures

Project website	5G-ALLSTAR will share its concepts, results and achievements to the audience through its dedicated project website, which will be designed, set up, operated and maintained using state-of-the-art tools and platforms. The website will be the primary tool of communication and promotion of the project to distribute all the information to be shared among the project partners and to the public. Moreover, the website will be tailored to be user friendly and meet all audience types and their needs, offering an easy and quick access to the different areas of website.
Press releases, poster, and leaflets	5G-ALLSTAR will prepare and distribute project posters, press releases and leaflets on the project concept and objectives to a broad audience to raise wide public awareness.
Video	5G-ALLSTAR will work on the creation of a video to present the proposed network scenarios and their capabilities towards the public.
Networks and societies	5G-ALLSTAR partners will exploit their involvement in various communities at national and international level in order to promote the project concept and objectives (e.g., the European Technology Platform NetWorld2020).
Exhibitions, conferences	5G-ALLSTAR partners will use their participation to the most popular conferences (e.g., EUCNC, ICC, Globecom, PIMRC), exhibitions worldwide (Mobile World Summit, further events in Korea and Asia are under consideration, 5G global event, other relevant dedicated 5G event) in order to communicate the progress of the project, during the lifetime of the project.
Industry events	5G-ALLSTAR partners will participate to industry events organized by telecom operators (including mobile network operators), with the aim to promote 5G-ALLSTAR proposed network scenarios and technologies.

2.2.1 Website

In order to obtain the broadest possible impact of the project results, it is paramount to provide a web resource with constant updates on the latest news on the advancement of the work in 5G-ALLSTAR. For that reason, a public website was set up at the beginning of the project under the domain <https://5g-allstar.eu>. One of the most important publicly available information about a research project is the list of dissemination activities, which can come in different formats, e.g. white papers and deliverables, amongst which the public ones will be freely downloadable. The website is hosted at the Fraunhofer HHI and it is planned to keep it online at least 3 years after the project end.



The screenshot shows the 5G ALLSTAR website with the 'Results' section selected. Under 'Deliverables', there is a table listing various deliverables. The table has columns for 'Deliverable no.', 'Deliverable name', 'Lead editor', and 'Delivery date'. The data is as follows:

Deliverable no.	Deliverable name	Lead editor	Delivery date
D1.1	Quality plan	CEA	M03
D1.2	First periodic report	CEA	M18
D1.3	Final report	CEA	M36
D1.4	5G ALL-STAR impact report and future EU-KR collaboration plan	CEA	M36
D2.1	5G ALL-STAR vision document: Vision, Scope and Goals	FHG	M04
D2.2	Preliminary document of 5G ALL-STAR architecture, API and interface specifications	CRAT/ETRI	M10
D2.3	Final document of 5G ALL-STAR architecture, API, interface specifications and KPIs for PoC	CRAT/ETRI	M17

Figure 2-2: 5G-ALLSTAR website - <https://5g-allstar.eu>

2.2.2 Interaction with press and media

At the 3rd year of the 5G-ALLSTAR project, Korean partners will provide a service demonstration to the public with the PoC and will publicize the service demonstration on press or media. Furthermore, Korean partners will also exhibit the 5G-ALLSTAR project technology on MWC or ITS World Congress and will publicize the technology on press or media as well.

2.2.3 Exhibitions

During the 5G-ALLSTAR project, both Korean and EU partners will devote substantial effort into developing their PoC testbeds and giving various demonstrations of their respective 5G services. Furthermore, by closely collaborating with each other, Korean and EU partners will also demonstrate various applications of the inter-continental interoperability with an integrated Korean and EU PoC testbed. The wide range of demonstrations will be showcased at a key event to reveal our technological achievements in the field of 5G, thus validating the potential and the feasibility of our new proposed technologies. This will lead to new disruptive business models, stakeholders and opportunities for entrepreneurial innovation. For example, multi-connectivity of cellular and satellite systems can support applications with highly reliable QoS, reliable communications for public safety applications, low-latency and reliable inter-continental interoperable services, etc. This will facilitate ubiquitous, reliable, seamless and broadband 5G services even in the case where users are spread across regions.

2.3 Scientific publications

Most results of the research activities carried out by the 5G-ALLSTAR project consortium will be published in conferences and international journals.

2.3.1 Scientific conferences

The 5G-ALLSTAR partners have the ambition to generate a highly visible and impacting footprint of their research outcomes in the scientific community. The main KPI that the project is using to measure this impact is in the form of publications in journals and at best-in-class conferences, as well as through speeches, tutorials, etc. Concerning scientific publications, the consortium has the target to publish at least 20 conference papers, in the most suitable venues.

While there are no conferences explicitly excluded from the consortiums publication targets list, there are a number of venues that are particularly targeted to disseminate the scientific findings of the project, which are listed below.

Table 2-3: Identified key conference candidates for contribution by 5G-ALLSTAR

Event name	Main topics
ASMS (Advanced Satellite Multimedia Systems Conference) / Signal Processing for Space Communications Workshop (SPSC)	Satellite Communications and broadcast, signal processing in space
ECC (European Control Conference)	Preliminary results about multi-connectivity, traffic steering algorithms
EUCAP (European Conference on Antennas and Propagation)	Electromagnetics, antennas and propagation
EuCNC (European Communications and Networking Conference)	Communication and networking.
European Microwave Week	Radiofrequency, electromagnetics, and antennas
ICSSC (International Conference on Satellite and Space Communications)	Satellite Communications and broadcast, signal processing in space
IEEE Antennas and Propagation International Symposium	Electromagnetics, antennas and propagation
IEEE GLOBECOM	IEEE flagship conference covering all aspects of networking and communications.
IEEE ICC (International Conference on Communications)	IEEE flagship conference covering all aspects of networking and communications.
IEEE INFOCOM	Communication and networking
IEEE VTC (Vehicular Technologies Conference)	Networking and vehicular aspects.
IEEE WCNC (Wireless Communications and Networking Conference)	New approaches in wireless communications and networking technology.
MED (Mediterranean Conference on Control and Automation)	Preliminary results about Quality of Experience Control
SPAWC (Signal Processing Advances in Wireless Communications)	Signal Processing in Wireless Communication Systems

2.3.2 Scientific journals

Contributions to scientific journals are a suitable means to disseminate mature and substantial results of the 5G-ALLSTAR consortium with great visibility in the scientific community. A list of targeted journal papers is given in Table 2-4.

Table 2-4: Identified key Journal Paper candidates for contribution by 5G-ALLSTAR.

Publication name	Main topics
EURASIP Journal on Advances in Signal Processing	Algorithms and Signal Processing approaches in general.
EURASIP Journal on Wireless Communications and Networking	General wireless and access network topics, covering PHY to System level.
IEEE Access	Communication and networking aspects.
IEEE Antenna and Wireless Propagation Letters	Electromagnetics, antennas and propagation
IEEE Communication and signal processing magazines	Communication technologies and systems in more tutorial style.
IEEE Communications letters	Communication technologies.
IEEE Communications Magazine	Communications and networking aspects.
IEEE Signal Processing Magazine	Tutorial-style articles on signal processing research and applications, as well as columns and forums on issues of interest
IEEE Transaction on Antennas and Propagation	Electromagnetics, antennas and propagation
IEEE Transactions on Control Systems Technology	Consolidated traffic steering control algorithms
IEEE Transactions on Signal Processing	Algorithms and Signal Processing approaches in general.
IEEE Vehicular Technology Magazine	Networking and vehicular aspects.
IEEE Wireless Transactions	Communication technologies – scientific evaluation of approaches and techniques.

2.3.3 Organized workshops, special sessions and panels

The 5G-ALLSTAR consortium targets to actively disseminate at international conferences, international workshops, EU commission specific events (see for instance EUCNC, ICT days, joint Europe-Korea dedicated workshops, etc.) not only through dissemination of scientific publications, but also through the organization (when possible jointly with other H2020 and Korean projects) of workshops, special sessions, industrial seminars and panels at international top ranked conferences, fairs and events.

The main intention is to disseminate the project vision and results at large, targeting different audiences from academia and research to, industry and vertical markets operators, to institutional, policy makers and standardization bodies. More specifically, starting from the second year, at least one workshop, exhibition or panel per year will be organized (jointly with other H2020 and Korean projects or EU commission or IITP if possible). The main goal of such events is twofold. First, the goal is to exchange with targeted audiences on 5G-ALLSTAR vision, results and achievements by presenting and showing project results also (when possible) with the

support of demos, and exchange ideas not only with other projects, but also with the relevant industrial stakeholders. Second, to create an ecosystem of potential audience for future exploitations of project results.

The project has already scheduled its first actions in this direction in the first year of the project:

- Demo days ITU - **July 2018, Geneva**: presentation of past (5GCHAMPION) and future (5G-ALLSTAR) EU-KR collaborations. The workshop was focused on the 5G proof of concept and demonstration.
- The 3rd Korea-EU Joint Calls Conference 2018 – **October 2018, Seoul**:
 - Invited talk: 5G-ALLSTAR project presentation and its contribution to 5G technologies.
 - Invited talk: 5G Technological Issues.
 - Pannel discussion participation on “In the Era of 4th Industrial Revolution, International Research for Global Advancement”
- IEEE DySPAN 2018 – **October 2018, Seoul**: Two 5G-ALLSTAR members will participate the panel discussion “Dynamic Spectrum Management: the 5G Verticals view.” The 5G-ALLSTAR speakers at the panel will deliver a short presentation on spectrum sharing issues and possible solutions for the context of 5G verticals industries which might benefit from 5G cellular-satellite integration. The panel discussion will be followed focusing on diverse spectrum sharing topics. It will be a good opportunity to the 5G-ALLSTAR experiences and activities especially in WP3.
- ICT Days 2018, **December 2019, Wien**: Co-organization of a networking session entitled “Europe, Japan and Korea collaboration, an opportunity for world-leading research”. 5G-ALLSTAR consortium would participate as a co-organizer but also with speakers.
- IEEE Globecom 2018, **December 2018, Abu Dhabi**: Industrial Seminar on 5G Cloudification and Beyond. This industrial seminar will be delivered by Dr. Emilio Calvanese Strinati. The seminar will present the fundamental issues of 5G connectivity (including satellite links) for edge and hybrid cloud assisted vertical services.

Participation to other major events taking place in 2019 are under discussion in the 5G-ALLSTAR consortium. For the moment, the consortium is targeting the joint organization of a workshop to IEEE WCNC 2019 conference on 5G and Beyond Technology jointly with the H2020 5GCarmen project and the organization of an industrial panel and a workshop at the IEEE Globecom 2019 conference.

2.3.4 Education – teaching, tutorials, workshops, etc.

The teaching activities within the various universities involved in 5G-ALLSTAR project will be exploited to make students and other interested people sensitive in the 5G-ALLSTAR topics and main objectives. Specifically, the research group of the consortium CRAT working in 5G-ALLSTAR mainly belongs to the Department of Computer, Control and Management Engineering of the University of Rome Sapienza – which is a CRAT member. A number of seminars and workshops will be scheduled and organized in the above-mentioned department within the annual university course “Control Communication and Energy Networks”, held by the Prof. F. Delli Priscoli. The main objectives of the course are perfectly in line with the main objectives of WP4, since it aims at applying control algorithms and techniques to cope with network problems in specific network technologies and it also introduces the problems of routing, cloud management and QoE/QoS evaluation and control. In this respect, the seminars will be strictly dedicated to present the research activities carried out in WP4 concerning the algorithms and techniques

able to solve the problems of QoS and Traffic Steering designed and developed in 5G-ALLSTAR. The objective is to foster the interest in developing thesis and minor projects in the field of 5G networks and, in general, in network control. The seminars will be presented by the CRAT researchers involved in 5G-ALLSTAR project.

Educational training and provision of new skill sets to industry experts and researchers are among the top priorities of the project. These objectives will be achieved through suitable invited talks in the academic community, in research institutes, through the organization of workshops, special sessions and webinars on selected topics. Pedagogical case studies will be developed to facilitate comprehension of both the theory and practice behind the entrepreneurship and management related to emerging technologies.

The 5G-ALLSTAR consortium will target at conducting or contributing to webinars. Broad EU industrial and research community, among existing relevant contacts of the 5G-ALLSTAR consortium partners, and among community attending 5GPPP concertation meetings will be invited to those webinars. Invitations will be also published in the 5G-ALLSTAR website and in the newsletter. More specifically, webinars will be organized after the first year, having the objective to present the project results. The content of webinars and dates will be published through the project portal and via social media linked to the project.

2.4 Standardization activities

The 3rd Generation Partnership Project (3GPP) has recently developed a 5G New Radio (NR) specification in its release 15. In addition, it is planning to further improve its features in the following releases, as seen in Figure 2-3. The 5G-ALLSTAR consortium partners already contributed a lot to the many standardization issues in 3GPP Radio Access Network (RAN) and System Architecture (SA) working groups. As a continuation of such efforts, the 5G-ALLSTAR partners will keep contributing in the further 5G NR evolution in releases 16 and 17.

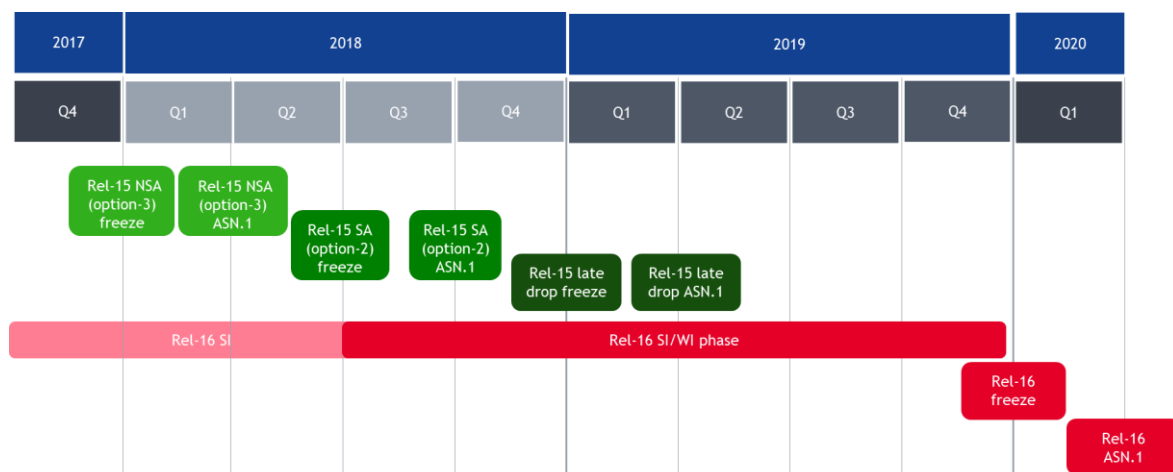


Figure 2-3: 3GPP 5G NR timeline for Releases 16

In the 3GPP RAN#80 plenary meeting, several new study and work items were approved, as seen in Figure 2-4. Some of them are closely related to the research in the 5G-ALLSTAR project, as follows:

- NR V2X SI: This study item targets standardization of 5G NR in the area of vehicle applications. Identified use cases are vehicles platooning, extended sensors, advanced driving, and remote driving, and so on. Corresponding SI objectives includes sidelink design, Uu enhancements for advanced V2X use cases, Uu-based sidelink resource allocation/configuration, RAT/Interface selection for operation, QoS management, and Coexistence. This study item will be led by RAN1, RAN2, and RAN3. The 5G-ALLSTAR

project also targets to support vehicle communications via cellular and satellite 5G NR links. Hence, the project results will be helpful in the NR V2X study and specification development.

- NR Non-Terrestrial SI: The scope of this study item is to identify solutions for physical layer control, random access, retransmission schemes from RAN1 perspective, and to study MAC, RLC, RRC, handover impacts from RAN2 and RAN3 perspective. Since satellite support is the main research topic of 5G-ALLSTAR project, many contributions are expected to this study item. In addition, the study item results will be used for the design of PoC development of the project.

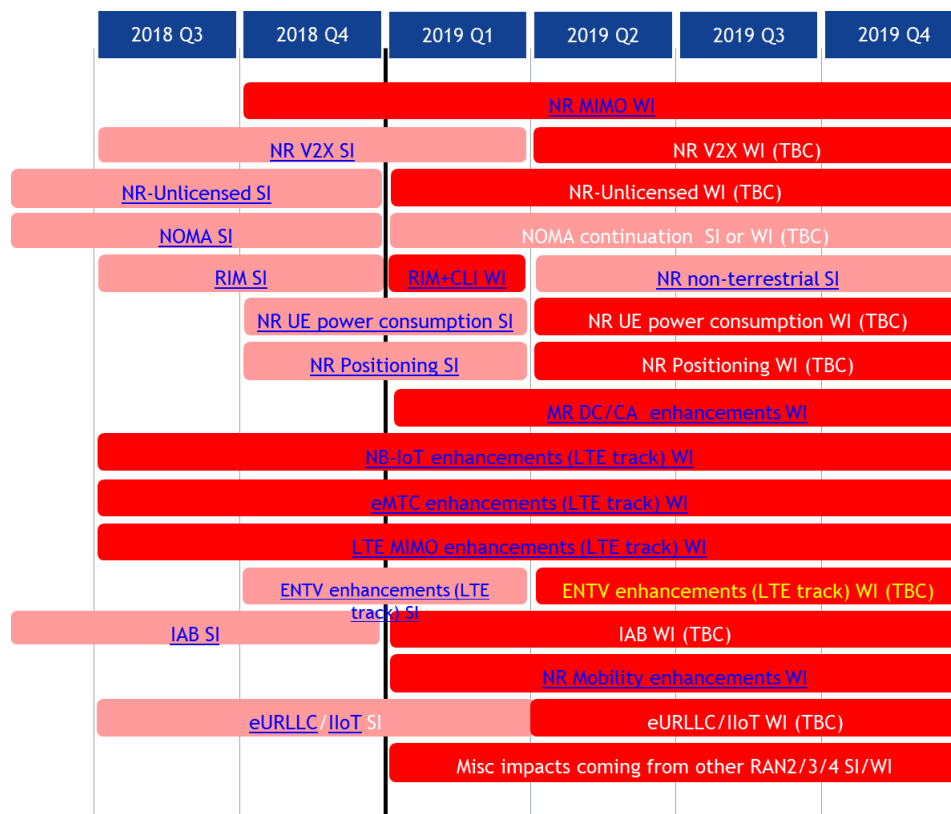


Figure 2-4: 3GPP Study and work items in release 16

3 Cross Korean / European collaboration benefits

5G-ALLSTAR started in July 2018, few months ago, but already bilateral benefits of Korean-European collaboration are clear for 5G-ALLSTAR partners, Korean and European ecosystems. In a global scale, the worldwide 5G community already benefits from active 5G-ALLSTAR dissemination activities. At this stage of the project, we experience the benefit of **jointly validating potentials of on 5G** key enabling technologies 5G-ALLSTAR. Benefits are:

- **Korean and European consortium members** will put substantial emphasis on the integration framework, aiming at the integration of various potential access networks (e.g., satellite access, cellular access based on 5G NR or 4G) under a common core network for 5G, as well as the integration of different access networks across regions. This creates momentum for strengthening the cooperation between Europe and Korea for **future research projects** not only at the consortium scale but also between Korean and European future collaborations frameworks under discussion. Today, 5G partners experience that joining forces in such unique collaborative ecosystem give them an edge in the attempt to get ahead of the game in developing ultra-fast 5G wireless communications networks and preparing global standardization for it.
- **Industry, service providers and operators**, which will enable practical feedback to improve reliability and performance of the newly developed products and related services from both Europe and Korean market players. Moreover, working together towards global standards for 5G, in support of ongoing standardization in relevant fora, such as 3GPP and ITU and indeed developing common interest in research activities and products ensuring global 5G interoperability. Specifically from satellite perspective and related service provisioning, multi-connectivity of cellular and satellite systems can support applications with highly reliable QoS, reliable communications for public safety applications, low-latency and reliable inter-continental interoperable services, etc.
- **5G global community**, which benefits from a very vivid and active dissemination activity from 5G-ALLSTAR. Europe, Korea and in a global scale many other countries in the world have demonstrated strong interest in the 5G-ALLSTAR project. For instance, 5G-ALLSTAR has already today, few months after its start, a large community that follows actively 5G-ALLSTAR news and achievements. Today the 5G-ALLSTAR LinkedIn group accounts for about 350 members.

4 Liaison with other H2020 projects

4.1 5GCHAMPION

The feasibility of operating NR radio protocol via satellite has been initiated in H2020 5GCHAMPION and will be further developed and demonstrated in 5G-ALLSTAR with on orbit satellite as part of the project. ETRI and CEA past experience in joint 5GCHAMPION coordination is a strong baseline for 5G-ALLSTAR which is actually the results of 5GCHAMPION planning of future collaborations. Jointly CEA and ETRI will work on improving the impact plan and create new business opportunities through the preparation of joint collaboration activity reports and selected exchanges.

From 2016-06-01 to 2018-06-30

Project Coordinator: Dr Emilio Calvanese Strinati, CEA-Leti and Dr. Hyun Kyu Chung, ETRI

4.2 5G-MEDIA

5G-MEDIA aims at innovating media-related applications by investigating how these applications and the underlying 5G network should be coupled and interwork to the benefit of both. In this respect, 5G-MEDIA addresses the objectives of

- 1) capitalizing and properly extending the valuable outcomes of the running 5GPPP projects to offer an agile programming, verification and orchestration platform for services, and
- 2) developing network functions and applications to be demonstrated in large-scale deployments, based on 3 well-defined use cases (in the areas of immersive media and VR, smart production and user-generated content, and UHD over CDN) of diverse requirements and particular interest for the consortium partners.

From 2017-06-01 to 2019-11-30

Project Coordinator: Engineering Ingegneria Informatica 5g-media-contact@5g-ppp.eu

4.3 SLICENET

"5G network providers are keen to offer "networks as a service" where logical network slices are created and allocated to use cases flexibly and efficiently in a multi-operator environment. SliceNet will create and demonstrate the tools and mechanisms to achieve this ambition. Specifically, SliceNet will design, prototype and demonstrate an innovative, verticals-oriented, QoE-driven 5G network-slicing framework. It will use cognitive network management, control and orchestration techniques for the provision and operation of end-to-end slicing across multi-operator domains in 5G networks". (source:<https://www.fabiodisconzi.com/open-h2020/projects/211081/index.html>)

From 2017-06-01 to 2020-05-31

Contact SliceNet Project by e-mail: contact@licenet.eu

Project Coordinators: Maria Barros, Eurescom GmbH, Anastasius Gavras, Eurescom GmbH

4.4 Sat5G

The project vision is to develop a cost effective "plug and play" satcom solution for 5G to enable telcos and network vendors to accelerate 5G deployment across all geographies and at the same time create new and growing market opportunities for satcom industry stakeholders.

The six principal project objectives are:

- Leverage relevant on going 5G and satellite research activities to assess and define solutions integrating satellite into the 5G network architecture;

- Develop the commercial value propositions for satellite based network solutions for 5G;
- Define and develop key technical enablers for the identified research challenges;
- Validate key technical enablers in a lab test environment;
- Demonstrate selected features and use cases;
- Contribute to the standardisation at 3rd Generation Partnership Project (3GPP) and European Telecommunications Standards Institute (ETSI) of the features enabling the integration of sitcom solutions in 5G.

To contact us please send an email to info@sat5g-project.eu.

Start date: June 2017 + 30M

Technical Manager: Nicolas Chuberre – Thales Alenia Space France

4.5 SPEED5G

SPEED-5G is a 5GPPP project, which aims at achieving a significantly better exploitation of heterogeneous wireless technologies. To complete the mentioned goal, SPEED-5G will develop new techniques for optimizing spectrum utilization. As a result, SPEED-5G will provide solutions answering the request for a thousand-fold increase in mobile traffic volume over a decade and for efficiently supporting very different classes of traffic and services.

The project started on 1 July 2015 and will run until 30 June 2018. It has been performed by a consortium of ten organisations, led by University of Surrey, UK.

Project Coordinator: Klaus Moessner, University of Surrey, email: k.moessner@surrey.ac.uk

4.6 5G-EVE

"We are at the "eve" of a fundamental transition in 5G, and the aspiration of 5G-EVE is to create the foundations for a pervasive roll-out of end-to-end 5G networks in Europe. 5G-EVE supports this fundamental transition by offering to vertical industries and to all 5GPPP Phase3 projects facilities to validate their network KPIs and their services. Important representatives of these vertical industries are directly involved as partners of 5G-EVE exactly to influence the design of the end-to-end 5G services, and to provide an early assessment. The 5G-EVE end-to-end facility consists of the interconnection of four 5G-site-facilities (France, Spain, Italy, Greece), which have been selected because of their considerable previous work with vertical industries and standardization bodies, on top of their 5G technology competences. 5G-EVE aims at creating synergies between a significant number of facilities that will ensure sustainability and impact in terms of exploitation.

The 5G-EVE facility will enable experiments with:

- *heterogeneous access, including NR, licensed/unlicensed spectrum, advanced spectrum management;*
- *Mobile Edge Computing, backhaul, core/service technologies;*
- *means for site-interworking and multi-site/domain/technology slicing/orchestration.*

5G-EVE will be initially compliant with 3GPP Rel. 15 and, later on, with Rel. 16.

Industrial verticals will be facilitated in the specification/analysis of experiments through:

- *intent-based, and other high-level, interfaces;*
- *means for advanced 5G testing, (i.e., for KPI analysis, technology bench-marking, performance diagnosis: a VNF pool, including open source and proprietary, radio/network/service, components will be developed and made available.)*

5G-EVE will impact standards, and has the potential and strategy for ensuring the sustainability of the facility beyond the project lifetime, therefore becoming a cornerstone of the 5GPPP programme and beyond.” (source: <https://5g-ppp.eu/5g-eve/>)

Project Coordinator: Maurizio Cecchi, TIM (Telecom Italia), email: maurizio.cecchi@telecomitalia.it

Sitoweb: <https://5g-ppp.eu/5g-eve/>

5 Conclusions

The present document is a sound basis for the 5G-ALLSTAR consortium. It introduces a clear strategy on how to address the dissemination of project results with the objective to

- Drive the 5G technology development forward and show thought leadership in the scientific, industrial and media community,
- Exploit key events to showcase the 5G-ALLSTAR consortium results, in particular proof-of-concept equipment and to thus maximize the project visibility and overall impact.

The strategy and plan outlined throughout this document in combination with the efficient cross-region collaboration between Europe and Korea is expected to manifest in the highest level of visibility and impact of the project results and outcomes.