



# Disruptive Innovations in Antennas and Propagation: the Roadmap of European Funding Agencies

#### Abstract

The workshop will provide a forum to bring the scientific and industrial community of Antennas and Propagation closer to the strategic vision of main European Research & Innovation Funding Agencies regarding the research objectives in RF technology.

## Workshop outline:

The interactive forum will host 4 presentations of about 30 minutes each, followed by a panel discussion.

Each talk will share with the audience the view of the corresponding Agency/Program, including main challenges related to the specific application area, envisioned research directions and possible funding instruments.

The list of confirmed speakers is:

- Piero Angeletti, Head of the Radio Frequency Payloads and Technology Division at European Space Agency ESA, "European Space Agency funding opportunities for innovations in RF technology.
- Patrick Cogez, Technical Director AENEAS, "2023 Electronic Components & Systems Strategic Research and Innovation Agenda"
- Stela Tkatchova, EIC Program Manager for Space Systems: "European Innovation Council funding opportunities for game changing innovations in 2023"
- Gergana Simenova Arida, European Research Executive Agency Program Manager, "Promoting innovation through Doctoral Networks: the Marie Skłodowska-Curie Actions"





## key speakers

Piero Angeletti received the Laurea degree (summa cum laude) in electronics engineering from the University of Ancona, Italy, in 1996, and the Ph.D. degree in electromagnetism from the University of Rome "La Sapienza," Italy, in 2010. He has 20 years of experience in RF systems engineering and technical management encompasses conceptual/architectural design, trade-offs, detailed design, production, integration and testing of satellite payloads, and active antenna systems for commercial/military telecommunications and navigation (spanning all the operating bands and set of applications) as well as for multifunction RADARs and electronic counter measure systems. He is currently a member of the Technical Staff at the European Space Research and Technology Center (ESTEC), European Space Agency, Noordwijk, The Netherlands. He is heading the Radio Frequency Payloads and Technology Division, ESA Directorate of Technology, Engineering and Quality (TEC), which is responsible for RF payloads, instruments, and relevant technologies. In particular, he oversees ESA's research and development activities related to flexible satellite payloads, RF front-ends, and on-board digital processors. He authored/coauthored over 300 technical reports, book chapters, and papers published in peer-reviewed professional journals and international conferences' proceedings. He holds several patents related to satellite payload and antenna technology. Together with Giovanni Toso, he was an Instructor of the course on "Multibeam antennas and beamforming networks," which, since 2012, has been offered at main IEEE and European microwaves, wireless, and antenna conferences, such as IEEE APS, IEEE IMS, EuMW, EuCAP, IEEE ICWITS, and ESA Internal University.

After starting his career in the French Ministry of Industry, **Dr. Patrick Cogez** joined STMicroelectronics in 1988, where he designed and implemented the Information Systems of the Crolles R&D and Manufacturing site, and was later appointed Director for Innovation and External Research for the Technology R&D of the Embedded Solutions Sector of STMicroelectronics. He is currently Technical Director of AENEAS, a not-for-profit Industrial Association representing its members in the ECS value chain and aiming at fostering Research and Innovation and creating an effective funding landscape. He is past Chair and current vice-chair of the ECS Strategic Research and Innovation Agenda.

Patrick graduated from Ecole Polytechnique and Ecole des Ponts et Chaussées in France, and holds a M.Sc. degree in Operations Research and a PhD in Industrial Engineering, both from the University of California at Berkeley. He completed an Executive MBA programme at NEOMA Business School, Paris. He co-managed three PhD theses and co-authored several articles on the management of breakthrough innovation.

**Stella Tkatchova** is the Programme Manager (PM) for space systems at the European Innovation Council (EIC). As a Programme Manager, Tkatchova brings critical insights and technology/market specific knowledge and supports SME's and start-ups to achieve breakthrough innovation.

Previously she worked as a project manager and commercialization manager in the European space industry, managing a number of projects in the telecommunications (e.g. ESA ARTES INDIGO public private partnership, GOVSATCOM, O3B) and Earth observation (e.g. Copernicus Sentinel 1 and Sentinel 3) domains. As a commercialization manager, she co-founded a company and helped several SMEs and start-ups grow in the Newspace industry. Earlier in her career, she worked at ESA's European Space and Technology Centre (ESTEC) on the EU Galileo and the



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International Space Station (ISS) programmes. She holds a PhD by the Faculty of Aerospace Engineering of TU-Delft, The Netherlands.

She has written numerous articles, books, produced webinars and podcasts on problems related to the commercialization of space technology, the Newspace economy, space debris mitigation, on-orbit servicing, active debris removal and cis-lunar exploration. Tkatchova is the founder and former editor-in-chief of the International Journal of Space Technology Management & Innovation (IJSTMI).