

9 EXECUTIVE SUMMARY**DIGITAL & COMPLEX INFORMATION**

Topic Coordinators Roberta Zambrini (IFISC, CSIC – UIB)
and Gemma Rius (IMB-CNM, CSIC)

22 CHALLENGE 1**INTELLIGENT AND SUSTAINABLE ELECTRONIC
DEVICES AND SYSTEMS**

Challenge Coordinators Joan Bausells (IMB-CNM, CSIC)
and Óscar Martínez Graullera (ITEFI, CSIC)

36 CHALLENGE 2**ADVANCED PHOTONICS**

Challenge Coordinators Miguel Cornelles Soriano (IFISC, CSIC-UIB)
and Javier Aizpurua Iriazabal (CFM, CSIC)

56 CHALLENGE 3**QUANTUM COMPUTING**

Challenge Coordinators Diego Porras (IFF, CSIC)
and David Zueco (ICMA, CSIC – UNIZAR)

76 CHALLENGE 4**CYBER-PHYSICAL SYSTEMS AND INTERNET OF THINGS**

Challenge Coordinators Rodolfo Haber (CAR, CSIC – UPM)
and Gabriela Cembrano (IRI, CSIC – UPC)

90 CHALLENGE 5**TRUST AND SECURITY IN THE DIGITAL INFORMATION**

Challenge Coordinators Luis Hernández Encinas (ITEFI, CSIC)
and Ricardo Martínez Martínez (IMB-CNM, CSIC)

110 CHALLENGE 6**OPEN SCIENCE: REPRODUCIBILITY,
TRANSPARENCY AND RELIABILITY**

Challenge Coordinators Agnès Ponsati (URICI, CSIC)
and Fernando Aguilar (IFCA, CSIC-UC)

128 CHALLENGE 7**DIGITAL HUMANITIES**

Challenge Coordinators Antonio Lafuente (IH, CSIC)
and Judith Farré (ILLA, CSIC)

146 CHALLENGE 8**DIGITAL CITIZENSHIP**

Challenge Coordinators Alberto Corsín Jiménez (ILLA, CSIC)
and Astrid Wagner (IFS, CSIC)