

Agenda

04th of May:

Graphene Basic Session +
Graphene Applied Session +
RRI Workshop

05th of May:

Workshop FLAG-ERA

06th of May:

HBP Session +
RRI workshop

KICK-OFF MEETING JTC 2019 FOLLOW-UP MEETING JTC 2017 RRI WORKSHOP

*For gathering together the FLAG-ERA funded projects, the Flagship members,
scientific experts and funding organisation's representatives*

04 – 06 May 2020

in Bucharest, Romania



JTC 2017 Funded Projects

Graphene – Basic Research

2D-SbGe	Preparation and characterization of antimony and germanium nanolayers	ES, DE, SI
CERANEA	Multifunctional Ceramic/Graphene Coatings for New Emerging Applications	HU, DE, SK
GATES	Nanoporous GrAphene membrane made without TransfEr for gas Separation	FR, ES, GR
GRANSPORT	Correlations and defects in graphene and related materials: Charge and heat transport	NL, DE, FR, SE
GraSage	Modelling of the electrical and thermal transport mechanisms in graphene nano-modified polymer compounds and fibres	NL, DE, BE, ES
H2O	Heterostructures of 2D Materials and Organic Semiconductor Nanolayers	DE, NL, SE
LaMeS	Layered Structures of Metal Sulfide	SE, DE, FR
MECHANIC	Modelling Charge and Heat Transport in 2D-materials based Composites	SE, BE, ES, IT, TR
MORE-Mxenes	Magnetically Ordered Rare Earth 2D Mxene	FR, BE, SE
MX-OSMOPED	MXene–organic semiconductor blends for high-mobility printed organic electronic devices	SI, DE, BE, FR
SIMPLANT	Synthesis of few layered transition metal dichalcogenides by ion implantation	FR, DE, BE
TopoGraph	Engineering topological superconductivity in graphene	HU, ES, NL

Graphene – Applied Research and Innovation

CO2-DETECT	Waveguide-Integrated Mid-Infrared Graphene Detectors for Optical Gas Sensor Systems	SE, DE, ES
EPIGRAPH	GRAPhene biomolecular and electrophysiological sensors integrated in an “all-in-one device” for the prediction and control of EPileptic seizures(towards a general device for most brain disorders)	SE, FR, GR
GRAFIN	GRAPhene-based Flexible neural Interfaces for the control of Neuroprosthetic devices	ES, FR, SE, TR
GRAPH-EYE	In situ, non-invasive quality control of crystalline quality of GRMs via non-linear optical properties imaging	GR, BE, UK
MELoDICA	Disclosing the potential of transition metal dichalcogenides for thermoelectric applications through nanostructuring and confinement	IT, BE, GR, RO

Human Brain Project – Basic and Applied Research

Brainsynch-Hit	The influence of directional interactions in brain networks in predicting cognitive deficits post-stroke	IT, FR, NL
CAUSALTOMICS	Causal connectomics subtending oscillatory spread and information flow in the human brain	FR, ES, RO
CORTICITY	Comparative Investigation of the Cortical Circuits in Mouse, NHP and Human	FR, DE, ES, US, RO
HIPPOPLAST	How rigid and plastic circuits contribute to hippocampal function	FR, ES, HU
MAC-Brain	Developing a Multi-scale account of Attentional Control as the constraining interface between vision and action: A cross-species investigation of relevant neural circuits in the human and macaque Brain	IT, BE, FR
SCALES	Studying Cognitive Activity at two Levels with Simultaneous depth and surface recordings	FR, RO, CH

JTC 2019 Funded Projects

Graphene – Basic Research

2DHetero	hBN/Graphene 2D Heterostructures: from scalable growth to integration	DE, BE, FR
2D-NEMS	2D-Material Heterostructure NEMS Sensors	SE, DE, ES
DeMeGRaS	Detection mechanisms in graphene radiation sensors	SE, DE, FR
DIMAG	Electrically controlled ferromagnetism in 2-dimensional semiconductors	BE, DE, FR, SI
OPERA	Nanographene for quantum technologies	FR, DE, BE
PROSPECT	PatteRned cOatings based on 2D materials benzoxazine reSin hybrids for broad range Pressure detection	BE, FR, SI, SE
SOgraphMEM	Spin Orbit functionalized GRAPhene for resistive-magnetic MEMories	ES, DE, BE, FR
TATTOOS	TunAble Twistronics : local tuning and probing of TOpOlogical edge states and Superconductivity in bilayer graphene	BE, DE, FR
To2Dox	Magnetically Ordered Rare Earth 2D Mxene	FR, BE, SE

Graphene – Applied Research and Innovation

ETMOS	Epitaxial Transition Metal dichalcogenides Onto wide bandgap hexagonal Semiconductors for advanced electronics	IT, FR, HU, SK
GO-FOR-WATER	Graphene cOmposites FOR advanced drinking WATER treatment	IT, GR, SE, TR
GRAPHAR	Graphene enabled optical phased array for LIDAR applications	IT, IL, UK
LASERGRAPH	In-situ laser fabrication of graphene electrodes and interlayers for next generation CIGS/ Perovskite solar cells	GR, BE, SI, SE
LEGOCHIP	Multifunctional Nanoporous Graphene Integration in Operational Nanophotonic Biosensor Devices	ES, IT, UK
MARGO	MAxillofacial bone Regeneration by 3D-printed laser-activated Graphene Oxide scaffolds	IT, ES, GR
PeroGaS	Solution-Processed Perovskite/Graphene Nanocomposites for Self-Powered Gas Sensors	IT, GR, IL

Human Brain Project – Basic and Applied Research

DOMINO	Development of cortical multisensory integration mechanisms at micro- and macro-scales during normal and pathophysiological conditions	NL, FR, GR, IT
HA-CTion	Hypothalamic histaminergic modulation of brain regions involved in fear memory	IT, FR, NL
MILEDI	Multiscale Modelling of Impaired LEarning in Alzheimer’s Disease and Innovative Treatments	LT, FR, IT
MoDeM	The «Motor-way» to Decision-Making: how the motor system drives cue-triggered decisions	IT, FR, NL
NeuronsReunited	Neurons reunited: data and software to reconstruct long-range projection neurons, place them in a digital reference brain with high precision, and model their interactions	NL, DE, BE, ES, IT
PrimCorNet	Layer-specific characterization and modeling of fronto-parietal dynamics in primate cortical networks	FR, DE, GR
SENSEI	Segmentation of Neurons using Standard and Super-Resolution Microscopy	IT, BE, FR
SMART BRAIN	Advanced Morphological Reconstruction of Human Brain Tissue by Multimodal Fusion of Multiscale Optical Imaging Technologies	IT, FR, NL
SoundSight	The sight of sound: how vision shapes the development of auditory inputs to the occipital cortex	NL, BE, ES