



FET through the keyhole

Future & Emerging Technologies (FET)



In this issue - November 2014

"Most technological advances in our life now come from serendipitous discoveries. That is a contraction of rocket technology and computer technology and atomic clock technology." Serge Haroche, 2012 Physics Nobel Prize.

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FET Flagship:



Welcome

The Juncker Commission started officially its mandate on 1st November, with [ten-point agenda](#) focusing on jobs and growth. Horizon 2020, the biggest EU Research and Innovation framework programme ever with nearly €80 billion of funding available over 7 years (2014 to 2020), promises more breakthroughs, discoveries and innovations by taking great ideas from the lab to the market.

In this edition, you will find some concrete examples that this is already happening in FET! We provide also an update on Work Programme 2016-17 preparation status, and information about current funding opportunities, within the FET Open call and via transnational calls supported by the FET ERA-Nets (Chist-Era & Flag-Era).

In this issue, we also focus on Italy's participation in FET, as it's currently the Italian Presidency of the Council of the EU.

Enjoy the reading and take our short survey (< 1 min) to help us improve your FET newsletter.



Top News

Nobel Prize laureates in Future and Emerging Technologies (FET)

This year's Nobel Prize laureate Prof. E. Moser is leading the FET GRIDMAP project which aims to better understand the processes used by the mammalian brain to generate and read spatial information. Prof. E. Moser is joining the prestigious list of 9 Nobel Prize laureates that chose the FET programme to collaborate with the best scientists in Europe on ambitious scientific endeavours.

[Read more...](#)



FET Work Programme 2016-2017 preparation

For the preparation of the next Work Programme (WP2016-2017) for FET under H2020, inputs from many sources are getting collected, including in particular from the FET Advisory Group. The FET WP2016-17 will cover the continuation of the FET Open scheme, the next step in the implementation of the FET Proactive initiative on High Performance Computing (HPC), the funding of new FET Proactive topics and the next step in the implementation of the two on-going FET Flagships. Here after is a short overview of the FET Advisory Group opinion delivered for the WP2016-2017 and a specific update on the 'work in progress' for the identification of potential candidate topics for FET Proactive building in particular from the outcome of the online consultation conducted earlier this year.

[Read more...](#)

FET Funding Opportunities

New in the FET Open CSA call: FET Take-Up Actions (2015)

The Future and Emerging Technologies (FET) Open Call for Coordination and Support Actions (CSA), under the Horizon 2020 WP2014-15, includes for the first time "FET Take-Up" Actions. What are these Take-Up Actions and how can you participate in the call?

[Read more...](#)

FET Open funding opportunities for Research projects

Under Horizon 2020, FET Open continues its mission to support early-stage joint science and technology research around new ideas for radically new future technologies. FET Open covers now ALL technological areas.

[Read more...](#)

Other Funding Opportunities

CHIST-ERA Call 2014 Announcement

CHIST-ERA is looking for transformative and highly multidisciplinary research projects in Information and Communication Sciences and Technologies (ICST).

[Read more...](#)



FLAG-ERA Joint Transnational Call 2015 launched

FLAG-ERA launches funding instruments in support of the Flagship initiatives on Graphene and Human Brain.

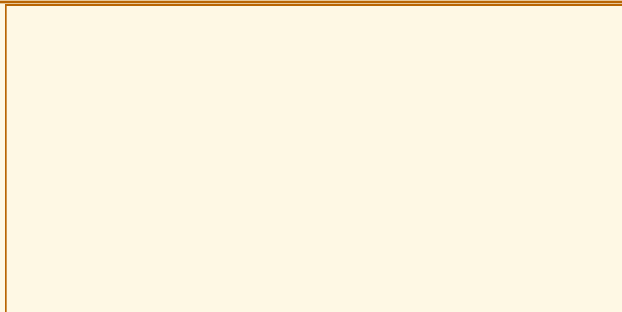
The research funding organisations gathered in FLAG-ERA kick-start their support instruments to the FET Flagships. The FLAG-ERA Consortium launches a dedicated joint call for proposals worth 18.5M EUR on 27 October 2014. Projects chosen from this call will be expected to become the first partnering projects of a flagship project.

At this occasion, FLAG-ERA published a press release.

[Read more...](#)



News video



NEBIAS: The world's most advanced bionic hand

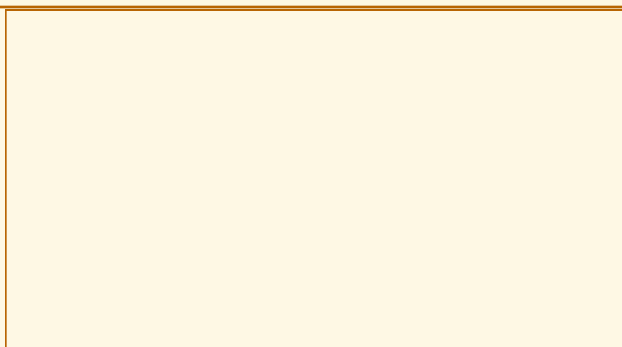
NEBIAS: The world's most advanced bionic hand

The world's most advanced bionic hand, providing a sense of touch acute enough to handle an egg, has been completed after 10 years of EU-funded research.

[Read more...](#)



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Surfing through 3D high-definition model of brain: BigBrain from EU Human Brain Project

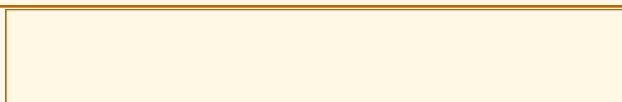
BigBrain from EU Human Brain Project : Surfing through a 3D high-definition model of the brain

Just imagine being able to surf through the brain and its 86 billion neurons - well now you can! Scientists have developed the first high-definition 3D model of a complete human brain - it is called BIG BRAIN.

[Read more...](#)



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Massive Open online course on the super-material Graphene

Chalmers University of Technology, the coordinator of the Graphene Flagship project Chalmers will launch its massive open online course on graphene. The course will be free of charge and accessible to anyone with a computer. The teacher is Jie Sun, Assistant Professor in the Quantum Device Physics Laboratory of the Department of Microtechnology and Nanoscience.

[Read more...](#)



Jie Sun, Ass Prof Quantum Device Physics Lab - Chalmers Univ. Technology Sweden

FET at conferences & workshops

Graphene in the energy sector – researchers and industrialists talk business: Energy Applications workshop

Taking stock of progress in energy applications for graphene and related materials, researchers and industrialists recently came together to listen, learn and exchange ideas. The Graphene Connect – Energy Applications workshop, which took place in Dresden from 20-21 October 2014, was organised by Europe's Graphene Flagship project.

[Read more...](#)

See also : [Graphene Flagship project](#)



ICT ART CONNECT study

Fresh new prototypes, ICT concepts and their applications in arts were shown at the BOZAR Electronic Arts Festival (BEAF), held in Brussels from 25 to 27 September.

[Read more...](#)



FET Surveys and Consultations

Feedback on FET Newsletter

Help us tailoring the contents in our newsletter to better match the emerging technologies community needs. Click the link and answer a short questionnaire taking less than a minute. The survey will be open until Dec. 15th. Thank you for your assistance and feedback!

[Read more...](#)

FET in Numbers

Italy in Focus – Overview on FET in FP7

This is a snapshot about the country participation on FET schemes in FP7, showing the number of institutions participating, the distribution of funding and number of projects among FET Open, FET Proactive and FET Flagships schemes.

[Read more...](#)

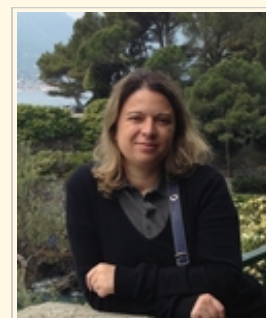


Projects' news & stories

Italy in focus: The personal experience of Michela Chiappalone

Professor Michela Chiappalone is a neuroscientist at the Department of Neuroscience and Brain Technologies, Istituto Italiano di Tecnologia (IIT). She is also the coordinator of the BRAIN BOW FET Open project aiming to connect in vitro neuronal assemblies to an artificial system for restoring the lost neuronal functionality. In this interview she tells us about her experience, as a researcher involved in a FET project.

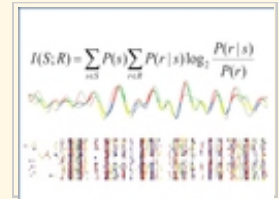
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Italy in focus: SI-CODE FET Open project

Can we crack the code used by neurons to encode and transmit information? Can we use our knowledge of the neural code to improve the communication between brain and machines? These are the questions that SI-CODE addresses, aiming to make a big leap forward in improving the understanding of the code used by neurons to transmit information with potential applications in innovative brain machine interfaces (BMIs).

[Read more...](#)



RoboSoft: A Coordination Action for Soft Robotics

Soft robotics technologies are becoming a major focus of robotics and hold great promise to become a cutting-edge for the development of systems for a wide range of new applications especially in those areas previously forbidden to rigid robots. RoboSoft is a FET Open Coordination Action that aims to bring together and consolidate the soft robotics community to enable the accumulation and sharing of crucial knowledge needed for scientific and technological progress in this field.

[Read more...](#)



Graphene Flagship welcomes first associated members

The EU-funded Polygraph project is now the first partnering project within the Graphene flagship. Polygraph oversees the development of graphene production processes within thermosetting polymer resins. Three of PolyGraph partners (NetComposites, Imerys Graphite & Carbon, Netzsch) have become associated members of the Graphene flagship. ABB, a fourth associate member, is not involved in Polygraph and will complement the Graphene flagships work on energy applications.

[Read more...](#)



See also : [Graphene Flagship Project Homepage](#)

FET Open and Proactive projects and Neuroscience

Understanding the brain and its various pathologies could benefit millions of people. At the same time, progress in neuroscience is increasingly dependent on advanced technologies. This kind of synergistic cross-disciplinarity is a hallmark of FET research.

[Read more...](#)



SceneNet FET Open project : report on the Audio-Visual Gestalt Workshop

How can multiple audio-visual sources be used to create enhanced user experience?The Audio-Visual Gestalt Workshop was held at Bremen (Germany) in September, with the participation of 34 participants from 8 countries. This workshop was a unique opportunity to present the ongoing work in European FP7 funded projects that tackle various aspects of Audio-Visual Gestalt concept.

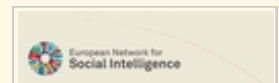
[Read more...](#)



SINTELNET: European Network for Social Intelligence

SINTELNET is a Future and Emerging Technologies Coordination Action aiming to help build a shared perspective at the intersection between philosophy, social sciences and computer science around social intelligence. In this context, the European Conference on Social Intelligence (ECSI-2014) was held in Barcelona from 3 to 5 November.

[Read more...](#)



Forthcoming Events

FET & Flagship Units related events

Upcoming 2014-2015 events

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24 - 30 November 2014 - Europe

European Robotics Week 2014 - over 300 events!

Over 300 events are scheduled to take place in 20 countries all across Europe! A new music festival? No! It's the European Robotics Week 2014.

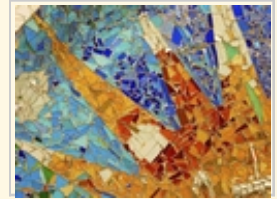
[Read more...](#)



12 - 13 March 2015 - Barcelona, Spain

ELECspin 2015: "International Workshop on Organic and Graphene ELECTronics and SPINtronics"

The International Workshop on Organic and Graphene ELECTronics and SPINtronics will focus on the design and exploitation of organic- and graphene-based electronic and spintronic devices.



[Read more...](#)

Contact : [ELECspin 2015](#)

This newsletter "FET through the keyhole" is published periodically by the FET and Flagships units, Part of the "European Commission Directorate General for Communications Networks, Content & Technology", and the FET Open unit, Part of the "Research Executive Agency of the European Commission".

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