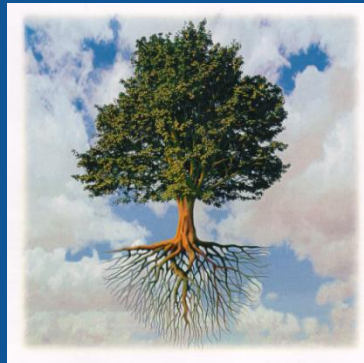




H2020

Future and Emerging Technologies (FET)

FWO-FNRS Workshop



Walter Van de Velde
Future and Emerging Technologies
European Commission

FET mission

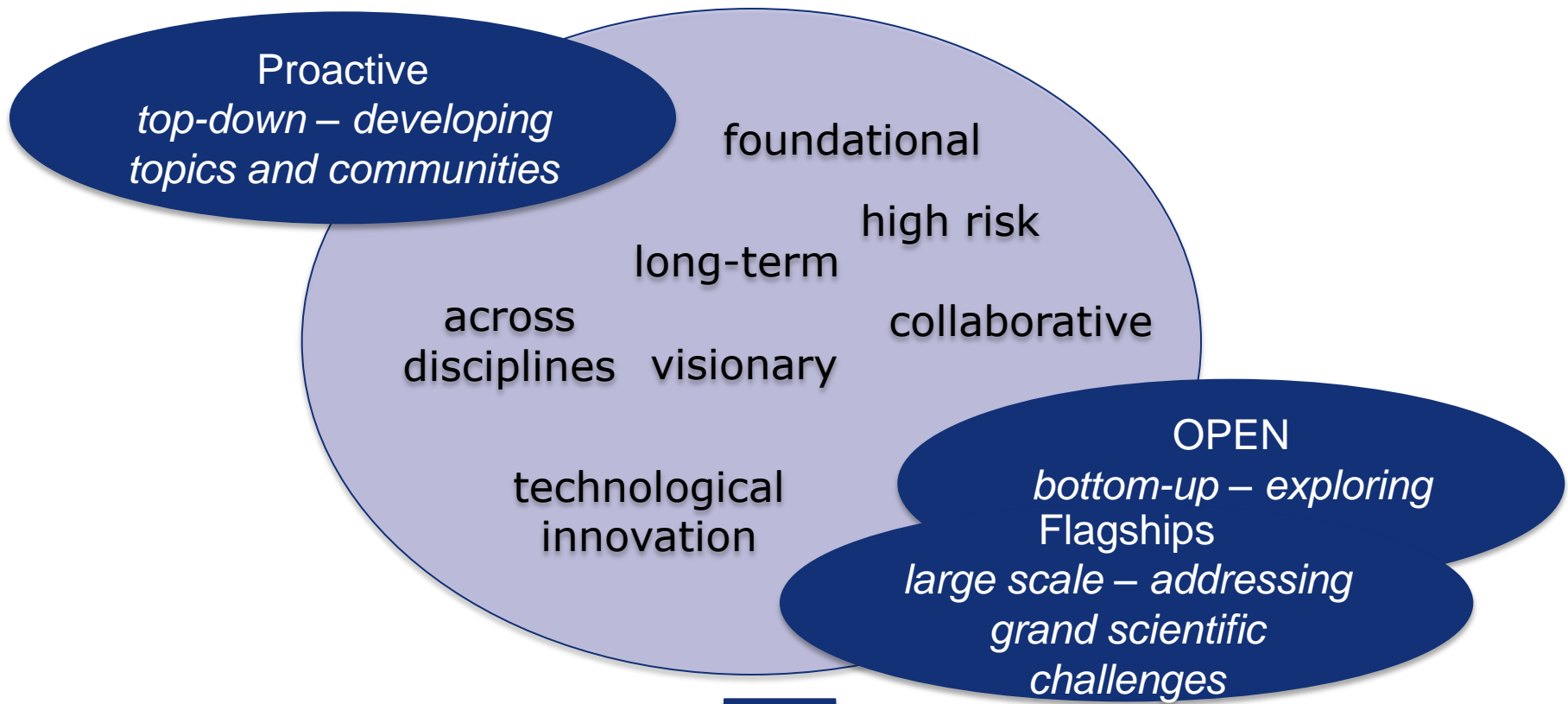


- To turn Europe's excellent science base into a competitive advantage by uncovering radically new technological possibilities
- To turn Europe into the best place for collaborative research and innovation in future and emerging technologies



About FET: from FP7 to H2020

Different initiatives with shared values



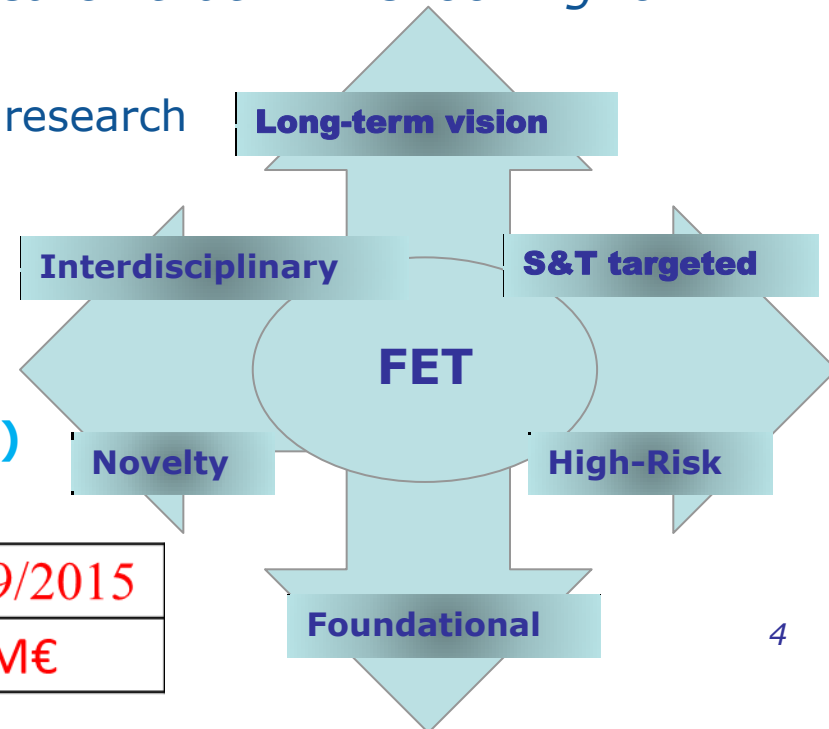
Call FET-Open : novel ideas for radically new technologies

- **'Open is open'**
 - All technologies, no thematic restriction
- *FET gatekeepers define the kind of research that FET is looking for*
 - Scope defined by the 6 gatekeepers
 - Bottom-up, but targeted - not blue sky research
 - Collaborative research

Project size: 2 to 4M€

- **1 step submission**
- **16 pages proposal (not anonymous)**

Deadlines	30/09/2014	31/03/2015	29/09/2015
Budget	77 M€	38,5 M€	38,5M€





Long-term vision: *a new, original or radical long-term vision of technology-enabled possibilities going far beyond the state of the art*

Breakthrough S&T target: *scientifically ambitious and technologically concrete breakthroughs plausibly attainable within the life-time of the project.*

Foundational: *the breakthroughs must be foundational in the sense that they can establish a basis for a new line of technology not currently anticipated.*

Novelty: *new ideas and concepts, rather than the application or incremental refinement of existing ones.*

High-risk: *the potential of a new technological direction depends on a whole range of factors that cannot be apprehended from a single disciplinary viewpoint.*

- This inherent high-risk has to be countered by a strongly interdisciplinary research approach, where needed expanding well beyond the strictly technological realm.

Interdisciplinary: *the proposed collaborations must go beyond current mainstream collaboration configurations in joint S&T research, and must aim to advance different scientific and technological disciplines together and in synergy towards a breakthrough.*

Building on FET interdisciplinary research



Restored real-time sensory feeling

biorobotic prosthesis



implant surgery

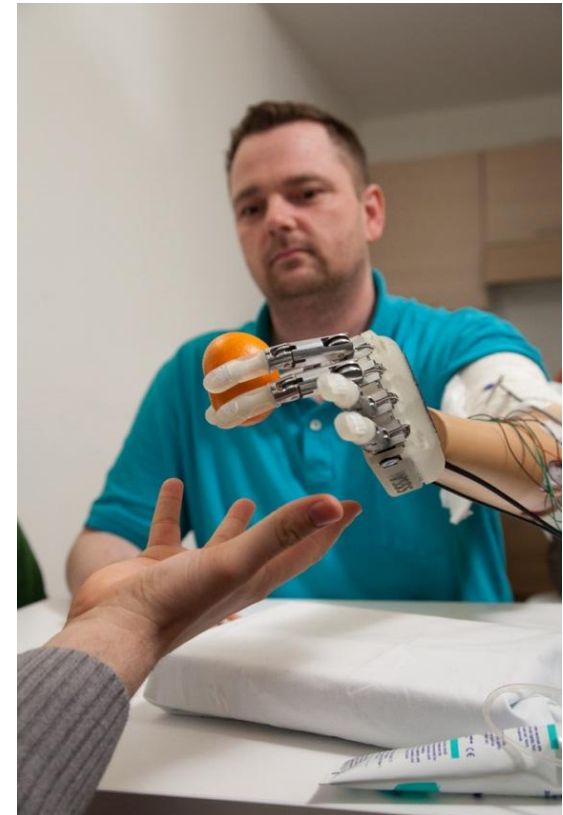
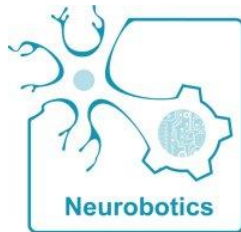


algorithms and software



clinical and neurophysical protocols

Nebias-Project.eu





European Commission

Example

From science to future technologies

Current Biology 23, 987-992, Ju



Journal of Cerebral Blood Flow & Metabolism (2011) 31, 2086-2095
© 2011 ISCBFM All rights reserved 0271-6781

Long-Term
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Bilater

Neuropsychopharmacology (2004) 29, 1573-1578
© 2004 Nature Publishing Group. All rights reserved
www.neuropsychopharmacology.com

Report

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Consolidation of Human M
D-Cycloserine

Current Biology 20, 2016-2020, November 23, 2010 ©2010 Elsevier Ltd All rights reserved
DOI 10.1016/j.cub.2010.10.007

Modulating Neuronal Activity Produces
Specific and Long-Lasting Changes
in Numerical Competence

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NEUROSTIMULATOR



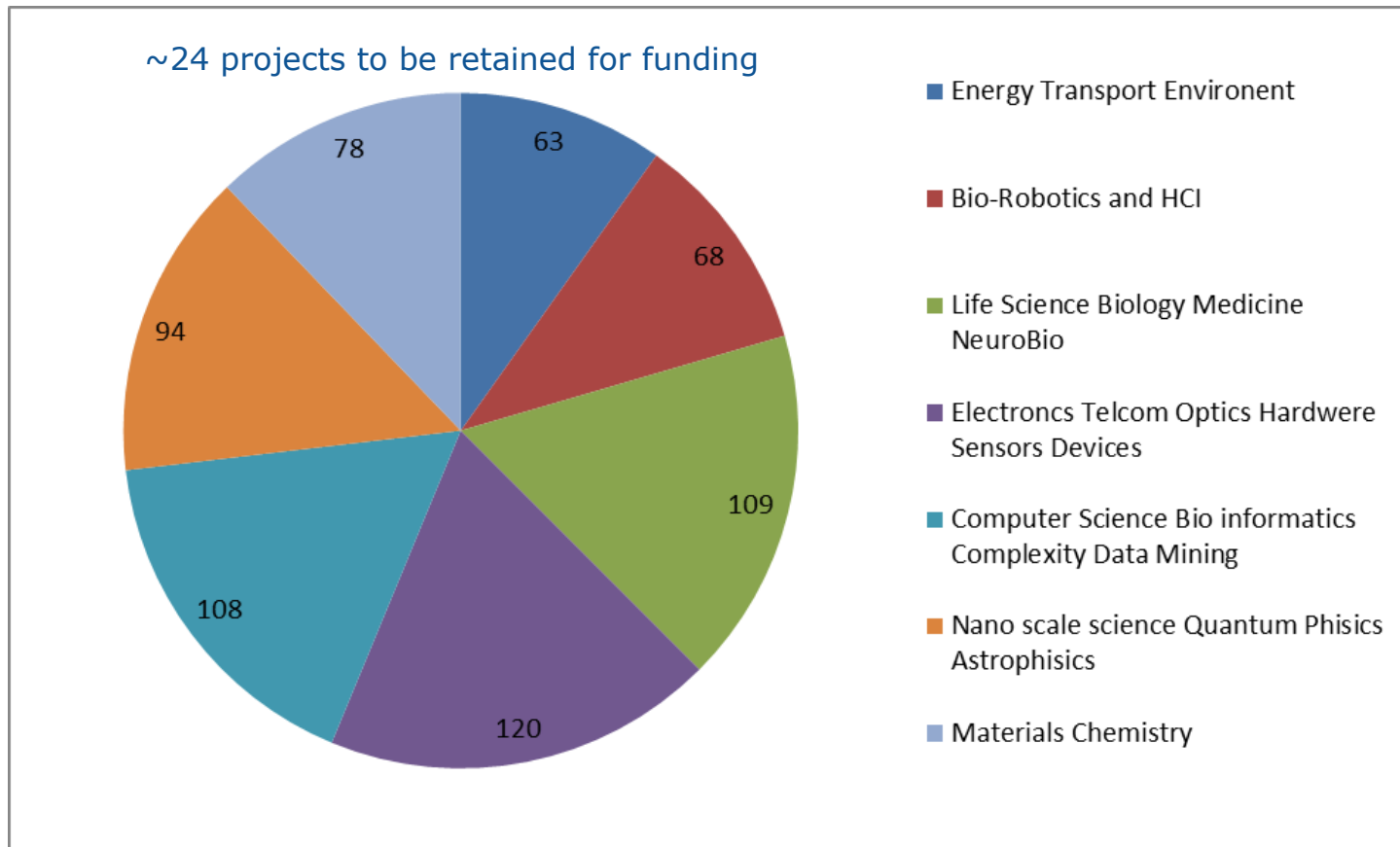
NE
neuroelectronics®

hiVE

HYPER
INTERACTION
VIABILITY
EXPERIMENTS

FET-Open RIA, first batch WP2014-15: 640 eligible proposals, 77M€

In evaluation



From now on...



- *Be ambitious, follow your 'dream' and have fun*
 - Your proposal is just a starting point
 - Don't write it for 'us', but for people like you
 - Deliver what you want or need, not what you think 'we' want
- *Consortium as embryonic ecosystem*
 - There are no hidden expectations from our side
 - No cosmetic roles – keep it simple
 - Work with the best (don't just read their books)
 - Novelty probably starts here
- *Collaborate, collaborate, collaborate...*
 - Write your proposal together
 - Collaboration driven by joint goals and mutual learning
 - Explore new ways of working/learning together
- *Communicate*
 - Scientific publications
 - Social network, active presence in the media, engage beyond scientific community

The 'FET Spirit' in 12 paradoxes



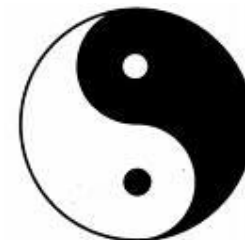
'Excellence' in EU-funded research

- Publish
- Learn
- Curiosity
- Solid methods
- Be responsible
- Work with the best
- Disciplinary focus
- Scientific excellence
- Do it for Europe
- Work hard
- Persevere
- Concrete results



'Excellence' in FET research is also...

- Influence
- Generosity
- Give
- Be a rebel
- Creative approaches
- Involve the young
- Cross boundaries
- Question excellence
- Do it for yourself
- Have fun
- Change
- Broad vision





Thank you for your attention!

FET in H2020 website:

<http://ec.europa.eu/programmes/horizon2020/en/h2020-section/future-and-emerging-technologies>

Participant portal:

<http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/index.html>

FET current Work Programme call text:

http://ec.europa.eu/research/participants/portal/doc/call/h2020/common/1587754-02_fet_wp2014-2015_en.pdf

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Twitter: @FET_EU