

"Good science is not possible without collaboration ,

Promote sustainable collaboration in plant sciences through coordinating and funding excellent transnational research

#### www.era-caps.org

"Specialists in the field are not always available locally or nationally

> "International collaboration avoids duplication of effort



### ERA-CAPS ID CARD

#### **Description:**

ERA-CAPS was initially funded by the European Commission as an ERA-NET initiative in the Seventh Framework Programme. It was established for the development and coordination of Plant Sciences in the European Research Area. The central idea of ERA-CAPS was to promote the robust development of Plant Sciences by structuring and coordinating national efforts and investment. ERA-CAPS gathers a group of 25 partners from 22 different countries that are responsible for funding or coordinating plant sciences research in their respective countries/regions.

#### ERA-CAPS was preceded by the very successful ERA-NET in Plant Genomics (ERA-PG, for information please see <u>http://www.eracaps.org/about/about-era-pg</u>).

ERA-PG ran from 2004-2009 and administered a number of joint calls that resulted in 55M EUR of funding for transnational plant genomics research, as well as producing influential reports and position papers. ERA-CAPS has carried out an evaluation of the programme and is monitoring its outcomes.

The ERA-CAPS programme is currently the only option for basic collaborative research in plant science across Europe, providing a critical mass and selected by scientific excellence.

#### **Active since:**

December 1, 2011

#### **Objectives:**

- To foster the development and coordination of Plant Sciences transnationally
- To further support a transnational Research Area of Plant Sciences

### Members

#### PARTNERS

**UNITED KINGDOM (BBSRC)** AUSTRIA (FWF) **BELGIUM (FNRS) DENMARK (DASTI/IFD) ESTONIA** (ETAG) FRANCE (INRA) **GERMANY** (DFG) HUNGARY (MTA-ATK) **ISRAEL (MOARD)** LATVIA (LZA) **NETHERLANDS (NWO) NEW ZEALAND (MBIE)** NORWAY (RCN) POLAND (NCBiR) PORTUGAL (FCT) SERBIA (MPNTR) SPAIN (MINECO)



#### **OBSERVERS**

EUROPE (EPSO) SLOVENIA (MAFF) FRANCE (ANR) ITALY (MIPAAF) UNITED STATES (NSF) INDIA (DBT)\* JAPAN (JST)\*

\* not shown on the map

# ERA-CAPS highlights

# Over the past four years, the ERA-CAPS Network has achieved significant results in various areas:

#### Research Funding -

- Implementation of two joint calls leading to 26 transnational research projects worth 42 M EUR of funding.
- Mobilisation of more than 1000 researchers from 30 different countries as call applicants (including eight non-European countries).

#### Policy making

- Common Data Sharing policy adopted and implemented for the Second call.
- Roadmap for data standards adopted.
- Development of Guidelines on Intellectual Property Rights Conditions for Collaborative Research Projects.

#### Networking -

- Three strategic workshops implemented on developing a common agenda and on network sustainability.
- Organisation of two Grant Holders' workshops gathering 26 projects and their funders.

#### Dissemination

- Publication of ten articles in external media.
- 50.000 page visits by 30.000 individual visitors reached through the website: www.eracaps.org
- Development of Plant Science database: http://eracaps-psd.org/
- Publication of ten articles in external media.

#### Internationalisation

- ERA-CAPS was successful in attracting international partners in its programme such as the NSF (USA), MBIE (New Zealand), etc.
- Researchers from over the globe applied to the ERA-CAPS calls from countries covering five continents: Europe, Asia, North America, South America and Oceania.

### The First ERA-CAPS Call

• Thematic area: Research in fundamental molecular plant science

highlighting the themes:

- Food Security
- Non-food crops
- Adaptation to a changing climate
- Biotic/abiotic stresses
- Participating countries: Austria, Belgium, Canada (non-funding),
  Denmark, Finland (non-funding), France, Germany, Ireland, Israel, Italy (non-funding),
  Latvia, The Netherlands, New Zealand, Norway, Poland, Portugal, Serbia, Spain
  (non-funding), Sweden (non-funding), UK, USA (parallel funding)
- Call closure date: 15 February 2013
- Number of proposals received: 110
- Number of applicants: 500 teams
- Number of funded projects: 14 (73 teams)
- Total funding awarded: 21.9 M EUR

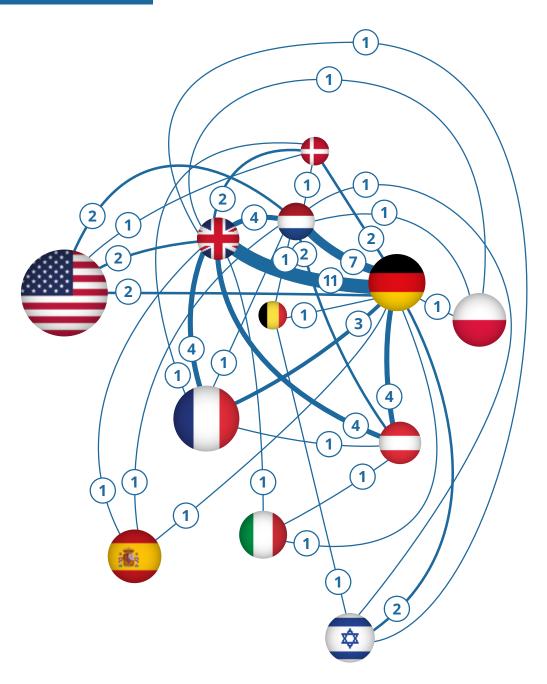


| Acronym      | Project title   | Coordinated by  | Applicant countries                                   |
|--------------|---|---|---|
| ABCEED       | Identifying and exploiting genetic variation controlling seed yield and quality in oilseed crops  | Bevan, Michael W.,<br>John Innes Centre,<br>UK                                  | UK,<br>Germany,<br>France                             |
| BARLEY-NAM   | Locating exotic genes that control agronomic traits<br>under stress in a wild barley nested association<br>mapping (NAM) population                                       | Flavell, Andrew<br>John, U of<br>Dundee, UK                                     | UK, Israel,<br>Germany                                |
| BENZEX       | Biosynthesis, transport and exudation of 1,4-benzoxazin-3-ones as determinants of plant biotic interactions   | Erb, Matthias, Max<br>Planck Institute for<br>Chemical Ecology,<br>Germany      | Germany,<br>UK,<br>Denmark,<br>USA                    |
| DeCOP        | Delineating the crossover control networks in plants  | Schlögelhofer, Pe-<br>ter, U Wien, Austria                                      | Austria,<br>Germany,<br>UK                            |
| DURESTrit    | Functional characterisation and validation of<br>nonhost components in Triticeae species for<br>durable resistance against fungal diseases                                | Schweizer, Patrick,<br>Leibniz I f Pflanzen-<br>genetik u Kulturpfl,<br>Germany | Germany,<br>Netherlands,<br>UK, USA                   |
| EURO-PEC     | European Plant Embryology Consortium  | Weijers, Dolf, U<br>Wageningen,<br>Netherlands                                  | Netherlands,<br>Germany,<br>Austria                   |
| Evo-Genapus  | Evolution of genomes: Structure-function relationships in the polyploid crop species Brassica napus   | Bancroft, Ian, John<br>Innes Centre, UK   | UK,<br>Germany,<br>France                             |
| FLOWPLAST    | Plasticity of flowering time in response to environmental signals in Arabidopsis thaliana   | Schmid, Markus,<br>Max Planck Insti-<br>tute Entwicklungs-<br>biologie, Germany | Germany,<br>Netherlands,<br>Poland, UK                |
| H.I.P.       | Homeostasis of Isoprenoids in Plants:<br>understanding compartmentalization, flux and<br>transport of isoprenoids in glandular trichomes for<br>non-crop and crop species | Tissier, Alain,<br>Leibniz I f Pflanzen-<br>biochemie (IPB),<br>Germany         | Germany,<br>Belgium,<br>Israel,<br>Netherlands        |
| HotSol       | Future-proofing potato: Mechanisms and markers for global-warming tolerant ideotypes  | Sonnewald, Uwe,<br>Erlangen-Nürnberg<br>U, Germany                              | Germany,<br>Netherlands,<br>UK, Spain                 |
| N-vironment  | The role of the N-end rule pathway in controlling plant response to the environment   | Holdsworth,<br>Michael, U of<br>Nottingham, UK                                  | UK, Italy,<br>Germany,<br>Austria                     |
| PER ASPERA   | Plant endoplasmic reticulum architecture and seed productivity  | Frigerio, Lorenzo, U<br>Warwick, UK   | UK, France,<br>Austria                                |
| RootBarriers | Plant root diffusional barriers: genesis and implications for nutrient efficiency and stress tolerance  | Salt, David E, U of<br>Aberdeen, UK   | UK,<br>Netherlands,<br>Germany,<br>France,<br>Denmark |
| SeedAdapt    | Dimorphic fruits, seeds and seedlings as<br>adaptation mechanisms to abiotic stress in<br>unpredictable environments  | Leubner, Gerhard,<br>U of London, UK  | UK,<br>Netherlands,<br>Germany,<br>Austria            |
|              |   |   |   |

More information, including abstracts of projects:

http://www.eracaps.org/joint-calls/era-caps-funded-projects

### Call 2012



### The Second ERA-CAPS Call

• Thematic area: Research in fundamental molecular plant science

highlighting the themes:

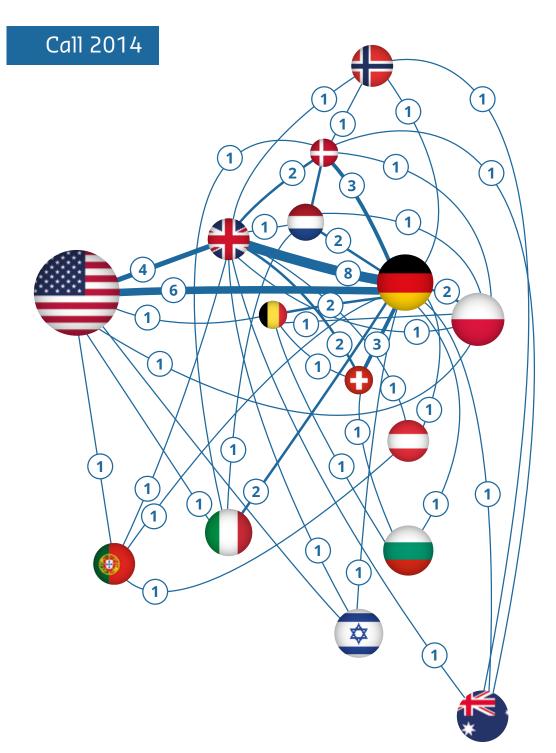
- Food Security
- Non-food crops
- Adaptation to a changing climate
- Biotic/abiotic stresses

• **Participating countries:** Australia (non-funding), Austria, Belgium, Bulgaria (non-funding), Chile (non-funding), China (non-funding), Czech Republic (non-funding), Denmark, Estonia, Finland (non-funding), France (non-funding), Germany, Hungary, Israel, Italy, Latvia, The Netherlands (non-funding), New Zealand, Norway, Poland, Portugal, Saudi Arabia (non-funding), Serbia, Slovakia (non-funding), Spain (non-funding, Sweden (non-funding), Switzerland, UK, USA

- Call closure date: 14 March 2014
- Number of proposals received: 142
- Number of applicants: 672 teams
- Number of funded projects: 12 (57 teams)
- Total funding awarded: 20 M EUR



| Acronym      | Project title   | Coordinated by   | Applicant countries                                   |
|--------------|---|--|---|
| AbioSen      | Molecular mechanisms of abiotic stress-induced senescence in plants   | Müller-Röber,<br>Bernd, Potsdam U,<br>Germany                  | Germany,<br>Belgium,<br>Bulgaria,<br>Switzerland      |
| AI-UCIDATE   | Towards a molecular understanding of Aluminium genotoxicity for crop improvement  | de Veylder, Lieven,<br>U Ghent, Belgium                        | Belgium,<br>Germany,<br>Poland,<br>USA                |
| BEAN_ADAPT   | Evolution in a changing environment: the genetic architecture of adaptation outside centers of domestication of Phaseolus vulgaris and P. coccineus | Papa, Roberto, U<br>Politecnica delle<br>Marche, Italy         | ltaly,<br>Germany,<br>USA                             |
| DesignStarch | Designing starch: harnessing carbohydrate polymer synthesis in plants   | Ebenhöh, Oliver,<br>Düsseldorf U,<br>Germany                   | Germany,<br>UK,<br>Switzerland                        |
| EfectaWheat  | An Effector- and Genomics-Assisted Pipeline for<br>Necrotrophic Pathogen Resistance Breeding in<br>Wheat  | Cockram, James,<br>National I of<br>Agricultural Botany,<br>UK | UK,<br>Denmark,<br>Germany,<br>Norway,<br>Australia   |
| EVOREPRO     | Evolution of Sexual Reproduction in Plants  | Becker, Jörg, I<br>Gulbenkian de<br>Ciencia, Portugal          | Portugal,<br>UK,<br>Germany,<br>Austria,<br>USA       |
| INTREPID     | Investigating Triticeae Epigenomes for<br>Domestication   | Hall, Anthony,<br>Department of<br>Functional<br>Genomics, UK  | UK,<br>Germany,<br>USA                                |
| MAQBAT       | Mechanistic Analysis of Quantitative Disease<br>Resistance in Brassicas by Associative<br>Transcriptomics   | Ridout,<br>Christopher J.,<br>John Innes Centre,<br>UK         | UK,<br>Denmark,<br>Germany,<br>Poland,<br>Netherlands |
| PHYTOCAL     | Phytochrome Control of Resource Allocation and Growth in Arabidopsis and in Brassicaceae crops  | Halliday, Karen, U<br>of Edinburgh, UK                         | UK,<br>Germany,<br>USA                                |
| RegulaTomE   | Regulating Tomato quality through Expression  | Martin, Cathie,<br>John Innes Centre,<br>UK                    | UK,<br>Germany,<br>USA, Israel                        |
| SIPIS        | Decoding ligand-receptor specificities of LysM proteins in plant immunity and symbiosis   | Nürnberger,<br>Thorsten, Tübingen<br>EKU, Germany              | Germany,<br>Denmark,<br>Italy,<br>Netherlands         |
| SOURSI       | Simultaneous manipulation of source and sink metabolism for improved crop yield   | Sweetlove, Lee, U<br>of Oxford, UK                             | UK,<br>Germany,<br>Switzerland                        |
|              |   |  |   |



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## The future of ERA-CAPS

Although the funding for the Network by the European Commission ended in May 2015, several ERA-CAPS partners are committed to continue their efforts in supporting transnational research in plant sciences. This is why ERA-CAPS will continue as a **self-sustained Network** beyond this date and will aim at launching a Third joint call in the course of 2016. Updated information will be available on the ERA-CAPS website.

### Contact Information

- URL: <u>www.eracaps.org</u>
- ERA-CAPS Coordination Office: Dr Paul Wiley (BBSRC, UK), eracaps@bbsrc.ac.uk
- For contact information of the ERA-CAPS partners and observers, please refer to the 'Partners' page of our website: <u>www.eracaps.org</u>
- Communication Office:
  Freia Van Hee (FNRS, Belgium)
  freia.vanhee@frs-fnrs.be







