

The sustainable improvement of European berry production, quality and nutritional value in a changing environment: Strawberries, **Currants, Blackberries, Blueberries and Raspberries. The EUBerry project**



B. Mezzetti

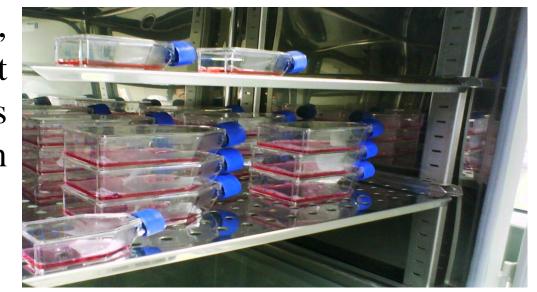
Department of Agricultural, Food and Environmental Science, Marche Polytechnic University, Ancona, IT

The main objective of the EUBerry project is to provide the necessary knowledge and tools to facilitate development of high quality, consumer-desirable fresh berry fruits of high nutritional quality optimal for human health at a competitive cost. The EUBerry platform is developed and validated by using strawberry, raspberry and blueberry as model crop species. Specific critical points related to improvement of berry fruit quality and reduction of production costs are also taken in account for currants and blackberries.

The partners (grouped in teams) are involved in the different aspects of basic and applied research and all teams are involved in dissemination activities as well as in data and project management.

The motivation of the involvement of such number of partners is related to the fact that berry cultivation is now increasing in different EU areas and in these different conditions the success of their production (in season and out of season) and quality is closely linked to the use of varieties and cultivation systems fully adapted to the prevailing climatic conditions. For this reason, following a South - to - North and West - to - East approach, we identified Partners located in the main important cultivation areas of these 3 different EU climatic conditions with proven competence and expertise in the main research fields required for this type of study. In our opinion this partner distribution also gives an important pan-European dimension to the project.







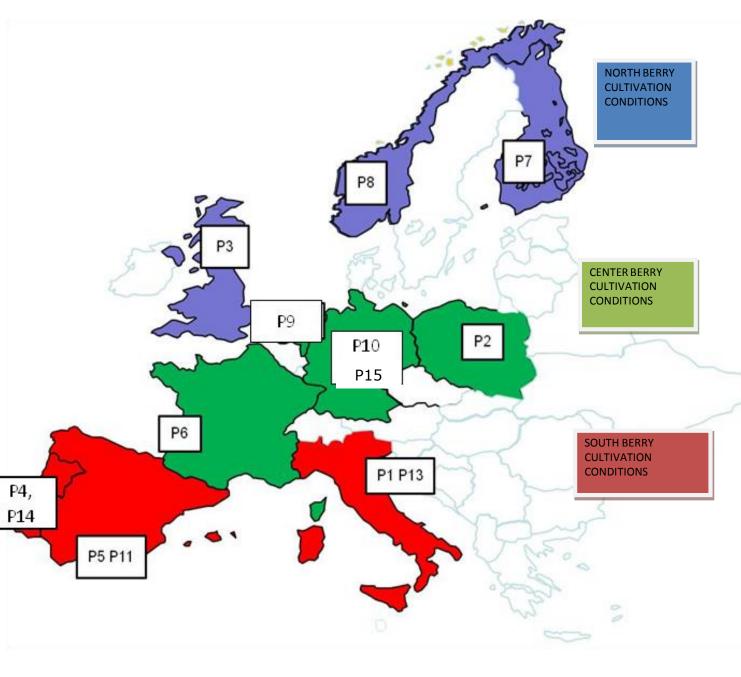




International Berry School (IBS) Berries: Physiology – Cultivation – Quality – Processing within the EuBerry – Project held at Geisenheim University, 65366 Geisenheim, Germany at 5th to 8th March 2013

THE RESEARCH ACTIVITIES ARE ORGANIZED IN 6 WORKPACKAGES:

| Partner | Short Name | Team leader |
|---------|---------------|--------------------------------|
| P1 | UPM | Prof.Bruno Mezzetti |
| P2 | IO | Dr. Edward Zurawicz |
| P3 | JHI | Dr. Derek Stewart |
| P4 | IBET | Dr. Claudia Nunes dos Santos |
| P5 | IFAPA | Dr. Josè F. Sanchez Sevilla |
| P6 | INRA | Dr. Beatrice Denoyes-Rothan |
| P7 | MTT | Lic. SC. Agr&For Paivi Parikka |
| P8 | Bioforsk | Dr. Rolf Nestby |
| P9 | DLO | Ir. Gijs van Kruistum |
| P10 | HGU | Dr. Erika Kruger-Stenden |
| P11 | FdP | Alfredo Arcos |
| P13 | SO | Dott. Gianluca Savini PhD |
| P14 | INRB | Dr. Pedro Bras de Oliveira |
| P15 | JKI | Dr. Detlef Ulrich |



Partners list and geographical distribution in the 3 main EU climatic areas.

The EUBerry consortium is acting to promote exchange of ideas and a maximum of interaction between the theme experts.

The extended network of scientific collaborations developed by each partner will be put at the disposal of the consortium and project planning and development, thus providing a vibrant environment to discuss and validate the project outcomes and innovations.

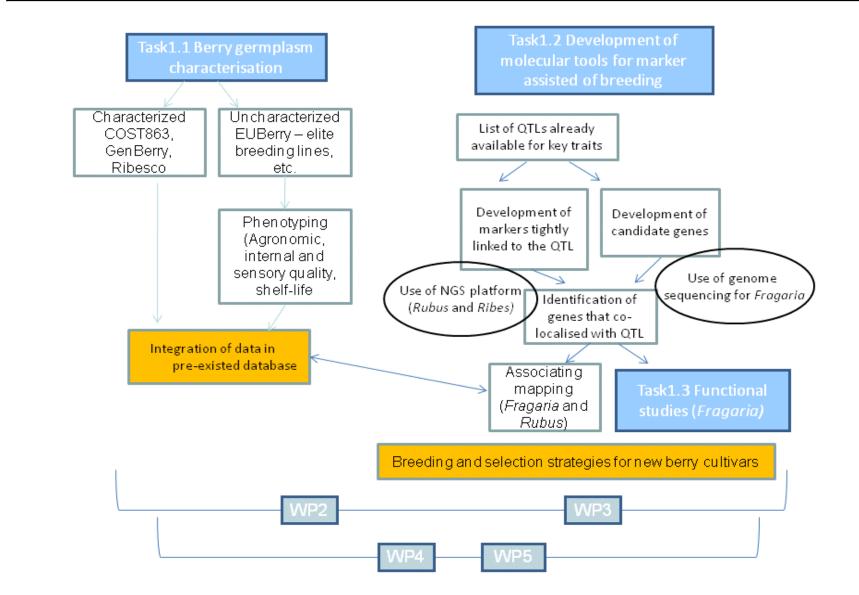
This is guaranteed by the consolidated connections of each partner with the more important stakeholders (Nurseries, Growers Associations, Market and Processing industries) operating in the different EU countries.

The motivation of the involvement of stakeholders is related to the fact that berry cultivation is now

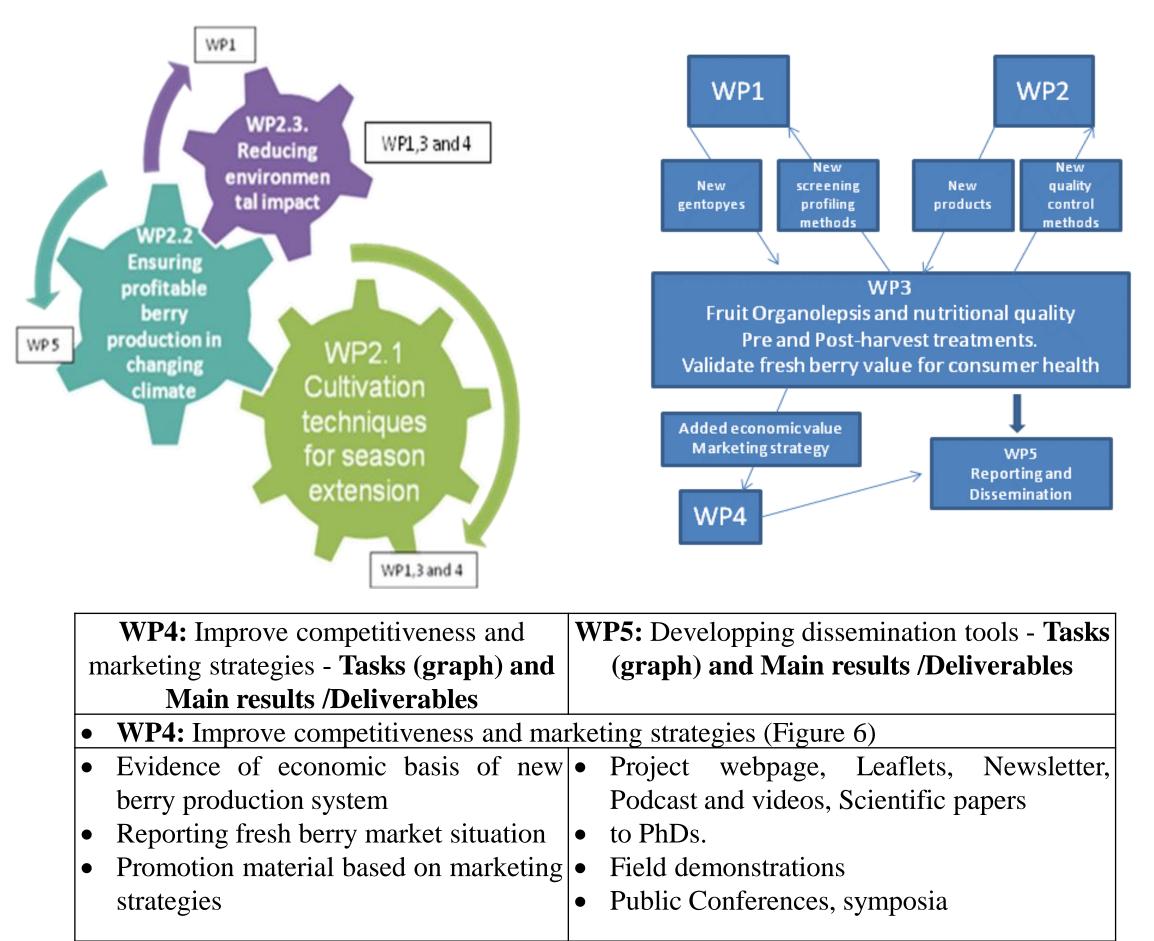
| Stakeholders | | |
|----------------------|------|--|
| BERRYPORT | (PT) | |
| MEIOSIS LTD | (UK) | |
| CIREF | (FR) | |
| REDEVA | (UK) | |
| NEWFRUIT | (IT) | |
| SADPOL | (PL) | |
| BARILLA GR | (IT) | |
| HARGREAVES PLANTS | (UK) | |

WP 1: Improving berry varieties through the identification and utilisation of the best genetic resources - Tasks (graph) and Main results /Deliverables

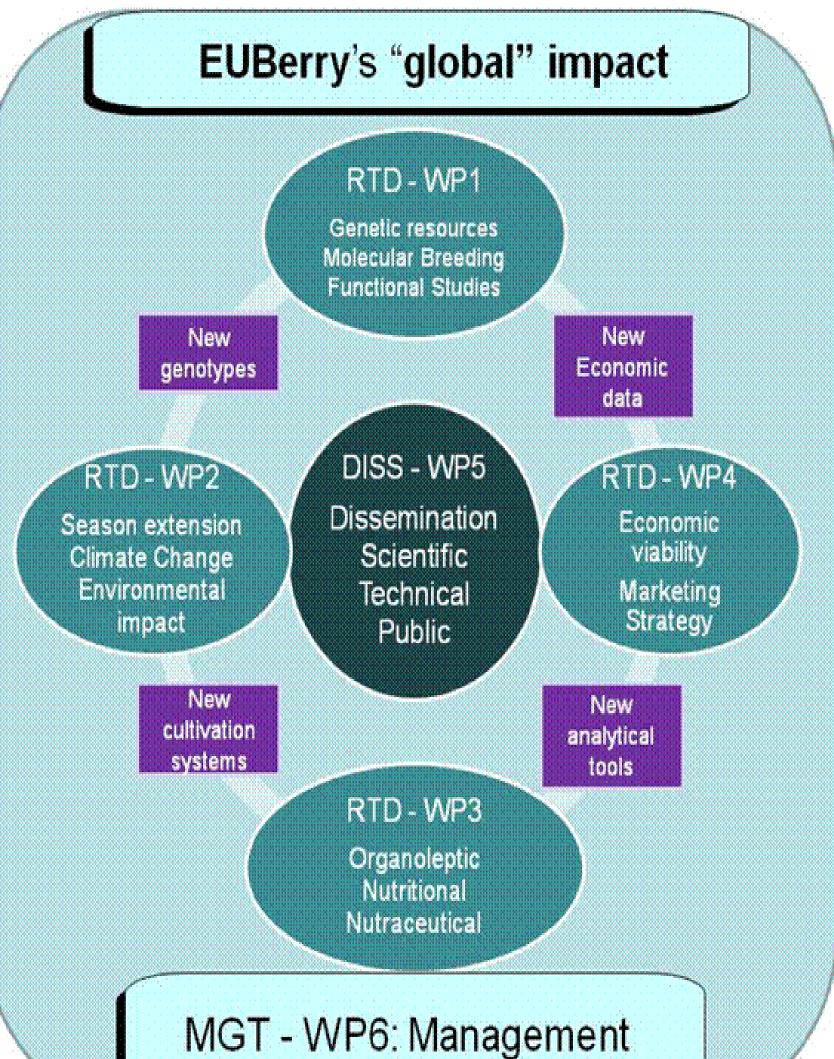
•Databases of characterized germplasm •Genome mapping by QTLs for fruit quality traits • Marker-assisted breeding strategies •Validated genes controlling strawberry nutritional quality and flowering



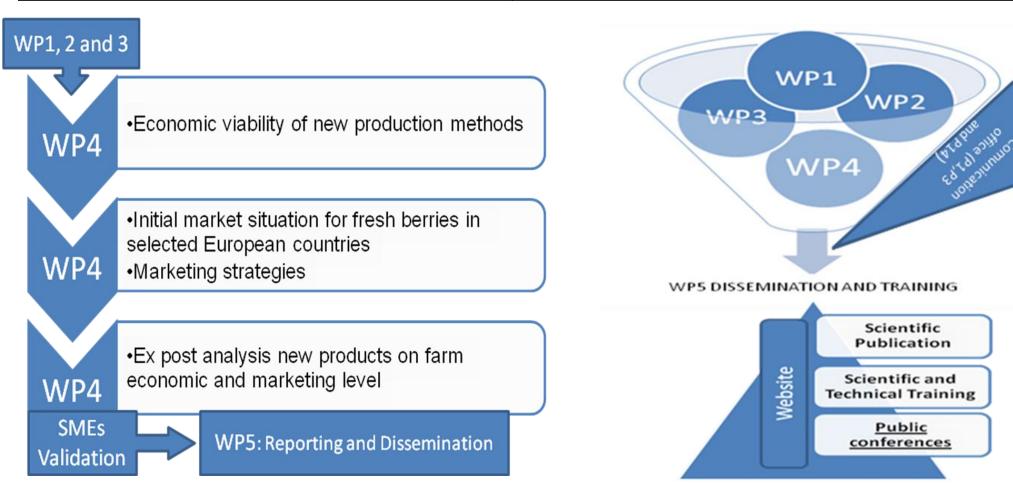
| WP2: Improved cultivation techniques Tasks | | WP 3: Fruit quality and nutritional quality | |
|--|--|--|--|
| | (graph) and Main results /Deliverables | characterization and determination - Tasks (graph) | |
| | | and Main results /Deliverables | |
| • | Methods to modify plant architecture | •Identification of strategies to maximise fresh fruit | |
| • | Method of berry season extension trans | quality via novel approaches | |
| • | Methods to avoid North frost and South hot | •Evidence for the human health benefits of fresh fruit | |
| | summer temperatures | in validated model systems | |
| • | Methods for minimized pesticide use and | | |
| | improved resource use efficiency | | |



increasing in different EU areas and in these different conditions the success of their production (in season and out of season) and quality is closely linked to the use of varieties and cultivation systems fully adapted to the prevailing climatic conditions.









Acknowledgements: Seventh Framework Programme, EU - G.A. n 265942

