### DESCRIPTION OF NATIONAL Agri-Med RESEARCH SYSTEM

(Programmes and capacity)

#### Agri-med Research Funding scheme

<table>
<thead>
<tr>
<th>Funding Organizations</th>
<th>Main funding area*</th>
<th>Budget %</th>
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</table>
| ANR                   | National research program, R&D projects  
Animal genomics, Plant genomics, Microbial genomics, Food, Ecosystems, territories, living resources and farming | Between 12% to 23% of the budget of the R&D actors involved in Agri-med research |
| AIRD                  | International R&D projects  
Ecosystems, climate change and societies, Integrated capacity development |  |
| Other public funders : EU, Regions and other Public territorial organizations, | R&D projects, concerted actions |  |
| Ministry of Higher Education and Research (INRA, IRD, CEMAGREF, CIRAD) | R&D centres, High Education (full cost) | Between 64% and 86% of the budget of the R&D actors involved in Agri-med research |
| Ministry of Food, Agriculture and Fisheries (INRA, CEMAGREF) | R&D projects, R&D centres, High Education (full cost) |  |
| Ministry of Foreign and European Affairs (IRD, CIRAD) | R&D projects, R&D centres |  |
| Other private funders: Economical and industrial actors Companies, Associations / Foundations ... | R&D projects | Between 8% and 13% of the budget of the R&D actors involved in Agri-med research |
| TOTAL | | 100% |
Coordination of the **Agricultural Research In the Mediterranean Area**

Funding agencies (ANR and AIRD) are supporting agri-med research through more general programmes as indicated in the above table. The total funding provided by those agencies is 51.8 M€, only partly devoted to issues concerning Mediterranean Agriculture and as such integrated in the budget of the beneficiaries (see the table below).

Ministries are funding research organisation on a long term (4 years) contractual basis backed on a strategic research agenda.

### Research capacity

<table>
<thead>
<tr>
<th>Research Institutions considered in the report</th>
<th>Agri-med area annual budget (full cost in €)</th>
<th>Human resources involved in Agri-med area (total number of persons)</th>
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</thead>
<tbody>
<tr>
<td>INRA</td>
<td>100 700 000€</td>
<td>1555</td>
</tr>
<tr>
<td>IRD</td>
<td>17 066 667€</td>
<td>NC</td>
</tr>
<tr>
<td>CIRAD</td>
<td>11 960 000 €</td>
<td>188</td>
</tr>
<tr>
<td>CEMAGREF</td>
<td>1 500 000 €</td>
<td>NC</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>131 226 667€</strong></td>
<td><strong>1743 (partial data)</strong></td>
</tr>
</tbody>
</table>

**The agri_Med research structure in the country**

The French national research strategy is not based on a geographical approach. Each organism builds his own scientific strategy through a dialogue with Ministry(ies) under aegis of which it is placed and budgets are allocated on the basis of a four year contract of objectives (large scientific objectives, orientation on scientific policy and partnership, management). In that context, there is no national program of research for Mediterranean as such.

It is nevertheless possible to identify the most significant part of the research structure involved in research activities that are addressing Mediterranean agriculture issues.

In France, four main institutions should represent about 85% of the total public agri-med research (INRA, IRD, CIRAD, CEMAGREF). The agri-med budget represents between about 1.4% (CEMAGREF) and 13% (INRA) of their global budget. These institutions are mainly financed by and under aegis of three ministries: Ministry of Higher Education and Research, Ministry of Food, Agriculture and Fisheries, Ministry of Foreign and European Affairs. They are mainly funded by the State (from 64% for CIRAD to 75% for CEMAGREF to 80% for INRA and 85.67% for IRD). The second origin of the funding is the public contracts, with the ANR in particular (23% for CIRAD, to 12% INRA) and the third is the private contracts (13% for CIRAD to 8% for INRA). The four institutions finance/manage agriculture research activities mainly via structures but also begin to finance these research activities via programmes, projects and cooperation activities. Only two have also a role of funding or participate in a competitive financing.
Coordination of the Agricultural Research In the Mediterranean Area

This research system is completed by the French agricultural, forest and veterinary Higher Education system, gathering around 600 teaching staff and mostly taken into account for its Mediterranean concerns through Montpellier Supagro. 15 other % represents a very fragmented part of the agri-med research, disseminated in research units of CNRS and universities working mainly in field of basic research, biodiversity, some aspects of environmental research, plant biology and social sciences.

Priorities

These institutions cover a large diversity of agricultural thematic areas and priorities.

- Generic research (molecular and cellular biology, plant and animal biology, genomics, biotechnology, ecology, modelling) oriented toward agriculture, human nutrition and the environment
- Plant and animal production and products (their processing and characterisation)
- Plant and animal health, infectious diseases, emerging disease
- Innovative and sustainable farming and forest systems
- Adaptation and mitigation to climate changes of agriculture and forest.
- Environment and rural space, land use, natural resources management (water and soils), biodiversity
- Human diet and nutrition, healty diet, eating behaviour, food transitions, food security, food safety
- Strategies of actors, public policies

Main research thematic area/programmes:

The major areas among the agri-med research activities are:

- Plant protection and production
- Plant genetics, breeding, biotechnologies
- Fruits production and protection
- Animal production and land use
- Natural resources management, environment and climate, climate change
- Forestry
- Food and feed processing, quality
- Water and soil management
- Agricultural economics, rural development, policies

Future perspectives in the Agri-Med research:

The Mediterranean stake is increasing in the policy of several main actors of agricultural research in France. A highly competitive ‘advanced research campuses’ (RTRA: ‘réseau thématique de recherche avancée’): has been selected in 2006 in Montpellier being the sole one (out of 13) in the field of agri-food research (with INRA, CIRAD and Montpellier Sup-Agro as the founding organizations)
Agreenium, a national Consortium for the agriculture, the food, the animal health and the environment, created in 2009, associates two research institutes (INRA, CIRAD) and four research and training organizations (AgroParisTech, AgroCampus Ouest, Montpellier SupAgro, ENV Toulouse). The missions of the Consortium are the promotion and coordination at the international level of the French capacities in research and training and development in the agriculture, the food, the animal health and the environment fields. the improvement of the performance of the national agronomic research-formation-development device by reinforcing synergies between the members;

The Mediterranean area is the first geographical target of Agreenium

The SICMED programme aims at studying and modelling the functioning and the potential evolutions of the Mediterranean rural and per-urban eco-anthropo-systems in response to present and future climatic and man-induced changes. The programme deals with the biophysical processes governing the biogeochemical and hydrological budgets and cycles. It also aims at studying the social, economical, and biotechnical mechanisms driving the impacting human activities in order to imagine and evaluate innovative management practices. Expected results are both cognitive and operational with the elaboration of methodologies and tools for a better management of natural resources and territories.

The French National Research Agency (ANR) is working on the opening of a vast plan to support research cooperation in the Mediterranean, including Agricultural Research.

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