

## BIO-CT PROJECT M19-M30 PERIODIC REPORT PUBLISHABLE SUMMARY

### BioCT

#### Summary description of project context and objectives:

The BioCT project was developed from a core group of biotechnology clusters in Europe that wished to develop common tools for the support of biotechnology economic delivery in clusters across Europe. The objectives of this project focussed on key platforms that underpin cluster development and continued growth, with the following topics selected as not only important for cluster development, but also reproducible across clusters in Europe.

European regions and countries have to join forces if they want to have a chance to be competitive in the new global scenario expected for the 21<sup>st</sup> century: a strong (political, economical and technological) prevalence of China; growing emerging economies and markets (Brazil, India, Russia,...) anxious to have a stronger presence worldwide; a deep crisis of the ideologies behind the political and economical powers that characterised the 20<sup>th</sup> century in the US, Latin America, the Middle East, northern Africa and the Far East. It looks like unless European regions and countries join forces and vision and get really aligned, Europe will have a hard time to thrive and even to survive as such.

In the frame of such an scenario, and within the scope of biotechnology, the BIOCT project was aimed at bringing together a number of leading European bioregions to imagine, discuss and propose a pathway(s) to fostering the competitiveness and efficacy by which European early stage biotech companies (or projects) may successfully go through the so-called death valley from research to business, i.e. through the early stages of uncertain development up to the industrial validation of their technologies and businesses.

The seed ideas behind BIOCT relied on a core concept: the *sharing of assets* among European bioregions as the key way to support a growing European competitiveness and a rational, integrated and economically sustainable growth. *Shareable assets* or *shareable tools* are understood as all kinds of material or immaterial instruments, like expertise, procedures, good practices, skills, equipment, buildings, platforms... Such instruments can be grouped into three categories: (i) human resources, (ii) facilities and equipment and (iii) processes, structures and collective know-how.

Although the concepts supporting BIOCT are quite straightforward, the consortium partners of the project have struggled to find a common ground of views, perspectives and interests; and, more important, to identify and define *shareable tools* that can be shared realistically and productively.

Viewed in perspective, considering the great differences within the Partners' Bio-Clusters mentioned here above, we can say that BIOCT has delivered a lot for the investment in time and money involved. BIOCT brought together for the first time and with a focused task, people and teams who collectively manage a budget that is 100+ times larger than the cost of the project. It



develop trust and a multi-biocluster forum that the consortium partners are now committed to keep alive and at the heart of their respective activities. It developed a strong awareness about that *sharing* (of any type) has been, and still is, rather absent in the minds and activities of most European bioclusters, including the consortium partners themselves.

The overall project objective, based on the topics above is to create a **Joint Action Plan** that enables any region in Europe to pick up and deliver, within a wider network of clusters, support services that are validated as effective for economic delivery of biotechnology.

### **Description of work performed and main results**

The **SWOT analysis** was the first major activity undertaken of the project included all regional cluster representatives. Questionnaires were designed to suit each audience; SMEs, scientific laboratories, interface organisations and finally, policy makers.

52 interviews were undertaken in Piedmont, Paris, Berlin, Barcelona and Debrecen and final SWOT report delivered.

Following the SWOT delivery, each of the main activity areas of BioCT were launched as defined above, **reverse brain drain**, **technology scouting and maturation** and **shared facilities**. Much of the work in the first 18 months focussed around results of the SWOT analysis, combined with further Europe-wide analysis of cluster needs, through Special Interest Groups hosted with the Council of European BioRegions (CEBR).

The R-SAC and C-SAC committees met centrally and within each region to help drive decision making from each cluster.

BioCT activities were expanded to European level through the launch and expansion of Council of European BioRegions Special Interest Groups for all topics, with the additional launch of a Group for 'Emerging Regions', to underpin mentoring programme development and launch.

During the 30 months of the project, Partners have completed the internal discussions and debate on how to build a collaborative common plan of action (or Joint Action Plan, JAP) that can be applied in reality, and which would answer to the expectations and possibilities not only of the Partners themselves but most important to the expectations and possibilities of the clusters and regions they represent. Defining, aligning and agreeing on a suitable profile and contents for the JAP has taken a significant amount of work, debate and exchanges among the Partners as well as with all parties involved.

The objectives that guided the partners throughout the entire project have been to find ways and tools that, realistically, would allow the regions involved to establish collaborations in the real life (collaborations ideally aimed at potentiating convergence among regions and maximizing the exchanges and the sharing of tools and assets, in a large sense) and to set Joint Action Plan to describe how to proceed to achieving such goals.

The JAP, whatever its contents and internal mechanics, had to take into consideration the fundamentals of the current political and financial environment, such as the current financial crisis, the uncertainties about Europe, the lack of history (and hence of experience, trust...) of real life collaborations among bio-clusters and regions, the existing administrative burden and barriers inside

regions which create obstacles to collaborations among regions, and finally, the quite divergent views from region to region on how to proceed further.

### **Main results achieved to date**

All consortium partners are highly experienced cluster support actors and had an excellent grasp of cluster needs and development. The changes behind European cluster development have long been driven by declining early stage investment and changing company models and the gap between established and maturing regions is more evident, despite significant efforts in building new biotechnology regions. The key learning point that emerged from the SWOT and Special Interest Groups was that *experience* of both the SMEs and their support actors was probably the most important influence on effective support.

The groups associated with technology scouting and maturation, reversing brain drain and emerging regions (as preparation for cluster mentoring), defined exposure to experienced professionals as the key factor, regardless of the desired end point.

The other major learning point has been the rapid change in policy development at regional level in Europe. While EC-level policy and funding has developed gradually, National and regional mechanisms for the development of support for clusters and the funding for such support is changing rapidly with significant reduction in funding and changes in political systems sweeping across Europe. The learning point here is that no concrete funding plan that includes regional commitment can be agreed. The best route forward for this element of the plan is understanding of funding and international collaboration ready for rapid uptake when funding becomes available.

The key results from the 30 months of the project include:

- Completed SWOT analysis
- Cluster groups launched in Reversing brain drain, Technology scouting and maturation, Shared facilities and Emerging regions
- Joint Action Plan (JAP)

### **Final results**

In the last years, there has been an increasing exposure and networking activity and collaboration between research groups and companies from different European countries. This phenomenon has been mainly driven by the successive EC Framework Programmes. However, bioclusters, as such, have not really developed or nurture relations with clusters in other regions, whether in their same countries or in other European countries.

In addition to the challenges intrinsically linked to building any new tools, the development of sharing programs or shareable tools between bioclusters or bioregions faces a number of fundamental and additional barriers at the cluster/region level; such as the sense of self-sufficiency, of competition, the presence of rigid strategies, among others...

Given the situation above, we have searched to minimize the burden (whether it is operational, financial or strategic) associated to collaborating/sharing between bioclusters and regions, which are not used to such sort of activities. While building the JAP, we have therefore privileged an approach aimed at bringing bioclusters together around a common goal and interest (collaborating/sharing) in

the softest possible way, while minimizing the potential risks for the parties. In that sense we believe that the proposed Model Contract (see annex) is a perfect tool to creating a primary link between signing bioclusters, with a minimum level of exposure. Such Model Contract is extremely flexible in its contents, which allows the signing parties to adapt it to any specific subjects of collaborative sharing. Moreover, the Model Contract is written using a legal wording and, more important, its structure is largely comprehensive as it covers all the items needed to close and usually included in a legally binding agreement. The signature of the Model Contract by any two signing parties would create a light obligation only. Such obligation is reduced to work together (through the Steering Committee, see below) in identifying and materializing suitable opportunities for collaborating and sharing. Once concrete opportunities for collaborating and sharing will have been identified, they will be included into specific annexes to be signed by the parties and joint to the Model Contract. Such ad hoc annexes will rule the terms and conditions for the execution of the specific actions.

The Joint Action Plan that we propose is composed of 4 elements:

- 1 Model Contract
- 3 shareable Tools : one on human resources (Deliverable D3.4), one on facilities & platforms (Deliverable D4.4), one on project maturation (Deliverable D5.3),,

All four elements are applicable as such. Each of them represents a Joint Action Plan in itself. They can be implemented by any two (or more) parties interested; they represent actions that can be jointly performed between different bioclusters or bioregions for their mutual benefit. They are based on the sharing of assets between different bioregions in order to converge their level expertise and access to resources.

### Potential impact of results

The BioCT project results are being developed and implemented within a far wider context of support for biotechnology in Europe and this will be reflected in the impact of project results. In the original proposal, partners were brought together from their desire for practical support for biotechnology development and all partners are intent on introducing results, not only into their own clusters, but also through a networked European effort. The networking on a European level is particularly important, when considering that the key value to cluster is the availability of expert knowledge and that this will not be delivered by working in isolation.

Key expected impacts are:

- Collaborative activities within the Joint Action Plan that will be implemented by the Partners by the project close
- Activities within the Joint Action Plan that will be implemented within individual regional clusters and delivered into the international framework
- The Joint Action Plan, as a whole, promoted and championed to clusters across Europe

BIOCT has delivered two outcomes:

- **First, the JAP.** The JAP includes the Model Contract plus three proposed action plans for selected shareable tools: one for expert human resources (D3.4), one for platforms & facilities (D4.4) and one for project maturation (D5.3). This outcome includes the package of deliverables that are formally due to the EC.
- The **second outcome**, although it is to a large extent an intangible, is the fact that partners got definitively **aware that ‘sharing’ among bioregions is currently totally absent; and that**

**specific actions on *sharing* must be integrated from now in the strategic agendas of the involved bioclusters.** We think that this outcome will have an appreciable impact in all the partner regions involved, and hopefully across Europe.

The sustainability of the outcomes (of both outcomes) remains, however, unsure and relies on strategic decisions from the individual clusters, on suitable sources of financing and on strategic directions from regional and European authorities.