

# **Analysis of Biotechnology Cluster Drivers Professional Management of Technology Core Facilities**

**Vincent Walsh, Athlone Institute of Technology, Ireland**

**Abstract.** Athlone Institute of Technology is a partner in an **EU Interreg project (ShareBiotech)** which aspires to influence government, industry and EU policy regarding new models promoting research infrastructure and their access. The project is facilitating sharing of knowledge and technology across biotech fields between HEI and industry, reinforcing regional service provision of advanced technologies, and endeavouring to create a **Transnational Network of Technology Core Facilities (TCF) across the Atlantic Area.**

A successful core facility relies on a combination of experienced staff that can deliver research and have the ability to train and inform users, and a workable system offering a service with updatable technologies (DeMaggio, 2002). The growth in scale, complexity and briefer functional life of laboratory instrumentation over the past two decades has had a significant impact on how research is developed and delivered. It is no longer possible for a single researcher to become proficiently competent and knowledgeable of multiple, diverse and complex core facilities. Dependency on any contract researcher always entails the risk of knowledge and experience loss when the researcher departs due to loss of funding or the pursuit of other career options – this has become a common problem across many Irish HEIs. Professional management of a TCF implies the appointment of a Facility Director with a research history and knowledge in the right area plus a series of support staff with engagement in specialist technologies. Any core facility should have technical staff including IT and some admin support. The latter may also be involved in marketing and promoting the facility and contributing to annual growth of usage.

The EU RA recognises the key importance of research infrastructure (RI) and the forthcoming Horizon 2020 Framework Program aspires to raise the level of excellence in Europe's science base and to ensure Europe's long term competitiveness, by providing researchers with access to priority research infrastructure. An AIT project role in ShareBiotech is the development of a new Transnational Network of TCF's. This action has been facilitated by an extensive TCF audit of a private Commercial Research Organisation (CRO), which is a subsidiary of a major Multinational, and the CBBR, located in the Research Hub/MIRC at AIT. We will elucidate the different management structures of both organisations. The application of new evolving Laboratory Information Management Systems (LIMS) was also researched.