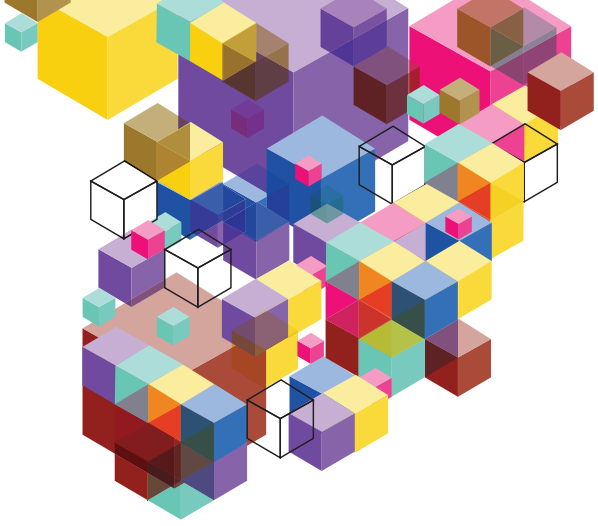

BASQUEING IN INDUSTRIAL SUCCESS

The Basque Country, Spain, is at a critical point of economic change. The need to move Basque industry towards higher-value and more radically innovative activities, and to stem the renewed de-industrialisation processes of recent years, is pressing. Technology Transfer Manager **Miryam Asunción** offers an insight into how the Cooperative Research Centre CIC nanoGUNE is working to bridge the gap between science and industry in a small region

RESEARCH, DEVELOPMENT AND innovation (R&D&I) are key to creating a strong, stable and competitive economy. In order to achieve this, the transfer of knowledge between science and industry must be facilitated. Technology transfer is defined by J David Roessner as 'the movement of know-how, skills, technical knowledge or technology from one organisational setting to another'. The technology, skills, procedures, methods and expertise from research institutions and universities can be transferred to firms or governmental institutions, generating economic value and industry development.

KNOWLEDGE INTO PRACTICE

The use of scientific knowledge in practice drives the valorisation of research and intellectual assets by industry, also known as technology or research commercialisation. This includes the selling, licensing, or contracting of technology services, intellectual assets and related knowledge into spin-off creation and R&D collaboration. The latter is another form of research valorisation, enhancing industry innovation capacity. These are the well-known, formal mechanisms to facilitate the transfer of knowledge between science and industry, and these can be implemented once the actors – science and industry, researcher and technology director, research result and product – have met and identified a common target.

One of the key challenges is to generate a systematic process of technology transfer from public research organisations to the business sector for economic growth. Every market sector has its own demands, every society has specific tastes; therefore, though solutions are not unique, they are explicit. This issue has created a demand for intermediation support (also known as facilitators) with technology transfer skills to conciliate technology supply with demands and vice versa, assisting in networking, intellectual property management and contracting services in technology markets. Key to this intermediation, the facilitator must have knowledge of both research and industry. While there exists in the market a broad variety of firms that understand the mechanisms of technology transfer (patent lawyers, economical consultancy, technical consultancy, etc.), there is a real need for these intermediaries with 'specialised' resources or skills to provide such transitional support.

INTEGRATION INTO INNOVATION

CIC nanoGUNE in the Basque Country, Spain, is a research centre launched by the Basque Government, offering specialised support in nanoscience and nanotechology R&D&I, combined with the expertise associated with those firms that provide specific services in technology transfer. Our aim is to become a global hub for knowledge generation and the application of scientific and technological developments in nanoscience and nanotechnology, in order to promote global competitiveness of Basque companies based on innovation. Technology transfer is a key asset to measure innovation, but also to determine the efficiency of the overall innovation system. As Technology Transfer Manager at CIC nanoGUNE, my work involves aligning the academically orientated needs and abilities of the centre's researchers with the bottom-line, driven entrepreneurial goals of business sector partners and venture capitalists.

STRATEGY FOR CHANGE

The Basque Country is currently considered to be the wealthiest region in Spain, and is achieving this by transitioning to an economic model that incorporates knowledge from industrial, scientific, political and social stakeholders. Key to the process of becoming competitive is changing the industrial and political culture that is bound to innovation policy, and that has guided the process of economic change in the past. The role and development of innovation policies that have been established over the years need to evolve to facilitate the region's industrial renewal.

To meet the challenge of moving its economic backbone from mature to growth sectors and implementing change in innovation processes and policies, the Basque Government is implementing a Smart Specialisation Strategy (RIS3) based on three areas: advanced manufacturing, energy and bioscience, which are a natural extension of Basque historical policies in economic development and science and technology. Micro- and nanotechnologies are considered as 'key enabling technologies' that drive innovation and result in cost-effective solutions for the industry and service sectors. CIC nanoGUNE is helping to boost knowledge generation by coordinating research in these fields, aiming to bridge the gap between basic science and its application in industry.

CIC nanoGUNE

www.nanogune.eu