

## What Makes a Biotechnology Firm 'Productive'?

This is an important question for the biotechnology sector given the Government's emphasis on tackling New Zealand's "productivity paradox" by looking to our high-tech and potentially high-growth firms to help lift the country's GDP game. What is measured or represented in productivity figures can be ambiguous, even for traditional industrial sectors. This is exacerbated in sectors like biotechnology which are not necessarily generating revenue per employee from 'products' yet have the potential to deliver high added value to the economy. The team of the Building 'Our' Productivity\* project have been exploring the development, growth and productivity of organisations in the biotechnology sector. During 2010, using the NZBio membership list as a sample frame, background information was collected on 28 firms working in a cross-section of life sciences, including; nutrition, pharmaceuticals, medical therapeutics, research products and devices, blood products, and clean fuels. Interviews were undertaken with founders / CEOs of 12 companies to explore in-depth the start-up, development, growth, and productivity issues with which these organisational leaders grapple. On the one hand, our findings confirm that New Zealand's life sciences organisations are characteristically small, under-funded, innovative, rely on alliances, and are 'born global', starting out life as highly export oriented. A range of themes emerged from the interviews showing that very different organisations within the sector face similar issues. On the other hand, we have uncovered interesting and perhaps novel approaches to addressing these common issues, such as seeking different models to access sufficient capital to enable commercialisation and market development; finding ways of signalling organisational credibility to offshore partners, investors and customers, through associations with global experts; committing to GMP production processes and; where necessary, undertaking outward foreign direct investment to secure distribution channels. Our sample organisations also focused on finding ways to leverage off the benefits of being based in New Zealand, including, maximising the positive effects of stakeholder perceptions of the country's clean, green and disease free reputation, while at the same time minimising difficulties associated with NZ's geographical isolation, including, finding well qualified staff and minimising difficulties in product distribution. This presentation describes the ways in which some of our biotechnology leaders are driving their organisations to secure a robust and productive platform to add significant value to the New Zealand economy.

*\* Building our Productivity - a FRST funded project, led by Professor Sally Davenport, Victoria Management School. <http://www.victoria.ac.nz/vms/buildingourproductivity/>*