Biomimetic Innovation Acceleration Through the V2IO® Model

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Biomimetic inventions face the same challenge as any other innovation in bringing a product or process from concept to market. Despite a sea of innovative biomimetic ideas, biomimetic concepts largely struggle to achieve commercialisation of these ideas for environmental and social benefit. It is also well recognized that working over interfaces between various organisations and multidisciplinary sectors is a consistent challenge on accelerating new innovative technologies through to commercialisation.

Swedish Biomimetics 3000® decided to address this opportunity by designing a proprietary innovation accelerating model, V²IO®, (Virtual, Venture, Intersectional Organisation). In a consortium with University of Leeds, UK, the V²IO® model has been implemented to develop a new, powerful, and accurate spray technology, µMist®, with the potential to be used in the automotive, aviation and health care industries. The µMist® platform technology, which has achieved a breakthrough in the field of biomimetics, has been inspired by the bombardier beetle´s defense mechanism. By bringing together a team of biologists, chemists, engineers and virtual cutting edge support groups, Swedish Biomimetics 3000® has been able to develop a technology which is a significant step forward in producing low carbon impact and more environmentally friendly spray systems.

Fundamental to the µMist® platform technology is the V²IO® model, which has been designed to provide a wide portfolio of intersectional support for biomimetic inventions, including design of structural research and development programs as well as financial, technical, legal and management functions. The intersectional support refers to transferring biomimetic inventions to commercial technologies, including bringing in cutting edge partners' support at the earliest stage in their fine tuning of the technological and development processes.
The V²IO® model is built upon maximized outsourced (virtual) resources for flexibility, deliverability and established capabilities. The innovation accelerating model operates as an "Intersectional catalyst" with an especially enhanced ability to integrate multiple scientific/industrial disciplines/cultures and their corresponding global challenges in order to have the concepts, ideas and innovations materialize to a physical reality. The consortium approach accelerates the development process of the applications through the provision of intellectual support, ensuring that the development approaches adopted are continuously focused keenly upon the end application goal and generating the necessary records of development to meet the most stringent needs of later industrial partners, which are required to take the technology to full commercialisation and environmental as well as social benefit in the market place.

As a testament to the V²IO® innovation accelerating model University of Leeds and Swedish Biomimetics 3000® in sharp academic competition received "The 2010 Times Higher Education Award in London UK for "Outstanding Contribution to Innovation & Technology". Among the citations from the Judges read: "The Award was highly deserved and recognized a breakthrough in the discipline of biomimetics."
Patent pending publication Nos. US11/528,297 and WO2007/0342307 are in place for the µMist® platform technology and its application into fuel injection, respectively.