

Enabling UK industry to address global challenges through structured innovation & collaboration

ABOUT AXILLIUM

Axillium are a UK focused innovation management business, specialising in supporting organisations across the Automotive, Aerospace, Defence, and Cross-sector Technology markets. Operating solely in the UK innovation market we plan for success, enabling companies to access wider networks and expertise to establish effective collaboration which has impact on challenges of any scale.

The e-Volution Framework

e-Volution is a structured framework of process, methods and tools to enable organisations to deliver targeted innovation outcomes effectively and with commercial success.

As well as as proven methods we provide innovation services have been developed to support R&D with both internal and external collaborators, providing at-elbow programme support to ensure success at each stage of the complex R&D journey.

The e-Volution Services

- Discovery aligns business and technology challenges with internal and external stakeholders and identifies the right investment and the right expertise to deliver strategic outcomes through collaboration
- Definition brings structure to R&D challenges in line with investment policy and innovation opportunities that achieve targeted, exploitation and investment outcomes
- Development of targeted innovation and investment case and finalises the overall readiness to collaborate through shared investment, knowledge and to deliver common milestones and strategic objectives
- Delivery of multi-partner collaborations with , centrally coordinated and independently managed investment and exploitation outcomes

Our eV Platform:

- Secure, on-line collaboration environment providing access to our unique processes, methods and tools based on ISO standards and Axillium's track record with industry, government and university Partners



Ensuring success through innovation

Using eV we have:



Supported 190 organisations over 14 years



Raised over £282 million in public and private finance



Enabled our clients to create over 4,800 direct jobs and 15,500 in UK Supply Chain

The e-Evolution Framework

How did eV come about?

To succeed in global markets and meet rapidly changing goals with rapidly emerging innovations, a new approach of industrial scale collaboration is needed. In 2010 we led the UK's first Grand Challenge to overcome the key difficulties experienced by organisations participating in collaborative R&D at every stage; since then, we have led the way in bringing together the UK's leading R&D organisations by working with market and emerging technology in a structured

'open-innovation' format to solve globally important challenges.

Combining our Innovation Management experience of R&D, and with investment from Innovate UK, we have developed the eV framework. A structured platform consisting of methods, tools, and processes for delivering successful innovation, which increases access to collaborative R&D for research partners of any size.

Our approach has proven successful with both start ups and OEMs in multiple markets, demonstrating how eV de-risks the inherent market failures within existing innovation processes.

“For the UK to thrive on the global stage, we need to disrupt the way we think about innovation. For too long, innovation has been closed, something that happens deep inside individual companies. Global success will need collaboration between companies, which requires new models of ‘open innovation’—ones that protect companies’ IP while allowing for the sharing of ideas and know-how so advances can be made and commercialised sooner, for the benefit of the UK economy.”

— WILL SEARLE, EXECUTIVE CHAIRMAN, AXILLIUM



About the eV framework Supporting success across the full innovation cycle

We use the eV framework to support organisations at every stage of the innovation lifecycle, identifying key technologies and market opportunities for organisations to collaborate. Our framework provides an open structure to manage innovation in the context of public and private investment, presenting a systematic approach through which opportunities can be identified, scaled, and exploited to maximum commercial effect.

Through eV we have developed standardised workflows, methods, and tools to discover, gather, assess, and optimise innovation management and financial outcomes from the outset. eV is based on the new ISO56000 standard and provides a platform for collaboration with secure management and storage of planning, reporting and budgets across organisations using a configured Office 365 toolset.



THE ASCEND CHALLENGE

Identify and bring together a UK wide collaboration to meet the UK's needs for a rapidly emerging high-rate composites industry.

In 2019, Axillium partnered with GKN Aerospace to create the ASCEND (Aerospace and Automotive Supply Chain Enabled Development) consortium, a unique collaboration to progress composites technologies from across the UK supply-chain. The aim of this R&D programme is to develop advanced materials and automation equipment required to manufacture lightweight structures for more sustainable, and higher-volume aerospace and automotive applications.

Goals

ASCEND brings together global businesses with the UK supply chain partners to enable UK manufacturing capability matched by long-term investment of **£39.6m** in R&D, skills and job creation. Over a 3-year commitment, the consortium gathers expertise, capabilities, and resources from across the wider UK aerospace and automotive supply chain to:



Strengthen the UK's position as a technology leader in future lightweight structures



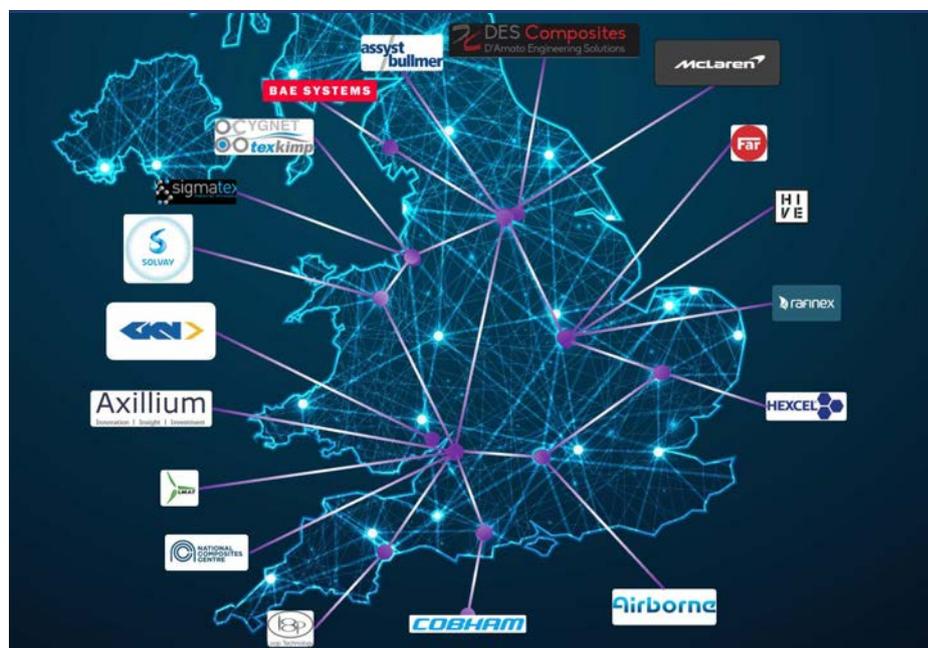
Help to reduce energy consumption and carbon emissions in the aerospace and automotive industry.

Bringing together the right partners and technologies

Collectively ASCEND brings together technologies, processes and methods that integrate across the supply-chain to develop a unique UK capability in manufacturing of advanced, lightweight structures at the high production rates required for the UK to remain competitive into the future.

“Working with GKN Aerostructures, Axillium identified the opportunity to bring together diverse companies to address the challenge of manufacturing composites at higher rates, for more sustainable mobility. We're continuing to support ASCEND by managing the innovation process using our e-Evolution framework to ensure the smooth delivery of the research outcomes—outcomes that will help ensure the future resilience and global competitiveness of the UK green economy.”

— HELEN CORNEY, MANAGING DIRECTOR, AXILLIUM



The need for the eV framework

What are the challenges of collaboration?

From our experiences over the last decade, supported by extensive research and feedback from case studies and interviews with our clients on ASCEND, we have identified four collaborative R&D 'Grand Challenges', which we are addressing in ASCEND, our flagship collaboration with GKN Aerostructures and McLaren Automotive.

Challenge 1 – Effective connections, networks and market access

Many organisations that want to collaborate, find they often lack the right networks, resources, or sometimes expertise, to try and find new companies to work with. Combining the initial 'discovery' phase of the eV framework with our unique industry networks, we support diverse organisations to engage with potential partners that they would otherwise not have met, without the need for a formal or lengthy commercial engagement.

The pre-competitive nature of these early engagements enables organisations to meet new supply chain partners, share ideas, identify risks and opportunities, which leads to an important advantage: the ability to conceive innovations and potential commercial relationships from the technological developments generated by the co-operative efforts.

“Axillium has been instrumental in enabling us to form successful collaborations with interested companies that we would otherwise not have had access to, offering a structured mechanism for innovation which ensures we can all succeed.”

— JOE SUMMERS, AIRBORNE UK



Challenge 2 – Establishing common goals

Collaboration can be difficult as organisations will naturally have different goals whether technical or commercial in orientation; those seeking technical orientation will have a focus on finding an innovative solution to specific scientific or research objectives, whereas those with commercial orientation, will focus on achieving the best exploitation of game changing technology in new markets. By working together, with support and understanding of each other's place in the supply chain, commonalities can be found. During the 'define' phase of eV we enable organisations to collaborate by bringing people together and defining clear common goals for collaborative R&D that all can work toward from the outset.

“Axillium offer a wealth of knowledge, experience and expertise in successfully managing innovation. They are professional, friendly and supportive enabling partners to work together collaboratively towards common goals and clearly defined outcomes.”

— ALUN REECE,
LOOP TECHNOLOGY LTD





Challenge 3 – Access to the right resource

Many organisations find that collaborative R&D is a resource intensive process, with a large proportion of time and energy required to manage the programme itself. Often, when organisations form a consortium, they are already stretched by focusing on the technical delivery of new innovations. Naturally programme management can tend to get overlooked, sometimes with damaging consequences for the success of the programme. Within eV we identify the gaps early on to ensure dedicated resource is in place to ensure the programme runs smoothly, and partners are free to focus on the core technology where they work best.

“Axillium’s project management support has been exceptional from the outset, keeping us focused on the right things, taking all the worry away, and supporting us to navigate successfully through a very complex programme.”

— JOHN DAVIDSON,
CYGNET TEXKIMP

Challenge 4 - Planning for success

Through our experience over the last decade, there is a perception that collaborative R&D tends to be a complicated, un-structured and sometimes an overwhelming process. Through the eV framework we offer a new approach to innovation, providing a clear and robust structure in which collaborative innovation take places efficiently, and where partners can feel reassured of R&D success with dedicated support.

“Using the innovative e-Volution framework to bring stakeholders together, Axillium enables organisations to pool resources and unlock common challenges. Axillium helps us as ASCEND lead partner ensure successful delivery, by bringing proven innovation management experience, insights, and value.”

— DAVID BRODIE,
GKN AEROSPACE



HOW DOES e-V WORK?

eV supports successful innovation, using proven processes, methodologies, guidance and supporting templates across four 'phases': Discovery, Definition, Development and Delivery. Enabling collaborators to focus on the technical orientation to create new ideas and delivering the R&D process, while eV streamlines the non-technical orientation of day-to-day programme management while maximising collaboration and investment opportunities.



*The framework uses proprietary IPR developed by Axillium Research with support from Innovate UK projects to research and develop an assurance framework for assessing and developing multi-sector innovation programmes

The power of eV in ASCEND

eV brings together Axillium's knowledge of R&D capabilities, and resources together to help Research Partners do more in collaboration through programmes projects, programmes and ecosystems like ASCEND. In using eV, ASCEND Partners are already strengthening their position as technology leaders in future lightweight structures and helping to reduce energy consumption and carbon emissions in the aerospace and automotive industry.



An independent and focussed project management team with the right industrial and funding body understanding to deliver a successful project application. Partnering with Axillium on ASCEND has enabled GKN to expand its technology eco-system whilst also successfully building national capability for composites within our UK supply-chain.

— CRAIG, GKN AEROSPACE

FIND OUT MORE ABOUT INNOVATING THE AXILLIUM WAY

If you are ready to take the next step with your R&D, or would like to chat through how the eV framework and our innovation support services work, contact Axillium today to discuss your requirements.

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