KPMG

Funding Sustainability R&D

#FromTalkToAction

The current landscape

Climate change has become the greatest threat to human existence on our planet. At the recent COP27 climate conference the Secretary General of the UN António Guterres told attendees that humanity is on a 'Highway to hell', and that 'Humanity has a choice: co-operate or perish. It is either a climate solidarity pact – or a collective suicide pact,'. It makes for grim reading.

Given the nature of the climate emergency it is imperative that everyone do their part to reduce emissions. Companies bear a large moral responsibility in this regard, and many have made great strides in improving their green credentials. Recent surveys have shown that Irish based companies are responding to this need and significant number have implemented ESG (environmental, social governance) plans to reduce their carbon footprint. Similarly, consumer surveys continuously highlight the demand for more action in these areas from companies in all industries.

Implementing the change

There are a number of readily achievable goals that will reduce carbon reliance such as more energy efficient equipment, switching to renewable energy and reducing the length of supply chains. In many instances these changes can be implemented with limited impact on the business, albeit at additional cost that may be offset through government funding. However, there are no simple nor straightforward solutions to achieving full carbon neutrality. While the above actions are helpful and the funding supports welcome, these do not go far enough if we are to limit the global temperature rise to 1.5°C. Available solutions can only start us on the journey to carbon reduction. To achieve the levels of sustainability required we need to fundamentally increase our knowledge base in all areas of R&D, which requires a significant shift in our R&D ethos, coupled with funding supports that encourage companies to engage in sustainability R&D. New funding is required to both investigate potential solutions and to implement them once identified.

For most businesses the cost of going green where no 'off the shelf' solutions exist can be significant as the most carbon intensive activities have no greener alternatives readily available on the market. Ireland is home to a wide variety of high-tech industries that precision manufacture essential components of modern life, pharmaceuticals, microprocessors etc., through meticulously developed processes. These processes are highly sensitive to change and any adjustment to the processes can have unpredicted impacts. Given the potential for failure that is integral to research and development, companies would be forgiven for a reluctance to research lower carbon alternatives to these established, functional processes.

Potential changes, such as redesigning processes to achieve greater efficiencies and reducing environmental impact, using more sustainable materials that have lower carbon milage, or moving to more energy efficient equipment can all introduce new gaps in knowledge and technological uncertainty into these previously well characterised and established processes. These impacts require significant investigation before they can be implemented, especially in highly regulated industries such as pharmaceuticals and medical devices. The costs associated with this can be very significant and potentially beyond what a company is capable of alone, especially given the risk of failure.

Available funding mechanisms

Within the context of Ireland there are a number of funding mechanisms that are of interest for funding this type of research, the R&D tax credit and grant aid. There are a number of significant differences between the two. One important distinction is the timing around the receipt of payments. R&D tax credits are a retrospective tax incentive that you claim after having begun your research and development, whereas grants have a proportion of initial funding provided upfront, with milestones and checkpoints to determine when the funding is released over the course of the project. Grants have specific funding calls that your project has to fit within and require an application process, whereas R&D tax credits are claimed at the end of the tax year, in a self-reporting manner. The criteria for qualifying projects for R&D tax credits are also broader that those in specific grant funding calls.

Table 1: A selection of sustainability grants and schemes administered by state agencies

Agency	Scheme	Overview
SEAI	EXEED grant scheme	This scheme is for companies planning a major investment and planning in an energy efficient design project. It includes both the public and private sector, regardless of the project scale. Successful applicants can get grant support of up to €1,000,000 per project.
	Support scheme for renewable heat	This is a government funded initiative designed to increase the energy generated from renewable sources in the heat sector.
	Energy contracting support scheme	This program offers financial assistance to implement energy efficiency and decarbonisation projects with SEAI's Energy Contracting Support Scheme.
	Accelerated capital allowances	This is a is a tax incentive encouraging investment in energy saving technology. This allows for the deduction of the full cost of the equipment from profits in the year of purchase instead of 8 years.
	Non-domestic Microgen scheme	Funding towards the installation of solar PV for your business, farm, school, community centres, or other non-profit organisation.
Enterprise Ireland	Climate Planning Fund for Business (€25 million total, 2022-2026)	This fund is part of the Green Transition fund and is aimed at building company capability to develop plans for lower-carbon products, processes, and business models.
	Enterprise Emissions Reduction Investment Fund (€30 million, 2022-2026)	This fund is part of the Green Transition fund and is aimed at supporting capital investment and Research, Development & Innovation in decarbonisation.
The Department of the Environment, Climate and Communications & EU	Just Transition Fund	The EU Just Transition Fund (EU JTF) supports EU regions most affected by the transition to climate neutrality. In Ireland this will focus on the wider Midlands region, where there have been direct impacts from the move away from peat production and electricity generation from peat. Ireland has been allocated €84m under this fund, which will be matched funded by the Government of Ireland.

There are administrative burdens associated with both types of funding. While grant funding is certainly welcome the application process can be arduous, requiring significant input from a company's technical and finance teams. Should the grant be awarded, the ongoing reporting process required by many grants can also be inhibitive. While there are administrative overheads with claiming the tax credit, documentation of the activities undertaken and being able to support the associated spend, these are less involved than those seen for grants and there is no application process to speak of. The credit is claimed in a self-reported manner during the normal run of tax reporting.

There are also differences in the level of funding available. Grants have specific budgets, with even the more generous programs limited in the benefit they can bring to the large-scale knowledge building research programs required to ensure that companies can reduce their carbon footprint. At the upper end EU grants greater than €5 million require cabinet approval. This is not the case with the R&D tax credit where the value is retrospectively claimed when filing your corporation tax, with no approval process required. The R&D tax credit is a 25% refund of spend associated with a qualifying project, with no limits defined in legislation. As with all things in life, terms and conditions apply, however given the technological challenges involved it is a good first stop for any company who is considering funding R&D. In 2020 €658m was claimed in relation to the R&D tax credit.

Accelerated capital allowances

So far, we have focused on the R&D tax credit as the main tax incentive for funding sustainability, however given the large presence of manufacturing in Ireland (pharmaceutical, biotechnology, medical device, food etc.) accelerated capital allowances are an additional tax incentive of great relevance to the development of more energy efficient processes. This scheme allows the full cost of expenditure on qualifying energy efficient equipment to be deducted for tax purposes in the year of purchase rather than over 8 years. The equipment must appear on Sustainable Energy Authority of Ireland's (SEAI) list of energy-efficient equipment. In some instances it may be possible to conduct 'a like for like' swap of equipment with minimal interruption to a company's process, however if the integration of the new equipment brings with it unpredictability and uncertainty that requires investigation this could come under the auspices of the R&D tax credit providing additional funding support to improve sustainability.

The knowledge development box (KDB)

Another initiative of interest that could play a part in supporting knowledge building and the growth of sustainability research is the KDB. This is a Corporation Tax relief on income from qualifying assets that can result in a deduction equal to 50% of its qualifying profits. This means its qualifying profits may be taxed at an effective rate of 6.25%. Given the changes that are occurring globally as a result of BEPS2 the future of KDB has become increasingly uncertain and if it is to continue it is likely that these benefits will become reduced. This type of scheme could play a significant role in encouraging companies developing commercial sustainability solutions and help set up Ireland as a sustainability R&D hub. However, a root and branch review of the scheme in light of global tax trends is required. Any changes will not only have to account for BEPS 2.0 but also for the prohibitively high administrative burden that companies who have so far availed of the scheme have faced. Equally, the apparent transient nature of the scheme would also need to be addressed as it has been operated under a rolling 3-year review process that might be off putting to the very companies it seeks to help.

The future of funding

Given the costs associated with R&D and the speed at which change is needed, a step change in both the funding available and the associated governance of sustainability related R&D projects is required. Due to the lower administrative burden of the R&D tax credit, the broader inclusion criteria, and most importantly the absence of a time-consuming application process, it should be fundamental to any increase in funding to encourage companies to rapidly build new knowledge to reduce the impact of their own activities or to develop solutions applicable to others. Changes to the regime focused on supporting sustainability would also have the additive effect of creating a locus in Ireland for the technologies of the future that will fundamentally shape how we live. Such a critical mass of sustainability innovation has the potential to deliver significant gains for Ireland, beyond our carbon neutral ambitions. However until such a time comes, we need to maximise the usage of the current avenues available and encourage the uptake of all funding by industry to reduce our reliance on carbon. Given the global inertia surrounding carbon neutrality a unique opportunity has presented itself to allow Ireland to become a leader in this space. We have one of the strongest track records at attracting foreign direct investment, due in no small part to the R&D tax credit. A significant opportunity now exists to create a world beating, positive growth environment for sustainability investment. The question is no longer how to we stop the impact of climate change, it is too late for that. Warming is happening and environmental processes are in motion that won’t fully play out for hundreds of years. Our focus is now damage limitation, and speed is of the essence.

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