

# COMPETE

# NEWSLETTER

Centre for Competitiveness

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## *THE CENTRE FOR COMPETITIVENESS HAS MOVED*

**Our New Address – Co-Location**

**Centre for Competitiveness**

**Northern Ireland Technology Centre**

**Queens University Belfast**

**8 Cloreen Park, Malone Road**

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# COMPETE NEWSLETTER

## 10X Economic Recovery



**Bob Barbour, Chief Executive, Centre for Competitiveness**

The post-pandemic 10X economic recovery policy and strategy launched by the Department for the Economy has set in train a series of key actions that are intended to get the economy from where it is, to where it isn't. This means a step change or breakthrough in thinking and doing. It will require investment and new ways of working with new skills and new concepts driven by Decarbonisation, Digitalization, Innovation and Collaboration. Economic transformation is nothing new and the tools by which change can be achieved are many - provided they are applied properly. One doesn't unscrew a bolt with a screwdriver.

The 10X economic recovery must be driven by the private sector or it will not achieve the desired outcome. It is an opportunity for leaders in businesses to reflect on why, what, when where and how they will provide the type of leadership essential to making the difference in their business and within their communities. Forced change comes in many ways through government legislation, global influences that have reach, and broad scope that has a dramatic impact on competitiveness affecting our way of life and those coming after us.

Last year the Centre for Competitiveness published and circulated a list of some of the global megatrends that were predicted to be global influences in the coming years, some and which are already apparent. These have been accelerated by the global pandemic and the subsequent geo-political uncertainty and localisation in the global economy. The government's 10X economic recovery plan addresses these trends at the macro level. The challenge for business and the public and voluntary sectors is our ability to accept change, collaborate with each other for mutual benefit and innovate in making change happen. Adapting to these changes will be essential to achieving international competitiveness, sustainability, and the culture change needed to drive the economy forward. This will evidently impact upon how we live and move and maintain our well-being.

### Global Economic Mega Trends - Changes that impact:

1. **Managing demographic diversity:** The retirement age is increasing, and many people are choosing to work longer. Declining birth rates in some regions and increasing birth rates in others with migration of people & cultures.
2. **Intensified demands for skills and the effect of automation:** Employment will involve functions and skills that were not part of the previous norm.
3. **The rise of Technology and Digital Disruption:** Improving productivity and competitiveness, faster communications and the way people work together.
4. **Ever Increasing Environmental Crises:** Driving decarbonisation in energy supply and reductions in Co2 emissions. (See IPCC 6<sup>th</sup> Report: August 2021).
5. **Scarcity of Resources:** Urbanized societies, smart cities (Japan society 5.0) demand for strategic resources such as water, minerals, metals, and energy.

6. **Ever-increasing Regulation:** Policy makers have enacted massive stimuli, propped up faltering companies and pledged regulatory reform. Rising deficits and ageing populations point to a future fiscal crunch. Governments will find themselves under intense pressure to deliver social services at lower cost.
7. **Sharing Economy and Trust Sharing:** The collaborating economy moves us beyond ownership into experience powered by the ability to share. From cars to houses to business. The currency in the sharing economy is not just payment but also trust.

## Key Concepts of Breakthrough Management

Breakthrough Management skills and techniques will be essential in navigating organisations on the journey from where they are today to new ways of working and serving customers. There will be a need for “Product out” Organisations to become transformed into “Market-in” Organisations, using customer data to drive decisions and understanding which customer problems they are trying to solve.

The key concepts of market and organisational breakthrough was developed by Prof Shoji Shiba, MIT and applied to leading companies throughout the world. Summarised below, these concepts, with the enabling tools shared with the Centre for Competitiveness, are available to assist senior management within any organisation which has the desire to experience a breakthrough in leading, managing and improving operational performance.

### FIVE KEY CONCEPTS OF BREAKTHROUGH MANAGEMENT

Market B.T.	Innovation Process	TBT C <sub>commitment</sub> MBT	Explicit	Innovator's Dilemma P OP1 NP OP2 t	Proactive
	The Five Key Concepts	Faster Clock Speed	Mental Breakthrough Unlearning Chaos New Mental Model	Explicit Tacit Knowledge Transformation	Dilemma
Org. B.T.		Operation Process	PDCA Cycle Do Check Act Plan	Tacit Internalization	Standardizer's Dilemma Effectiveness E No ← Process → Rigid
	Change	Mindset	Leadership	Strategy	Tool/Skill

## Four Essentials for Mastering business complexity.

What are the images of the Chief Executive Officer?

**1. Keeping their eye on the ball**

Focus is a never-ending battle. It's the kind of thinking you do when you are on the back 9 and making painful choices to ensure survival of the fittest. Listen to the market.

**2. Building the future organisation today:**

Drawing people to a place they wouldn't have seen for themselves while building on the foundation of the organisation's strengths.

**3. Getting ready for tomorrow:**

Taking aim before you fire and going boldly forward (Managed Risk) and being prepared for the unexpected.

**4. Placing a Premium on Experience:**

Enabling trusted people to gauge their position and rely on experience to know when it's time to make a decision.

## A PARTNERSHIP FOR SHAPING the FUTURE of MANUFACTURING



### IN NORTHERN IRELAND

#### Upskilling for Business Transformation

The Centre for Competitiveness with support from our industry members has teamed up with the Queens University Leadership Institute for the co-development of an accredited Front Line Manager leadership training programme. Inspired by German leadership-development practices, the Manufacturing Leadership programme is designed to boost the capabilities of the first level of management in manufacturing (usually supervisors and team leaders) and to maximize the opportunities for sustainable business growth in the age of Industry 4.0 where the challenges of new ways of working are great.

The development programme covers 16 days of applied training at Queens Management school over a period of 5 months where frontline managers will be given the tools to help transform their business. Moving from leadership principles to design thinking, from basic continuous improvement principles to Industry 4.0 manufacturing techniques, from operational activities to their impact on the financial and strategic, the programme will give you and your organisation an injection of leadership energy into the most critical areas of your operations.





Enrolment will commence in Q3 this year at the William J. Clinton Leadership Institute, Queens University, and will be delivered jointly by the Queens teaching staff and the Centre's experienced Manufacturing Transformation Executives providing participants with professional and practical experienced trainers and mentors with both academic and practical industrial achievements in small and large organisations. For more information, please email Denise Fall, Head of Strategic Partnership at Queens Leadership Institute at [d.falls@gub.ac.uk](mailto:d.falls@gub.ac.uk).

**Note:** *The Centre for Competitiveness has relocated its offices to co-locate with the Northern Ireland Manufacturing Technology Centre at Queens University from 1<sup>st</sup> September 2021. For enquiries, please email [compete@CforC.org](mailto:compete@CforC.org) or telephone 02890 737950*

## Supply Chain Resilience Assessment

Resilience is at the heart of current supply chain management thinking, and understanding the concept, and where to invest in resilience, can lead to supply chains that quickly respond to and recover from costly disruptions.

To assist local businesses in addressing supply chain capability and resilience, the Centre for Competitiveness has partnered in the development and roll-out of a new Supply Chain Resilience Assessment Tool with the Manufacturing Technology Centre, West Midlands, England ([www.the-mtc.org](http://www.the-mtc.org)). It has already been used widely by UK industries, from large organizations to SMEs, and across many sectors such as Manufacturing, Logistics, Transportation and Banking.

Thread	
1	Innovation & Technical Mastery
2	New Product Introduction (NPI)
3	Supplier Relationship Towards the Customers
4	Contract Management, Risk Management, & Security
5	Sustainability of Supply
6	Synchronisation of Supply
7	Products, Organisation & Governance
8	Agility & Transformation
9	Digital Competence
9 main Threads	

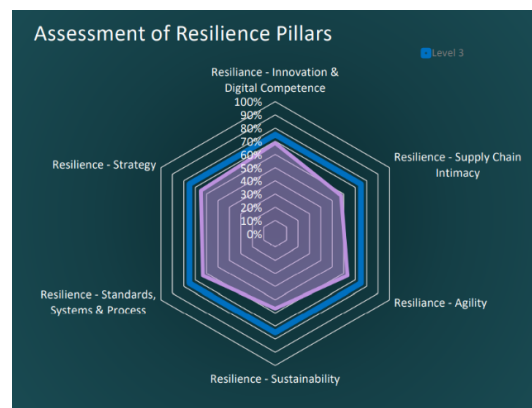
The assessment tool measures nine key criteria (Fig1) each of which has five sub-criteria. Operational performance is measured against these sub- criteria providing a Total Capability Score and Resilience Score. A detailed analysis from these is provided, identifying strengths and opportunities with a roadmap for improvement in both Supply Chain Capability and Resilience.

**Fig 1.**

Assessments are held at company sites by a member of the Centre's supply chain executive team while the analysis is reviewed by the Manufacturing Technology Centre and Academia who assist in reviewing the results from the assessment and provide confidential feedback reports to client companies.

For further information and support for measuring company supply chain capability and resilience, please contact [bob.barbour@cforc.org](mailto:bob.barbour@cforc.org) or [william.ussher@cforc.org](mailto:william.ussher@cforc.org)

Benchmark = blue band.



## Building Local Sourcing Capacity – Strategic Imperative

For many years countries in Western Europe and the USA have been reliant on material sourcing from the far east. For example, Electronics from South Korea and Japan, General manufacturing in consumer and other volume manufactured goods from China. With the increase of wealth in China and other Asian economies the price of goods and materials is increasing and therefore higher costs in manufactured goods.

We are already experiencing a scarcity in critical components and in special metals with increases in prices of raw materials. Iron Ore has doubled in price as Asia needs vast amounts of steel to build its infrastructure. Inflation in the UK is currently at 2.5% against a target of 2% set by the Bank of England. Inflation has also increased in the USA causing concern not to mention the massive debts built up by western nations coming from the global Covid-19 pandemic.

While this is concerning enough, there are geo-political tensions over the disputed waters in the South China Sea with China building up its defences to ward off any attack on the disputed waters which they claim to own. Tensions in these waters can have major economic implications for the local supply chain. China is the world's second-biggest economy and Japan is the third. Additionally, there are mass populations in Korea and Taiwan as well as the southeast Asian countries.

This all boils down to the fact that western Europe has a huge amount of trade crossing the South China Sea. Some estimates say around \$3.5 trillion a year. Consider the amount of disruption the blockage of the Suez Canal caused a couple of months ago and imagine that going on, not for a week but months and how much we depend on international trade. This would have major economic implications as well as serious global consequences for both security and for commerce.

The South China Sea has become one of many flashpoints in the testy relationship between China and the United States, with Washington rejecting what it calls unlawful territorial claims by Beijing in the resource-rich waters. Conflict in the South China Sea, or in any ocean, would have serious global consequences for security, and for commerce, Blinken told a Security Council meeting on maritime security. "We have seen dangerous encounters between vessels at sea and provocative actions to advance unlawful maritime claims," said Blinken. Trillions of dollars in trade flow every year through these waterways, which also contains rich fishing grounds and gas fields.

Having raised this as a strategic concern for local companies dependant on far east suppliers, the Centre would urge industry and government to establish a private sector sourcing initiative designed with the goal of identifying alternative sources for critical parts and materials to de-risk supply chain shortages and reduce dependence on the far east in critical supplied materials. Energy dependent components would be a typical example where electronic shortages in cables etc in the new digital era could cause failure in the energy supply to homes or businesses.

*Bob Barbour*



The Advanced Manufacturing Innovation Centre (part of Belfast City Region Deal) is likely to play a significant role in showcasing the benefits of digital transformation for manufacturing SMEs.



### **Advanced Composites Alliance - Space & Aerospace Network**

A key focus for the Advanced Composites Alliance has been to build relationships with industry bodies and larger companies both to promote the capabilities of the Alliance and to seek introductions to member companies through their representative bodies. While Covid 19 has unquestionably impacted on the success of such approaches to date, links have been established with various national UK bodies and companies which fall within the Alliance's priority sectors of civil aerospace, defence, space, and medical technology.

The partners within the Alliance are Resonate Testing, Creative Composites, CCP Gransden, Denroy and Axis Composites. Collectively, the capabilities of the Alliance are impressive, spanning most of the main composite manufacturing technologies. With a customer base that includes Airbus, Boeing, Spirit AeroSystems, Jaguar Land Rover, GKN, Collins Aerospace, Hyster-Yale and Lotus, the Alliance has an established pedigree of supply. But the partners recognise the potential to unlock other markets through offering clients a one-stop shop for their respective design and manufacturing needs. An important strength of the Alliance is the partners' willingness to work openly and already in various meetings with potential clients, the partners have directed the clients to work with individual partners recognising that partner's specific capability to offer a particular solution.

In addition, the Alliance has considered its respective strengths in areas such as design, certification, and manufacturing with a view to identifying gaps that need to be addressed if the partners are to compete increasingly on a global stage. An example of this has been the initial conversations that have taken place with such bodies as the Australian Trade and Investment Commission, illustrating the partners' appetite to compete on a global stage."

Dr Alan Blair is facilitating the Advanced Composites Alliance and for more information, please contact Alan at [alan.blair@cforc.org](mailto:alan.blair@cforc.org).

The Centre has developed the tools and techniques to drive Innovation and facilitate collaboration to enable companies to maintain individual intellectual property and discrete values and disciplines within a competitive environment. Collaboration and innovation are critical and will be necessary as businesses strive to exploit new markets and opportunities.



# EFQM Case Study – “When the Light Came on”

## Signify - A Case Study

Flicking the ‘on’ switch to manage permanent change

Supporting a strategy of continuous improvement, focused on customer satisfaction



## Challenge

For over 100 years, the lighting industry was predictable. Manufacturers produced and distributed incandescent bulbs.

But over the last few years, the industry has undergone rapid innovation and developed brand new technologies. At least twice.

First, when incandescent bulbs were phased out in favour of halogens, and then again as the industry shifted its focus towards LEDs. And more recently, as lighting becomes part of the internet of things.

Many organisations talk about transformation but Signify (previously known as Philips Lighting) is living it. The challenge Signify faces is one of constantly improving performance, processes, sustainability, quality, and customer satisfaction. At the same time as launching, producing, and distributing entirely new product ranges to a global audience—products that light up everything from the Empire State Building and smart homes through to urban farms.

The solution Signify identified. Let’s use the new EFQM model, at every level of the organisation - from the boardroom to the factory floor.

## Solution

“The idea of continuous improvement and of striving for customer satisfaction and business excellence comes right from the top.” says Thomas Lazer, Global Head of Quality and Business Excellence at Signify.

“Our CEO has embedded the EFQM model into the company’s DNA.”

“While other tools and evaluation frameworks show how you might ‘comply’ with a minimum requirement, the new EFQM model offers a more strategic approach. It offers a very tangible way to compare yourself with your targets. With your mission, vision and values, the model shows you if you’re aiming in the right direction and if you’re aiming high enough. It then helps you improve.”

“Following our initial assessments, the management board developed action plans using the model. So did many of our key units. And now we’re applying those across the whole company.”



Signify's annual reports paint a very clear picture of where the company is heading and why. The strive for excellence across the whole business is clear.

Its ambition is to brighten up people's lives while continuing to improve on its existing carbon-neutral position, using the UN's Sustainable Development Goals as its guide.

The company is already a world leader in lighting. For cities and for farming. For landmark buildings and for the internet of things.

And using the EFQM model, it can continue to pursue its agenda to build brighter lives and a better world.

"The thing about EFQM", says Thomas, "is that it drives you towards constant improvements. It helps you clearly align actions to help deliver strategic objectives."

"If your company is just trying to do the same thing it's always done, then there's no need for business excellence, right? But if you're in a business like ours, which must be super agile, because our market is constantly changing, then EFQM is extremely useful."

## SMART GRID IRELAND – CASE STUDY



The Centre for Competitiveness is the Secretariat for the Smart Grid Ireland industry cluster whose mission is to "*Contribute to the deployment of highly decarbonised electricity grid on the island of Ireland by 2030 that meets the national policy targets.*" Smart Grid Ireland are engaged in both grid and microgrid projects including feasibility studies in Northern Ireland and the Republic. Membership comprises "all Ireland" representation and engagement with Utilities, Industry and government agencies covering market and technology developments through:

- An Industry / Grid Transformation Forum to engage with Utilities, System Operators, Regulators and both Governments
- Support for the EU Directive on Energy Security & Sustainability
- A Long-Term, Stakeholder Centric View of the System in Transition
- The Potential for Demonstration Project opportunities

Membership registration forms are available through the Secretariat at: [bob.barbour@smartgridireland.org](mailto:bob.barbour@smartgridireland.org) or M: +4407710150020

### CASE STUDY - DECARBONIZATION:

#### *The Edenderry Carbon Challenge – Climate Action Plan*



Smart Grid Ireland has been chairing the Edenderry Project group, County Offaly, supporting the local organisations engagement in a feasibility study through the "Just Transition" funding mechanism established by the government for 85% of costs.



The contract for the feasibility study has just been awarded with another contract awarded to develop an Energy Master Plan for the area. SGI chair Project meetings with all associated project partners to review the scope of work by each of the contracted entities.

In addition another Green Energy & Technology project under the Just Transition initiative is being led by Offaly County Council at Rhode approximately 10-15Km away. The Rhode Green Energy Park has three objectives:

**Strand 1:** Energy decarbonisation/ innovation hub built around renewable energy, hydrogen and electricity system integration.

**Strand 2:** Eco-industrial Park model whereby large-scale energy intensive employment – for example data centres, agri-food, horticulture, bio-economy – develops around the electricity and heat resources available

**Strand 3.** Educational / Innovation / Centre of Learning for Renewables and electricity grid: The purpose is to improve awareness within the community of how the energy transition is happening, for collaboration with stakeholders across the Midlands Region and to create Partnerships with Third Level Institutions.

## Centre for Competitiveness Executive Staff:

The Centre for Competitiveness is an independent, not for profit, membership organisation actively supporting the development of an internationally competitive economy through innovation, productivity improvement and quality excellence in the public, private & voluntary sectors of the economy.

It does this through collaboration with Queens and Ulster Universities and with international best practice networks and Universities for the delivery of business transformation services including digitalization I4.0 assessments and support, people upskilling, Innovation & New Product / Market developments and implementing new systems, tools, and techniques to enhance operational and breakthrough performance in efficient and effective ways of working. For further details contact a member of the Executive Staff,

### Contact Details:

**Bob Barbour** – [bob.barbour@cforc.org](mailto:bob.barbour@cforc.org)

**George Wilson** – [George.wilson@cforc.org](mailto:George.wilson@cforc.org)

**William Ussher** – [william.ussner@cforc.org](mailto:william.ussner@cforc.org)

**Dr Paul Madden** – [paul.madden@cforc.org](mailto:paul.madden@cforc.org)

**Dr Alan Blair** – [alan.blair@cforc.org](mailto:alan.blair@cforc.org)

**Dr Tony Lenehan** – [tony.lenehan@cforc.ie](mailto:tony.lenehan@cforc.ie)

The Executive Staff is supported by a range of Certified and Experienced Professional Associates in various disciplines in manufacturing and service industries across sectors.

## Market Message:

**Our Commitment:** If you need independent advice, support or customised business improvement or breakthrough problems solved – start with the Centre for Competitiveness before shopping around. By doing this you will save time and effort and be given a credible response. Contact a member of the Executive Team.

Tel: 02890 737950; M: +447710150020 Email: [compete@cforc.org](mailto:compete@cforc.org)

*If you have not engaged with the Centre or have been out of touch for whatever reason and wish to be updated on the assistance you can benefit from, do not hesitate to be in touch through the above contact points.*

## Board of Directors

Stephen Kingon (Managing Partner PWC Retired)	Chairman
Bob Barbour	Director & Chief Executive
Joe O'Neill (Belfast Harbour Commissioners)	Managing Director
Paul Stapleton (NIE Networks)	Managing Director
Ian Campbell (Translink)	Director of Operations
David Watson (Ryobi)	Managing Director
Andrew Robinson (Boomer Industries)	Managing Director
John Irwin (Denroy)	Managing Director
Dr Paul Madden (Ex Rolls Royce MD)	Consultant Managing Director
Brian O'Hare (Bombardier Aerospace)	Transformation Director
Brian McAreavey (PWC)	Partner & Director
Damian Duffy (Belfast Met College)	Operations Director
Dr Tony Lenehan (CforC Dublin Office)	Executive Director

Board Membership updated annually at the company AGM.

## MEMBERSHIP BENEFITS

- Access to international and local best practice networking
- Preferential pricing on support services (Discounted 15%)
- Dedicated Client Executive Advisory Service
- Membership Insights on Technology Trends
- Up-to Date Business Improvement Tools and Techniques
- Sign Posting & Arranged good practice visits for members
- Free Innovation Capability Assessments
- Members database – Member’s information updates
- Free Webinar Registrations delivered by the Centre
- Demonstration site visits on Manufacturing Technologies & Processes

A shift in economic power is currently underway as organizations look towards new ways of doing business. Given this scenario, it is imperative for stakeholders to keep pace with the dramatically evolving competitive international landscape, anticipate new avenues of growth and competition, create smart business models, and capitalize on these advancements taking over the global market.

# Employees	Annual Fee
1 – 10	£200 + vat / €240.00
11 – 20	£250 + vat / €300.00
21 – 40	£350 + vat / €410.00
41 – 100	£500 + vat / €585.00
101 - 500	£750 + vat / €880.00
501 – 1000	£1,000 + vat / €1200.00
➤ 1000	£1,500 + vat / €1800.00

For membership enquiries and registration forms, please contact [Lorraine.branagh@cforc.org](mailto:Lorraine.branagh@cforc.org) or [compete@cforc.org](mailto:compete@cforc.org).

Annual membership contracts are signed with registered member organisations along with a named and matched Client Executive for your membership on receipt of a membership registration form.







