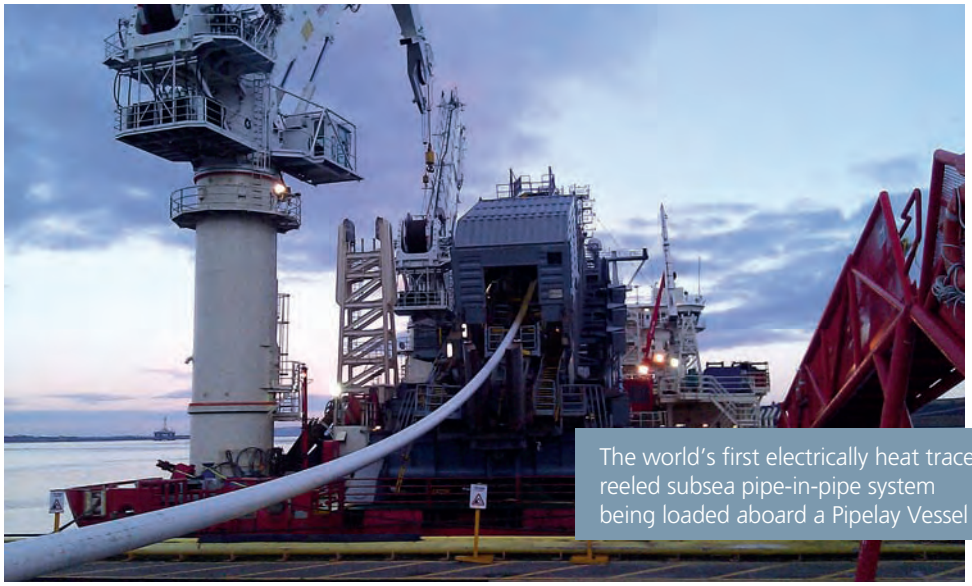
Heat Trace

Neil S. Malone, Chairman and Founder of Heat Trace Limited



The world's first electrically heat traced reeled subsea pipe-in-pipe system being loaded aboard a Pipelay Vessel

I witnessed the demise of large UK manufacturing companies during the 1960s and 1970s. Industries that had been the backbone of the UK's economy, such as shipbuilding, steel making and car manufacturing, saddled with pre-war plant and a labour force in a union straightjacket, competed with countries such as war-defeated Germany and Japan, which had invested in modern equipment operated by a flexible and often lower cost workforce.

Clearly, the company that I established in 1974 needed to be:

- niche, founded on innovation, and
- for longevity, innovation had to be continuous.

This has become the Heat Trace mantra and, although embellished along the way, it remains over 40 years on, enabling us to remain successful in a competitive environment.

History

The activity chosen was electric trace heating, an industry in its infancy in 1974. Electric trace heating involves the heating of pipelines and equipment with electric cables to, for example, prevent water from freezing, or to keep bitumen flowing.

By 1980, we had patented, developed and launched the world's first cut-to-length, flexible, electric heating cables. Throughout the 1980s and 1990s, through continuous innovation we introduced more unique heating cables and novel control systems, winning the Queen's Award in 1987.

ABOUT HEAT TRACE

- Technical leaders in electric heat tracing
- Innovation-led SME with a large intellectual property portfolio
- Over 40 years under the same independent ownership
- 90% of sales exported
- 13% of sales revenues expended on R&D
- Sacrosanct independence – private-equity resistant!
- Sees social capitalism as an alternative way forward

In 2000, we entered, somewhat belatedly, the field of semi-conductive self-regulating heating cables, which are much safer. These had first emerged in the 1980s but had not achieved their full potential. We set ourselves the objective of becoming the best in our field technically, and over the next 10 years we achieved this goal, surpassing all competitors worldwide on every measure of performance.

The result is that, as older products are copied and come under pricing pressure from, mainly, competitors in the Far East, our new superior, innovative high temperature products maintain the company's margins, and thus continue to fund our R&D. At Heat Trace the R&D spend accounts for more than 10% of our sales, in a market sector having an average R&D spend of less than 3%. This regime won for us the Queen's Award for Innovation in 2014.

We have become experts in our chosen niche market of electric trace heating, exporting 90% of our production. Sales are through distribution channels or as bespoke designed heating systems that are provided for engineered projects. New technology is communicated to our overseas sales offices at biennial conferences – this year's is in Tuscany!

Of course, for continuous innovation it is necessary to attract qualified staff. Our experience is that this is best achieved through our own youth academy. Here, talented young people are recruited through strong school and university links.

A highly successful apprenticeship scheme has been established, fed by schools local to our facilities in Helsby and Stockport, Cheshire. We have been successful in attracting the cream of the crop each year, resulting in teams being strengthened in the areas of R&D, design, production and marketing.

Heat Trace has also successfully utilised the Knowledge Transfer Partnership (KTP) initiative with local universities. In these 2- or 3-year projects, graduates (known as Associates) are supplied by the universities and, on completion of the project, we have the potential to employ them directly. The KTP scheme is proving a means of attracting highly talented young engineers.

A selection of electric heat tracing applications

The continuous introduction of new blood into the company has resulted in a balanced employee age-spread. This will help ensure continuity within the company when my time as the custodian of Heat Trace inevitably draws to an end! A plan to transfer our debt-free company to the existing management structure is in place, retaining a Malone family connection through my daughter Suzanne and her partner Dan Berrisford.

Throughout the company's history, I have played a leading role in the development of national and international standards for trace heating. These days, my colleague and Vice Chairman Jason O'Connor is the most visible member of the august standards-making committees – innovation continuing, across all areas of the company!

HRH Prince Edward Duke of Kent Presenting the 2014 Queen's Award for Enterprise (Innovation) to Neil S. Malone, Chairman of Heat Trace Limited

> “Our business model of a niche market, continuously innovating SME has become recognised by successive governments as a viable template for other SMEs”

The future

For the future, we are looking to transfer our semi-conductive technology into other applications and market sectors via partnerships in such fields as automotive, rail, nuclear, aerospace as well as space heating of buildings. Our extensive patent portfolio enables such business to include licensing of manufacture. So, after more than 40 years, innovation continues.

The Heat Trace culture – social capitalism

Our business model of a niche market, continuously innovating SME has become recognised by successive governments as a viable template for other SMEs. Progressively enticing tax incentives have been provided through:

- R&D tax credits
- the Patent Box
- accelerated investment allowances (first-year allowances).

Such incentives minimise corporation tax liability, assisting finances and permitting greater reinvestment back into the company. More projects can be undertaken (often in partnership with universities), creating employment opportunities.

The concept of the Heat Trace business model is different from that of most large companies, for which money is the driver. At Heat Trace, R&D, which produces innovation, resulting in novel products that create the wealth to fund the enterprise, comes first.

The Thatcher government quelled the union stranglehold and produced an incentivised environment, which was good. The flip side of that coin was that the changes also resulted in greed and huge disparities between the ‘haves’ and ‘have nots’, which is clearly not good from a social standpoint. At some stage the government simply must address the ‘fat-cat’ culture.

In Heat Trace’s model, the workforce is the company’s most valuable asset, whereas in many large businesses the employees are purely numbers. Thus we treat our workforce with respect, generosity and compassion, and this is reflected in bonuses from profits, and wage increases above the RPI or inflation. Emphasis is placed on delegation and empowerment of individuals within a framework.

This form of social innovation relies entirely on the independence of the company. Were Heat Trace to be acquired by another organisation – we receive approaches on a regular basis from competitors, almost all of which are owned by private equity funds – it would, no doubt, market our current technology, dispense with R&D, the cost of which would transfer to the bottom line, and sell the company on within a couple of years, thus creating a few more ‘fat cats’ at the expense of creative jobs.

However, in this same environment, some of our biggest competitors who spend nothing on innovation have become the best customers of Heat Trace, who do! Therefore, our independence is sacrosanct.

This then is the Heat Trace mantra – our form of social capitalism and innovation.

Some of the heat trace workforce at the 2014 Queen’s Award presentation