Looking Back on a Decade

by Colin Craney

As we move into the first quarter of 2020 and the third decade of the 21st century, this seems an appropriate point at which to consider the state of the industry, which I looked at last in ELEVATION's Issue 75 back in 2013. The economic, regulatory and political environment has developed significantly over the last six years.

In global terms, economists envisage an elevator market worth US$135 billion by 2026, with traditional traction units forming the largest financial contribution. (This is perhaps due to high-cost units required to meet increasing high-rise construction, reflecting the limits of speed and travel of the machine-room-less [MRL] elevator.), The MRL elevator follows, representing the highest unit count and predominant product. Finally, there is a not insubstantial hydraulic elevator market. The residential market is the predominant sector, followed by the commercial market, reflective of trends in urbanisation. Asia Pacific and Europe remain the predominant markets: China/Asia Pacific in terms of new equipment demand and Europe in economic terms. Economists forecast a pickup in global average gross domestic product growth to 3.4% during 2020. However, all the forecasts are qualified in terms of concerns relating to political uncertainties.

A presidential election in the U.S., together with the prospect of impeachment hearings, hang heavy upon the global economy. As we move into 2020, the spectre of trade disputes continues to cast a shadow upon the global economy. This is acute in relationships between the U.S. and China and the European Union, though economists envisage an easing of trade tensions during 2020. Given the industry's global supply chain, these factors are of concern. Indeed, I recall the complexities and restrictions arising during my time with Otis due to the Reagan Administration's Technology Embargo on the Soviet Bloc in the 1980s.

Trends emerging in the U.S. and Canada are indicative of moves toward increasing regulation of the industry. NYC's Elevator Safety Act, together with an Elevator Safety & Standards Board, will take effect in 2022 and require training and licensing of engineers and contractors. Similar provisions are in place or in development in other U.S. states, and moves including engineer/contractor licensing and mandated minimum response times, coupled with provisions requiring that landlords publish elevator reliability data for use by prospective buyers and tenants, are afoot in Canada.

Developments in social media include reports of statistical probabilities relating to elevator failure in particular cities or jurisdictions, again with calls for regulatory intervention. Social media is often critical of the industry's commitment (or alleged lack of it) in relation to reliability, with a perceived reticence to provide prompt rescue services. All these factors have given rise to pressures for the introduction of mandatory minimum response times.

The industry, particularly in Europe, appears to have learned from past experience in relation to interventions by competition regulators and has avoided further sanctions in that area.

Trends in urbanisation will continue and will support the development of the worldwide industry. The major new equipment markets remaining in the Asia/Pacific Region and recent economic reports indicate that China's manufacturing capacity is now such that it could, given the opportunity, possibly meet overall world demand.

We shall see changes in industry structure as Otis leaves the United Technologies Corp. umbrella and, after some 44 years, becomes an independent firm once again. As I write, thyssenkrupp's elevator business is up for sale and attracting interest from KONE and several non-industry commercial bidders.

Whilst both changes will financially benefit the parent companies, the offspring must now support their own R&D and finance and develop their business strategies and operational and management structures separate of the parent groups.

On the positive side, the new firms (even if thyssenkrupp Elevator should be acquired by another industry major, the effect on the combined organisation and on industry structure will be significant) will be free of the strategic shackles previously imposed by their parent firms and free to develop and evolve more organically and, perhaps, radically. Thereafter, it appears there will be some big decisions to be made. I think it also likely that the Japanese majors will seek to build upon and expand their current relatively limited presence in both Europe and the U.K.

In terms of technological development, the current focus on digitisation and interconnectivity will no doubt continue, albeit that a number of the industry's more radical and innovative developments appear to have stalled somewhat. This is due, perhaps, to conservative or risk-averse buyers and a subsequent lack of uptake. I envisage continuing developments in digitisation and note, in particular, the emergence of collaborations between industry firms and technology and information-technology firms from other sectors. In terms of the U.K., we have new regulation and standards in Lifts Regulations 2016 and EN 81-20 and -50.

Despite much huffing and puffing, the debate relating to payments in the construction sector remains just that — in effect, unresolved and stagnant. Perhaps the only effective development is arising in the judgement of Justice Coulson (as he then was) in Grove Developments Ltd v S&T (UK) Ltd [2018] EWHC 123 (TCC) and the alleged death of "smash and grab" adjudications. In the light of the Carillion debacle, together with later failures of several significant construction contractors, the government's delay in addressing the situation appears nothing short of negligent.

Phase 2 of the Grenfell Tower inquiry commenced on 27th January 2020 and will consider the technical aspects of the building construction, building services, vertical transportation and fire systems in relation to the disaster. The indication to be drawn from Phase 1 of the inquiry is of problems affecting all these aspects of the building. Whilst U.K. building regulation is in the course of an update, I anticipate significant regulatory intervention in relation to engineering and construction procurement, in design and management processes, and in terms of the allocation of responsibilities (thereafter, in relation to operational building management requirements). The indication at the time of writing is of a reduction in the Tall Building Threshold, from the current 18 to 11 m. Whilst it is not clear what, if any, effect this will have upon the industry, the general indication is of a tightening of regulation and standards in relation to evacuation and firefighting systems.

We have Brexit, the effect of which, at the time of writing, remains unresolved and still very much unknown. However, regardless as to the bluster and bluff of the politicians, the most significant supply chain and regulatory influence upon the U.K. industry lies in Europe, and a satisfactory and friction-free trade agreement is critical to the U.K. in terms of imports/exports, and the health of the U.K. industry.

Matters relating to energy and sustainability will continue to influence design and procurement, though the Industry has achieved significant improvements in this area.

I detect welcome signs of improvement in the industry's approach to training, though this has arisen belatedly. In my view, it has been driven by necessity, rather than any effective planned strategy. I also note the emergence of a level of criticism of current training structures and of the quality and extent of training schemes. Whilst I don't doubt that these criticisms may be valid, research is required so that matters raised may be substantiated and addressed. I do, though, share the sense of unease that has been voiced in certain aspects of these schemes. I am firmly of the view that the problems raised are reflective of a failure of government in terms of management of a vital resource for the future of the country. There are, however, some shining lights. Last year I became an end-point assessor for the CIBSE Building Services Apprenticeship Scheme, which leads through to degree apprenticeships. I was impressed at the quality of work and presentation, together with the abilities, knowledge and confidence displayed by the young candidates. Whilst the market in building services clearly surpasses that of the lift sector, it is surely time that we developed an industry-specific scheme of equivalent status, quality and standing. I am sure the lift sector has young engineers of a similar calibre who are currently denied the opportunities open to young engineers in the wider sector due to the absence of an equivalent structured scheme.

Increasing integration of remote monitoring and predictive maintenance technologies may be considered to provide the answer to the challenges facing the Industry and to address the criticisms raised. I doubt, however, that, in the absence of people-based training, systems and improved management, technology will provide the proverbial silver bullet. I also note, here in Europe, an increased propensity of courts in terms of awarding substantial financial damages in relation to elevator entrapments, which may act to spur operational change.

Given the globalised structure of the industry and in light of political and economic uncertainties, currency exchange factors may, after some years of relatively stable conditions, once again become a significant commercial consideration, much as the U.K. experienced at the time of the Brexit vote.

U.K. and Irish city skylines are awash with tower cranes, which, for our industry, is a positive sign. However, interest rates have been at historically low rates for some 10 years. Informed opinion appears to indicate this will continue through 2020 and, perhaps, in the longer term, although it is thought that quantitative easing in Europe will trail off at the end of 2020.

ELEVATION has transformed into ELEVATOR WORLD UK and now addresses a wider European and U.S. influence, together with an increased internet presence.

SVM Associates attended both Interlift and LiftEx during 2019, both of which were unparalleled successes. I was pleased to observe the many independent contractors and equipment manufacturers present and who exhibited at both events. I see this as a positive sign for the industry and a source of innovation and product development.

Continued

Internal	
Strengths	**Weaknesses**
♦ Established firms	♦ Insufficient workforce capacity
♦ Increasing number of SMEs	♦ Inadequate/untrained management
♦ Industry supply chains	♦ Inadequate training structures
♦ Developing technology integration partnerships	♦ Lack of structured investment
♦ Established installed equipment base (maintenance and modernisation)	♦ Threat of regulatory intervention
♦ Buoyant home market demand	♦ Unsustainable price competition
♦ Access to global supply chains	♦ Fragmented maintenance market (low cost of entry and inadequate controls)
♦ Presence of all international firms	♦ Limited U.K. manufacturing/export base
	♦ Propensity toward acquisition, rather than organic development

External	
Opportunities	**Threats**
♦ Urbanisation	♦ Brexit
♦ Demographics (aging populations)	♦ Delays to U.K. infrastructure Development (HS2 & Cross Rail II)
♦ Smart buildings	♦ Regulatory change/intervention
♦ Technology integration (Internet of Things, etc.)	♦ Global economic factors
♦ Infrastructure developments (airports and rail)	♦ Technology development (new entrants)
♦ Regulatory change/intervention	♦ Exchange-rate risk
♦ Buoyant home market demand	♦ Global economic factors
	♦ Interest rate risk

Figure 1: A few challenges and opportunities the industry will face as we move through the 2020s. Several items may be considered two-edged swords.

Leaving aside the political and economic risks, I am optimistic about the industry's future and its capacity to develop in response to changes in the wider environment. However, I am, by nature, an optimist, and I might be a little less confident in relation to the industry's capacity to form wider strategies such as those that would allow it to react quickly and coherently in response to change, such as to maximise its potential and develop and enhance its service offering. Overall, I see an industry that could, given the appropriate coherent strategic approach, address its current challenges and develop as an exemplar in the field. This, however, require a change in approach and an investment in its structure, management and people, supported by, and in response to, technological developments.

Colin Craney has 42 years of industry experience, initially in a number of field and management roles with Otis, followed by 17 years in consulting, currently for SVM Associates. Colin is a U.K. chartered engineer and fellow of CIBSE, European engineer, chartered safety and health practitioner, accredited consultant on the HSE Occupational Safety and Health Consultants Register and a member of the Chartered Institution of Occupational Safety and Health. Colin is a barrister, having been called to the bar by the Honourable Society of the Middle Temple. Colin is a Fellow of the Charted Institute of Arbitrators, an accredited mediator and a chartered manager and fellow of the Chartered Management Institute. Colin has been appointed in relation to hundreds of failure investigations, regulatory enforcement prosecutions, commercial claims and disputes. Areas of interest and expertise include the EC Directives, law and regulatory compliance applicable to the lift industry, management, health and safety in the lift industry, CDM 2015 principal designer, authorising engineer under NHS HTM 08-02, the modernisation of historical lift installations, lift and escalator related dilapidations and landlord and tenant disputes, competition and intellectual property law, incident and failure investigation, alternative dispute resolution and expert witness. Colin Craney is a forensic and consultant engineer, accredited mediator, management consultant and chartered safety and health practitioner with SVM Associates, a practice of independent lift and escalator and building services consulting engineers. He may be contacted at colin.craney@svma.co.uk.

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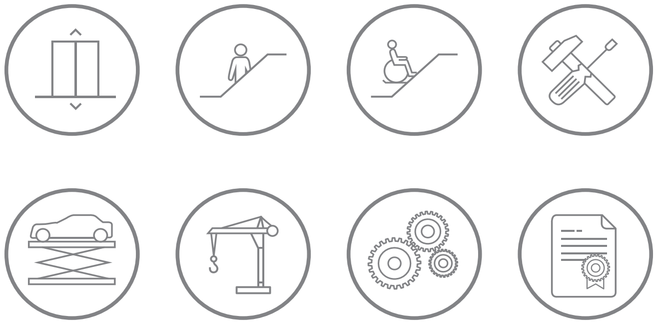

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