ALFED 60TH ANNIVERSARY
ALUMINIUM FEDERATION

1962-2022

THE VOICE OF UK ALUMINIUM

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FOREWORD

In the Aluminium Federation's diamond year, this history produced by Professor Andrew Perchard, Professor Niall MacKenzie, and Dr Duncan Connors both celebrates our history and offers valuable lessons for the Federation and the UK aluminium industry as it rises to the challenges of the future. As it makes clear, ALFED's history is that of the industry.

Now, as throughout ALFED's history, the aluminium industry faces risks as well as opportunities. This history demonstrates that the Federation in the time-honoured fashion of the industry has most successfully responded to crises and opportunities when it cooperates (nationally and internationally). At key junctures, ALFED's ability to respond has required acute leadership to identify the capabilities required to promote and represent the industry and adapt the organisation accordingly, and an active membership that recognises the value of partnership, to maintain the vitality of UK aluminium. Such cooperation will be vital as the sector grasps the challenges of Net Zero and navigates current political and market risks.

This meticulously researched history, informed by historical documents and interviews with former and serving ALFED officeholders and staff, demonstrates the importance of understanding our history not just for posterity but also as a vital strategic resource for the Federation and the industry looking to the future.

TOM JONES
ALFED CEO

CHAPTER ONE

INTRODUCTION

From its inception in 1962, the Aluminium Federation (ALFED) has grown to become the respected voice of the UK aluminium industry. An industry that today contributes £2.7bn to the UK economy and employs 37,000, with a spill-over to 104,000 jobs and £7.4bn in gross value added.[1] Aluminium lies at the heart of the UK's manufacturing base and is central to key ambitions for combating climate change and sustainability, and regeneration and resilience.

ALFED's diamond jubilee project was conceived of both to celebrate the Federation's history and to provide a resource for the future.[2] This commemorative booklet identifies key and recurrent themes in the Federation and industry's history and future of cooperation, renewal, and resilience. Those themes have served the industry well in meeting challenges and opportunities and have been vital to ALFED's endurance. On those pillars of acuity and adaptability to change, the capabilities to support those, and continued partnership lies the sustainability of UK aluminium. This history also situates the Federation's story within the changing domestic and global industry context contingent upon and subject to wider economic and social changes. Understanding the importance and recurrence of the themes of cooperation, renewal and resilience against social and economic change is of vital importance for the Federation as it faces and plans for current and future opportunities and challenges.

As surviving historical records within ALFED's possession were sparse, we have pieced together this history through sources drawn from a variety of other places. During the course of the research we have incurred a number of debts. We should like first and foremost to thank Tom Jones, Margaret Lane, Kirsi Lintula, and Jacquey Parker for their unwavering support of this project. Dr David Harris has also provided invaluable support, as have Giles Ashmead, Clive Bush, Joan Chesney, Colin Davies, Henry Dickinson, Mike Dines, Jan Lukaszweski, Simon MacVicker, Otto Realf Norland, Will Savage and Carl Tomlinson. We would also like to thank Elvire Coumont at the archives of the Institut pour l'Histoire de l'Aluminium, Dr Mari Takayanagi at the Houses of Parliament Parliamentary Archive, and the archivists at Glasgow University Archive Service and the UK National Archive, and Dr Marco Bertilorenzi, Università di Padova. Any errors are ours alone.

We hope that the project provides a valuable resource for the Federation and the Industry going forwards.

Professor Andrew Perchard *PhD, FSA Scot, FRHistS, FRSA*
Professor Niall G MacKenzie *PhD, FRSA*
Dr Duncan Connors *PhD, FRSA*

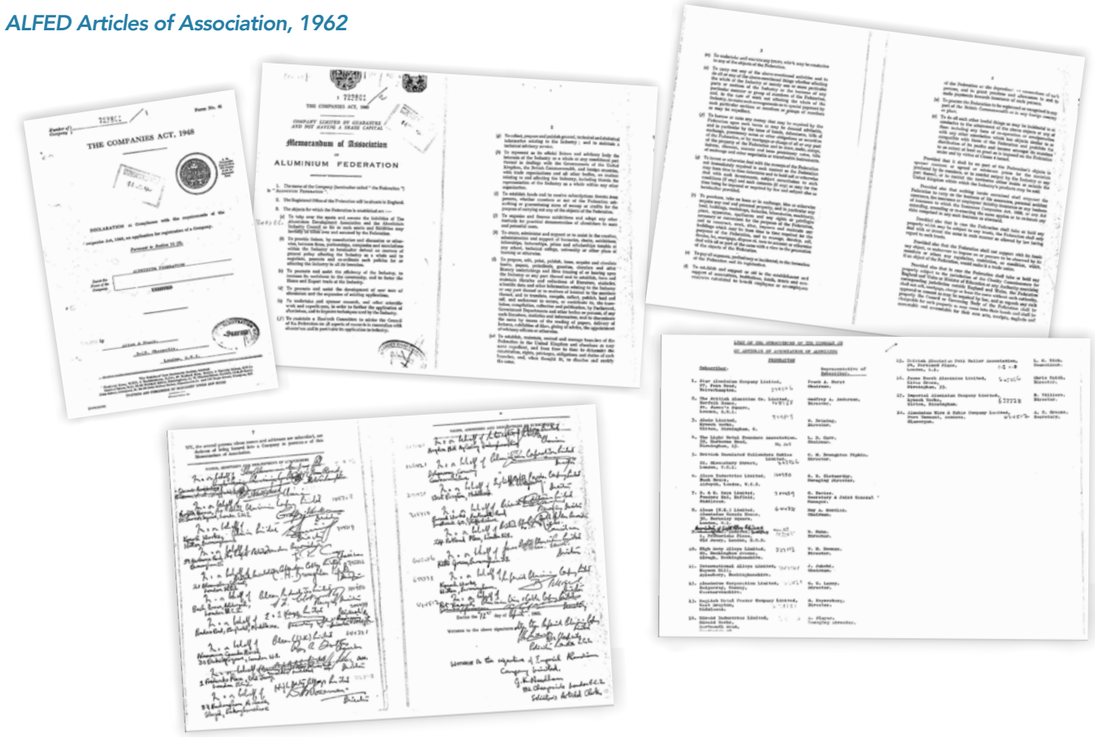
[1] ALFED/ Fraser of Allander Institute, ***The Aluminium Industry in the UK*** (ALFED/ FoAI, 2021); ALFED/ FoAI, ***The Aluminium Industry in the UK*** (ALFED/ FoAI, 2022).
[2] Perchard, MacKenzie and Connors, 'Sixty Years of the Aluminium Federation, 1962 – 2022', ***Aluminium News***, Issue 12 (March 2022), pp.12-14; Andrew Perchard, Niall G. MacKenzie and Duncan P. Connors, 'The Aluminium Federation, 1962-2022: Forging a Voice for UK Aluminium', ***Aluminium International Today***.

CHAPTER TWO

BIRTH AND GROWTH

The 16 subscribers to ALFED's original articles of association in April 1962 sought an organisation that would not just assume the responsibility of its forebears, the Aluminium Development Association (ADA) and the Aluminium Industry Council (AIC), in promoting technical knowledge, education and the uses of aluminium, but also one which would actively encourage cooperation across the industry and with governments.[3]

ALFED Articles of Association, 1962


THE COMPANIES ACT, 1948

Memorandum of Association
of
ALUMINIUM FEDERATION

[3] Companies Act, 1948. Articles of Association: Aluminium Federation Ltd., 12 April 1962, p.2.

In 1962, the UK aluminium industry was just over a century old. The first aluminium having been produced using the Deville process by C H Gerhardt in Battersea, London, and Bells Brothers in Washington, Newcastle upon Tyne, in 1859. Britain's modern aluminium industry dated from the opening of the British Aluminium Company's first reduction works and hydro-electric scheme at Foyers on the banks of Loch Ness in 1895. Domestic and global demand for aluminium expanded dramatically during the First World War, with its various military uses, and then increasingly in civilian spin-offs from kitchen pans to transport.[4] That expansion of the metal in the interwar years of 1919-39 was in no small part a result of international industry cooperation and government sponsorship. After 1945, this cooperation resumed with a variety of European and international initiatives (see chapter 3).

By the early 1960s, the UK aluminium industry was presented with considerable opportunities. It was also confronted by a number of challenges. On the one hand, the UK was experiencing significant growth with rising affluence and national infrastructure investment, notably in transport (accounting for almost one third of the domestic aluminium market), with the growth of national airlines and passenger and transport planes, new rolling stock for the railways, the advent of shipping containerization (in 1956) and household car ownership (which almost quadrupled between 1950 and 1960). However, the UK and global industry had been shocked to their core by the hostile takeover of Britain's leading aluminium producer (and one of the global industry's first movers), the British Aluminium Company Ltd. (BACo), by relative US newcomer Reynolds Metals and UK downstream steel producer, Tube Investments. Following the passing of the 1956 Clean Air Act, the secondary aluminium industry was confronted with a pressing need to modernise and clean up emissions (see chapters 5 and 6). In 1963, Britain's application to the European Economic Community (EEC) was refused with implications both for the supply and prices of raw materials and access to markets. While US takeovers of British firms, such as the cause célèbre of British Aluminium, stoked European industry and political leaders fears that a newly admitted UK would act as a staging post for US companies to exploit European markets and launch more hostile acquisitions. The European Free Trade Area formed by Austria, Denmark, Norway, Portugal, Sweden, Switzerland, and the United Kingdom in 1959 had also failed to realise significant gains. Concurrently, exports to Commonwealth countries had been steadily declining. Meanwhile, the UK was heavily reliant on imports of aluminium ingot from Canada, with BACo's West Highland smelters unable to meet domestic demand. This then was the situation that UK aluminium, and the newly formed ALFED, found itself in by 1962.[5]

Initially operating out of offices in Birmingham and London, ALFED's early office holders sought to advance the interests to the utmost of their abilities and experience within the context of the industry of the day.[6] ALFED faced initial disruption when their first nominated Director-General (1960-1963), General Sir Geoffrey Bourne, withdrew and then publicly resumed the role. Bourne's role was more of a nominal one but significant in placing a decorated military officer and former Commander in Chief of Middle East Land Forces and then Director-General of the Army for prominence and access to important government ministries (mirroring the leading global aluminium majors, such as Alcan and BACo).[7]

[4] Perchard, 'A "Micawber-like" Undertaking?'; Perchard, Aluminiumville.
[5] West, 'Aluminium in Britain 1960-1970'; Aluminiumville.
[6] 'The Aluminium Federation', Financial Times, 17 May 1962, p.20; 'Aluminium Federation', Financial Times, 15 January 1963, p.12.

General Sir Geoffrey Bourne, 1954: ALFED Director-General, 1960-1963

Dick (H.R.) Murray-Shaw ***(Secretary-General, 1962-1972)*** led much of the day-to-day direction of the Federation supported by the Federation's Council and a succession of presidents (see appendix for a list of ALFED office holders). Murray-Shaw and the staff of the Federation worked hard to achieve the ends set out in the articles of association. However, the skills and experience of the ALFED staff, inherited from the ADA and AIT (including Murray-Shaw, who was a statistician), lay chiefly in the dissemination of technical knowledge and training. They were not best placed to meet the fresh challenges of the fast-changing global industry or of the domestic economic and political environment.

These shortcomings in public affairs and political aptitude were highlighted by the issues arising from the fallout of the government-sponsored smelter lottery launched in 1967, part of the Labour government of Harold Wilson's 'White Heat' revolution to modernise British industry. The government's proposal was to encourage the development of a new generation of aluminium smelters at three locations (Anglesey, Invergordon and Lynemouth) and in so doing reduce imports of aluminium ingot (and address the UK's balance of payment issues) while sponsor the expansion of civil nuclear power development, notably the new Advanced Gas-cooled Reactors (AGR) stations. The difficulties around these negotiations highlighted what was a recurrent issue for the industry and the Federation, that of energy supply and pricing.[8]

The Federation was also increasingly encumbered by the reach of its membership and the composition of its governance structures, notably the ALFED Council and specifically the power exercised by the vertically integrated global majors (BACo, Alcan and Alcoa). By 1972, matters had come to a head, with a growing number of industry leaders increasingly disgruntled at the governance and direction of ALFED publicly demanding reform. As the Financial Times in May 1972 reported: 'The Federation has been shrinking in scope and budget for several years. Its London offices (headquarters are in Birmingham) were closed to save money [ALFED sold its London offices in 1969]. The problem has been that the membership of the Federation were not happy with it. It has only about 29 members, either primary producers or semi-fabricators… they dominate the Federation. This top-heaviness meant that the other firms were unwilling to put much money into the Federation efforts.'[9] The coup that followed led to the departure of Dick Murray-Shaw and his replacement by deputy Paddy Matthews **(Secretary-General, 1972-1988)**. Paddy Matthews

[7] The office of Director-General subsequently disappeared: 'General's Post on Kenya Land Trust Board Abolished', The Times, 4 March 1963, p.8; 'Obituary: General Lord Bourne', The Times, 29 June 1982, p.12; 'Bourne, Baron of Athertone', Who's Who; Aluminiumville; Perchard and MacKenzie, 'Aligning to Disadvantage'.
[8] MacKenzie, 'Be careful what you wish for'; Aluminiumville; 'Aligning to Disadvantage'.
[9] Office move by Aluminium Federation', Financial Times, 18 December 1969, p.17; 'Aluminium Federation', Financial Times, 9 July 1973, p.11.

subsequently set out the vision for the reform of the Federation in July 1973: 'The broader base of the federation will also enable it to speak and act authoritatively, both nationally and internationally, on behalf of the industry as a whole.' [10]

Matthews, with the support of successive presidents but most instrumental initially Ronny Utiger (***President, 1972-1973***), oversaw the progressive restructuring of the Federation around a new constitution intending to better meet the needs of the industry's wider membership with the creation of 10 industry associations, each with a representative on the ALFED Council. The form that ALFED's reorganisation took was also informed by the recommendations of the 1972 report of the Devlin Commission on Industrial and Commercial Representation sponsored by the CBI and the Association of British Chambers of Commerce. Nevertheless, the distinctions and sense of dominance by the global majors persisted for some time. As Otto Realf Norland (***Vice-President, 1981; President, 1982***) observed when he joined ALFED's Council in 1978 upon becoming Alcoa GB's chairman:

> *I was also automatically appointed to the Council of the Aluminium Federation. Alcan and British Aluminium were the biggest aluminium companies in the UK, followed by Alcoa, and many large manufacturing companies were also represented by their managing director or chairman. The Stockist Federation and other specialist associations had one representative each, and the council totalled around 18 men, half of whom were old industrial hands and pipe smokers.*[12]

These reflected broader changes in British industry at a time when there was a real drive to modernise and professionalise management practice and leadership, and distinctions between technical managers and gentlemen directors and those from graduate management programmes and those bringing external perspectives.[13]

ALFED's restructuring came in time to meet wider seismic changes in trade policy, global aluminium markets and international industry cooperation. These included the UK's joining of the EEC and the formation of the International Aluminium Institute; both in 1972. More profound though for global and domestic aluminium markets was the floating of aluminium futures on the London Metals Exchange (LME). ALFED and the large majors initially vehemently opposed the LME aluminium futures contract preferring to stick with long established price lists. BACo and Alcan, and subsequently ALFED, sought support from the British government's Department of Trade and Industry (DTI) to oppose the LME's moves, following on from longstanding concerns about dumping of cheap imports. Ultimately this failed because the LME had already sought prior approval from the Board of Trade and Bank of England, amongst others, and so DTI ministers were constrained. Similar moves by the European Primary Aluminium Association were thwarted by the European Commission's competition directorate (DGIV) who supported the LME and pursed anti-trust action against primary producers until 1985. The episode once again underlined the importance of coordinated action by trade associations and cooperation across borders on such matters.[14]

This was followed swiftly after by the demise of British Aluminium and its merger with Alcan Aluminium UK. Though vulnerable for decades, the merger ensued BACo's near bankruptcy resulting from the power contracts to the short-lived Invergordon smelter (1971-1981) and the failure of the new Hunterston B AGR to be completed on time and meet the energy costs that were anticipated for it. It would underline an ongoing concern for the industry about energy costs, which linked to pressing campaigns with government and in parliament. The industry was also facing controversies arising from claims made about the flammability of aluminium in warships, following the Falklands War (April-June 1982) (see chapter 4). With Alcan's merger with BACo on the table by the autumn of 1982, the Financial Times observed on Tuesday 26 October: 'Tomorrow's annual dinner of the Annual Federation at the Savoy, London, promises to be an interesting affair when suitors, their intended, and fascinated onlookers sit down together.'[15] As former ALFED president (and BACo MD and chairman) Ronny Utiger asked ominously the year before to an industry audience in Oslo, with the effect of the impact of LME aluminium futures and the crisis at his own company weighing heavy: 'Does the aluminium industry have a future [in Europe]?'. Utiger also urged the European industry as a whole, in light of greater liberalisation and an end to protection, to 'start thinking now about the implications for policy and management'.[16]

The pivotal decades of the 1970s and 1980s profoundly altered the global and domestic aluminium industry and highlighted the need for ALFED's need to increase its visibility and voice in Parliament and with government, and strengthen its capabilities in public affairs, as well enhancing its technical training to support knowledge exchange and innovation in the industry. This was particularly noticeable around the issues of emissions, energy prices and recycling. Factors that were made all the more pressing by the greater attention to tackling pollution, climate change and the impact that the floating of aluminium on the LME had on prices. The plummeting of global aluminium prices was compounded with the collapse of the Soviet Union in 1991 which led to the flooding of markets with cheap ingot leading to a significant scaling back of UK primary production. All of this highlighted the profoundly different positions occupied by sections of the ALFED membership, most pointedly between the large primary producers and stockists.[17]

It fell to Paddy Matthews and his replacement, Dr David Harris (***Secretary General, 1988-2005***), to meet these challenges. However, on taking up office, David Harris still felt that ALFED was not adequately equipped to be responsive observing of his first day at Broadway House:

> *During my first staff meeting I explained that we were a service organisation that worked on behalf of the industry to make the member companies more efficient, more safe, more profitable, more knowledgeable, more sustainable and more productive to ensure, as far as we could, that the aluminium products were more saleable, of the highest quality and more fitting for the markets we served. I told them that the Aluminium Federation*

[10] 'Aluminium Federation', Financial Times, 9 July 1973, p.11; Harris, 'The Aluminium Federation – A Fifty Year History', 2012.
[11] 'New Chief for the Aluminium Federation', Financial Times, 7 December 1972, p.18.
[12] Norland, The Magic of Merchant Banking, p.278.
[13] Tiratsoo, 'Cinderellas at the ball'; Tiratsoo and Tomlinson, Industrial Efficiency and State Intervention; Tiratsoo and Tomlinson, The Conservatives and Industrial Efficiency; 'Aligning to disadvantage'; Perchard and Gildart, 'Managerial ideology and identity'.
[14] Transcript of letter from Ronny Utiger, BACo, to M. D.C. Clark, DTI, 25 August 1976; Memo from Victor Besso, Pechiney Trading Company (US), to Michel Castera, Aluminium Pechiney, 'Aluminum on the LME', 4 May 1978, Institut pour l'histoire de l'aluminium; 'Metal Exchange to start aluminium futures trading', Financial Times, 23 August 1978, p.19; Bertilorenzi, 'From cartels to futures'; 'Anti-dumping bid by U.K. aluminium trade', Financial Times, 30 September 1970, p.4; 'Anti-dumping duty', The Times, 1 October 1970, p.24.
[15] 'Men and Matters: Rude Awakening', Financial Times, 26 October 1982, p.20; Aluminiumville; Bertilorenzi/ European Aluminium, Aluminium's Advocate.
[16] Ronny Utiger, 'The futures of the aluminium industry in Europe', 26 November 1981 quoted in Aluminium's Advocate, p.4
[17] ALFED, Fact Sheet, 1992; Aluminiumville.

was like a shop to which aluminium companies came for information, advice, a place where experiences could be shared in committees and interest groups, a place that could represent the whole industry to the wider world of government, the media, education at all levels and to the general public. I told them that if companies didn't like what we had to offer they would go to a different shop.[18]

David Harris proved himself to be a particularly effective and robust public advocate for aluminium, adopting an unflinching approach with the media. In this, he was supported by successive ALFED presidents, the Federation's Public Affairs Committee and the All Party Parliamentary Group (see chapters 4 and 5). Between the 1980s and 2000s, ALFED also became especially proactive in a number of campaigns to encourage greater public understanding of recycling.[19]

By the 21st century, the domestic and global aluminium industries had profoundly changed. Many of the global majors disappeared during the first decade of the new century, with Alcan being absorbed by global conglomerate miner Rio Tinto in 2007. Of the first movers in the industry, only Alcoa remained standing. This had a profound impact on ALFED's membership, structures and outlook, as David Harris' successor Will Savage (***CEO, 2005 – 2017***) acknowledged in an interview with *Light Metal Age* in 2015.[20] As successive presidents and Savage captured, this was a period of soul searching for ALFED as it sought to reorientate itself and enhance its capabilities to reflect the changing circumstances and context. Shortly after ALFED took the decision to move out of its fond and settled, but increasingly costly, home of Broadway House in Birmingham to the National Metalforming Centre in West Bromwich.

Departing Broadway House, 2006
(L-R: Will Savage and Joan Chesney; ALFED team)

[18] Correspondence with Dr David Harris.
[19] ALFED, Annual Reports, 1988-1998.
[20] 'The Changing Shape of the UK Aluminium Industry'.

Will Savage's replacement and current CEO Tom Jones (***2017-***) has prioritised the expansion of ALFED's membership base and strengthening relationships with government departments, the UK Metals Council and maintaining international partnerships. This has coincided with another period of profound upheaval for the domestic industry and economy, notably responding to the UK's exit from the European Union and COVID-19. ALFED is also demonstrating its industry leadership and social responsibility by committing to Net Zero and Sustainability as central to its future vision.

Throughout its 60 year history, ALFED has witnessed significant and lasting changes in the domestic and global industry, alongside seismic market and political upheavals. ALFED, in meeting those challenges and opportunities, has transformed to meet those challenges with changes in its governance, strategy and the capabilities of the organisation to a profoundly different organisation from that of its early years. Nevertheless, it is one which responds to those original articles of association.

CHAPTER THREE

INDUSTRY COOPERATION AND NETWORKING

ALFED emerged into an industry that had long experience of the value of inter and intra industry cooperation. Like other industry trade associations, ALFED has faced periodic challenges in balancing the differing interests of the industry, covering the entire supply chain, with the need to expand its membership. Through ALFED's events and associations, its international industry networks and intra-industry collaborations, it has sought to promote the voice and interests of UK aluminium, at times in chorus with other industries. In growing and adapting as an organisation that has required acquiring the right capabilities and connections within the Federation, whether in public affairs, public relations and communications. Those ALFED staff, as well as leaders of the Federation and governing bodies, have made the organisation what it is.

Historically whilst the aluminium industry has been competitive, especially in the downstream, it has also been characterised by a notable capacity for collaboration too. This started in 1901 with the agreement between the first movers. The Aluminium Association (1926-1931) and then the Alliance Aluminium Company (AAC) (1931-1939) formalised the height of this transnational industry cooperation in the interwar years with coordination and inter-firm knowledge transfer on marketing, research and development, and transportation.[21] The UK industry also had abundant experience of such inter and intra industry collaboration during the interwar years (1919-1939) through its participation in the British Non-Ferrous Metals Research Association formed in 1919, which brought together a large network of companies, professional societies, laboratories and universities, funded by government and with input from the newly created Department of Scientific and Industrial Research. It was such networks that produced pioneering work on aluminium alloys, notably for use in aircraft production.[22]

After 1945, this tradition for aluminium (and non-ferrous metals) industry cooperation continued with several important European and International initiatives: the Centre international pour le développement de l'aluminium (1950); the European Wrought Aluminium Association (EWAA) (1953); the Aluminium Foil Conference (AFC) (1955); the European Foil Convertors (who merged in 1972 with AFC to form and the European Aluminium Foil Association), and Comité de Liaison des Industries de Métaux Non Ferreux (later Eurométaux) (1957); and the Organization of European Aluminium Smelters for the Secondary producers (1960). European primary producers had formed The Club after the Treaty of Rome (1957), which focused both on collaboration over trade policies but also social activities such as an annual skiing trophy. This became the European Primary Aluminium Association (EPAA) in 1969. These organisations were superseded with the establishment successively by the establishment of the International Aluminium Institute in 1972, and the European Aluminium Association (formed out of EWAA and EPAA; now European Aluminium) formed in 1981, with whom ALFED either played a central role with or have enjoyed long and productive relationships. Prompted by the global economic and energy security of supply issues, primary producers followed this

[21] Bertilorenzi, The International Aluminium Cartel.
[22] Aluminiumville.

with the formation of the International Primary Aluminium Institute in 1972. The strength, derived from such alliances, for example, were evident in collectively negotiating with European Aluminium through Eurométaux over the Generalised Agreement on Tariffs and Trade (GATT) and with the relationship between the EEC and other trading blocs and authorities.[23]

In a fast-changing global market and political environment, while trying to service the needs of an increasingly diverse membership, required ALFED to have an adaptability and access to global networks and influence across borders. So that much as the perceived dominance of the global majors might have bred some resentment amongst sections of the Federation's membership, the experience of some of these directors from the large vertically integrated multinationals of working across borders and in other sectors and their networks in national and transnational governments, as well as business, was invaluable. These included: BACo MD and then VP Reynolds Metals Gus (G.B.) Margraf (***President, 1967-1968***); Alcan Aluminium UK MD and then Chairman John (P.J.) Elton (***President, 1969-1970***); BACo MD Ronny (R.E.) Utiger (***President, 1972 – 1973***); BACo MD Dick (L.S.F) Charles (***President, 1977***); Alcoa GB chairman MD Otto Realf Norland; and British Alcan's Paul (P.J.) Rata (***President, 1999-2001***). Otto Norland, for example, was a former MD of Hambros Bank with extensive networks and experience in the European aluminium industry (as well as in shipbuilding) and the European Commission and Parliament brought valuable connections on this front both in forging links in Europe and with the newly formed European Association. Dick Charles served as the European Aluminium Association's first chairperson and served on the General Assembly and Aluminium Group of Eurométaux. Gus Margraf, John Elton and Paula Rata either had well-developed connections within the global industry or within government (or both). Such connections would be very useful to ALFED and its members as the Federation negotiated global trade agreements, regulation, and shared interests across borders such as in relation to imports and energy costs.[24]

L-R: G.B. (Gus) Margraf; P.J. (John) Elton MC; and Otto Realf Norland.

Alongside such valuable transnational and intra-industry collaborations, two annual events above all during ALFED's 60 years have come to embody the worth of networking and its importance to raising the profile of the industry and cooperation, as well as providing the foundation of many long-lasting friendships over the years: the House of Lords lunch; and the business briefing and dinner.

The House of Lords Lunch has provided a focus for the industry to convey issues of pressing concern to parliamentarians, as well as enjoying the pleasure of the well-stocked Palace of Westminster's cellars and dining room, since 1989. The annual dinner and business briefing, originally held in the grandeur of the Savoy Hotel in London, has been the occasion for some memorable events. Amongst these, celebrity scientist Dr Heinz Wolff provided a demonstration of Henri Saint-Claire Deville's 1856 process for the chemical reduction of aluminium at the 1997 annual dinner. Remembering the event 20 years, David Harris recalled:

> *It is hair-raisingly dangerous – and the Savoy very sportingly agreed to turn off the smoke alarm and to disconnect the water sprinklers that were in the ceiling. The demonstration worked perfectly and the piece of aluminium metal that was produced now sits on my desk. Had it all gone wrong and had the sprinkler system all been working, my future in aluminium would have ended on the spot.* [25]

Both David Harris and Heinz Wolff lived to fight another day, with the latter also returning to perform further experiments at the ALFED 2006 dinner.

Dr Heinz Wolff plying his trade at the ALFED Annual Dinner, 2006

2013 ALFED dinner, DeVere Tortworth Court. Courtesy of Dr David Harris. L-R: Nick Kendal, Alupro representative on ALFED Council; Dr David Harris; Joan Chesney, Novelis and ALFED President, 2006-2007; Derek Webb, Aluminium Stockholders Association representative, AlFed Council; Paul Rata, British Alcan and ALFED President, 1999-2001.

ALFED's national and transnational industry cooperation and networking activities build on a long history of this within global aluminium. They have been vital to its activities in collaborating to raise the profile of the industry and promote its interests, as well as in encouraging knowledge exchange and innovations. The experience and skill of ALFED staff past and present has been crucial to building and maintaining those networks and ensuring their effectiveness.

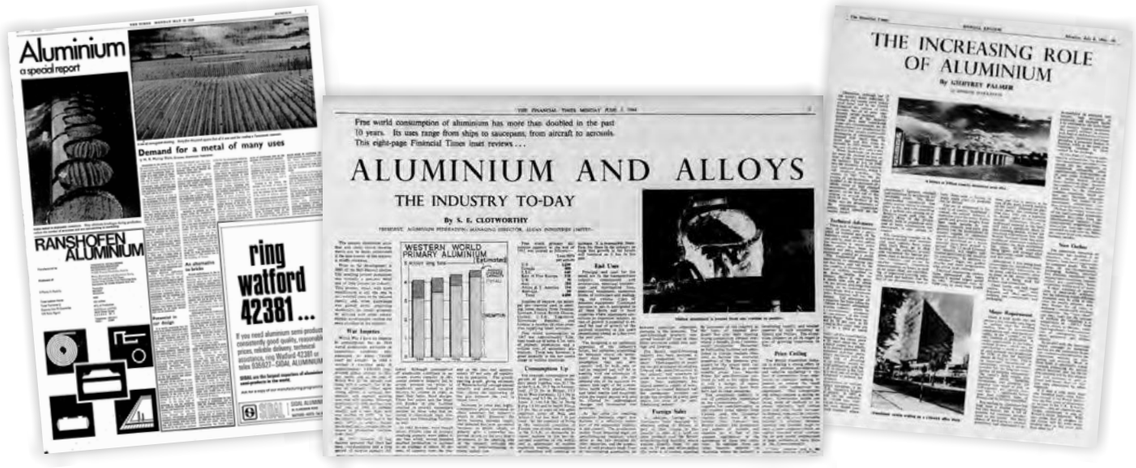
[23] Aluminium's Advocate; 'From cartels to futures'; ALFED, Annual Report, 1988, p.9.
[24] Correspondence with David Harris; 'Obituary: Mr G. B. Margraf', The Times, 12 July 1969, p.10; The Magic of Merchant Banking; ALFED, Annual Report, 1988; 'Memorial Service: Mr Ronald Ernest Utiger', The Times, 8 December 1995, p.20; Aluminiumville; 'Aligning to Disadvantage'.

[25] 'Lives Remembered: Heinz Wolff', The Times, 26 December 2017, p.52.

CHAPTER FOUR

ADVOCATE FOR ALUMINIUM: PROMOTING ALUMINIUM

Within ALFED's first decade, growth in sectors such as transport offering considerable opportunities for aluminium, with Dick Murray-Shaw declaring exuberantly in May 1969: 'Aluminium is a metal for today and tomorrow. It is the metal of opportunity.' [26]



Such confidence and optimism were reasonable and reflected the tried and tested way in which ALFED's predecessors AIT and ADA had promoted the industry. In focusing on aluminium's contribution to such modern and impressive symbols as the QE2 and the Concorde, Murray-Shaw mirrored the language of modernity that the industry had long embraced and reflected the confidence of the space race and came on the back of Labour leader (and by then PM) Harold Wilson's 1963 speech in which he declared that Britain was going to be transformed by the "white heat" of a "scientific revolution". The problem with such boosterism is that it was insufficiently proactive where it came to promoting the industry in other ways, in part because the inherited staff lacked that vision and experience and were not sufficiently alert to the looming threats to the industry's

[26] 'Demand for a metal of many uses', *The Times*,12 May 1969, p.1.

reputation and markets coming down the road. More broadly that reflected the need for adept and assertive spokespeople for the industry to the media and to governments. It demonstrated their tendency to be out of step with the consumer too, preferring the comfort of business-to-business appeals, who was by the 1960s growing acquainted with new packaging in which plastics were stealing a march in certain areas, although firms like Reynolds Metals became highly adept with partnerships with drinks producers. [27]

L-R: The QE2 launching at John Brown's yard in Clydebank, September 1967; First flight of the Franco-British Concorde Prototype, March 1969.

During Paddy Matthews tenure, one particular issue highlighted the importance of a more strident and effective approach to public relations: the controversy over aluminium and fire. This also underlined the need for the industry to cooperate internationally on such matters and to develop professional capabilities.

Aluminium and Public Relations: Aluminium and Fire

After a fire on US Navy cruiser USS Belknap during which its aluminium superstructure collapsed following a collision with the USS John F. Kennedy in the Mediterranean in November 1975, misinformation started to spread about the flammability of aluminium. Following the sinking of Type 42 destroyers *HMS Sheffield* and *HMS Coventry* and Type 21 Frigates *HMS Antelope* and *HMS Ardent* by bombing during the Falklands War in 1982, some media outlets started circulating misinformation and continued to propagate stories suggesting that aluminium had caught fire on these vessels and was responsible for their sinking.[28]

The subsequent Royal Navy and Ministry of Defence (MoD) enquiries into the sinking of these vessels neither supported the assertions of the flammability of aluminium nor did they attribute their sinkings to shortcomings in the metal. The MoD's subsequent report, *The Falklands Campaign: The Lessons,* released in December 1982, concluded of aluminium: 'there is no evidence it has contributed to the loss of any ships'. While the chair of the MoD Working Party on ship design reported to the press that same month: 'I am not aware of any evidence to suggest that any ship was lost because of the use of aluminium in its construction, nor was there any evidence that aluminium or aluminium alloys had burned or suffered from a series of small explosions.' [29] These MoD findings were reiterated in technical research in the decades that followed.[30]

[27] Zimring, Aluminum Upcycled.
[28] 'Aluminium: fire risk versus more stability', The Times, 25 May 1982, p.4; 'Lessons from sinking of the Sheffield', The Times, 26 May 1982, p.4; 'Commons inquiry told of warship design dilemma', The Guardian, 15 March 1984, p.6.
[29] Royal Navy, 'Loss of HMS Sheffield – Board of Inquiry', correspondence 25 May – 8 December 1982; MoD, The Falklands Campaign, p.19; Letter from David Harris to BBC Director General, BBC, 17 November 2000, IHA.
[30] Crum et al, 'Advances in Aluminium Relative to Ship Survivability'; Aluminiumville.

HMS Antelope and HMS Ardent following direct aerial hits, 21 May 1982

ALFED's response to these stories was muted despite the concerns voiced by their US counterpart, the Aluminum Association, as well as BACo. This underlined ALFED's ineffectiveness to rebut such stories and the gap in their public affairs capabilities.[31] Part of this reflected the fact that Paddy Matthews, like his predecessor, though highly knowledgeable about the technical side of the industry, lacked the contacts in, and experience with, the media to address such stories. These shortcomings also reflected the fact that many of the global majors chose to keep their public affairs functions in-house or use public relations firms, which meant that such capabilities within ALFED had been neglected. Given the previous controversy around USS Belknap and other high profile public relations disasters for various firms, it underlined broader failings to plan for such eventualities.

David Harris, on taking up the reins at ALFED and with the support of the public affairs committee, sought to tackle this skills gap by hiring a press officer, Richard Mahoney, as well as building up contacts with the press and in Parliament (see following chapter). ALFED's investments in these new personnel and public affairs capabilities was to play dividends in rebutting the recurrent myths around aluminium and fire.

ALFED fact sheet 17: Aluminium and Fire (1994)

UK ALUMINIUM INDUSTRY

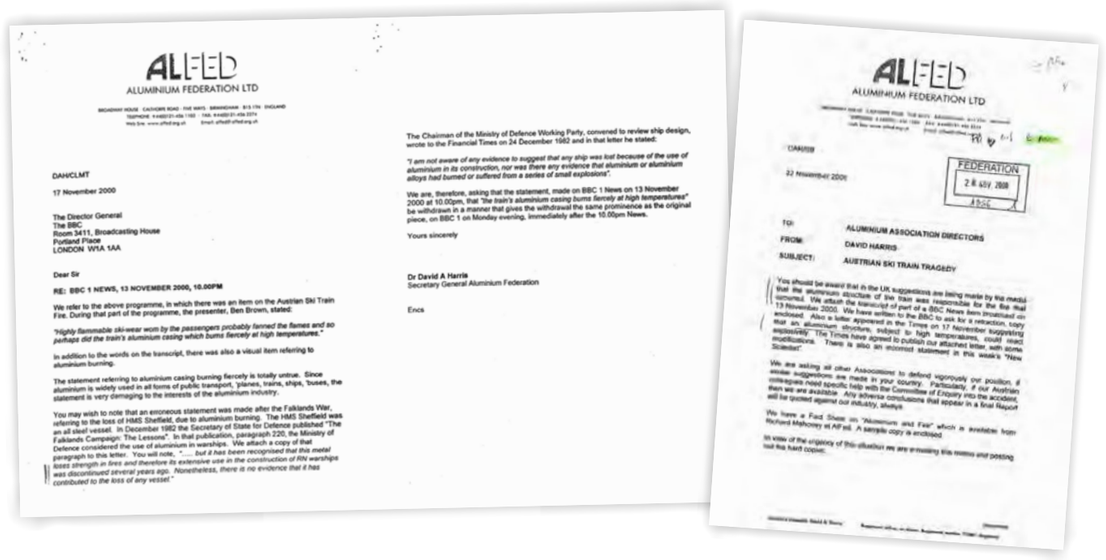
ALUMINIUM AND FIRE

ALFED FACT 17 SHEET MAY 1994

ALFED's enhanced public relations capabilities and the lessons learned from the Falklands aftermath were evident when similar media stories re-emerged when 159 people were killed in a fire on an alpine train caught in a tunnel near the Austrian resort of Kaprun in November 2000. BBC News ran a story once again hinting that the train's aluminium casing had also caught fire. This time, ALFED's robust response effectively rebutted this story. This was run in a coordinated fashion with other international sister organisations, demonstrating ALFED's ability to utilise and deploy its expertise and public relations capabilities to the benefit of its membership in educating the general public about the metal.[32]

[31] 'Navy to rethink the light design of ships', The Guardian, 26 May 1982, p.2.
[32] Memo from Dr David Harris, ALFED, to Aluminium Association directors, 22 November 2000; Letter from Harris to BBC Director General, 17 November 2000, Institut pour l'Histoire de l'Auminium.

L-R: Letter from Dr David Harris to BBC DG, 17 November 2000; Memo to Aluminium Association Directors, 22 November 2000. Image: Institut pour l'histoire de l'aluminium.



ALFED
ALUMINIUM FEDERATION LTD

DAH/CLMT

17 November 2000

The Director General
The BBC
Room 3411, Broadcasting House
Portland Place
LONDON W1A 1AA

Dear Sir

RE: BBC 1 NEWS, 13 NOVEMBER 2000, 10.00PM

We refer to the above programme, in which there was an item on the Austrian Ski Train Fire. During that part of the programme, the presenter, Ben Brown, stated:

"Highly flammable ski-wear worn by the passengers probably fanned the flames and so perhaps did the train's aluminium casing which burns fiercely at high temperatures."

In addition to the words on the transcript, there was also a visual item referring to aluminium burning.

The statement referring to aluminium casing burning fiercely is totally untrue. Since aluminium is widely used in all forms of public transport, 'planes, trains, ships, 'buses, the statement is very damaging to the interests of the aluminium industry.

You may wish to note that an erroneous statement was made after the Falklands War, referring to the loss of HMS Sheffield, due to aluminium burning. The HMS Sheffield was an all steel vessel. In December 1982 the Secretary of State for Defence published "The Falklands Campaign: The Lessons". In that publication, paragraph 220, the Ministry of Defence considered the use of aluminium in warships. We attach a copy of that paragraph to this letter. You will note, "..... *but it has been recognised that this metal loses strength in fires and therefore its extensive use in the construction of RN warships was discontinued several years ago. Nonetheless, there is no evidence that it has contributed to the loss of any vessel.*"

The Chairman of the Ministry of Defence Working Party, convened to review ship design, wrote to the Financial Times on 24 December 1982 and in that letter he stated:

"I am not aware of any evidence to suggest that any ship was lost because of the use of aluminium in its construction, nor was there any evidence that aluminium or aluminium alloys had burned or suffered from a series of small explosions".

We are, therefore, asking that the statement, made on BBC 1 News on 13 November 2000 at 10.00pm, that *"the train's aluminium casing burns fiercely at high temperatures"* be withdrawn in a manner that gives the withdrawal the same prominence as the original piece, on BBC 1 on Monday evening, immediately after the 10.00pm News.

Yours sincerely

Dr David A Harris
Secretary General Aluminium Federation

Encs

ALFED
ALUMINIUM FEDERATION LTD

DAH/SB

22 November 2000

FEDERATION
28 NOV 2000
ABDC

TO: ALUMINIUM ASSOCIATION DIRECTORS
FROM: DAVID HARRIS
SUBJECT: AUSTRIAN SKI TRAIN TRAGEDY

You should be aware that in the UK suggestions are being made by the media that the aluminium structure of the train was responsible for the fire that occurred. We attach the transcript of part of a BBC News item broadcast on 13 November 2000. We have written to the BBC to ask for it retraction, copy enclosed. Also a letter appeared in the Times on 17 November suggesting that an aluminium structure, subject to high temperatures, could react explosively. The Times have agreed to publish our attached letter, with some modifications. There is also an incorrect statement in this week's "New Scientist".

We are asking all other Associations to defend vigorously our position. If similar suggestions are made in your country. Particularly, if our Austrian colleagues need specific help with the Committee of Enquiry into the accident, then we are available. Any adverse conclusions that appear in a final Report will be quoted against our industry, always.

We have a Fact Sheet on "Aluminium and Fire" which is available from Richard Mahoney at AFed. A sample copy is enclosed.

In view of the urgency of this situation we are e-mailing this memo and posting you the hard copies.

The change in ALFED's approach to public relations and developing of those in-house capabilities reflected the transformation of the Federation in response to the rapidly changing global industry, markets, and the political environment. This also underlined the importance of transnational cooperation. Similarly, the changing character of its engagement with government and parliament, alongside public education and recycling and sustainability agenda, would be a feature of ALFED's transformation.

CHAPTER FIVE

ADVOCATE FOR ALUMINIUM: A VOICE IN PARLIAMENT AND GOVERNMENT

Only in the minds of the more unimaginative economists and ideologues is there ever the delusion that the worlds of business and politics are divisible. However, even within the deep and complex history of the spheres of business and politics, the aluminium industry's relationships with the state have been particularly significant and profound. From the early championing of aluminium by the French emperor Louis Napoleon, those relationships became more integrated, complex, and diffuse especially after the First World War, when aluminium became a supremely important strategic metal. That was as true of the so-called Anglo-Saxon liberal market economies of the UK and North America (as well as Australia) as it was of more organised command economies. All of the global majors and leading producers in the UK aluminium industry had significant dealings with national and foreign governments and close ties to them, to their advantages and disadvantages.[33] Those relationships should come as no surprise. Like all relationships they are underpinned by networks of organisations and individuals and subject to trust and distrust.

ALFED's initial articles of association committed it to: 'represent as its official liaison and advisory body the interests of the Industry as a whole with the Governments of the United Kingdom, the British Commonwealth, and foreign countries, with trade associations and all other bodies, on matters relating to and affecting the Industry, including therein the representation of the Industry as a whole within any other organisation.' [34]

In its first couple of decades, ALFED's relationship with government was principally confined to liaison with technical branches, such as working to contain emissions from Secondary Smelters, many of which were becoming quite dated. In these activities, Dick Murray-Shaw's relationship with officials was cordial and chiefly seeking to bring the various industry parties together and coordinate with bodies such as the BNFMRA. Paddy Matthews continued in a similar vein, working with government on technical matters and the implications and implementation of the Health and Safety at Work Act 1974 and EEC legislation. The relationship between ALFED and parliamentarians, however, was non-existent. This was not simply because ALFED lacked the staff and capabilities to pursue a more proactive relationship with government and parliament nor was it because this was not a time of great upheaval for the industry. Rather it was more often than not the fact that these transactions tended to take place directly, in the case of small and medium sized enterprises, between businesses and their local MPs or, in the case of the large politically well-connected global majors, between the firms and ministers, government departments, as well as the heads of nationalised industries.[35]

[33] Smith, From Monopoly to Competition; Grinberg and Hachez-Leroy, Industrialisation et sociétés en Europe; Aluminiumville; 'Be careful what you wish for'; Perchard, 'This Thing Called Goodwill; MacKenzie et al, Varieties of Capitalism Over Time.
[34] Companies Act, 1948. Articles of Association: Aluminium Federation Ltd., 12 April 1962, p.2.
[35] 'Aluminium Federation, 1962-1975', UK Board of Trade, TNA; 'Industrial Training Boards: The Aluminium Federation, 1964-1977', Ministry of Labour, TNA; Aluminium's Advocate; Aluminiumville.

This was evident over the most controversial episodes such as that of the energy deals and smelter contracts at Anglesey, Invergordon, and Lynemouth where the negotiations between the Anglesey Consortium, BACo and Alcan, and their different outcomes, respectively with the Central Electricity Generating Board, the North of Scotland Hydro Electric Board and the South of Scotland Electricity Board, and the National Coal Board, and various government departments and ministers, reflected long-term relationships and personal connections. [36]

Image of BACo's Invergordon smelter, 1975

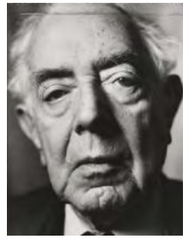
They also demonstrated very pointedly even for those large players who considered themselves to be politically astute of the need for a collective voice. In some cases, on questions of broader significance across sectors, such as energy costs, industrial relations and European legislation, such lobbying was channelled through employer associations, like the CBI (and its predecessors the Federation of British Industries, the British Employers Confederation and the National Association of British Manufacturers), and their parliamentary activities and relationships with government and trade unions. Such relations were also cemented between big firms and associations, replicating their social networks, through fora like the Spring Sunningdale conference that took place at the Civil Service College from 1963 onwards.[37] Similarly at a European level, before the creation of European Aluminium, any voice ALFED had up into the early 1980s was through personal and industry networks such as those of Ronny Utiger, Otto Norland, Dennis Pinn and others.

European Aluminium, Invergordon, and the All Party Parliamentary Group on Aluminium

The need for the UK aluminium industry as a whole to be represented with policymakers and parliamentarians both in Brussels and Westminster became all the more apparent against the backdrop of changes in domestic and European politics and the dramatic fall in demand in global markets, and the impact of flotations aluminium on the LME, by the late 1970s and1980s. The formation of the European Aluminium Association in 1981, in which ALFED played an important role, reflected the recognition that growing European harmonization of trade, as well as legislation on competition, energy and the environment, required a cooperative voice and one with representation in Brussels. At home, the sudden closure of the Invergordon aluminium smelter after only a decade in operation and near bankruptcy of British Aluminium (and its merger with Alcan) both as a result of flawed policy initiatives and poor management sent shock waves through the industry and also highlighted the need for industry-led initiatives. This also reflected the views of a government that was highly critical of British industry and management, quite often relying on dated stereotypes. As Utiger noted that year to the Oslo audience with Invergordon and the merger uppermost in his mind, the industry needed to focus and equip themselves to deal with policy, as well as management.[38]

David Harris' tenure saw a dramatic strengthening of ALFED's profile in Parliament and with government. Harris set about establishing, in conjunction respectively with Labour peer Lord Shackleton and Labour MP Helen Southworth (as well as other Conservative, Labour and Plaid Cymru parliamentarians), the Federation's House of Lords lunch (commencing in 1989) and the All Party Parliamentary Group on Aluminium (APPG) (set up in 1997). A former RAF officer, Deputy Leader of the House of Lords and Minister of Defence and Paymaster General in Harold Wilson's first Labour government, and the son of the famous Artic explorer Sir Ernest Shackleton, one of his early speeches in the Lords had been to intervene in the debate over takeovers in the aftermath of the British Aluminium takeover in 1959. Shackleton would prove a stalwart supporter of the industry and ALFED and sponsor of the House of Lords lunch. Something of the appetite for the industry can be seen from the attendance by Parliamentarians at the first House of Lords lunch in 1989.[39]

L-R: Lord Edward Shackleton, 1992; Helen Southworth MP, 2009.



Parliamentarians attending the first ALFED House of Lords lunch, 12 April 1989. Lord Shackleton papers.

The effectiveness of the Aluminium APPG and ALFED's other public relations initiatives became particularly evident during discussions over the introduction of the Climate Change Levy (CCL) from the late 1990s, which ALFED raised objections to on the basis that the cost of the changes for aluminium, especially primary producers, largely supplied through renewable energy would make it uncompetitive leading to closures. ALFED's mounting of an effective message in the media, Parliament and through connections within government, with Helen Southworth, MP for Warrington South (1997-2010), as Parliamentary Private Secretary to the then Chief Secretary at HM Treasury, Paul Boateng MP, resulted in then Chancellor of Exchequer Gordon Brown both conceding lower CCL rates and offering extensive grant in aid for energy efficiency schemes. This afforded the primary aluminium producers further space to upgrade. Scant wonder perhaps that The Times referred to Gordon Brown in 2003 as 'the Aluminium Chancellor'.[40]

[36] Aluminiumville; MacKenzie, 'Be careful what you wish for'; 'Aligning to Disadvantage'.
[37] Rollings, 'The twilight world of British business politics'.
[38] MacKenzie, 'Be careful what you wish for'; Perchard and MacKenzie, 'Aligning to Disadvantage'; Edgerton, Warfare State.
[39] Lord Shackleton papers; Hansard, House of Lords Debate, Vol.214, Col.1181
[40] 'Man of Mettle', The Times, 16 December 2003, p.19.

Alusuisse-Lonza Group MD and CEO and ALFED President (1990) Jan Schothorst with Lord Shackleton at ALFED 1990 dinner at the Savoy. *Lord Shackleton papers.*

ALFED's recognition of the importance of developing its public relations capabilities in the late 1980s and 1990s came at a vital time for the industry in the aftermath of the bruising experiences during the Falklands War and the Invergordon smelter closure and with challenges posed by energy prices and levies, as well as responding to an uneven playing field against Russian and Chinese imports. The importance of ALFED's hiring of a dedicated press officer, the collaboration with parliamentarians through the House of Lords lunch and APPG, as well as the robust leadership provided by David Harris, supported by presidents such as Paul Rata, and the Federation's Council, were highlighted in the responses to the Kaprun fire of 2000 and policy responses to the Climate Change Levy. These episodes also underlined the vital significance of international cooperation, notably with European Aluminium, over the last 40 years. The challenges for ALFED of representing its membership in the face of an unpredictable political climate of the last decade have been vividly illustrated by the tariff battles with China and then the Trump administration, as well as the aftermath of Brexit. While ALFED, through judicious cooperation and leadership across industries, such as on the UK Metals Council, and with government has demonstrated its ability to navigate these choppy waters, the volatility of that context, as at other times in the industry's history, underline the importance for constant vigilance, preparedness, and the need for cooperation.

CHAPTER SIX

INNOVATION, EDUCATION, AND SUSTAINABILITY

In 1974, the Nobel Prize winning economist and MIT professor Robert Solow told an assembled audience of his colleagues: 'So I think I have found something that is both contemporary and perennial. The world has been exhausting its exhaustible resources since the first cave-man chipped a flint, and I imagine the process will go one for a long, long time.'[41] Solow's posing of one of the most enduring questions for humanity has been a question implicitly deliberated by aluminium production from the early 1970s onwards, prompted periodically by energy security and prices, market opportunities, volatility in the aluminium futures market, regulation, and increasingly by growing ecological concerns and climate change. The aluminium industry's sustainability initiatives over time have been driven variously by many and all of these considerations. As ever the drivers have been a complex picture of external forces and industry initiatives. Over the course of the industry's history, energy supply has been intractably linked to its innovation and sustainability, business viability, and as that of the natural environment. ALFED's combination of cooperative and consultative skills with industry and government, its growing voice in public debates, and its partnerships in education would play a vital part in these agendas.

One aspect of ALFED's mission that has remained a constant and from which the infant Federation drew on considerable experience from its predecessors, ADA and AIT, as well as the wealth of knowledge amongst its membership, is its technical education and information programme, producing an extensive library of specialised publications on aluminium processes and their application throughout its existence. Within its first three years alone, ALFED produced 25 of its Information Bulletins on various aspects of aluminium processes alongside statistical briefings for customers.[42] This is an approach that has continued into the present day with the federation known for its technical expertise and being called upon around the world for advice and support accordingly.

Vital to the success of ALFED's technical education capability was collaboration with an extensive network of industry associations, sectoral research laboratories, government-sponsored research bodies, and universities, technical colleges, and schools. This involvement in technical education programmes also included initiatives such as the European wide EEC-funded Comett II project encouraging knowledge exchange between universities and the aluminium industry to encourage greater understanding of the metal and look to new technology solutions, the Aluminium Advocates programme set up to give lectures to university science and engineering programmes on the qualities and applications of aluminium (such as David Harris' popular A-Z of Aluminium), and more recently ALFED's collaboration with Bloodhound Education to promote understanding of aluminium in schools and encourage aspiring young minds into the industry (including sponsoring the school-age competition that supports 1000 pupils aged 11-14 to develop new aluminium component products). These initiatives have been another vital example of cooperation to promote knowledge sharing across

[41] Solow, 'The Economics of Resources', p.1.
[42] ALFED, Aluminium in contact with other materials, Glasgow University Archives Service.

the industry and society and the development of new technologies, as well as encouraging new entrants into the industry. [43]

Winners of the Power of Aluminium awards with then ALFED president Simon MacVicker, 2014.
Image: Light Metal Age.

The importance of such education programmes in changing consumer behaviours has been vital. ALFED's engagement with education covers both formal and informal areas. Internal initiatives such as focusing on the development of "energy workshops" for members which helps companies focus on best practice for energy management complement external initiatives such as formal partnerships with universities, colleges, and schools. These sit alongside more informal external engagement actions supporting better understanding of the industry through discussions, lobbying, and support functions the Federation provides for its members. Consistent within this is a recognition that the federation must be outward facing, engaged, and proactive rather than reactive with the increasingly important sustainability agenda developing at pace.

Whilst the industry marketing and consumer perceptions from the late nineteenth century onwards projected aluminium production as a clean industry, it had nevertheless a significant global environmental footprint. It has been from the outset, a global industry, with supply chains that traverse the globe. Hydroelectricity may produce clean power, but it requires large water catchment areas, diverting rivers and necessitating the flooding of valleys in places. Although the primary industry was not commonly associated with dark satanic mills and made much of its bucolic settings, from the outset it elicited protests from the early conservation movement, as well as support from local communities in remote regions that has seen dramatic depopulation, such as in the French and Swiss Alps and Scottish Highlands. Inevitably like other manufacturing industries, much of Britain's manufacturing industry needed to be located closest to markets and relied on many of the same power sources that their counterparts did; in Britain's industrial infrastructure that meant coal. [44]

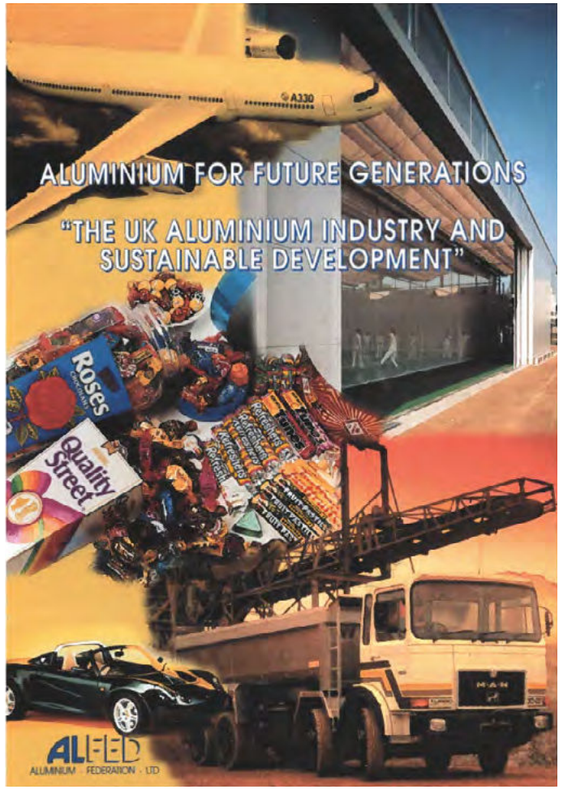
Aluminium recovery and the growth in secondary aluminium – what we might these days recognise as the roots of recycling – had its roots in the necessities of the warfare economies of the main combatant powers during the Second World War (1939-45), with supply chains disrupted, vast amounts of scrap produced, and financial constraints. After 1945, this continued – in the US alone (the largest market for such conflict metal), the US government sold 21,000 military aircraft for scrap metal in 1946 (at a market value of around $91.5m in 2021 prices). The US Defense Department calculated that secondary aluminium recovery saved the US between $300,000 - $400,000 ($3m - $4m at 2021 prices) during the Korean War (1950-1953).[45] US firms became early innovators in can recycling ostensibly to create new markets and with threats to aluminium packaging, with Reynolds Metals leading the way with aluminium can recycling initiatives from 1967 onwards. What became apparent from these early initiatives was the importance of education and advocacy in changing consumer habits. Clearly the growth of secondary production posed challenges for the primary aluminium industry too in the immediate post-war period, and, as we have seen from the early negotiations between ALFED and government over the emissions from secondary smelters, by the early 1960s those production units, hastily built to respond to the wartime emergency needed urgent modernisation to reduce emissions. Equally by the late 1970s, so did the UK's first-generation West Highland smelters. These was driven both by environmental emissions compliance and efficiency gains, with the Lochaber smelter modernised between 1978 and 1983, but BACo and then Alcan's Kinlochleven smelter closed in 2000 due to environmental and competitive constraints. British Alcan placed an increasing emphasis on cleaning up its act between the 1980s and 1990s, specifically prioritising reducing energy costs, tackling acid rain, and scaling up the recycling of aluminium cans, including expending £28 million (around £64m in current prices) on the 55,000mts recycling plant at Warrington.[46] The challenges and opportunities presented by championing sustainability also underlined the importance of ALFED and the industry cooperating with others to promote a change in consumer behaviour over recycling, as the MD of Alcan's Ecko Packaging Ltd, Nick Kendal, outlined in his speech to the Federation's House of Lords lunch in May 1992: 'It is currently estimated that less than 5% of the UK population are active recyclers; so, any initiative can be successful there has to be a major education campaign which will persuade the public to recycle waste – legislation and economic instruments alone will not provide the incentive.'[47]

By 1992, ALFED boasted that 60% of aluminium in use in the UK was recycled. However, consumer recycling remained significantly behind that of industry; while recycling in sectors such as construction and transport had risen to 70% and 90% respectively, household recycling hovered around 5% still by the late 1990s, leaving the UK one of the poorest performers amongst the EU15 at the time. However, combined publication education campaigns and investment in recycling points, had significantly improved this by the 2000s. Concurrently ALFED sought through various initiatives to educate and improve upon the industry's environmental image, such as through the 2003 sustainable development report, published with support from the Department of Trade and Industry and the Non Ferrous Alliance, demonstrating across a number of emissions measures how dramatic an improvement had been made between the late 1990s and early 2000s.[48] This was accompanied by further vigorous publicity campaigns, such as ALFED's 1998, *Aluminium for Future Generations.*

[43] Briefing note from G W Budd, ALFED Education Sub-Committee, for Peers and MPs, 'The Aluminium Industry and Tertiary Education', 11 April 1990, Lord Shackleton Papers.
[44] Aluminiumville; Morel, Histoire technique de la production d'aluminium.

[45] Aluminum Upcycled.
[46] Aluminiumville; Histoire technique de la production d'aluminium.
[47] Nick Kendal speech to the ALFED House of Lords Lunch, 19 May 1992. Lord Shackleton Papers. Houses of Parliament Archive.
[48] ALFED, Annual Report (1992), p.10; 'Industry lift to push image', Financial Times, 6 November 2003, p.11; Aluminiumville.

ALFED, Aluminium for Future Generations



As discussion with government and parliament over the CCL demonstrated, it was a difficult balancing act in trying to upgrade the industry progressively and balance industrial viability of ageing plant with intensified competition and environmental concerns. From 2004 ALFED was tasked with managing the CCL on behalf of the industry, helping companies receive as much as an 80% reduction in climate change taxes for hitting energy reduction targets. As in other areas of ALFED's history, cooperation – across the industry and with government and other key stakeholders – has been vital to shifting agendas within the industry and demonstrating leadership in sustainability, with international cooperation evident through the Aluminium Stewardship Initiative. Similarly, partnerships with European Aluminium Association and the International Aluminium Institute, as well as other international organisations, to support aluminium sustainability.

CHAPTER SEVEN

LOOKING TO THE FUTURE

The Aluminium Federation's history is a testament to cooperation and to balancing collaboration with competition. The aluminium industry has demonstrated that ability to coopete – both to cooperate and compete – throughout its history. ALFED office holders have had to strike a delicate balance with the distinct interests of a broad membership. At times during its history, that balance has necessitated a dialogue and reform of the ALFED's governance and outlook. However, with the sound interventions of successive office holders, ALFED managed to steer a course that led to it becoming the leading voice for UK aluminium and one with strong international ties. ALFED's organisational change has also been shaped by external events (market and political uncertainty) and bodies (the Devlin Commission and LME). The last decade has demonstrated that the continuing importance of ALFED as a community in fostering cooperation and understanding nationally and internationally is vital to the sustainability of UK aluminium. As long serving ALFED board member and President (2014-15), and Bridgnorth Aluminium's MD and former UK Metals Council Chair (2016-18), Simon MacVicker observed:

> *It's not that it's never questioned in the essence of it's not totally blind faith but it's important for us as a company to be in a trade association. Then we can have some advocacy with government, we can get things going for the promotion of the material, we can help each other with sort of best practice on safety and then there's things like the Climate Change Levy where you need to be part of an industry agreement. So, you know it makes sense, so it just makes sense on a number of different levels to be members… My personal view is it's not exactly rocket science.* [49]

Crucial to ALFED's strength has been both the voices of an energetic membership and the acuity and agility of leading figures in key junctures in the Federation's history to recognise the need for reform and to invest in the capabilities to ensure the Federation's resilience in the face of the challenges that the industry confronted. Some of these challenges remain consistent overtime, such energy and security of affordable supply.

As ALFED rise to the challenges of tackling climate change, that same vision will be required to lead and to identify the capabilities and maintain the resilience of the organisation for its members and the sustainability of the industry and meet its obligations to future generations. As the industry identified in the late 1980s and early 1990s, part of that task involves consumer education. Almost a century ago, the distinguished US economist Harold Hotelling observed: 'Contemplation of the world's disappearing supplies of minerals, forests, and other exhaustible assets has led to demands for regulation of their exploitation. The feeling that these products are now too cheap for the good of future generations, that they are being exploited at too rapid a rate, and that in consequence of their excessive cheapness they are being produced and consumed wastefully has given rise to the conservation movement.' [50] Just under 20 years later, in 1950, the veteran US government

[49] Interview with Simon MacVicker.
[50] Hotelling, 'The Economics of Exhaustible Resources', p.137.

marine biologist and conservationist Rachel Carson warned:'... the evidence that the top of the world is growing warmer is to be found on every hand. The recession of the northern glaciers is going on at such a rate that many smaller ones have already disappeared.' Reiterated by Robert Solow in 1974, it reminds us of the long overdue task ahead.

As at other crucial junctures in ALFED's history, an important function will be conveying to government the importance of long-term planning beyond the short synapses of the electoral cycle to ensure security of supply and sustainability. As global events remind us periodically and the tariff wars have demonstrated, ALFED should also encourage parliamentarians of the pressing need for international cooperation over critical raw materials, such as through the EU critical materials initiatives (of which bauxite is listed as one). Already the European Union is taking steps to introduce the EU Critical Raw Materials Act. The aluminium industry has demonstrated throughout its history that ability to cooperate at all times but especially during times of crisis has set it apart. ALFED, as the voice of the UK aluminium industry, has demonstrated time and again how it leads in such matters and works with and for the industry.

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APPENDIX

Aluminium Federation Office Holders, 1962-2022

Presidents:

1962 – 1963	E. (Edward) Player, CBE, Birmid Industries Ltd.
1963 – 1964	Dr S. E. (Stan) Clotworthy, CBE, Alcan Industries Ltd.
1964 – 1966	F B H Villiers, OBE, Imperial Aluminium Co. Ltd.
1966 – 1967	G. (George) Davies, E. and E. Kaye Ltd.
1967 – 1968	G. B. (Gus) Margraf, British Aluminium Co. Ltd. (BACo)
1968 – 1969	H. F. W. Perry, High Duty Alloys Ltd.
1969 – 1970	P.J. (John) Elton, MC, Alcan Aluminium UK Ltd.
1970 – 1972	W. C. Jordan, Birmid Qualcast Ltd.
1972 – 1973	R. E. (Ronnie/ Ronny) Utiger, CBE, BACo
1974	Dr R. L. P. (Robert) Berry, CBE, Alcoa GB Ltd.
1975	I. C. (Ian) Dick, High Duty Alloys Ltd.
1976	D. A. (Denniss) Pinn, Alcan Aluminium UK Ltd (AAUK).
1977	L. S. F. (Dick) Charles, BACo
1978	D. F. McN Alford, Century Aluminium Ltd.
1979	B. K. (Brian) Fitton, Birmid Qualcast Ltd.
1980	D. Fredjohn, MBE, Alusuisse (UK) Ltd.
1981	D. (David) Morton, AAUK.
1982	O.R. (Otto Realf) Norland, Alcoa GB Ltd.
1983	G. (Gerald) Howell, HD Forgings Ltd.
1984 – 1985	J. P. (Jon) Pither, Century Aluminium Co. Ltd.
1986	R. L. Cowdell, CEGO (Engineering) Ltd.
1986 – 1988	A. C. (Alan) Aylesbury, OBE, Alcoa Manufacturing (GB) Ltd.
1989 – 1990	J. J. (John James) Sangster, Hydro Aluminium Precision Extruders Ltd.
1990	J. (Jan) Schothurst, Alusuisse-Lonza (UK) Ltd.
1991 – 1992	D. M. (Doug) Ritchie, British Alcan Aluminium Ltd.

1993 – 1994	B. C. Turner, RTZ Pillar Building Products Ltd.
1995 – 1996	L. A. Garfield, Thyssen-Garfield Ltd.
1997 – 1998	J. G. (John) Spiers, CBE, LVO, Norsk Hydro (UK) Ltd.
1999 – 2001	P.J.H. (Paul) Rata, British Alcan Aluminium PLC.
2002 – 2003	J.I.M. (Jim) Morrison, Bernhard Metals UK Ltd.
2004 – 2005	M. J. (John) Cutler, Bridgnorth Aluminium Ltd.
2006 – 2007	J. C. (Joan) Chesney, Novelis UK Ltd.
2008 – 2009	H. G. (Henry) Dickenson, Norton Aluminium Ltd.
2010 – 2011	C. S. (Colin) Davies, Alcoa Europe
2012 – 2013	J. C. (Carl) Tomlinson, Tomburn Ltd.
2014 – 2015	S. D. (Simon) MacVicker, Bridgnorth Aluminium Ltd.
2016 – 2017	A. E. (Adrian) Platt, BEFESA Salt Slags Ltd.
2017 – 2019	G. R. (Giles) Ashmead, Powdertech Ltd.
2020 – 2021	C. (Clive) Bush, Amari Metals Ltd.
2022 – 2023	M. (Mike) Dines, Tandem Metal Ltd.

Secretary-Generals/ CEOs

1962 – 1972	H. R. (Dick) Murray-Shaw
1972 – 1988	Paddy Matthews
1988 – 2005	Dr David Harris
2005 – 2017	Will Savage
2018 – Present	Tom Jones

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