



Fifty years and still on a roll

The International Aluminium Institute (IAI) has been key to bringing the industry together on shared purpose over the last 50 years. In celebration of its 50th Anniversary, Aluminium International Today will share a series of articles, looking at the establishment of the IAI and the past and future challenges still faced by its members.

In this first article, we explore how the IAI has provided data that assists the industry in making informed decisions on key issues and the role environmental stewardship played from day one. By **Nadine Bloxsome***



While preparing for this article, I enjoyed reading minutes of the past IAI AGMs and Board Meetings from the last 50 years. They made for fascinating reading and most notably, at the first Board meeting, it was agreed that 'a Statistics Committee be set up to study the possibility of producing stats for primary aluminium'.

Stats and facts

Over the years that have followed, IAI

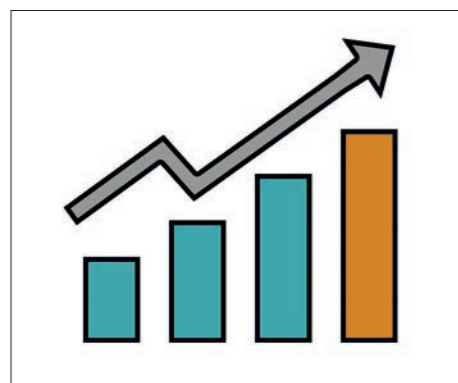
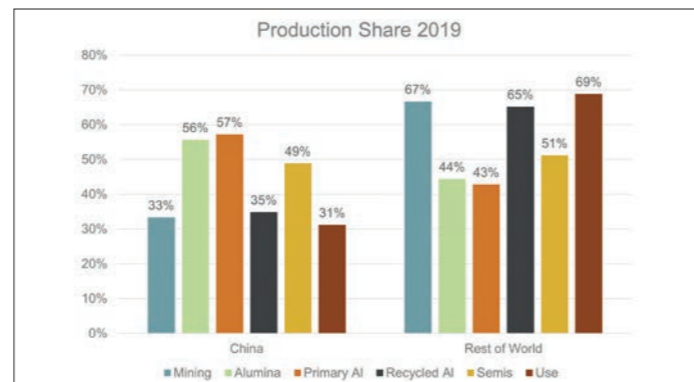
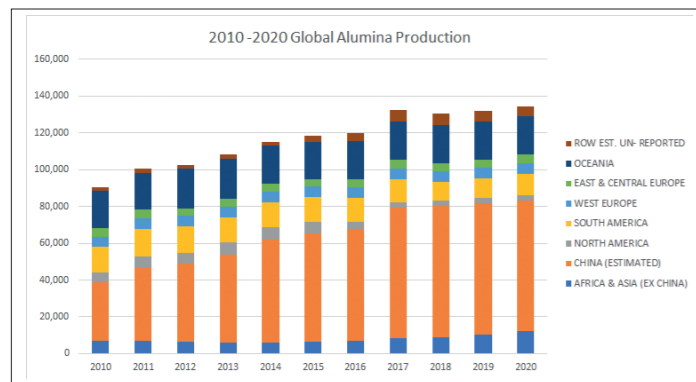
members and other aluminium sector representatives have been given access to these credible and robust statistics, datasets and modelling, which form the backbone of messages used for the global industry and enable the audience to make informed decisions.

These statistics have evolved over the years to include many more energy and Greenhouse Gas (GHG) datasets and modelling, which continue to underpin

the work of the IAI. The way in which data has been reported has also seen a huge amount of change since the 70s.

Nadine Faldo, Manager – Finance & Statistical Reporting, is the longest-serving member of the IAI Secretariat (nearly 29 years) and works closely with sources to ensure that production data is reliable and regularly published: "The IAI statistical collection has always relied on the voluntary contribution of data by Member

* Editor, Aluminium International Today



2019 GLOBAL RESULTS

95 million tonnes

Reported global semis shipments - **50%** more than in 2010

and Non-Member producing companies. I am grateful to all the reporters that have provided data, some of whom I have corresponded with every month for many years. Without their co-operation and prompt responses, there would be no data to publish."

"The most significant change is how we collect and communicate the stats to the world," continues Nadine.

"In the 70's and 80's we relied on international mail and a telex machine that took two full days to type and send messages to our Members and Reporters. At 11 am on a publication day we would have a queue of couriers waiting at the door to bike the latest data to agencies such as Reuters and Bloomberg at their offices in London. Early in the 90's we progressed to a fax machine, which cut labour time sending the data to one full working day feeding sheets into a machine. We still mailed published data at this time. Then came computers and the ability to email in the early 90's and labour time was reduced to seconds and mailing costs reduced to zero. Today we email our figures to approximately 200 people, the data is available on our website at 11am on a publication day and we share on social media platforms."

More recently, those of us who are avid followers on LinkedIn will have also seen the weekly 'Monday Stats Post', which is published by the IAI's Director – Scenarios & Forecasts, Marlen Bertram, and highlights how technology has also

played a valuable part in helping to share information not only with members but also to a wider audience from across the sector in an easily digestible format.

With online statistics now the norm, the new, updated IAI website is also home to a host of statistics and reports, which are made available for members and interested parties. These are updated regularly and in order to see just how these are welcomed by the industry and the essential role the IAI plays, I spoke to a few familiar faces...

An essential forum

"The IAI is the only forum where the global aluminium industry can collaborate to address issues that impact reputation and performance at a whole-of-industry level," says Miles Prosser, the current Secretary General of the IAI.

"This has been essential on issues that are specific to the aluminium industry – such as the management and utilisation of bauxite residue; but also on broader issues where the aluminium industry must demonstrate it is playing its part – such as reducing greenhouse gas emissions."

One of the strengths of the aluminium industry is the rigorous and scientific approach to issues, which as Miles highlights, enables the sector to "take a confident and transparent approach in comparisons to competing materials."

Developing data

"The IAI has adapted to the changing landscapes of the industry and one of the

best examples it gives here is developing data to respond to challenges," says Eirik Nordheim, Manager Aluminium REACH Consortium, European Aluminium. Eirik has been involved in the industry since 1970, with an EHS role from 1978. He supports the IAI in handling and interpreting data and proposal for data collection.

"I think a memorable moment was how the Health Committee decided to tackle the suggested cancer risk for employees in the early 1980's and managed to get a top international scientist to help with collecting and interpreting data on cancer risk and communicating this," he continued.

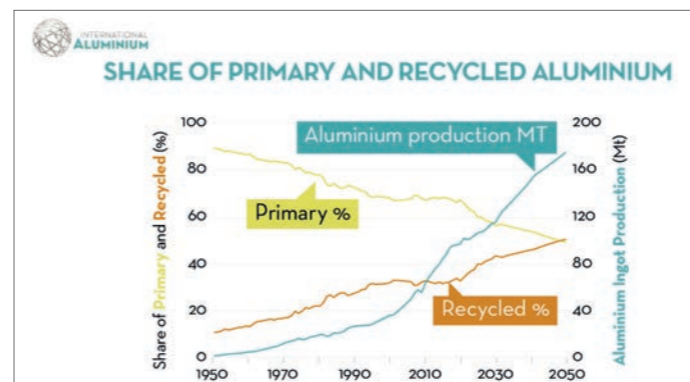
The 'go-to' for data

As well as forming the basis for investigations and projects, the IAI has worked to provide relevant and up-to-date industry data that can be applied across key areas.

Marghanita Johnson, Chief Executive Officer of the Australian Aluminium Council Ltd, speaks fondly of the IAI and how it has helped shape other organisations and associations.

"The IAI data has always been my 'go-to' for industry data – from when I was a young graduate to now, looking at the IAI's modelling of a beyond two degrees 2050 net zero pathway for the industry," says Marghanita.

"The level of sophistication has grown from being data collection and reporting



historic industry level, to the long term flow models we see today. The work the IAI has done on global pathways has helped inform the work the Council has recently completed on what the Australian decarbonisation pathways look like."

Hilde Merete Aasheim, who was the first female Chair of the IAI Board, also supports the importance behind the IAI's findings.

"The IAI's data is among the best in the industry, as they cover a large part of the aluminium production and an extra advantage is that the data is consistent over time," says Hilde.

"This is important and useful for the industry itself, but also for political decision makers, NGOs, financial markets and other stakeholders. I would say that the role of providing credible fact-based knowledge is one of IAI's most important and successful contributions."

What you do with data

As Marghanita notes, the work of the IAI forms the framework for a number of industry projects and pathways, but it is important to also ensure this data and information is utilised in the best way possible.

John Hannagan, Chairman, Rusal Australia, says: "The IAI can be a useful archive of information and data which may assist companies in making informed decisions."

John also commented on the importance of data and research in a health and safety capacity, similar to the memorable

Around 75% of the almost 1.5 billion tonnes of aluminium ever produced is still in productive use today.



moment mentioned by Eirik.

"One of the most important functions of the IAI from very early in its history has been the focus on health and safety," he continues.

"Messaging on both health and safety is probably the most difficult task that confronts communicators within companies and regulatory agencies, so having an industry wide approach with a focus on data and research was welcomed."

Daily data

The data and what we do with it can also filter into our daily lives, as Pernelle Nunez, Deputy Secretary General/Director – Sustainability, IAI says: "I actually think the data goes far beyond assisting just the industry! Having reliable data is vital to so many stakeholders – from users of aluminium to specifiers to financiers – there's a long list."

"I've even used some of our data when making decisions in my own day-to-day life from choosing aluminium packaged goods over other materials for its recyclability, to choosing aluminium windows as part of my recent home renovation because of their longevity and low maintenance. The data really serves many, many purposes!"

Adapting to challenges

It was also agreed at the first Board meeting 'to establish an Environment Committee to consider national regulations with regards to the constraints

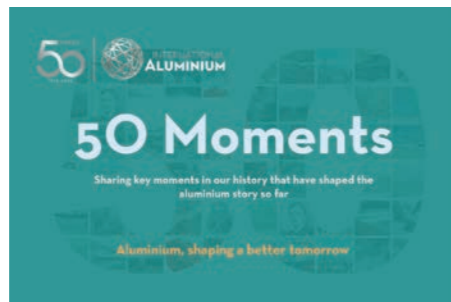
imposed in primary aluminium smelting and measures to address this'. The issue of red mud disposal was highlighted at this meeting and continues to be a topic for discussion in the present day.

"One of the biggest challenges faced by the sector over the last 50 years is dealing with red mud/bauxite residue and SPL in a society which is growingly negative on pollution and focussing more on ESG issues," says Ken Evans, who is also celebrating an anniversary of his own after 50 years working on aluminium/alumina research at the British Aluminium Research Division, which then became Alcan, then Rio Tinto Alcan, and now just Rio Tinto. Ken provides expertise and direction to the Bauxite and Alumina Committee area of the IAI and is still actively involved with the industry.

"I have lived through all the changes in the industry since 1971," he continued.

"One key area of change which the IAI have spearheaded is how red mud has been viewed. In the 1970s, no one considered it worthy of consideration, it was that dreadful red stuff left at the end of the process which you tried to forget about, since you produce nearly three tonnes for every tonne of aluminium, that is a huge volume so could only be hidden for so long.

"Today we produce about 160 million tonnes a year globally, but there is a huge focus and desire to find uses for red mud, or bauxite residue as we now prefer to call it. The IAI has been involved in several projects looking at best practices for its



management and opportunities for use. Last year, the IAI published a technology roadmap on maximising the use of bauxite residue in cement. The increased corporate focus by major companies on ESG goals and the drive to the circular economy to save global resources should mean that some of the promising ideas will now come to fruition."

This example given by Ken demonstrates that the IAI has provided a forum to address environmental issues from the very start and it remains on the agenda, especially as more and more areas of the industry are accountable for their actions.

The green transition challenge

The IAI is strong where industry is united and naturally has a challenge on issues where members have different interests – but also a role in bringing the industry together on difficult matters.

"I see the green transition and adapting our industry to the zero-emissions society as the most important issue for the aluminium industry, and I see a key role for IAI in guiding in this transition," says Hilde Merete Aasheim.

"The IAI has brought member companies together to discuss how the industry can reduce emissions and to understand the pathways needed to reduce the emissions from our industry. Well before 2050 all aluminium should be produced on renewable energy and with no direct emissions, and all companies have different and difficult paths to pursue this ambition. Here I see a crucial role for the IAI to unite the industry with all its different challenges and opportunities."

Greenhouse Gas Pathways

More recently, the IAI has ramped up its work towards a more sustainable aluminium supply chain and in March 2021, a new report was released: 'Aluminium Sector Greenhouse Gas Pathways to 2050', which sets out three credible and realistic approaches to emissions reductions for the aluminium industry, in line with the International Energy Agency's Beyond 2 Degree Scenario. The pathways are based on the IAI's unrivalled data and leading analysis of the global aluminium industry.

The IAI continues to progress this work by providing a forum for open discussion and transparency as the global sector works together for a better tomorrow.

"The biggest challenge the industry has faced and will continue to face for some time to come is how to decarbonise an inherently carbon intensive process from mine to market," adds Marghanita.

"The first part of this journey was the control of perfluorocarbons (PFCs) which started more than 30 years ago, but the challenge is now to reach net zero. I also see that over time, we will become more aware of social impacts of the industry."

It is these social impacts that are also being translated through the IAI's messaging and reports like this one offer members and the whole sector a chance to see how best changes can be made and the efforts that are needed to make a real difference when reaching decarbonisation targets.

"Continuing to meet the growing demand for aluminium while mitigating the impacts of production is also going to be important for the next 50 years," adds Pernelle.

"Aluminium products can provide solutions to some significant global challenges such as climate change and sustainable development, but it is important that we as an industry make sure that overall we have a positive impact on the environment, the communities in which we operate and broader society."

Industry standards

It was back in 2016 that the IAI and the



Aluminium Stewardship Initiative (ASI) signed a Memorandum of Understanding (MoU) to collaborate in their respective efforts to support continuous improvement in the performance of the global aluminium industry and the sustainable use and recycling of its products.

This was another step in the right direction for the 'Environment Committee' proposal from the first Board meeting and saw the IAI join forces to support common approaches where relevant, and pool collective experience and knowledge. If we've learnt anything over recent years, when it comes to decarbonisation, we need a collaborative approach!

"The IAI and ASI have both developed to address emerging challenges. IAI was incorporated in response to the increasing globalisation of the aluminium sector, emerging out of the energy crises of the early 1970s. ASI developed more recently in the context of a more complex, post-globalised world with a broader set of stakeholders," says Dr Fiona Solomon, Chief Executive Officer, ASI.

"The longevity of IAI is a testament to how it has adapted to emerging risks, and its positive engagement with ASI shows it continues to step up to sustainability challenges for the industry after five decades," Fiona continues.

"We have enjoyed positive working relationships between our two Secretariats over many years through to present day. In 2022, we are looking forward to collaborating on two important technical projects: One on a 1.5°C-aligned sectoral decarbonisation approach for the global aluminium industry, and another on climate-related health and safety risks. Working with ASI and broader stakeholders, IAI is creating a valuable forum to convene this work and enhance consistency across multiple initiatives."

Given the green light

The challenges in the aluminium industry landscape over the years have always been addressed by the IAI and as John Hannagan quite rightly comments: "The role of the IAI is to provide a forum for the exchange of ideas. Leadership and change must and can only come from the

industry and its members."

"A challenge which still has a very long journey, both at a political level and technology is that of decarbonising the industry so that aluminium can continue to play its fundamental role in the building and renewal of society's needs including packaging, housing, transport, energy and communications," he continues.

"The IAI established a member driven greenhouse working group to develop a pathway to net zero emissions by 2050. This working group has been the most productive and engaged of any committee that I have been part of in 35 years. It is a very tangible demonstration of the commitment of the industry to meet society's needs in a sustainable manner."

Organisations like the IAI are also critical to building trust among members and the general industry, as Pernelle adds: "Bringing industry together with their diverging views and differing priorities can be challenging but in order to work collaboratively, trust is vital. Organisations like the IAI also help to build expertise and focus resources and efforts to move industry issues forward as efficiently and effectively as possible. Even though many of our members are direct competitors, through the IAI they have found a way to work together towards a shared vision."

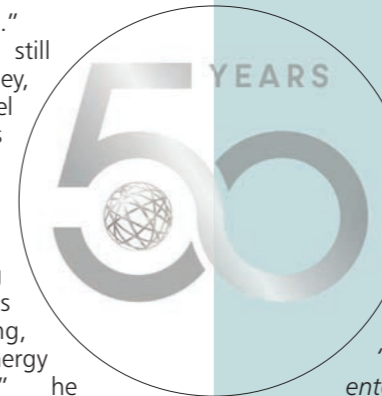
Message Pillars

Returning to the vast pages of minutes that I have to hand, the second Board Meeting in 1972 continued to set out the pillars on which the IAI would form its strength.

Other early focuses include: 'To develop data on present supply and demand for total aluminium metal and economic factors affecting future demand';

'Priority is given to the preparation of authoritative survey of national and local legislation and regulations for the control of emissions of fluorine and its derivatives. Committee to report on the adequacy of the methods at present to measure emissions'.

As the IAI moves into its 50th year, these key pillars have been renewed and refreshed along with a new tagline that will be used not only throughout the celebrations and communication activities in 2022, but beyond. The tagline draws from the three message pillars:



VOICES FROM THE PAST

This excerpt was drafted by his Son, John Martyn, and emanates from his 'correspondence' when he entered into post retirement.



Peter Martin was the first Secretary General from 1972 - 1989.

"I had a wonderful time at the helm of the IPAI for nearly 20 years. It was not without its challenges at the start, but my training as an aeronautical engineer, five years in the Royal Navy in WWII followed by being called to the Bar during my 27 years at British Aluminium, gave me the technical, commercial, diplomatic and ambassadorial skills necessary to try and bring a worldwide aluminium community together.

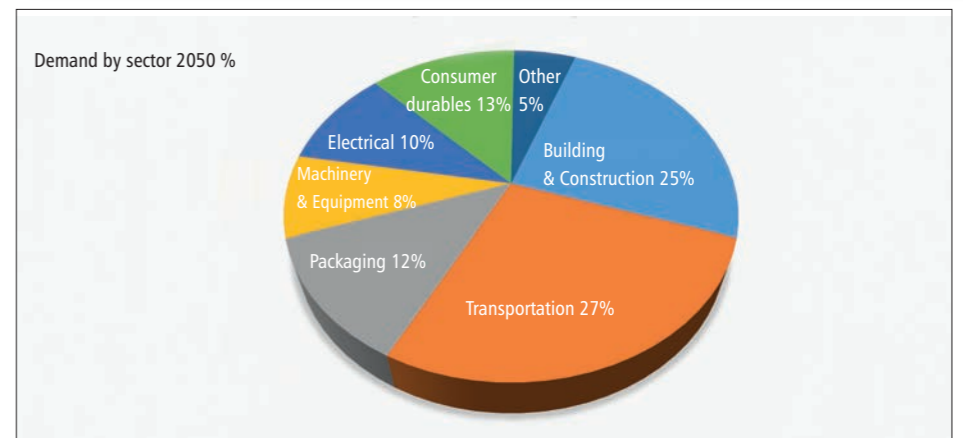
It was a privilege working with so many members of the Institute, be they chairmen, chief executives, directors, owners and other trade institutions such as the London Metal Exchange. I even appeared on Bahrain's national TV station and it was an honour to meet Sheikhs from that nation and business leaders from many others, some of whom became firm friends.

However, the Institute wasn't merely a compiler of statistics. Even then, environmental concerns were developing, but my task was made ever easier with the help of experienced colleagues, distinguished academics, medical professors, epidemiologists,

lawyers and the like. We played our part in helping to largely rid the industry of asbestos and analysing and remedying where possible the environmental impact of bauxite mining. Furthermore, some member companies harnessed and utilised the excess energy created in producing primary aluminium such as the desalination plants in Dubai.

I feel I have left the Institute in good hands and I hope it will continue its good works long after I have gone."

Postscript: In celebrating its 50th Birthday, the Institute clearly has. Many Happy Returns.



Aluminium, shaping a better tomorrow

The three pillars cover Product, People and Progress and each has two aspects:

- Product – looks at how aluminium is essential to everyday life and how it contributes to a more sustainable society;

- People – humanised aspect to it, which demonstrates the diversity of the industry's workforce around the world and how the sector creates employment and economic opportunity wherever it operates;

- Progress – demonstrates how the industry is progressing its own sustainability supported by the IAI who through unrivalled data modelling, industry-wide cooperation and advocacy, helps its members to achieve the change the world needs.

Looking to the future

In speaking to these influential industry figures, it is very clear that the IAI plays an essential role for the industry, by bringing

a diversity of voices together to tackle the big issues in a united way.

Tolga Egrilmezer, VP Aluminium Sales and Marketing for Rio Tinto, and Vice Chairman on the IAI Board sums it up very nicely: "The Institute's work to articulate the value of aluminium as a material of choice in our modern world is invaluable and is a focus we look forward to seeing continue. It's in the interests of all in the industry to have a strong, intelligent advocacy position on the benefits of aluminium against competing materials."

"The IAI provides a critical forum for sharing robust data and best practices to encourage on-going improvements in safety and sustainability across the industry," he continues.

It was also very interesting to hear how the IAI has played a more personal role and has developed over the years with an inclusive look at industry challenges and

those of the people working within.

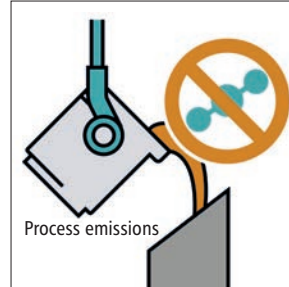
As Hilde Merete Aasheim comments, "I remember many good discussions and meetings in IAI. But, if I had to pick one – it would be the first meeting as the first female chairing IAI."

With the supporting members and a strong team leading the charge, the IAI looks set to continue shaping the aluminium sector for the next 50 years and beyond.

"While all companies understand, and are active, in demonstrating the sustainability of production and the benefits of their products; the IAI remains

the only forum where the industry can collaborate and demonstrate those benefits compared to competing materials," concludes Miles.

"It is only through activities such as this that the overall market for aluminium and the advantages to consumers can be enhanced." ■



www.international-aluminium.org/international-aluminium-celebrates-its-50th-anniversary

