



years of

worldsteel

A S S O C I A T I O N

SECRETARY-GENERAL

Charles B. Baker

HANS-GÜNTHER SOHL
CHAIRMAN

August 31, 1967

GENERAL
Secretariat

DEPUTY SECRETARY-GENERAL
for Administration

L. J. Holschuh

ACCOUNTANT

A. Meunier

OFFICE MANAGER

Mrs. P. Reagan

Areas of Responsibility:

L. J. Holschuh

Office Management
Accounting
Personnel
Purchasing
Meetings and conferences
Member Relations
Secretary's Functions

Committee Secretariat on:

Prices, Tariffs

International Steel

Areas of Interest:

T. Mitsui

Technology
and
Engineering
Treasurers
other

Committee

Technology

The First Annual Meeting of the newly-formed International Iron and Steel Institute will be held in Brussels on November 11 and 12, 1967, and will include a two-day International Steel Conference. I am pleased to extend to you a most cordial invitation to attend.

At the Conference sessions, beginning Saturday morning, November 11, a number of principal executives of steel producing companies around the world will speak on subjects of current interest to the industry. A preliminary program is attached.

Because hotel space in Brussels is limited, we suggest making reservations immediately. To assist you, the Institute has arranged with the managements of the Hilton, Westbury and Amigo hotels to hold a bloc of rooms for conference delegates and enclosed is a request form to be completed by you and sent to the hotel of your choice. You will receive confirmation directly from the hotel.

The Institute in Brussels will be happy to answer any questions you may have concerning the conference.

International Iron and Steel Institute

en abrégé

« IISI »

Association internationale à but scientifique

BRUXELLES

STATUTS

Founding companies

1. Aciéries Réunies de Burbach-Eich-Dudelange S.A. (ARBED)
2. Armco Steel Corporation
3. August Thyssen Hütte AG
4. Bethlehem Steel Corporation
5. Cockerill-Ougrée-Providence S.A.
6. De Wendel & Cie S.A.
7. Dorman Long & Co. Ltd.
8. Finsider S.P.A.
9. Fuji Iron & Steel Co., Ltd.
10. Hoesch A.G.
11. Koninklijke Nederlandsche Hoogovens en Staalfabrieken N.V.
12. Republic Steel Corporation
13. The Broken Hill Proprietary Co. Ltd.
14. The Steel Company of Canada, Limited
15. The Steel Company of Wales, Limited
16. Union Siderurgique du Nord de la France S.A. (USINOR)
17. United States Steel Corporation
18. Yawata Iron & Steel Co., Ltd.

MINUTES
of the
FIRST ANNUAL GENERAL MEETING OF MEMBERS
of the
INTERNATIONAL IRON AND STEEL INSTITUTE
held on
November 11, 1967

The first Annual General Meeting of the Members of the International Iron and Steel Institute (IISI) was held at the Brussels Hilton Hotel, 38, Boulevard de Waterloo, Brussels, Belgium, on November 11, 1967 at 9:00 a. m.

Dr. Hans-Günther Sohl acted as Chairman and Baron Pierre van der Rest acted as Secretary of the meeting.

The following Regular Company Members were represented :

- Aciéries Réunies de Burbach-Eich-Dudelange, S.A.
- Armco Steel Corporation
- August Thyssen-Hütte A. G.
- Bethlehem Steel Corporation
- The Broken Hill Proprietary Co., Ltd.
- S.A. Cockerill-Ougrée-Providence
- de Wendel & Cie, S.A.
- Societa Finanziaria Siderurgica (FINSIDER)
- Fuji Iron & Steel Company Ltd.
- Hoesch A. G.
- Koninklijke Nederlandsche Hoogovens en Staalfabrieken N. V.
- Republic Steel Corporation
- The Steel Company of Canada, Ltd.

Hans-G. Sohl
Dr. Hans Günther Sohl
Chairman

Logan T. Johnston
Logan T. Johnston
Vice-Chairman

Pierre van der Rest
Pierre van der Rest
Secretary







Edwin Basson
World Steel Association
Director General

FOREWORD

Celebrating 50 years of our association is a wonderful opportunity to look back into our past and forward to the future.

In 1965, Dr Hans-Günther Sohl from August Thyssen Hütte (Germany) and Thomas F. Patton from Republic Steel (USA) first discussed the founding of an international steel institute to ensure closer technical collaboration. Following these initial discussions, the International Iron and Steel Institute (IISI) was born in New York on 25 May 1967 and became a legal entity on 10 July 1967 when the founding certificate was signed before a public notary in Brussels. We were renamed The World Steel Association (worldsteel) in October 2008.

Our headquarters was established in Brussels. On 10 July 1967, the Board of Directors held their first meeting. Dr Hans-Günther Sohl was elected Chairman and Logan Johnston from Armco Steel (USA) as Vice Chairman. The first annual meeting followed on 11 and 12 November 1967. Both meetings have occurred every year since then. In the early years, most members were from North America and Europe, though this has changed over the years. Our founding members are listed on the inside cover of this publication.

The evolution of the steel industry as charted in this publication makes for interesting comparisons with the industry today. Looking forward, can we expect similar changes in the next 50 years?

With the world's population set to grow by 2-3 billion by 2050, one thing is certain: the steel industry will continue to have a vital role to play in housing, energy, water, food, transport and infrastructure. And it will continue to adapt and innovate. We have already met the challenges of energy and production efficiency, built high rise buildings, high speed railways, renewable energy solutions and deep sea marine applications to name a few.

More challenges will come our way. Two of the most important are climate change and the circular economy. Society is demanding zero waste and reduced use of new materials as well as encouraging the reuse and recycling of materials. All fundamental advantages of using steel.

I hope you enjoy this look at the last 50 years and I look forward to working with all our members to address the challenges of the next 50.

A handwritten signature in black ink, appearing to read 'Basson', followed by a long horizontal line extending to the right.

TOP 20 STEEL-PRODUCING COMPANIES 1966 - 2016

1966*	MILLION TONNES	2016	MILLION TONNES
1 United States Steel Corporation	29.7	1 ArcelorMittal	95.5
2 Bethlehem Steel Corporation	19.3	2 China Baowu Group	63.8
3 Republic Steel Corporation	9.1	3 HBIS Group	46.2
4 Yawata Iron & Steel Co., Ltd.	9.0	4 NSSMC Group	46.2
5 Fuji Iron & Steel Co., Ltd.	8.3	5 POSCO	41.6
6 National Steel	8.0	6 Shagang Group	33.3
7 August Thyssen Hütte AG	7.2	7 Ansteel Group	33.2
8 Italsider/Finsider	7.1	8 JFE Steel	30.3
9 Jones & Laughlin	7.0	9 Shougang Group	26.8
10 Armco Steel Corporation	6.9	10 Tata Steel Group	24.5
11 Usinor	6.3	11 Shandong Steel Group	23.0
12 Inland Steel	6.2	12 Nucor Corporation	22.0
13 The Broken Hill Proprietary Co. Ltd.	5.9	13 Hyundai Steel	20.1
14 Nippon Kokan	5.5	14 Maanshan Steel	18.6
15 Hoesch AG	5.5	15 thyssenkrupp	17.2
16 Youngstown	5.5	16 NLMK	16.6
17 Kawasaki	5.1	17 Jianlong Group	16.5
18 Sumitomo	4.9	18 Gerdau	16.0
19 ARBED	4.8	19 China Steel Corporation	15.5
20 Cockerill-Ougrée-Providence	4.2	20 Valin Group	15.5
Total	165.5	Total	622.2

*1966 list does not include data from countries which were at the time centrally planned economies

TOP 10 PRODUCING COUNTRIES (CRUDE STEEL PRODUCTION IN MILLION TONNES)

1967	(MT)	2000	(MT)	2016	(MT)
1 United States	115.4	China	128.5	China	808.4
2 USSR	102.2	Japan	106.4	Japan	104.8
3 Japan	62.2	United States	101.8	India	95.6
4 F. R. Germany	36.7	Russia	59.1	United States	78.5
5 United Kingdom	24.3	Germany	46.4	Russia	70.8
6 France	19.7	South Korea	43.1	South Korea	68.6
7 Italy	15.9	Ukraine	31.8	Germany	42.1
8 Poland	10.5	Brazil	27.9	Turkey	33.2
9 China	10.3	India	26.9	Brazil	31.3
10 Czechoslovakia	10.0	Italy	26.8	Ukraine	24.2
Total	407.1	Total	598.7	Total	1357.4

OUR HISTORY

70's

On 21 July 1969, men first walked on the moon, ushering in an exciting decade of space exploration. Our story too, begins just before the 70's, with the formation of the International Iron and Steel Institute in 1967.

The 70's was a decade of rapid technological developments, with the birth of two giants of the personal computer era: Microsoft and Apple. And in 1978 there was another important birth, this time of the first test-tube baby.

In the steel industry, computer technology led to improved efficiencies as digitisation brought greater automation and improved processes and control. These advances came at a good time, helping the steel industry overcome the effects of the 1973 oil crisis, which had brought to a sharp end an extended post-war period of growth. The end of the decade also saw the setting up of the OECD Steel Committee to encourage action to tackle the issues facing the industry.

Rising oil prices made energy intensity a global concern. One way steelmakers reduced energy usage was by moving to Electric Arc Furnaces (EAFs). Using locally sourced scrap steel, EAFs were successful in increasing their share of production.

Japan's steel consumption was also beginning to grow and the merger of Yawata and Fuji in 1970 led to the formation of Nippon Steel, recently renamed NSSMC following the merger with Sumitomo Metal Industries.

With Charles B. Baker as its first Director General, the organisation was growing rapidly. In 1968, new members from 20 countries represented 56% of world steel production. Global coverage spread as members joined from India, South America and the former Yugoslavia. In South Korea, Pohang Steel, later renamed POSCO, came on board too. By the middle of the decade membership covered 39 countries, including 21 developing nations. In 1978, Charles B. Baker retired and was replaced as Director General by Lenhard J. Holschuh.

Right from the beginning, worldsteel recognised the importance of environmental responsibility. As early as 1972 we adopted a policy statement which, three decades later, would form the framework of our global sustainability principles.



Meeting of the founders of worldsteel, 1967



Heat-resistant, 0.0021072 mm thick nickel-steel alloy protected Apollo 9's lunar module from the sun



First World Steel in Figures, 1971 and first Steel Statistical Yearbook, 1978



Charles B. Baker, worldsteel Director General, 1967 – 1978



Willis Tower, Chicago, USA was the tallest building in the world from completion in 1974 until 1998



Apple II computer – part of the information age



Electric Arc Furnace (EAF) transformation

80's

1982 was described as the 'worst year in memory' for the steel industry, and recovery was seriously affected by another oil crisis. However, towards the decade's end, the steel industry experienced a significant turnaround and consumption increased. Continuous casting helped meet demand and improved productivity, providing an efficient and cost-effective alternative to ingot casting.

Some of the decade's most important events also happened during the closing years, when Eastern Europe underwent major changes. The Berlin Wall came down, Poland had its first free elections and Hungary, Romania and the former Czechoslovakia acquired greater democracy. The US and Canada signed a free trade agreement. On balance, as the world's population passed the 5 billion mark, the global economy prospered.

Steel quality was improving, enabling lighter products with greater tensile strength. The steel industry underwent significant restructuring. For example, in the US large plants were replaced by local mini mills to supply local needs. In Europe the privatisation wave which had commenced in the UK in 1988 with British Steel, continued.

In comparison to the decade's difficult start, 1989 was considered the industry's best year ever. Reflecting the increasing importance of Asia's steel industry, worldsteel's new members include China Steel Corporation (Taiwan, China), Dongkuk (South Korea), Hyundai (South Korea) and Aichi (Japan).

We continued to drive industry solutions to tackle environmental challenges. While improving energy usage tops the list, the steel industry also paid particular attention to the effects of noise and finding ways to reduce it.

In 1985 the first United Nations Environment Programme (UNEP) Consultative Committee meeting took place. And the decade ended with the steel industry's third World Conference on Environmental Control.



Lenhard J. Holschuh, worldsteel Director General, 1978–1998



Board members at worldsteel-16, Tokyo, Japan in 1982



King Baudouin of Belgium at a worldsteel Board meeting in 1988



worldsteel published many popular technical books in the 80's



World population reaches 5 billion in 1987



The fall of the Berlin Wall in 1989



Oil price peak of US\$35/barrel, eventually collapsing to below \$10 in 1986

90's

This decade saw the advent of the World Wide Web. It revolutionised the way we communicate, share knowledge and conduct business. By the turn of the century, society had become almost totally reliant on computers.

At the start of the decade, tensions between East and West eased with the formal end of the Cold War. However, in the Middle East tensions rose as war raged in the Persian Gulf.

Restructuring of the steel industry continued on a huge scale mostly driven by globalisation. The industry's efficiency endeavours were also successful with average product yield rising from 78 to 89 tonnes per 100 tonnes of crude steel. Mainland China became the world's largest producer, as the country's steel consumption more than doubled.

By the close of the decade, the Electric Arc Furnace (EAF) process accounted for one third of world steel production. After 20 years of restructuring, a more efficient, sustainable and safer steel industry was better placed than ever to meet the challenges of the new millennium.

The end of the Cold War opened up trade with eastern Europe. Federations in Hungary, Poland, Romania, the Czech and Slovak Republics and Slovenia joined our association. Tata and Essar Steel from India also became our members. Now, with 181 members across 50 countries, we took the next step and began encouraging the participation of steelmakers in mainland China.

On the environmental front, worldsteel was involved in the 1992 Earth summit in Rio de Janeiro. The summit led to an agreement on the Steel Industry Sustainability Development policy. Together with the UNEP, we created guidelines for environmental management. In 1993, worldsteel held its first steelManagement course. These courses still take place today. This was followed in 1995 with the release of the first global steel industry Life Cycle Inventory (LCI). One year later, the UltraLight Steel Auto Body (ULSAB) consortium was launched to develop a new generation of Advanced High Strength Steels to make lighter, safer and environmentally efficient vehicles.

In 1998, after 20 years at the helm of the organisation, Lenhard J. Holschuh retired as Director General to be replaced by Ian Christmas. Finally, the most important initiative of the decade was the launch of our accident-free work programme in 1999.



Board members at IISI-33, Mexico City, Mexico, 1999



worldsteel participates in the UN earth summit in 1992



Accident-free steel publication launched in 1999

1998, speed and simplicity make search engine Google a hit



Ian Christmas, worldsteel Director General, 1998 – 2011

00's

The 00's was a decade of financial woes in the West. First, the 'dot-com bubble' burst. Then markets underwent a mini-collapse. A strong recovery followed between 2003 and 2007, until the mortgage cave-in led to the 2008 financial disaster. In Asia, however, the situation was very different, and a booming China emerged as a major world economic power. China's steel production also rose dramatically in the decade from 128.5 Mt in 2000 to 638.7 Mt in 2010, an annualised growth rate of approximately 17.4%.

In 2001, 178 nations approved the Kyoto Protocol global warming treaty. Soon after, major natural disasters, including the terrible tsunami in Asia and Hurricane Katrina on the Gulf Coast, provided deadly reminders of Earth's fragility.

The Indian Ocean tsunami, which destroyed countless structures across 14 countries, had a major impact on future building design. The growing demand for safer construction relied heavily on steel. By continuously improving its properties over the decades, steel had been giving architects more building for less steel. Even so, limits were being reached in improvements to existing steel production processes. So the steel industry turned its attention to 'breakthrough technology'. Real innovations were – and still are – needed to make significant advances in steelmaking.

Industry consolidation was also a feature of the decade, notably Tata acquiring Corus and Arcelor and Mittal Steel combining to form ArcelorMittal. The ULSAB family of consortiums evolved to become WorldAutoSteel and a new customer focused programme – FutureSteelVehicle – was launched.

worldsteel celebrated many 'firsts' during the 00's. In 2002, steeluniversity went online. This was followed in 2006 with the launch of our online steelmaking challenge, now an annual event. In 2004, we published one of the world's first industry sustainability reports. In 2006, our safety and health principles were agreed and this was followed by the launch of our Safety and Health Recognition Programme in 2008.

Nucor of the US became our first solely EAF member, and Severstal the first Russian member. We also welcomed our first members from China – Anshan, Baosteel, Handan, Shougang, Wuhan – as well as the China Iron and Steel Association, and in 2006 we opened a new office in Beijing, China. In 2008 we enhanced our identity, as IISI became the World Steel Association.



Climate Action programme launched in 2008



Chinese members join the association



Chancellor Angela Merkel at IISI-41 in Berlin, Germany 2007



Bird's Nest stadium hosts 2008 Olympic Games



China emerges as economic giant



Board Members at worldsteel-42, Washington DC, USA, 2008

10's

World population has reached 7.5 billion and continues to grow with estimates that we will reach 8.5 billion by 2030. Sustainability is society's focus and the Kyoto Protocol has been extended to 2020. Meanwhile, the steel industry is progressively involved in the formation of the Intended Nationally Determined Contributions (INDCs) as agreed at the Paris 2016 Climate Agreement.

In Japan, an earthquake and tsunami caused widespread devastation. The waves damaged the Fukushima nuclear power plant, causing serious radiation leaks. The combined disasters harmed the country's economy and slowed growth in global markets.

Following a decade of boom years, China has become one of the world's largest economies. Since 2013, growth has begun to level off, but China still has a 45% share of world steel consumption.

The steel industry reached several landmarks in the 10's. Energy intensity has been reduced by a massive 60% since the 60's. Furthermore, virtually all emissions to air or soil are now managed to the highest regulations. Water is 'borrowed' rather than used, with virtually all water returned to its source, often much cleaner than when it was extracted.

In 2010 worldsteel held its first Steel Awards ceremony: the Steelies. In 2011 Ian Christmas retired and Edwin Basson joined as our new Director General. In 2014 the industry launched its first Steel Safety Day in support of the global campaign run by the International Labour Organization (ILO). This has become an annual event. This was followed by the publication of our first position paper on climate change and a low carbon future.

Our organisation now represents 85% of world steel production with over 160 steel producers, associations and research institutes, including 9 of the world's 10 biggest companies.

Our campaign, Steel: the permanent material in the circular economy, was launched in 2016. It highlights the reuse and recycling benefits of steel. At the same time, we have renewed R&D efforts into process technologies. Solutions need to be more aligned with climate change pressures, one example being carbon capture utilisation and storage.

worldsteel received Belgian Royal recognition in July 2017, an acknowledgment of 50 years of performance, quality and stability.



worldsteel-49, Chicago, USA, 2015



Steel in the circular economy campaign launched



Safety and Health Recognition Programme 9th edition, 2016



Edwin Basson, Director General, 2011 – present day

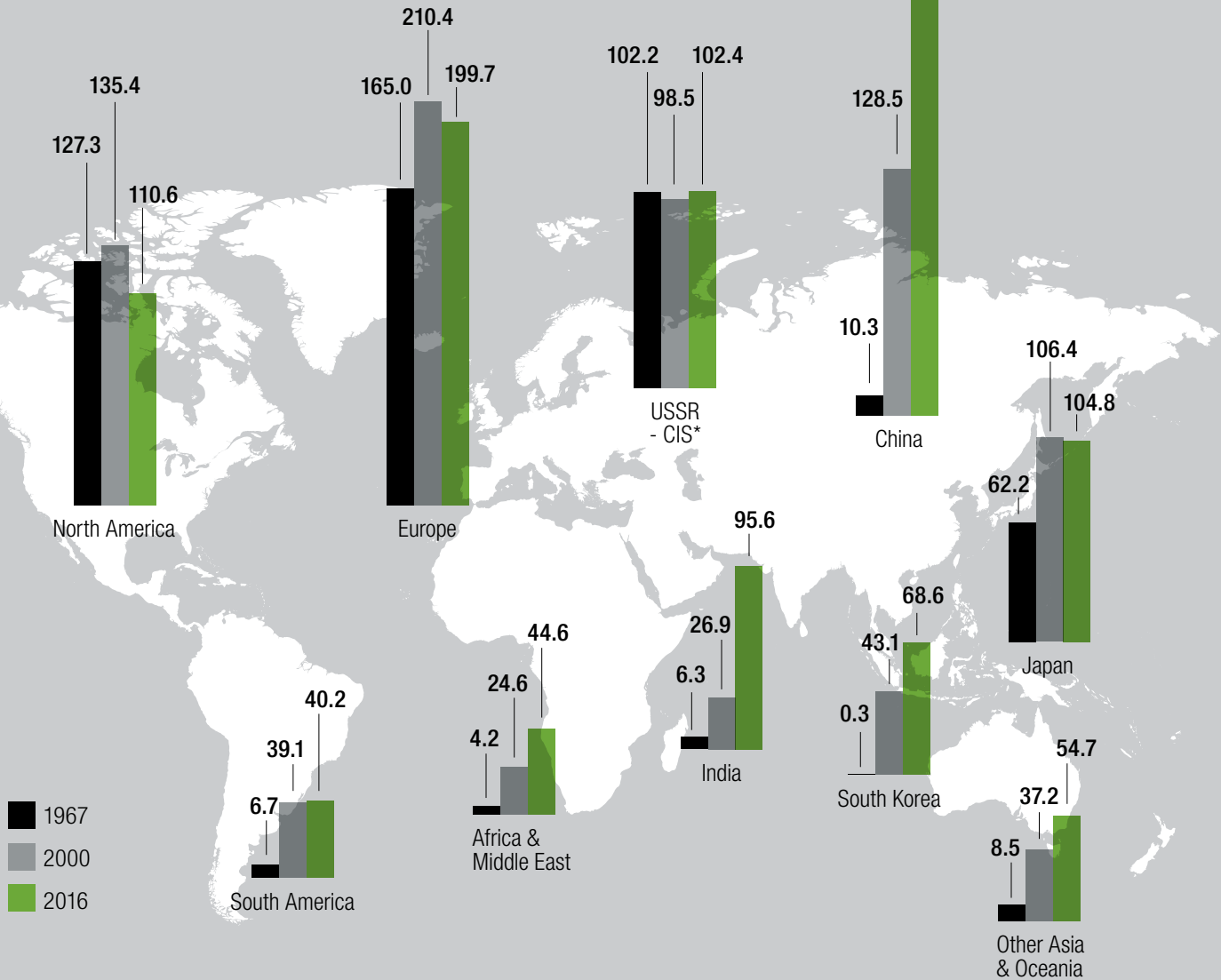


First Steelie Awards at worldsteel-44 in Tokyo, Japan, 2010



2016 Tesla Model 3 unveiled using steel as dominant material

CRUDE STEEL PRODUCTION IN MILLION TONNES



WORLD TOTAL

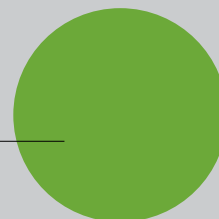
492.9



850.2



1 629.6



* For 1967, only the USSR data is available

THEN & NOW

WORLD STEEL ASSOCIATION MEMBERSHIP COVERAGE

1967

In the 60's, there was a need for a steel association that could bring the steel industry together

18 members
11 countries
3 regions



1967

≈ 28%
of global
production

Today

worldsteel membership covers every region of the world

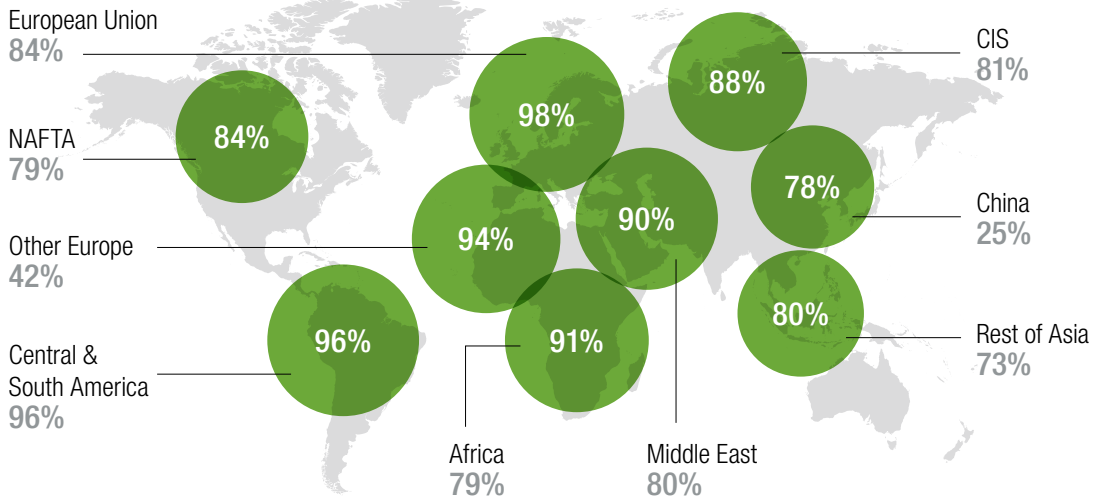
161 members
63 countries
All regions



Now

≈ 85%
of world steel
production
(2016)

2017 MEMBERSHIP DIRECT AND INDIRECT REACH

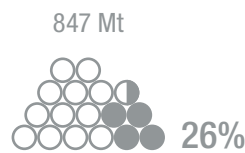


SHARE OF TOP 10 STEEL PRODUCERS IN RELATION TO TOTAL PRODUCTION*

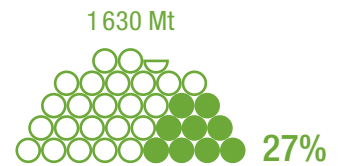
Industry fragmentation has remained relatively constant



1966



2000



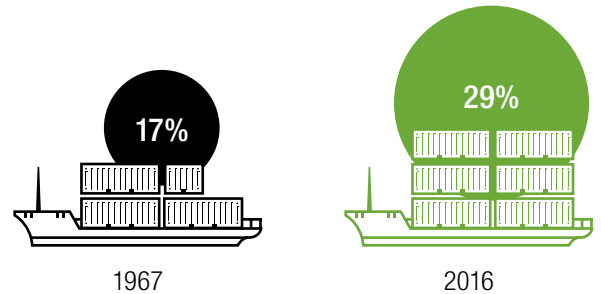
2016

* Including non-member companies

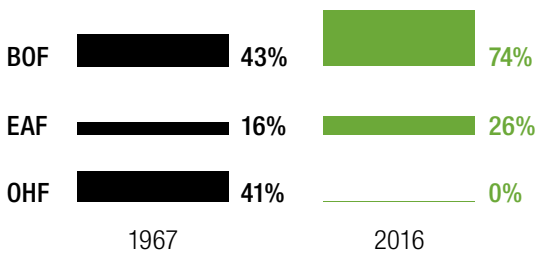
STEEL USE PER CAPITA: GLOBAL DATA



INTERNATIONAL TRADE OF STEEL PRODUCTS

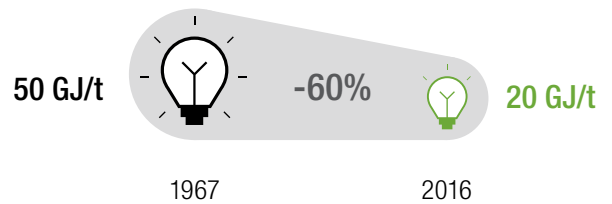


EVOLUTION OF PRODUCTION METHODS



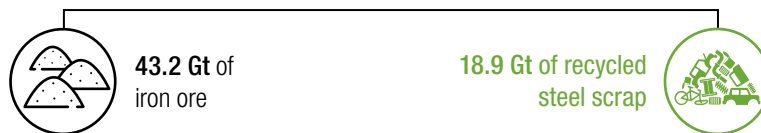
BOF: Blast Oxygen Furnace, EAF: Electric Arc Furnace, OHF: Open Hearth Furnace

AVERAGE ENERGY INTENSITY PER TONNE OF STEEL PRODUCED



THE USE OF RECOVERED STEEL SCRAP IN STEELMAKING

From 1967 to 2016, **45 billion tonnes (Gt)** of steel were produced in BOF and EAF production routes, using:



Raw materials savings through recycling of steel scrap since 1967:

28.9 Gt of iron ore
14.4 Gt of coal
2.2 Gt of limestone
+ large amounts of energy and water



CO₂ savings

Every tonne of steel scrap recycled saves 1.5 tonnes of CO₂



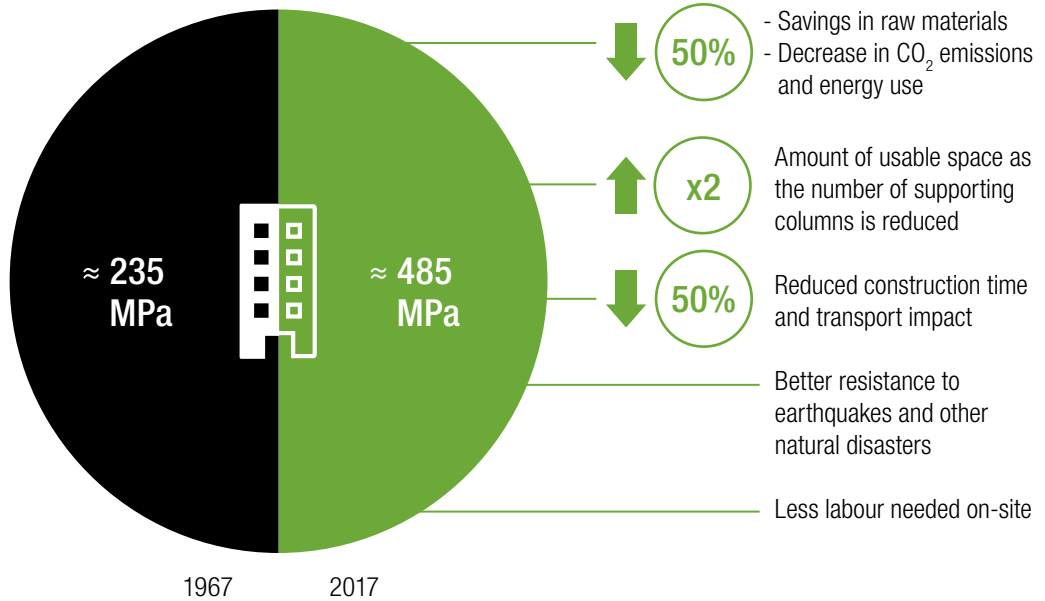
Today, every newly produced steel product is made on average from 30% recycled steel

1 Gt = 1 billion tonnes

STRONGER STEELS HAVE BEEN DEVELOPED

High-strength steels in construction

Advanced high-strength steels (AHSS) used today in construction infrastructure are at least twice as strong as conventional steels of 1967

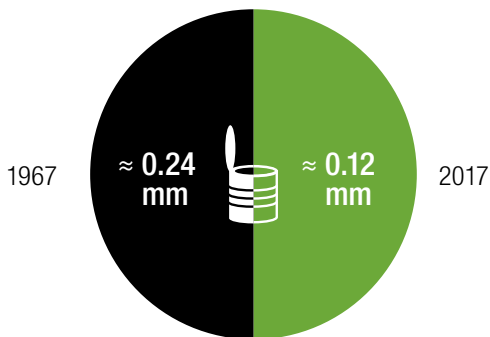


MPa = MegaPascal

■ Conventional mild steels

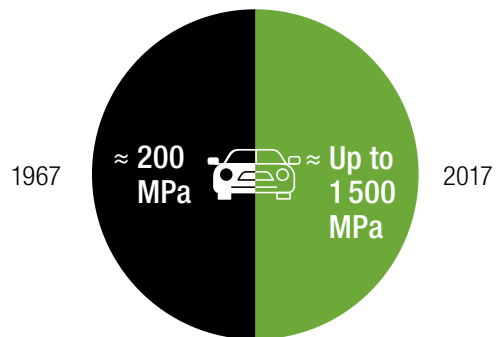
■ Advanced high-strength steels

High-quality packaging steels



- 50% - Savings in raw materials - Decrease in CO₂ emissions and energy use
- Reduced transport impact

High-strength steels in automotive body structures

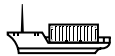


- 25 to 39% - Body vehicle weight reduction - Savings in raw materials - Decrease in CO₂ emissions and energy use
- Safer and more fuel efficient vehicles

STEEL IS EVOLVING WITH THE WORLD AND THE WORLD IS EVOLVING WITH STEEL

Container ships

Capacity:
1 500 TEU*



1967

* Twenty-foot equivalent

Capacity:
21 000 TEU



2017

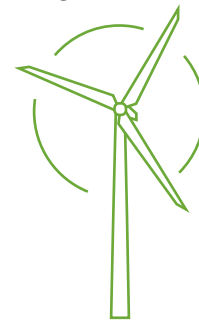
Capacity has
increased
14x

Wind turbines

Tower height
18 m
Blade length
5 m
Energy output
0.03 MW



1980



2017
(offshore)

Energy
output has
increased
300x

Tower height
105 m
Blade length
80 m
Energy output
9.5 MW

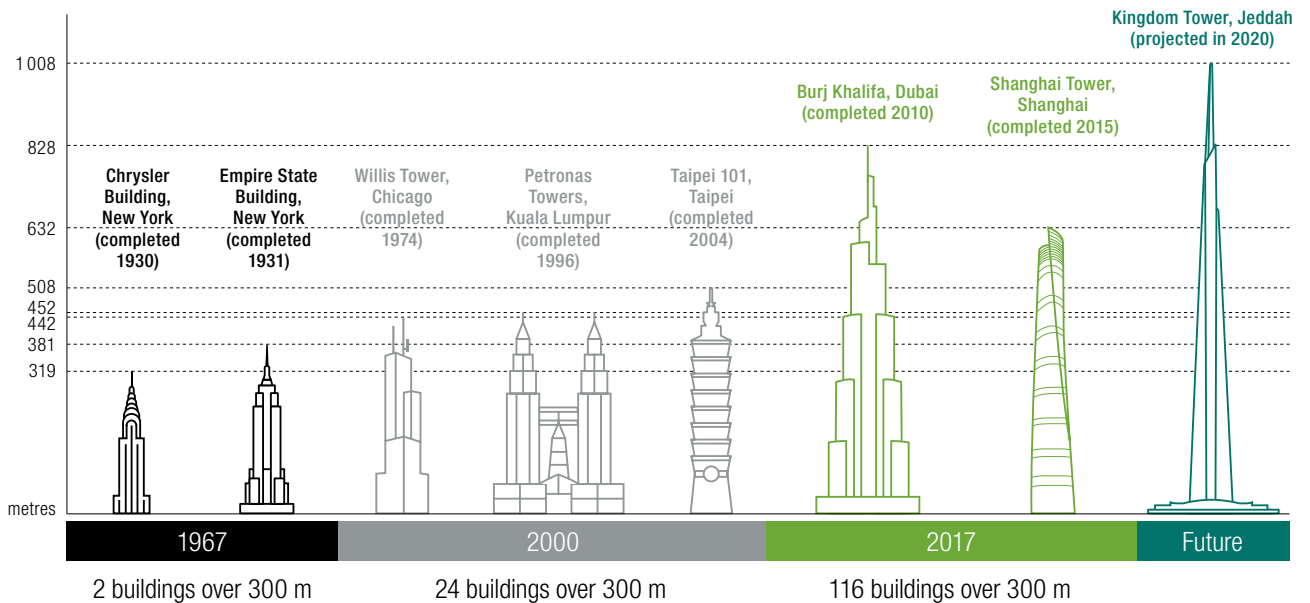
Rails

1967 25-metre standard lengths

2017 150-metre rail is the world's longest rail line in a single piece

6x
increase in
length

THE NUMBER OF SKYSCRAPERS HAS SOARED SINCE 1967, AND STEEL HAS HAD A KEY ROLE TO PLAY



Data sourced from The Skyscraper Centre



Steel is the most commonly used metal in the world and it has the potential to stay that way for the next fifty years and more. But for that we need to be seen as a vibrant, customer focussed, digitally mature, resource efficient, environmentally friendly industry that truly understands, leverages and promotes the concept of a circular economy.

T. V. NARENDRAN
MANAGING DIRECTOR
TATA STEEL LIMITED

The steel industry will rapidly enter a new era of producing to customers' individualised needs. The next decades will prove again how indispensable steel is for humanity. The steel industry, cities and communities will co-exist in perfect harmony.



YU Yong
CHAIRMAN
HBIS GROUP CO., LTD



With the arrival of the Fourth Industrial Revolution, we, as steel producers, must strive to transform our industry into a smart manufacturing industry. We should pioneer the opening of a new era of manufacturing renaissance with worldsteel taking the lead in unleashing the power of collective intelligence.

Ohjoon KWON
CEO
POSCO



Steel will always be a central part of any national economy and people's lives from deep sea to deep space. Our aspiration is for innovation to drive the steel industry to be the cornerstone that underpins sustainable development in the future.

MA Guoqiang
CHAIRMAN
CHINA BAOWU STEEL GROUP
CO., LTD



Our success as an industry starts with our people. To keep attracting top talent, we need to let young people know about the role technology plays in driving change in our industry and the contributions they can make to help develop the next generation of steel products.

John J. FERRIOLA
CHAIRMAN, CEO & PRESIDENT
NUCOR CORPORATION



Steel will definitely continue to be a material of choice and at the centre of the circular economy. We are even more committed to providing quality solution to our customers and for our society.

Eiji HAYASHIDA
PRESIDENT & CEO
JFE HOLDINGS INC.



Our industry's future will be based on our values of innovation, sustainability and integrity. Our license to operate in the communities where we live and work requires us to be fully open and transparent, and to prioritise safety and care for the environment.

Paolo ROCCA
PRESIDENT & CEO
TECHINT GROUP

OUR FUTURE

STEEL MAKES THE FUTURE POSSIBLE

Steel will continue to be the backbone and enabler of society's evolution and progress. Tomorrow's smart cities will be built on steel. It is the principal ingredient in so many systems and applications, from taller buildings and longer bridges to autonomous vehicles and renewable energy. It is also fundamental to realising a true circular economy. As an infinitely recyclable and reusable asset, steel reduces the burden on the Earth's resources. With growing awareness of steel as a modern, environmentally sound material, its use will help bring about the sustainable future we all dream of.

In working towards this goal, we will see increasing digitisation and automation within the steel industry. Made ever more effective by machine learning techniques, this will further improve existing process efficiency and quality. It will also improve the steel industry's already excellent safety record by automating or allowing risky operations to be performed remotely.

Advancements will also continue to enhance the properties of steel, creating countless new and exciting applications for architects and engineers to work with, and for people to then enjoy.

Looking forward steel will enable the interconnected and energy-efficient smart networks of the future. It will provide strong, lightweight materials needed to build homes, factories, stadiums and hospitals - together with the renewable energy plants which will supply them with clean electricity. Steel will also enable the future's transport networks, connecting people safely and reliably whether by road, rail, sea, air or even space.

Whatever the future holds, worldsteel will remain at the very heart of the industry's efforts to ensure steel makes it all possible, while contributing to a healthier and more sustainable planet.



WORLD STEEL ASSOCIATION CHAIRMEN

1967 - 2017



Jan D. Hooglandt
Hoogovens Groep BV
1985 - 1986

60's



Jacques Ferry
Chambre Syndicale de la Sidérurgie Française
1973 - 1975



George A. Stinson
National Steel Corporation
1975 - 1977



Yutaka Takeda
Nippon Steel Corporation
1983 - 1985



Hans-Günther Sohl
August Thyssen-Hütte AG
1967 - 1969



Yoshihiro Inayama
Nippon Steel Corporation
1971 - 1973



Eishiro Saito
Nippon Steel Corporation
1977 - 1979



Frederick G. Jaicks
Inland Steel Company
1981 - 1983

70's



Logan T. Johnston
Armco Inc.
1969 - 1971



Dieter Spethmann
Thyssen Aktiengesellschaft
1979 - 1981

80's



David M. Roderick
USX Corporation
1986 - 1988



Heinz A. Kriwet
Thyssen AG
1993 - 1994



Curtis H. Barnette
Bethlehem Steel Corporation
1994 - 1995



C.Y. Wang
China Steel Corporation
2000 - 2001

00's



Hiroshi Saito
Nippon Steel Corporation
1988 - 1989



Hiroshi Saito
Nippon Steel Corporation
1992 - 1993



Takashi Imai
Nippon Steel Corporation
1995 - 1996



Sir Robert Scholey
British Steel plc
1989 - 1990



Brian T. Loton
The Broken Hill Proprietary Co. Ltd.
1991 - 1992



Mahn-Je Kim
Pohang Iron and Steel Co., Ltd.
1996 - 1997



Akira Chihaya
Nippon Steel Corporation
1999 - 2000

90's



Walter F. Williams
Bethlehem Steel Corporation
1990 - 1991



Francis Mer
Usinor
1997 - 1998



Thomas J. Usher
USX Corporation
1998 - 1999



Sir Brian Moffat

Corus Group plc
2001 - 2002



Lakshmi N. Mittal

ArcelorMittal
2008 - 2009



Paolo Rocca

Techint Group
2009 - 2010



John Ferriola

Nucor Corporation
2016 - 2017



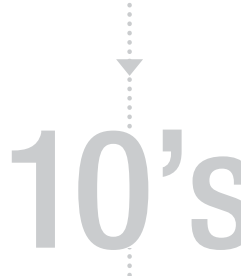
John T. Mayberry

Dofasco Inc.
2002 - 2003



Ku-Taek Lee

POSCO
2007 - 2008



10's



Wolfgang Eder

voestalpine
2014 - 2016



Kirby C. Adams

BlueScope Steel Limited
2003 - 2004



John P. Surma

United States Steel Corporation
2006 - 2007



Hajime Bada

JFE Holdings Inc.
2010 - 2011



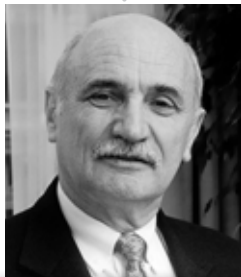
Joon-Yang Chung

POSCO
2013 - 2014



Akio Mimura

Nippon Steel Corporation
2004 - 2005



Guy Dollé

Arcelor
2005 - 2006



Xiaogang Zhang

Anshan Iron &
Steel Group Corporation
2011 - 2012



Alexey Mordashov

Severstal JSC
2012 - 2013

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