

Centre for Advanced Manufacturing and Supply Chains



Shaping the future of advanced manufacturing and supply chains

Our Mission: Driving responsible industry transformation by uniting the global manufacturing and supply chain ecosystem to share best practices, spark innovation and scale impact.



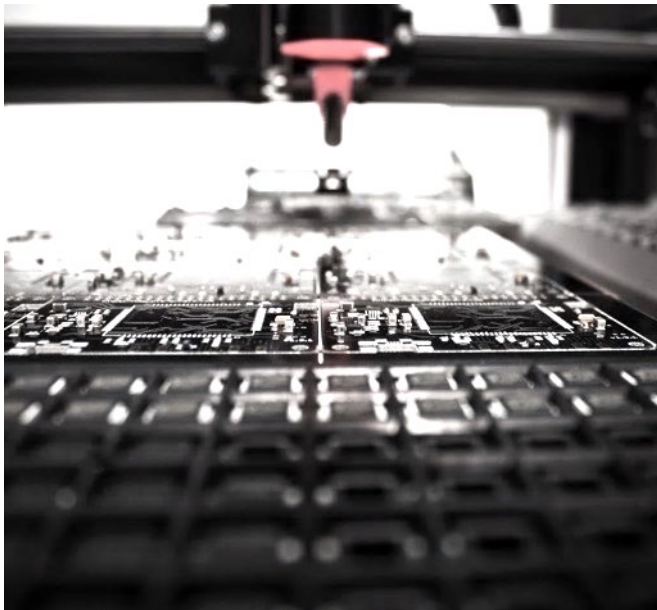
Our Vision: Manufacturing and supply chains can be the driving force behind a new wave of global societal, economic and environmental prosperity.

Our vision for the future of manufacturing and supply chains

01

Innovative

Unlocking and deploying innovative products, technologies and business models to create new value and a positive impact on society.



Sustainable

Driving sustainable and profitable growth to achieve carbon neutrality and sustainable practices across manufacturing and production value chains.



Inclusive

Empowering manufacturing workers with new opportunities and supporting companies, governments and local communities to strengthen their competitiveness.



Our partners

Advanced manufacturing

- Analog Devices Inc.
- ASIMCO Technology
- Augury
- Automation Alley
- Beijing Shougang
- BOE Technology Group
- Coherent
- Contemporary Amperex Technology Limited (CATL)
- COPA-DATA
- FLEX
- Foxconn Industrial Internet
- Haier Group
- International Centre for Industrial Transformation (INCIT)
- Mettler-Toledo (Changzhou) Measurement Technology Ltd
- Midea Group
- o9 Solutions
- OC Oerlikon
- Mitsubishi Electric Corporation
- Panasonic Connect
- Rockwell Automation
- Siemens
- Taiyuan Heavy Machinery Group
- TCL Technology Group
- TOPPAN HOLDINGS
- Tulip Interfaces
- Turkish Employers Association of Metal Industries (MESS)
- Western Digital

Aerospace and automotive

- Al Futtaim
- Apollo Tyres
- Bharat Forge
- BorgWarner
- Guangzhou Automobile
- Gulfstream
- Guizhou Tyre
- Hero Group
- Mahindra Group
- NIO Holding
- Randoncorp
- Robert Bosch
- Seres Group
- Volkswagen
- Volvo Group

Capital markets and investment

- ADQ
- Africa Finance Corporation
- African Development Bank
- Al Dabbagh Group
- AlixPartners
- BearingPoint
- BNY
- Brightstar Capital Partners
- CITIC Group
- Crescent Enterprises
- Guidance Tamil Nadu
- Industrial Development Corporation of South Africa
- Luksic Group
- MGX
- NEOM
- Sabanci
- Saudi Industrial Development Fund
- Singapore Economic Development Board (EDB)

Chemicals

- Dow
- Engro
- Indorama Ventures
- Reliance Industries
- Saudi Basic Industries Corporation (SABIC)
- UPL

Energy

- ABB
- Ariston
- Dubai Electricity and Water Authority
- Enel
- Gecko Robotics
- Hithium
- LONGi Green Energy Technology
- Saudi Electricity Company (SEC)
- Schneider Electric
- Tongwei
- Trane Technologies
- Trina Solar

Engineering and infrastructure

- Consolidated Contractors
- EVE
- Mitsubishi Heavy Industries
- RPG
- VELUX

Food and beverage

- Ball Corporation
- Coca-Cola
- C&S Wholesale Grocers
- Ecolab
- Foshan Haitian Flavouring and Food Company
- Gloria
- JBS
- Kuwaiti Danish Dairy
- Kweichow Moutai Group
- Nestlé

- Suntory Holdings
- Thai Beverage

Health and healthcare

- Agilent Technologies
- AstraZeneca
- JD.com
- Johnson & Johnson
- Jubilant Bhartia Group
- Merck KGaA
- Novartis
- Royal Philips
- Sanofi
- Serum Institute of India
- Shein
- Tamer Group
- Yunnan Baiyao Group

IT and Communications

- Alphabet
- Apple
- C3 AI
- Celonis
- Ericsson
- Fujitsu
- HCLTech
- Hengtong Group
- Hitachi
- HP
- Infosys
- Interos
- LENOVO
- Micron Technology
- Microsoft
- NTT Data
- Palantir Technologies
- Qualcomm
- SAP
- Tata Consultancy Services (TCS)

Mining and metals

- African Rainbow Minerals
- ALUMINIUM BAHRAIN
- ArcelorMittal
- Emirates Global Aluminium
- Exxaro Resources
- Glencore International
- JSW
- Korea Zinc Company
- Norsk Hydro
- OCP Group
- POSCO Holdings
- Rockcheck Steel Group
- Teck Resources
- The Aditya Birla
- Vale
- Vedanta Resources

Oil and gas

- Petroleo Brasileiro
- Saudi Aramco
- SOCAR

Professional services

- Adecco Group
- Bain & Company
- Capgemini
- Deloitte
- Heidrick & Struggles
- Kearney
- ManpowerGroup
- McKinsey & Company

Retail and consumer goods

- Alibaba Group
- GEP
- Henkel
- Hisense Group
- Koç
- L'Oréal
- Ralph Lauren
- S. C. Johnson
- Unilever

Supply chain and transport

- Adani Ports and Special Economic Zone
- Agility
- Bahrain Economic Development Board
- China International Marine Containers (Group) Ltd.
- Daimler Trucks
- Damen Holding
- Deutsche Post
- DP World
- DSV
- Exiger
- Tianjin Port
- TVS Supply Chain Solutions

Other industries

- Giti Group
- Kudelski Group
- Tata Sons

Our partners

Innovator Community

- 3YOURMIND
- Aera Technology
- Allie AI
- Altana AI
- Artyc
- Avathon
- Black Lake
- Bota Biosciences
- Botree Recycling Technologies
- Brimstone
- Carbon Upcycling Technologies
- causaLens
- Circolor
- Claryo
- CO2 AI
- CynLr
- Dongsheng AI
- Electroder
- Emvolon
- Evmu
- Fero Labs
- Foundation Alloy
- Graphmatech
- Guidewheel
- Hyfe Foods
- Intenseye
- International Battery Company
- ISEE
- Made of Air
- Mech-Mind
- Noematrix
- Plan A
- Robocon
- RoboForce
- Rubi Laboratories
- Robust.AI
- SemiFive
- SkyCell
- Triastek
- Versatile
- Weiyun AI

Public sector

- Australia, Department of Jobs and Small Business
- Brazil, Ministry of Industry, Foreign Trade and Services
- Germany, Federal Ministry of Economic Affairs and Energy
- India, National Institution for Transforming India (NITI) Aayog
- Indonesia, Ministry of Industry
- Ho Chi Minh City People's Committee
- Mexico, Secretariat of the Economy
- Michigan, US, State Government
- Qatar, Ministry of Finance
- Republic of Korea, Ministry of Small and Medium-Sized Enterprises and Start-ups
- Saudi Arabia, Ministry of Commerce and Investment
- Singapore, Office of the Prime Minister
- Spain, Ministry of Industry, Commerce and Tourism
- South Africa, Ministry of Trade and Industry
- Turkey, Ministry of Industry and Technology
- US, Department of Commerce
- VietNam, Ministry of Industry and Trade

Civil society

- American Federation of Labor and Congress of Industrial Organizations (AFL-CIO)
- IG Metall
- International Labour Organization (ILO)
- International Trade Centre (ITC)
- International Trade Union Confederation (ITUC)
- United Nations Development Programme (UNDP)
- United Nations Industrial Development Organization (UNIDO)
- World Bank

Centre for the Fourth Industrial Revolution Network:

- C4IR Qatar
- C4IR KSA
- C4IR South Africa
- C4IR Vietnam
- US Centre for Advanced Manufacturing

Academia

- Boston University
- Chalmers University of Technology
- Dartmouth College
- Ecole Polytechnique Fédérale de Lausanne (EPFL)
- ETH Zurich
- INSEAD, France
- King Abdulaziz City for Science and Technology (KACST), Saudi Arabia
- Korea Advanced Institute of Science and Technology (KAIST)
- Manchester Metropolitan University
- Massachusetts Institute of Technology (MIT)
- Nanyang Technology University
- National University of Singapore
- Seoul National University
- Stanford University
- UNIST (Ulsan National Institute of Science and Technology)
- University of California
- University of Cambridge
- University of Maryland
- University of Michigan
- University of Pennsylvania
- Zhejiang University

How partners leverage our centre

01



Lead

Propose, develop and drive initiatives and coalitions. (e.g. [Future-Proofing Global Value Chains Initiative](#), [Industry Net Zero Accelerator](#), [Frontline Talent of the Future Initiative](#), [Next Frontier of Operations](#))



Connect

Build essential partnerships through our communities across geographies and industries. (e.g. [Global Lighthouse Network](#), [Global Future Council](#), [New Generation Industry Leaders](#))



Learn

Get strategic insights and anticipate trends through our [industry reports and white papers](#), [Transformation Map](#), [articles](#), [videos](#) and [podcasts](#).



Contribute

Engage actively in our events, digital workshops, sessions and panels.

How we drive impact

01



The how-to platform

We offer a space for sharing insights and learnings on responsible industry transformation, anticipating future trends and needs.



Peer-to-peer learning journey

We connect leaders from across companies and geographies to unlock new actions, collaborations and partnerships.

Our communities

01



Chief Operating, Supply Chain and Procurement Officers

90+ C-suite executives across 15 different industries helping anticipate and navigate increasingly complex manufacturing and value chains – including how the most pressing trends related to the current geopolitical/trade environment, industrial talent and digital collaboration across supply chain partners will shape industrial strategies in the near- and medium-term.



Global Future Council on Advanced Manufacturing and Value Chains

A brain trust of leaders from government, business and civil society, promoting innovative thinking and generating insights on potential scenarios of global value chains configurations in 2030, in 2040, 2050 in light of key driving forces and trends shaping the sector.



New Generation Industry Leaders

The world's most inspiring accelerator supporting emerging leaders in manufacturing operations and supply chains to develop the skills needed to drive a responsible and inclusive transformation of industries.



Network of Regional Manufacturing Centres & Advanced Manufacturing Hubs

US Centre for Advanced Manufacturing, C4IR Qatar, C4IR Kingdom of Saudi Arabia, C4IR Saudi Arabia, C4IR South Africa, C4IR Vietnam and 7 Hubs that engage regional production ecosystems around the world to strengthen local industrial agendas in alignment with global trends.

Impact Across Four Strategic Areas

Focused initiatives that go deep into “how”

Resilient Value Chains

New strategies to build manufacturing & supply chain resilience, & drive growth, while navigating future crises

- [Future-Proofing Global Value Chains](#)

People-centric Transformation

New practices, tools, and tech to ensure diversity, inclusion and workforce engagement

- [Frontline Talent of the Future](#)
- [Human-Machine Collaboration](#) *

Technology & Innovation

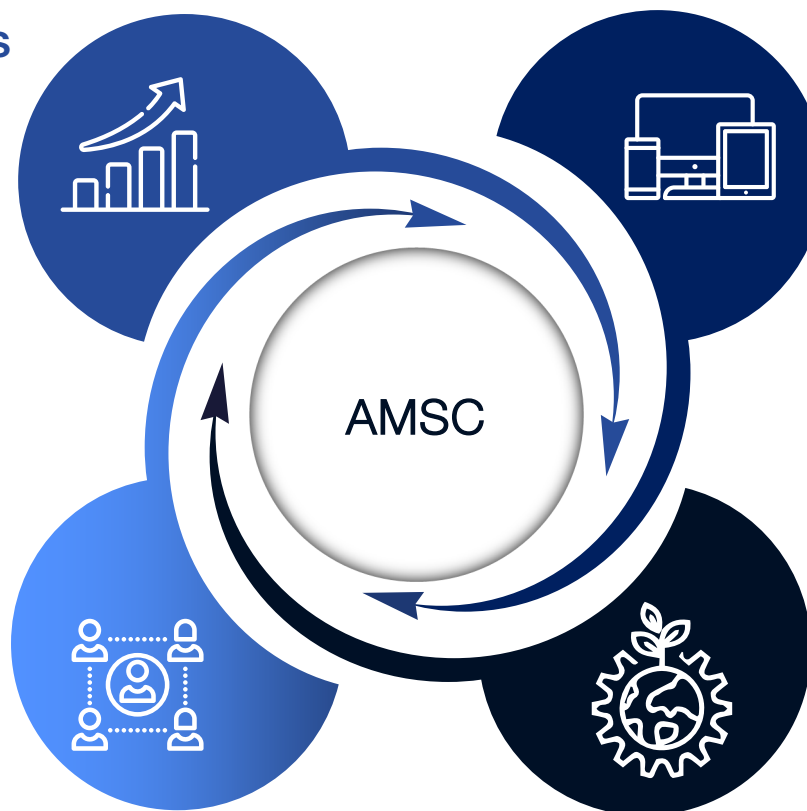
Accelerating adoption of advanced manufacturing technology at scale

- [The Global Lighthouse Network](#)
- [Next Frontier of Operations](#)
- [Lighthouse Operating System](#)

Sustainable Systems

Innovative solutions to enable circularity and accelerate the transition towards Net-Zero

- [Industry Net Zero Accelerator](#)
- [Circular Transformation of Industries](#)
- [SME Sustainability Accelerator](#)



* - Joint initiative with Technology & Innovation pillar

2025 Calendar

In person meetings
Virtual meetings

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Centre for Advanced Manufacturing and Supply Chains

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	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
 Institutional Events	Annual Meeting 20-24 Jan, Davos, Switzerland				Industry Strategy Meeting 13-15 May, London, UK	Annual Meeting of New Champions 24-26 June, Tianjin, China Global Technology Retreat 3-6 June, SF, USA			Sustainable Development Impact Meetings 22-26 Sept, NY, USA	Annual Meeting of Global Future Councils and Cybersecurity 14 – 16 Oct, Dubai, UAE		
 Chief Operating, Supply Chain and Procurement Officers				Community Workshop 10-11 April, Boston, USA						Community Workshop 2-3 Oct, Mexico City		
 Centre-wide				Centre Strategy Meeting 10-11 April, Boston, USA						Centre Strategy Meeting 29-30 Oct, Hangzhou, China		
 Regional Events									GLN Immersion Tour 18-19 Sept, India	3rd Saudi Forum on the Fourth Industrial Revolution 29-30 Oct, KSA	Innovation and Resilience in a New Geopolitical Era 9-10 Nov, Nashville, USA Ho Chi Minh Economic Forum 22-26 Nov, Vietnam	
 Global Lighthouse Network		Lighthouse Explore, Coca-Cola Singapore 19 Feb		Lighthouse Explore, Siemens AG – Erlangen 8 April	Lighthouse Explore, Beko Dishwasher Plant, Ankara 21 May	Lighthouse Explore, F. Hoffmann-La Roche Ltd, Basel 19 June		Lighthouse Explore 6 Aug	Lighthouse Explore Midea, China 17 Sept		Lighthouse Explore TBD	
 Next Frontier of Operations		Community Workshop 13 Feb			Community Workshop 15 May				Community Workshop 3 Sept		Community Workshop 13 Nov	
 Frontline Talent of the Future					Future Skills of the Frontline Talent 13 May		Women in Manufacturing Workforce Meeting 9 July		Policies and practices to improve the conditions of frontline workers 2 Sept		Showing talent innovations in factories globally 24 Nov	
 Industry Net Zero Accelerator			Accelerating SME Transitions 6 March		Insight Session 12 May	How-to session 10 June	Insight Session 15 July			Insight Session 7 October		How-to session 9 Dec
 Circular Transformation		How-to session 25 Feb	Advisory Panel I 11&12 March	How-to session 22 April	Advisory Panel II 9 &12 May	Advisory Panel III 30 June / 3 July						How-to session TBC
 Future-Proofing Global Value Chains				Infrastructure solutions for clean energies and resilient supply chains 28-29 April, Chennai, India				Industrial clusters as catalysts for growth, local value creation, and competitiveness 19 Aug, Johannesburg, South Africa	Community Workshop 18 Sept		Community Workshop 18 Nov	
 New Generation Industry Leaders		NGIL 18-20 Feb, Geneva, Switzerland		NGIL 9-10 April Boston, USA	NGIL workshop 28 May	NGIL workshop 25 June	NGIL Capstone Finale 22 July					
 Lighthouse Operating System					LOS onsite workshop 1 13 May Munich, Germany		LOS onsite workshop 2 3 July Vevey, Switzerland			LOS onsite workshop 20 Oct	LOS onsite workshop 17-18 Nov Stuttgart, Germany	
 Human-Machine Collaboration										Community workshop 8 Oct		Community workshop 8 Dec

2026 Calendar

In person meetings
Virtual meetings

01

Centre for Advanced Manufacturing and Supply Chains

11

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
 Institutional Events	Annual Meeting 19-23 Jan, Davos, Switzerland		Industry Strategy Meeting 16-17 March, Munich, Germany		Special Meeting in Saudi Arabia 2026 3-4 May, Riyadh, Saudi Arabia Global Technology Retreat TBC, San Francisco, USA	Annual Meeting of New Champions 23-25 June, Dalian, China			Sustainable Development Impact Meetings TBC	Annual Meeting of Global Future Councils and Cybersecurity TBC		
 Chief Operating, Supply Chain and Procurement Officers			Community Workshop TBC March, Germany								Community Workshop 4-5 Nov, TBC	
 Centre-wide					AMSC Forum TBC, San Francisco, USA							
 Regional Events								AMSC - China Community Workshop (with Lighthouse Site Visit) 28 Aug, China TBC	GLN Immersion Tour TBC Sept, India	4th Saudi Forum on the Fourth Industrial Revolution TBC, Riyadh, Saudi Arabia	Ho Chi Minh Economic Forum TBC, Vietnam	
 Global Lighthouse Network		Lighthouse Explore 18 Feb	Lighthouse Explore 15 March		Lighthouse Explore 6 May		Lighthouse Explore 8 July		Lighthouse Explore 16 Sep	Lighthouse Explore 21 Oct		Lighthouse Explore 9 Dec
 Next Frontier of Operations		Community Workshop 19 Feb			Community Workshop 14 May				Community Workshop 3 Sep		Community Workshop 12 Nov	
 Frontline Talent of the Future					Community Workshop 12 May							
 Industry Net Zero Accelerator			Net Zero and Climate Resilience Series 2026 - Net Zero "how to" session 20 March		Net Zero and Climate Resilience Series 2026 - Net Zero "how to" session 28 May					Net Zero and Climate Resilience Series 2026 - Net Zero "how to" session 15 Oct		Net Zero and Climate Resilience Series 2026 - Net Zero "how to" session 3 Dec
 Future-Proofing Global Value Chains			Distributed Scale in Practice: From Mega-Plants to Federated Networks 12 March		Orchestrator to Operator: Building the Integrated Operations Tower 26 May				Community Workshop 17 Sep		Community Workshop 19 Nov	
 New Generation Industry Leaders			NGIL kick-off event 3-5 March, Geneva, Switzerland		NGIL Module 2 (alongside AMSC Forum) TBC	NGIL workshop 12 June	NGIL Finale 15 July					
 Lighthouse Operating System		Lighthouse OS Webinar 12 Feb		Community Workshop 15 Apr, TBC	OS Impact Webinar TBC	Lighthouse OS Webinar 12 June		Community Workshop 12 Aug, TBC	Lighthouse OS Webinar 12 Sep	Community Workshop 12 Oct		
 Human-Machine Collaboration			Community Workshop 11 March			Community Workshop 11 June				Community Workshop 8 Oct		

02

Discover the centre
and our initiatives



Future-Proofing Global Value Chains: Country Preparedness

As global developments continue to increase in intensity and frequency, the question of which regions and countries to invest in next has become top-of-mind for manufacturing companies. Propelled by priorities such as digital operations, multi-local value chains, sustainability, and customer-driven value, companies and governments are seeking a comprehensive understanding of the factors and criteria for the reconfiguration of value chains.

Objective

- Shed light on actions manufacturers are taking to redesign and prepare global value chains for the future
- Identify drivers of country-level readiness to attract investment in next-generation manufacturing and supply chains
- Investigate potential archetypes of value chain configurations in the years 2030, 2040, and 2050
- Foster a continuous collaboration mechanism for

companies and governments to best meet the trends that will dominate the re-configuration of global value chains

- Incubate collective actions on specific resilience priorities for the community

Deliverables

- A playbook of best practices strategies enacted by leaders to redesign their value chains, and ensure they are well-positioned to make a positive economic, social, and environmental impact
- Manufacturing Readiness Report, a deep-dive on how key drivers of country-level preparedness to seize opportunities amidst the rewiring of the global operating environment
- Future scenario forecasting for potential archetypes of value chain configurations in 2030, 2040, 2050



How to engage?

- Appoint a senior executive or public sector leader to join public-private dialogues on key drivers and best practice policies for country-level readiness for the future of global value chains
- Take part in a consultation on production readiness factors in the context of value chains redesign and highlight winning policies and projects related to countries' preparedness
- Share successful case studies of leading national initiatives and industrial policies resulting from public-private collaborations and supporting countries' industrial agenda

[Read more about this initiative](#)

Industry Net Zero Accelerator

02

Manufacturing accounts for nearly 54% of global energy utilization and 21% of carbon emissions. While companies state goals to achieve net-zero emissions at or before 2050, only 17 percent companies surveyed clearly describe their company's strategy to achieve decarbonization targets. Recent climate and energy disruptions have strengthened action from industry leaders to prepare for transition towards net zero and recognized the untapped opportunities to sustainability innovations for growth, improve competitiveness and resilience.

Objectives

The Industry Net Zero Accelerator supports industries to accelerate their decarbonization journey to achieve Net Zero emissions by or before 2050:

- Shape the strategic dialog between industrial executives, academia and governments to solve shared decarbonization challenges
- Create a “How-to” community framework to guide progress and enable cross-industry collaboration, learning & reapplication

- Recognize outstanding industries' contributions and progress along the Net Zero journey
- Accelerate and scale multi-stakeholder initiatives and tools by providing the pre-competitive platform

Deliverables

- Community knowledge repository to capture industry insights, leading use cases and key actionable solutions to speed the transition towards net zero
- White papers, data-driven insights, and real-world case studies to demonstrate how decarbonization can drive competitive advantage, cost savings, and long-term growth and value creation
- Actionable roadmap tailored for SMEs to initiate and progress their sustainability journey
- Multi-stakeholder collaborations and pilots to accelerate the transition towards net zero in manufacturing value chains
- Initiative community gatherings through impactful in-person events and virtual sessions



How to engage?

- Share a use case, project or solution with the community that helps accelerate the industrial transition towards net zero
- Participate or host an Experiential Workshop as part of the Forum's Net Zero and Climate Resilience Series to learn and share knowledge on the best practices to accelerate the sustainability and net zero transition
- Appoint an executive whose responsibilities are at the intersection of strategy, supply chain, operations, sustainability and engage in cross-company dialogues and actions (e.g., Chief Operating Officer) to join the community of the initiative

[Read more about this initiative](#)

The Global Lighthouse Network

02

While more than 70% of companies are still stuck in “pilot purgatory”, a select group of leading manufacturers have already been able to deploy advanced manufacturing at scale, generating new value and customer experiences within the factory or across value chains. The Global Lighthouse Network is a community of manufacturers that demonstrate leadership in using Fourth Industrial Revolution technologies to transform factories, value chains and business models.

Objectives

- Accelerate inclusive technology adoption and dissemination in manufacturing by building a cross-industry network that includes some of the most advanced factories and connected value chains worldwide
- Provide the current community of 201 Lighthouses with a unique global learning journey and opportunity for collaborative projects

- Share first-hand insights, strategies and challenges from the Lighthouses’ digital transformations

Deliverables

- Two rounds of assessments in 2025: December 2025
- 10 Lighthouse Explore virtual visits and 1 Community Workshop for 2025
- 1 white paper in Jan 2026 (latest report is [Global Lighthouse Network: The Mindset Shifts Driving Impact and Scale in Digital Transformation](#))
- Agenda articles, press releases and video sharing more details of each cohort of new Lighthouses are planned throughout 2025

How to engage?

- Submit one of your industrial operating sites to be assessed on 5 critical areas of maturity and designated as a Lighthouse
- Join the initiative’s Advisory Board to support strategic direction and nominate a talented expert to join the Global Lighthouse Network team as a project fellow
- Join the Lighthouse Explore visits and other workshops to learn from existing Lighthouses and share your own learnings
- Propose a new collaboration to amplify ongoing efforts from your organization in this field

[Read more about this initiative](#)



Next Frontier of Operations

Innovating for the Intelligent Age; Driven by Frontier Technologies

02

The fusion of human ingenuity and machine intelligence is expected to shape the future of industrial operations, promising a future rich in innovation, and driving competitive advantage and sustainable growth across industries. Next Frontier of Operations initiative seeks to define a forward-looking but pragmatic picture of this impending era. It will explore the transformative potential of frontier technologies and evaluate their value creation – both incremental and breakthrough – across diverse future scenarios. All of this while emphasizing human-centric approaches and responsible transformation.

Objective

To further the vision of this initiative to “shape the next era of industrial operations, where frontier technologies amplify human ingenuity, driving competitive advantage and sustainable growth across industries”, we will focus on the following key objectives:

- Equip industries with actionable insights that accelerate the adoption of frontier innovations

and fosters symbiotic relationship between humans and machines

- Provide a dynamic balance of forward-looking and present-day insights, empowering both industry leaders and policymakers to make informed decisions
- Build a global community of industry leaders, innovators and policymakers, creating a collaborative platform to share knowledge and best practices, with a shared sense of purpose

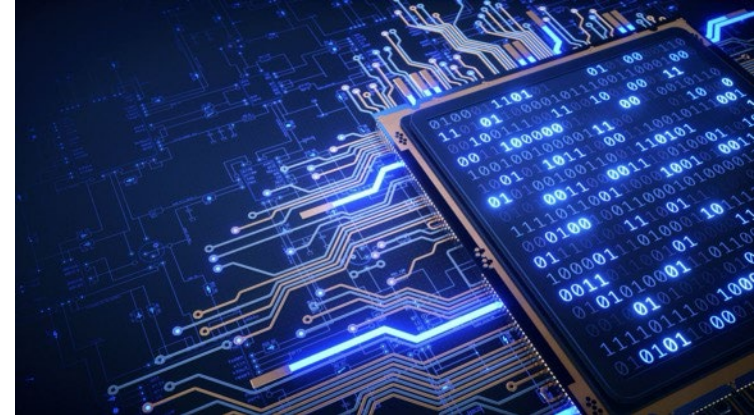
Deliverables

- **Reimagining Operations:** Deliver a comprehensive outlook on the next frontier of industrial operations, driven by frontier technologies, with an emphasis on responsible transformation approaches
- **Experience Centre:** Launch an experience centre designed to visualize the next frontier of operations, raising awareness and inspiring informed decision-making to embark on this journey of transformation
- **Policy Playbook:** Create a framework for governments to shape policies and programmes to enable industries to embark on the transformative future of industrial operations.

How to engage?

- Join the Initiative Community and Actively shape the initiative vision and own or contribute to its deliverables by sharing insights.
- Co-author blog(s) or participate in podcasts or videos to highlight relevant insights on the initiative's topic.
- Appoint a fellow from your organization to work with the Forum team on the initiative.
- Propose a new collaboration to amplify ongoing efforts from your organization in this field

[Read more about this initiative](#)



Lighthouse Operating System

02

Leading manufacturing companies have demonstrated, that tech-infused industrial operations not only help improve cost-effectiveness, but also contribute to competitive advantage in Sustainability, Resilience and Innovation.

This initiative aims to design and disseminate globally a holistic framework for responsible industry transformation. As part of this effort, members of the advanced manufacturing and supply chains community will define what the next-generation of operating systems will look like in the light of faster pace of technological change - enabling manufacturers from across all geographies and industries to transform their production systems into a sustainable, digital and agile operating system that drives end-to-end optimization.

Objectives

- Develop a holistic vision on how future

manufacturers will operate and create value end to end across their supply chain

- Co-create an operating system framework to transform industrial operations in the 21st century, in the same way as Lean revolutionized manufacturing in the 20th century - open and free for everyone to use
- Provide practical and intuitive guides and tools for manufacturers to develop their own operating system and transformation roadmap - building on best practices of leading industrial players

Deliverables

- A framework for sustainable, digital and agile operating systems
- Collection of guides, tools and best practices to support implementation
- Publication outlining the Lighthouse Operating System framework with a set of principles and approach for transformation



How to engage?

- Apply to become a core partner and co-author of the Operating System framework and exchange experiences and best practices with other thought leaders in a series of co-creation workshops
- Join a community of senior operations executives to test and refine the developed Operating System approach and further develop the collection of guides, tools and best practices in working groups

[Read more about this initiative](#)

Human-Machine Collaboration

02

According to the Forum's Future of Jobs 2025 report, approx. half of all the tasks in manufacturing and supply chains today are predominantly completed by humans. In 2030, while automation will drive jobs that are completely done by machines, there will be as much increase in the combination of tasks done by humans and machines together.

Frontier technologies, such as AI and Robotics, are not merely automating tasks; they are enabling new paradigms of collaborative intelligence, where human ingenuity and advanced autonomous systems co-evolve. This transformation is fundamentally altering the skills matrix required to perform today's manufacturing roles - moving from legacy expertise in manual operations to digital skills such as 3D printing, robotics programming, and AI-driven supply chain optimization.

Objective

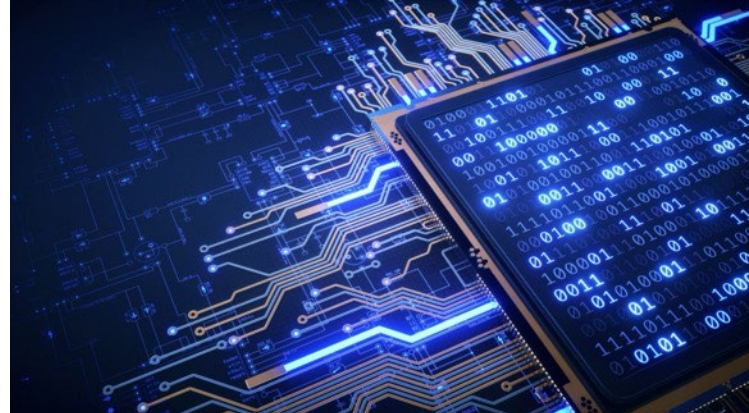
Recognizing this paradigm shift, this initiative aims to deliver a global blueprint for industrial leaders navigating this change, anchored in three strategic

priorities that form the three components of the model framework:

- **Redefining human-machine synergy:** Defining optimal interaction models between human workers and autonomous systems, covering task allocation, decision augmentation, and safety frameworks.
- **Mapping the future workflows and workforce:** Identify new and emerging workflows, mapping tasks and skills evolution from traditional roles to digital-first across all manufacturing and supply chain jobs, that will define the future of industrial workforce in the next 3-5 years.
- **Future-proofing workforce capabilities:** Establish best-in-class talent strategies outlining upskilling pathways and talent development models, as manufacturers prepare talent for future factories and supply chains.

Deliverables

- Feb 2026: A model framework for Human-Machine Collaboration that will deliver recommendations for business leaders and policymakers to foster workforce upskilling/reskilling.
- Mar 2026 onwards: Pilot the framework with select organizations to drive on-ground action



How to engage?

- Join an exclusive community of leaders shaping the future of human-machine collaboration
- Gain visibility as a thought leader by contributing to the framework, delivering a futuristic outcome.
- Play a unique role in shaping the future of industrial operations and preparing future-ready talent.

Frontline Talent of the Future

More than 71% of manufacturers cited the inability to attract and retain employees as their top business challenge. Additionally, the Future of Jobs report show about 40% of core skills in manufacturing will change in next 3-5 years. Given this, in most regions, today's workforce would not be capable of operating tomorrow's factories. Today's production system need a new playbook for talent transformation that draws on proven strategies and talent innovations from sites who are performing at the highest level.

To address this, the World Economic Forum in collaboration with McKinsey, launched the Frontline Talent of the Future initiative in 2023 to identify and share proven strategies and talent innovations from leading industrial sites. To date, the Frontline Talent of the Future Initiative has conducted 80+ interviews with industry leaders and completed numerous site visits across the globe, to assemble a database of more than 60 innovations to date and build a playbook for frontline talent excellence. You can read about the learnings from our pilot program [here](#).

In the next stage of the work, we will continue to identify proven strategies for talent transformation and inspire other companies to implement and scale the adoption of these innovative practices and approaches for workforce transformation in tomorrow's factories and future supply chains.

Objectives

- Identify and elevate workforce innovations to attract, retain, and develop talent that results in business growth and productivity
- Shape new insights and tools to transform company-led talent initiatives, promoting a culture of human-centric factories, upskilling, reskilling, and worker wellbeing and safety in industrial sites

Deliverables

- Quarterly peer-to-peer community meetings around frontline talent in manufacturing and supply chains, and foster connections to transform their talent programs
- Insights paper on 'Upskilling and Proven-Retention Strategies in Manufacturing and Supply Chains' to be launched in Sept 2025



How to engage?

- Nominate the senior-most executive in the organization that sits at the intersection of people and operations (e.g., SVP of Talent in Operations or a Global Head of Operations Talent) and CEOs of Technology Pioneer startups to engage in cross-industry peer exchanges, community meetings, and initiatives to learn and share talent innovations and shape the future of manufacturing workforce.
- Apply for a Lighthouse with a distinction in talent transformation, through the Global Lighthouse Network by June 22. You can find more information [here](#).

[Read more about this initiative](#)

New Generation of Industry Leaders

02

The Next Generation of Industry Leaders (NGIL) is a six-month world-class industry accelerator for rising leaders in manufacturing and supply chains hosted by the World Economic Forum's Centre for Advanced Manufacturing and Supply Chains.

NGIL brings together future industry leaders from across industries, geographies, and functions to co-create a more sustainable, inclusive, and innovation-driven future for industry. Through immersive global experiences, the program equips mid-to-senior executives with next-gen tools, insights, and cross-sector relationships to lead responsible, inclusive, and technology-driven industry transformation. Each NGIL cohort convenes to cover 3 modules (technology and innovation, sustainability, and workforce transformation) before culminating in a shark-tank style capstone pitch presentation.

Objectives

- INSPIRE: Spark bold thinking and future leadership
- CONNECT: Cultivate connections with a global

network of change makers

- DEVELOP: Build practical capabilities and system-level leadership
- TRANSFORM: Equip leaders to deliver real-world, people-centric outcomes

Deliverables

- Capstone Project: Build a business showcasing a strategic solution or innovation related to sustainability, digital transformation, or workforce development.
- Technology & Innovation Module: Identify and showcase how emerging technologies can be deployed within their company or sector.
- Sustainability and Net Zero Transformation Module: Identify and scale emerging technologies that enable net-zero transformation in industries.
- People-First Transformation Module: Integrate human-centric transformation practices across industrial sites
- Alumni Commitment: Join a thriving community of alumni network and engage with peers across the industry over the years.



How to engage?

- Nominate a **future leader** from your organization for the 2026 cohort before **1 July 2025**

[Nominate a Leader – Submission Form](#)

- Support as a mentor, speaker, or subject-matter contributor
- Partner on a specific session, topic, or industry theme

[Read more about this initiative](#)

Our insights

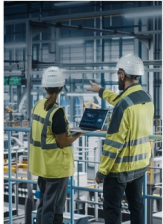
Technology



[The Lighthouse Operating System: Driving Responsible Transformation](#)



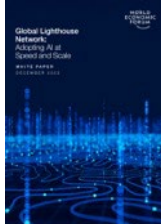
[Frontier Technologies in Industrial Operations: The Rise of AI Agents](#)



[Global Lighthouse Network: The Mindset Shifts Driving Impact and Scale in Digital Transformation](#)



[Views from the Manufacturing Front Line: Workers' Insights on How to Introduce New Technology](#)



[Global Lighthouse Network: Adopting AI at Speed and Scale](#)



[Harnessing the AI Revolution in Industrial Operations: A Collaborative Guidebook](#)



[Exploring the Industrial Metaverse: A Roadmap to the Future](#)



[Global Lighthouse Network: Shaping the Next Chapter of the Fourth Industrial Revolution](#)



[Playbook for Responsible Industry Transformation](#)



[Global Lighthouse Network: Reimagining Operations for Growth](#)



[Global Lighthouse Network: Four Durable Shifts](#)



[A New Era of Manufacturing in the Fourth Industrial Revolution: 57 Billion of Possibilities Uncovered in Michigan](#)



[Fourth Industrial Revolution: Beacons of Technology and Innovation in Manufacturing](#)



[Scaling Fourth Industrial Revolution Technologies](#)



[Insights from the Forefront of the Fourth Industrial Revolution](#)

Workforce



[Putting Talent at the Centre: An Evolving Imperative for Manufacturing](#)



[Augmented Workforce: Empowering People, Transforming Manufacturing](#)



[Building a Common Language for Skills at Work: A Global Taxonomy](#)



[The Future of Jobs Report 2020](#)



[Putting People at the Centre](#)



[The New Production Workforce: Responding to Shifting Labour Demands](#)

Sustainability



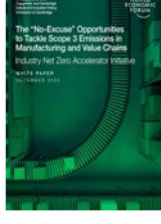
[Circular Transformation of Industries: Unlocking Economic Value](#)



[United for Net Zero: Public-Private Collaboration to Accelerate Industry Decarbonization](#)



[Circular Transformation of Industries: The Role of Partnerships](#)



[The "No-Excuse" Opportunities to Tackle Scope 3 Emissions in Manufacturing and Value Chains](#)



[Circular Transformation of Industries: Unlocking New Value in a Resource-Constrained World](#)



[The "No-Excuse" Framework to Accelerate the Path to Net-Zero Manufacturing and Value Chains](#)



[Accelerating the Biomanufacturing Revolution](#)



[Digital Traceability: A Framework for More Sustainable and Resilient Value Chains](#)



[Global Lighthouse Network: Unlocking Sustainability Through 4IR](#)



[Global Network of Advanced Manufacturing Hubs: Annual Report 2020](#)



[Driving the Sustainability of Production Systems with Fourth Industrial Revolution Innovation](#)



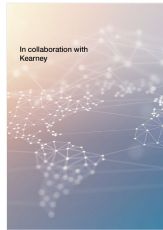
[Shaping the Sustainability of Production Systems](#)

Our insights

Resiliency



[Beyond Cost: Country Readiness for the Future of Manufacturing and Supply Chains](#)



[From Disruption to Opportunity: Strategies for Rewiring Global Value Chains](#)



[A Global Rewiring: Redefining Global Value Chains for the Future](#)



[The Future of Industrial Strategies: Five Grand Challenges for Resilient Manufacturing](#)



[Charting the Course for Global Value Chain Resilience](#)



[The Resiliency Compass: Navigating Global Value Chain Disruption in an Age of Uncertainty](#)



[Financing Resilience in Post-COVID-19 Manufacturing and Supply Systems](#)



[Shifting Global Value Chains](#)



[How to rebound stronger from COVID-19: Resilience in manufacturing and supply systems](#)



[Reshaping Global Value](#)



[Impact of the Fourth Industrial Revolution on Supply Chains](#)



[Supply Chain 4.0](#)

Data sharing



[Data Unleashed: Empowering Small and Medium Enterprises \(SMEs\) for Innovation and Success](#)



[Unlocking Value from Artificial Intelligence in Manufacturing](#)



[Manufacturing Transformation Insights Report 2022](#)



[The Data-Driven Journey Towards Manufacturing Excellence](#)



[Data Excellence: Transforming manufacturing and supply systems](#)



[Unlocking Data Value in Manufacturing](#)

Business models



[Unleashing Business Model Innovation in US Manufacturing](#)



[Unlocking Business Model Innovation](#)



[An Additive Manufacturing Breakthrough](#)



[Shaping the Future of Production: Four Contrasting Perspectives in 2030](#)



[Readiness for the Future of Production: Country Profiles](#)



Thank you for your engagement.

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