

Centre for the  
Fourth Industrial  
Revolution

WORLD  
ECONOMIC  
FORUM

Impact Report January 2025

# Centre for the Fourth Industrial Revolution Network 2023-2024



# Contents

Foreword	03
Executive summary	05
Meet the new centres	08
1 Ushering in the Intelligent Age	11
2 Transforming agriculture and food systems	14
3 Revolutionizing health and biotechnology	17
4 Accelerating energy transition and sustainability	20
5 Innovating mobility with autonomous systems	22
6 Upskilling tomorrow's workforce	24
7 Stimulating investments and competitiveness	27
8 Fostering partnerships and communities	30
Meet the Centres for the Fourth Industrial Revolution	35
The Centre for the Fourth Industrial Revolution Network	43
Contributors	44

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 Use the magnifying glass found within the text to navigate to a specific case study.

**Image source:** Getty Images

# Foreword

With eight new centres and groundbreaking initiatives worldwide, the second Network Impact Report demonstrates the power of technology in creating inclusive, responsible and sustainable change.



**Jeremy Jurgens**  
Managing Director,  
World Economic Forum



**Sebastian Buckup**  
Head of Network and  
Partnerships; Member of  
the Executive Committee,  
World Economic Forum

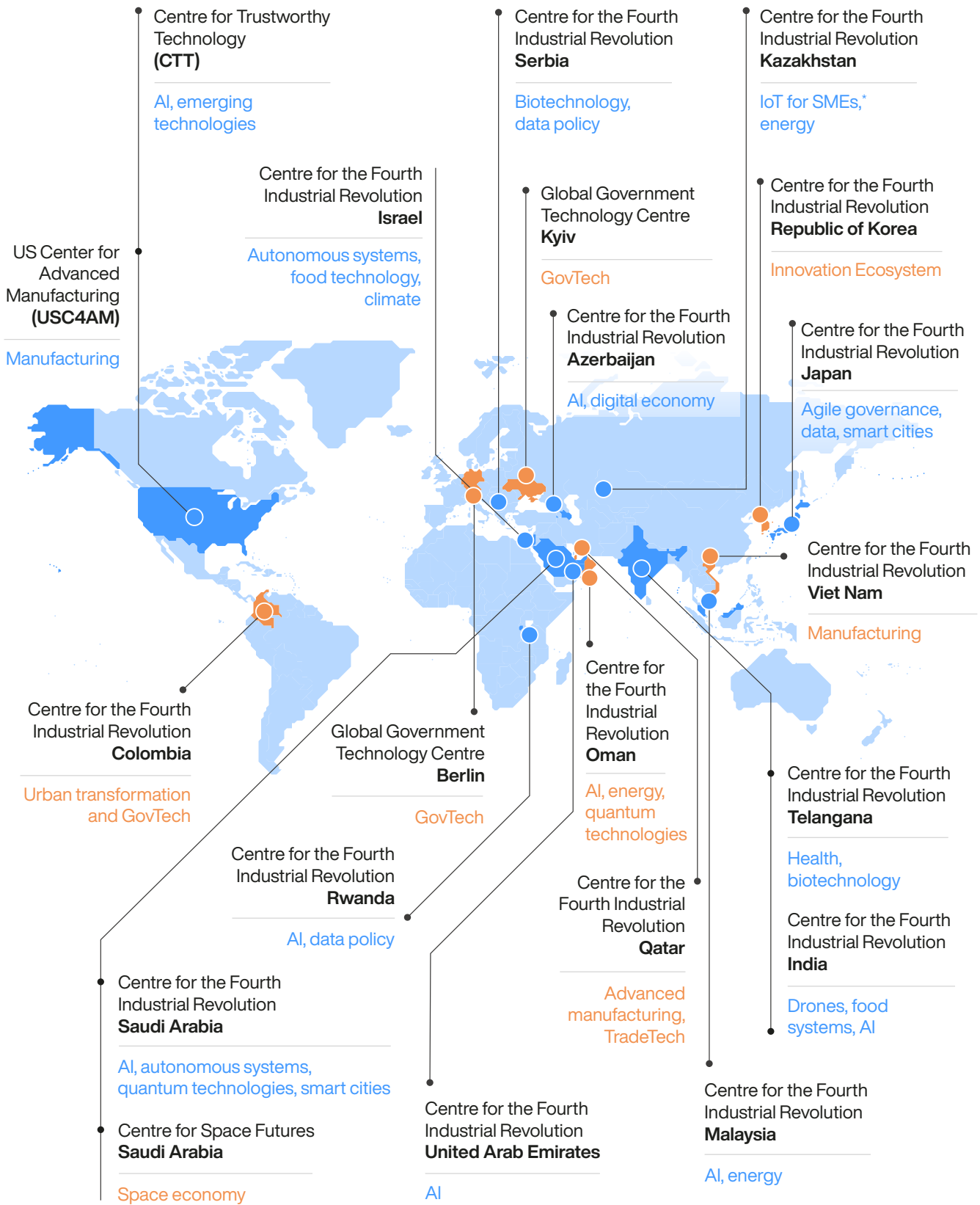
The second iteration of the Centre for the Fourth Industrial Revolution Network Impact Report offers an opportunity to reflect on the progress achieved since the inaugural report last year. The network is dedicated to the mission of helping stakeholders harness the full potential of technological progress for equitable and human-centred transformation of industries, economies and societies. It is in this context that we present this second edition, celebrating the accomplishments of the centres in our network from September 2023 to August 2024.

From increasing artificial intelligence (AI)-literacy among citizens in Malaysia to piloting drone delivery of healthcare resources to remote regions in India, from promoting alternative proteins to address food insecurity in Israel to developing a decision-making large-language model in Kinyarwanda for the benefit of community health workers in Rwanda, the Centre

for the Fourth Industrial Revolution Network remains committed to making profound and widespread impact through responsible applications of technology. The stories featured in this report are just the beginning of the lasting impact that our network of centres can create, showcasing the power of technology and collaboration in improving the state of the world.

As the network continues to grow, with eight new centres across the globe and a centre on every continent, new initiatives and collaborations introduced this year will continue to expand the possibilities for positive impact. The Fourth Industrial Revolution has the capability of improving lives globally through technology, with collaboration between people and organizations powering this impact. This report and the impact of our network would not be possible without collaboration, so we extend our thanks to all who have engaged with our network so far.

# The Centre for the Fourth Industrial Revolution Network



\*Small- and medium-sized enterprises

● Existing centres ● New centres

# Executive summary

The mission of the Centres for the Fourth Industrial Revolution remains simple: use rapidly evolving technologies to improve lives around the world.

Technology is inherently social in how it is utilized to connect, serve and feed people. It can help solve today's biggest challenges and unlock endless opportunities. The Centre for the Fourth Industrial Revolution Network is predicated on the understanding that different regions will have different priorities for using technology to address key challenges. Centres choose specific thematic focus areas on which to focus their work and pilot programmes.

This year, there are seven core thematic areas of research and impact generation: ushering in the Intelligent Age; transforming agriculture and food systems; revolutionizing health and biotechnology; accelerating the energy transition and sustainability; innovating mobility with autonomous systems; upskilling tomorrow's workforce; stimulating investments and competitiveness; and fostering partnerships and communities.

The adoption of artificial intelligence (AI) and automation has galloped forward, completely shifting global priorities and ushering in what has been dubbed the Intelligent Age, where AI and advanced automation become ubiquitous in technology and its increasing applications.

With many regions confronting the question of global food security, centres look to address this challenge through technology application in traditional farming and by innovating food systems entirely to elevate the alternative protein sector.

Global health and health education remain cornerstone sectors for societies, and centres are looking to expand knowledge and access to health information and education.

This includes the enablement of state- or country-wide data sharing for health research, improved resources for healthcare workers and access to education to drive health innovation.

The future of energy is intertwined with the future of sustainability, with many seeking to use key technologies to improve energy efficiency and increase data availability in the quest for a sustainable future.

The movement of people and goods is continuously being innovated, increasing efficiency and closing gaps created by inequality and geography. Through drone and autonomous pilot systems, centres are looking to change how people think about mobility.

Ensuring that the workforce and society progress alongside technological advances is key for the future of economic growth and for creating an Intelligent economy. Upskilling programmes and pilots are key to modernizing education and keeping workers active in key industries.

The future of the economy is up for grabs, with cutting-edge technology always on the precipice of upending the traditional understanding of what is possible. Through investments in digital assets and quantum and space technologies, alongside improved regulatory environments, economic futures hold endless possibilities.

None of this innovation and impact would be possible without collaboration. The network aims to bring together regional stakeholders to collaborate and generate impact through pilot programmes, in-person and virtual events, and by creating collaborations between centres to broaden the possibilities of innovating solutions.

# 2024

## A year of impact

The Centre for the Fourth Industrial Revolution Network accelerates the responsible adoption of technology and transformation of industry at the national, subnational and global levels via policy-making, pilots and partnerships.

Centres advance this mission by tapping into the World Economic Forum's communities, initiatives, convening power, infrastructure and visibility.

70+

initiatives



14,000+

participants



15+

technology pilots



300+

partners and collaborators



70+

events hosted



8,000+

media mentions



90+

speaking engagements



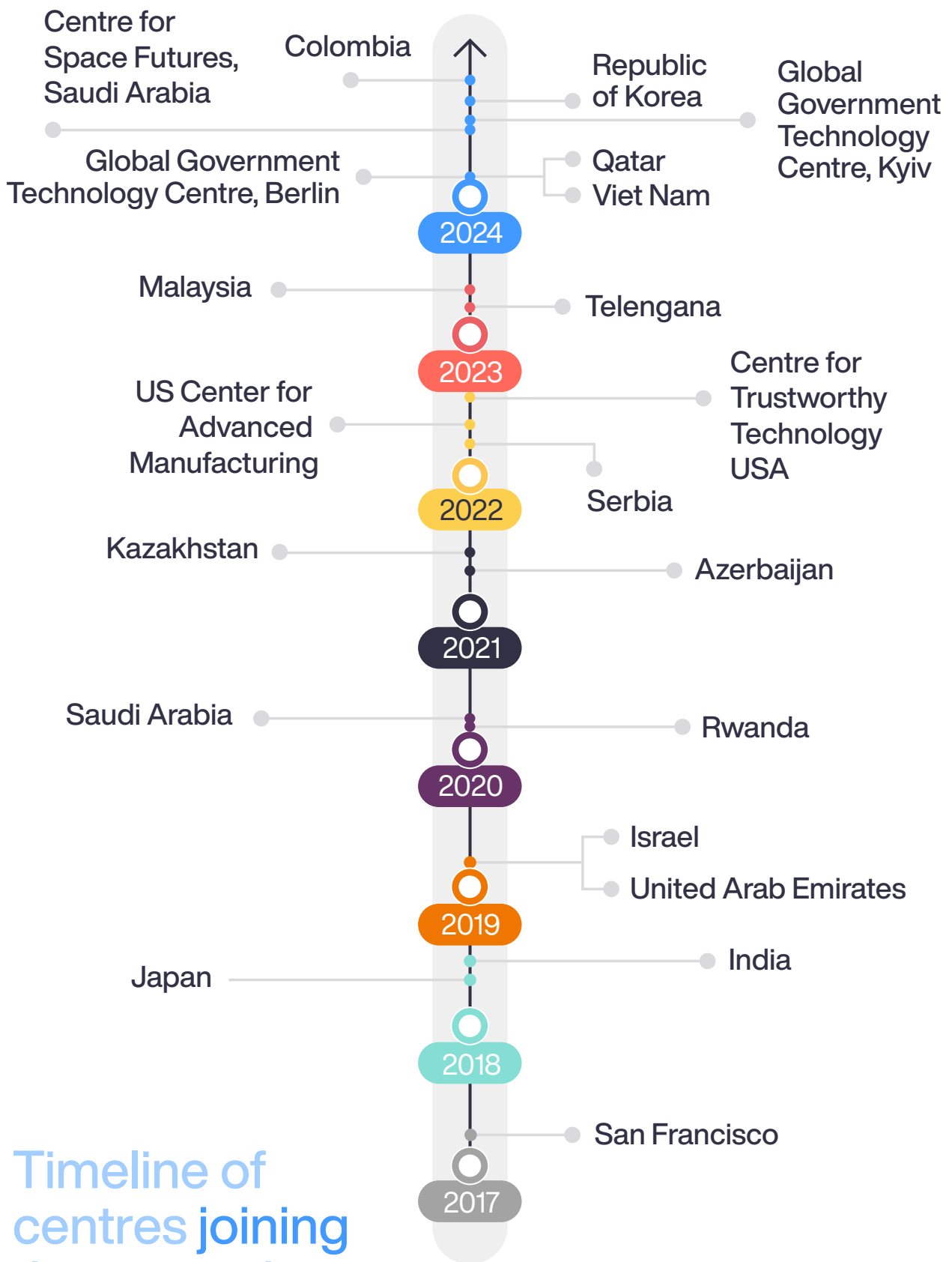
3.6 million

digital audience



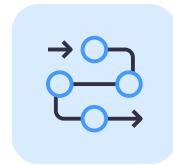
Interested in leading the regional and global technology agenda and improving the state of the world through public-private partnerships?

Contact us: [C4IRnetwork@weforum.org](mailto:C4IRnetwork@weforum.org)



## Timeline of centres joining the network

# Meet the new centres



## Centre for the Fourth Industrial Revolution Colombia

**Announced:** September 2024

**Thematic mission:** The new centre will serve as a leading urban transformation and government technology (GovTech) innovation hub in the city of Medellín, bringing together stakeholders from business, government and civil society to develop strategies and solutions for more inclusive, sustainable and prosperous cities.

**Host organization:** Ruta-N Corporation

**Expected launch date:** Spring 2025



In Medellín we will have the first special treatment zone, a sector in the north of the city that will attract investment, promote the testing of technology and innovation to improve the competitiveness of Medellín, and foster collaboration between the actors of the ecosystem: companies, universities, governments, citizens and international allies.



**Federico Gutiérrez**

Mayor of Medellín, City of Medellín, Colombia

## Global Government Technology Centre Kyiv

**Announced:** Annual Meeting 2024

**Thematic mission:** Strengthening GovTech worldwide and transforming systems through digital governance together.

**Host organization:** Ministry of Digital Transformation of Ukraine

**Launch date:** December 2024



In 2019, we started building a digital state literally from scratch, and today, Ukraine will become the second country in the world to host a Global Government Technology Centre. This is not a coincidence. We have created one of the best technological solutions for governments – Diia. It's great that international partners such as the World Economic Forum team consider Diia as a case study and the experience of Ukraine's digital transformation can become an example for other countries.



**Mykhailo Fedorov**

Deputy Prime Minister for Innovation, Education, Science and Technology Development; Minister of Digital Transformation of Ukraine

## Centre for the Fourth Industrial Revolution Korea

**Announced:** June 2024

**Thematic mission:** Accelerate impact by focusing on the start-up and innovation ecosystem in various technology domains such as smart manufacturing and AI, providing a forward-looking platform for stakeholders to develop and scale technological innovation.

**Host organization:** Gyeonggido Business & Science Accelerator

**Expected launch date:** 2025

## Centre for the Fourth Industrial Revolution Oman

**To be announced:** Annual Meeting 2025

**Thematic mission:** Spearhead the transformation of Oman into a leading regional centre for technological innovation and digital advancement, focusing on practical applications of AI in energy and the governance of AI for inclusive AI ecosystems.

**Host organization:** Ministry of Transport, Communications and IT

**Expected launch date:** February 2025

## Global Government Technology Centre Berlin

**Announced:** Annual Meeting 2024

**Thematic mission:** One of the core features of the centre's work will be the development of a global directory of government technology (GovTech) use cases.

**Host organization:** Government Technology Campus Deutschland

**Launch date:** 1 October 2024



It is time to unlock the massive potential of digital technologies in government and public administration, not only in national governments, but also across different countries. It is crucial to provide a platform like GGTC for this kind of collaboration and exchange between governments, technology companies and research organizations.



**Markus Richter**

State Secretary, Federal Ministry of the Interior of Germany, Germany

## Centre for Space Futures

**Announced:** April 2024

**Thematic mission:** Facilitate public-private discussions on space collaboration and generate forward-looking contributions to accelerate space technologies.

**Host organization:** Saudi Space Agency

**Expected launch date:** 25 November 2024



The centre commits to fostering a vibrant, prosperous and sustainable space economy globally. By developing principles, expanding knowledge, refining models and cultivating partnerships, we aim to responsibly harness the vast opportunities of space.



**Mohammed Altamimi**

Chief Executive Officer, Saudi Space Agency, Saudi Arabia

## Centre for the Fourth Industrial Revolution Qatar

**Announced:** Annual Meeting 2024

**Thematic mission:** Leverage the potential of Fourth Industrial Revolution technologies to accelerate the realization of sustainable economic growth and the key priorities of Qatar's National Vision 2030, with a particular focus on advanced manufacturing and trade technologies.

**Host organization:** Ministry of Finance

**Expected launch date:** December 2024



Over the past decade, Qatar has cemented its position as a global financial and innovation hub, and the centre will further solidify the state's economic competitiveness by developing groundbreaking policy and frontier technology applications for the advancement of sustainable development locally, regionally and globally.



**Ali bin Ahmed Al Kuwari**  
Minister of Finance, Qatar

## Centre for the Fourth Industrial Revolution Viet Nam

**Announced:** Annual Meeting 2024

**Thematic mission:** Provide strategic guidance and policy recommendations aligned with international technology trends on advanced manufacturing and semiconductors and serve as a catalyst for promoting international collaboration and Viet Nam's development goals.

**Host organization:** Saigon Hi-Tech Park

**Launch date:** 1 October 2024



The Centre for the Fourth Industrial Revolution, Viet Nam, will concretize the government's policies on science and technology, innovation and the Fourth Industrial Revolution, positioning Viet Nam for greater global integration and leadership in these fields.



**Pham Minh Chinh**  
Prime Minister of Viet Nam

# 01

## Ushering in the Intelligent Age

The application of AI has opened up countless new possibilities in information access, AI programmes and the future of movement – shaping the global outlook.

The Centre for the Fourth Industrial Revolution Malaysia has launched an Artificial Intelligence for Citizens (AI Untuk Rakyat) programme in collaboration with the Malaysian government. The programme aims to raise public literacy on AI, and open opportunities to deepen the technological knowledge essential in the digital world [🔗](#) (see case study 1).

Meanwhile, the Centre for the Fourth Industrial Revolution Rwanda has launched a pilot programme leveraging large language models (LLMs) to support key healthcare workers in remote regions through a translation model for low-resource languages [🔗](#) (see case study 3).

The Centre for the Fourth Industrial Revolution UAE has launched two programmes on AI: AI and Creativity, and the AI fellowship. The programme aims to harness the transformative potential of AI through collaboration within the network of centres (see Collaborations). The fellowship is designed to bridge the gap between AI experts, innovators and regulators across the globe.

The Centre for the Fourth Industrial Revolution Azerbaijan has introduced an AI and energy programme, aiming to identify leading use cases of AI integration in Azerbaijan's energy sector to optimize energy usage and improve the understanding of the energy transition [🔗](#) (see case study 7). The Centre for Trustworthy Technology (CTT) in Texas, USA has published several point-of-view papers, focusing on the application and impact of AI in various industries. One key paper has explored the current debate around the

impact of generative AI (GenAI) on the media industry and the technical and ethical implications of GenAI on media integrity.

The Centre for the Fourth Industrial Revolution India, in collaboration with the Ministry of Electronics and Information Technology, Government of India, has launched the AI for India 2030 initiative to position India as a global leader in AI development and adoption. The initiative's advisory council and expert groups have contributed towards enabling AI playbooks for priority sectors such as agriculture and manufacturing in the micro, small and medium enterprises, and for an AI sandbox.

The Centre for the Fourth Industrial Revolution Saudi Arabia, with the global AVIATE (Advancing Aviation Innovation and Autonomous Technologies) initiative, is prioritizing the future of movement and advanced air mobility (AAM) applications in several of its programmes, following the country's Vision 2030 strategy. As part of its autonomous mobility programme, the centre has published a white paper on autonomous mobility, which serves as a framework for countries and regions around the world to bring autonomous and smart mobility to scale [🔗](#) (see case study 2).

The next steps will focus on advancing AAM applications in Saudi Arabia, collaborating with local stakeholders to leverage a newly designated air corridor and identifying key societally relevant use cases.



## Case study 1:

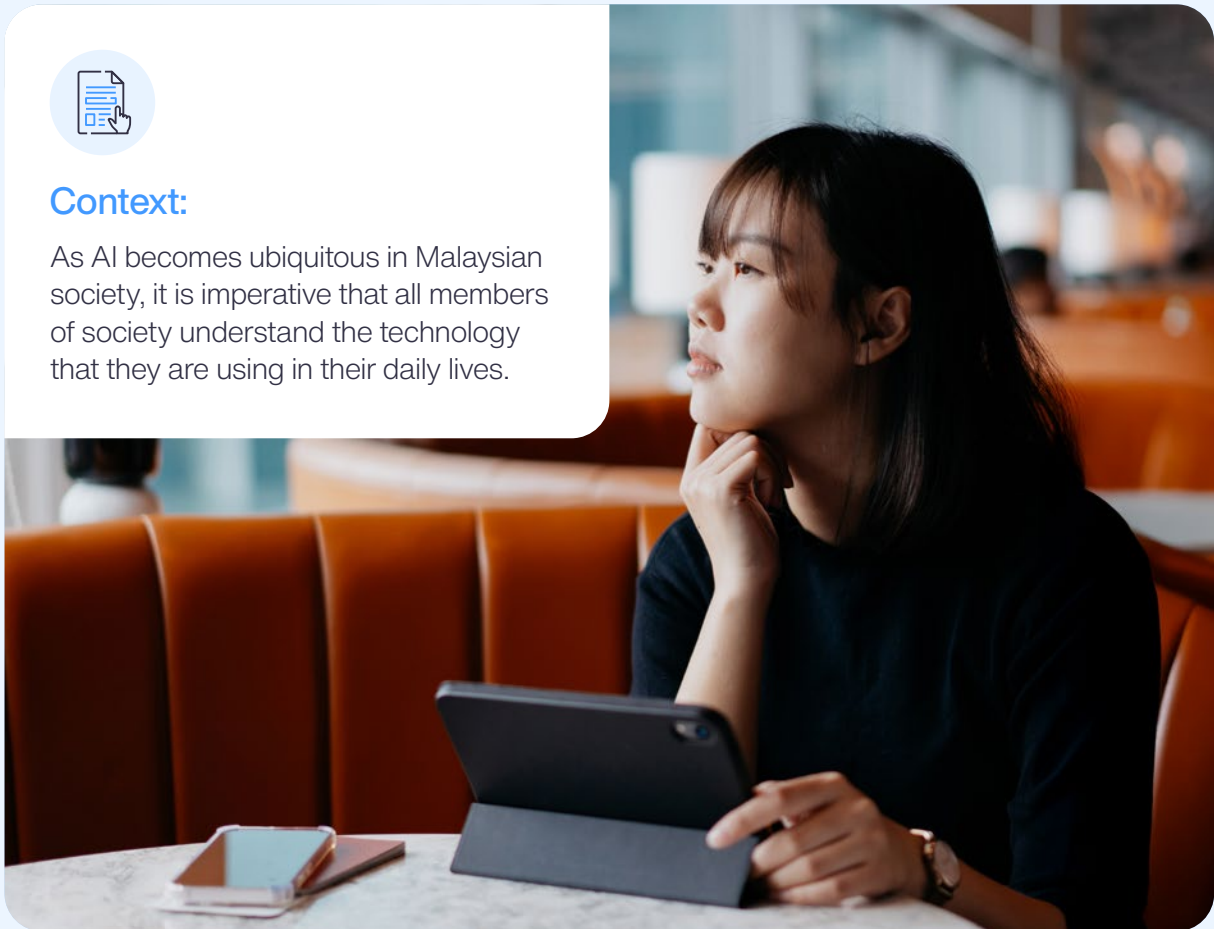
# AI for Citizens (AI Untuk Rakyat)

Malaysia



### Context:

As AI becomes ubiquitous in Malaysian society, it is imperative that all members of society understand the technology that they are using in their daily lives.



### Action:

Developed in collaboration with Intel and launched in January 2024, the AI for Citizens (AI Untuk Rakyat) programme has curated content to reflect the local context and realities to ensure that it resonates with Malaysian learners. Inclusivity was key as the content needed to be accessible to the public. To achieve this, the content was translated into the four major languages in Malaysia: English, Malay, Tamil and Chinese.



### Result:

# 1 million

100% complete

course completions since launch in January 2024, surpassing the programme's one-year target.



### Next steps:

Moving into 2025, the Centre for the Fourth Industrial Revolution Malaysia looks to increase the programme's reach to a wider audience. Plans are underway to expand the course offerings to encompass more advanced knowledge.



## Case study 2:

# Integrating autonomous mobility into the transport system

Saudi Arabia



### Context:

The integration of autonomous mobility into transportation systems holds promise for transforming urban mobility and logistics. However, the path to full deployment faces significant challenges, including fragmented regulations and the lack of mechanisms to scale pilot learnings.



### Action:

To address the issue of fragmented regulations, this framework proposes the utilization of regulatory sandboxes in testing autonomous mobility. Sandboxes allow the testing of new technologies under real-world conditions, to better transition from pilots to full-scale implementation.



### Result:

**The Centre for the Fourth Industrial Revolution Saudi Arabia has published a white paper to create a guiding framework for advancing autonomous systems from pilot programmes to fully scalable technologies with reasonable regulatory structures and real-world applications.**



### Next steps:

For Saudi Arabia, scaling autonomous mobility technologies is central to achieving Vision 2030's goals of economic diversification and technological leadership. Integrating autonomous mobility into the national transport system can reduce traffic accidents, improve transport efficiency and create job opportunities in the tech and services sectors, contributing to the country's economic growth.



The initiatives and projects of the National Strategy for Transport and Logistics work on employing modern technologies, whether for trains, electric vehicles or autonomous aircraft, in addition to integrating and utilizing information and increasing operational efficiency.

**H.E. Saleh Nasser Al-Jasser**

Minister of Transport of Saudi Arabia

# 02

## Transforming agriculture and food systems

With countless challenges facing food supply chains and agricultural resilience, food systems will undergo transformation through technology, ensuring food security in the coming decades.

The Centre for the Fourth Industrial Revolution Israel has launched an alternative protein initiative aimed at fostering alternative protein technology, spreading awareness about the industry and creating a playbook for other regions to adopt alternative protein technologies. The playbook will aim to foster global efforts to tackle climate change and food security challenges [\(see case study 3\)](#).

The Centre for the Fourth Industrial Revolution India has expanded its AI for Agricultural Innovation (AI4AI)

programme to scale the national digital agriculture framework across Indian states. It has worked with key regional partners to implement the programme. The AI4AI programme continues to work on transforming agricultural value chains and providing technical support for the scale-up of a hi-tech nursery initiative [\(see case study 4\)](#). The centre also hosted bilateral meetings with the government of Saudi Arabia and the Centre for the Fourth Industrial Revolution Saudi Arabia to discuss agritech and implementation opportunities.



## Case study 3: Alternative proteins

📍 Israel



### Context:

With food security and climate change posing global challenges, the Alternative Protein Initiative seeks to incubate alternatives by developing innovative protein sources, such as plant-based, cultivated and fermentation-derived proteins.



### Action:

The Centre for the Fourth Industrial Revolution Israel partnered with GFI Israel to publish a comprehensive report that highlights Israel's alternative protein sector. This report not only showcases Israel's advancements but also serves as a blueprint for other countries seeking to develop their alternative protein industries.



### Result:

# 80 start-ups

working in the alternative proteins space participated in the initiative. Israel's alternative protein sector encompasses **nearly 10%** of total global investments in this field, trailing only the United States.



### Next steps:

By 2030, the Israeli alternative protein industry will include more than 200 companies, and more than a dozen manufacturing facilities would have been established. An estimated 10,000 jobs will be created through the increased investment in the sector, including one-third in manufacturing roles. This is expected to inject \$2.5 billion into the local economy, spread across exports, local wages, corporate taxes and more.



Israel's approach to innovation reflects our commitment to shaping a sustainable future for generations to come. Positioned to drive sustainable and efficient solutions, Israel is poised to redefine the global landscape of alternative protein technology and make an impactful change for a more resilient food future.

**Dror Bin**

Chief Executive Officer, Israel Innovation Authority

## Case study 4:

### AI for agriculture

India



#### Context:

**More than 80% farmers in India are smallholders who own less than 2 hectares of land.** Apart from limited access to finance, information and markets, climate change and geopolitical situations are adding to the challenges that these farmers grapple with to sustain their income. The AI4AI initiative has developed a digital agriculture framework aimed at scaling technologies of the Fourth Industrial Revolution in the agricultural sector through public-private partnerships to improve farmers' access to finance, shrink agriculture's environmental impact and reduce post-harvest supply-chain losses.



#### Action:

Through a pilot programme in Telangana state involving 7,000 chili farmers, the programme called Saagu Baagu was able to demonstrate the transformative potential of agricultural technology (agritech) on both farmers' incomes and the environmental impact of agriculture. Based on the encouraging results, the Government of Telangana has decided to scale the initiative to 500,000 farmers and implement the state's first agricultural data exchange. AI4AI has also built on the success of the Telangana pilot and launched the programme in two more states, Uttar Pradesh and Maharashtra. It is now exploring the opportunity to expand the learnings across the Centre for the Fourth Industrial Revolution Network and governments globally.



#### Result:

During the reporting period,

**50,062** farmers

of whom over 45% were women, saw incremental increase in profits of \$800 per acre through a 21% yield improvement and 9% reduction in the use of fertilizers and pesticides.



#### Next steps:

Expansion plans for the AI4AI initiative include global scaling with two national governments to adopt the AI4AI framework, including Centre for the Fourth Industrial Revolution Network governments, and national scaling by implementing the framework across five states in India, which will include strengthening Telangana, Uttar Pradesh and Maharashtra, and extending the framework to two new states.

In Maharashtra, AI4AI is working to scale gender-inclusive agritech in partnership with the Maharashtra State Women Economic Development Corporation.

“

The Centre for the Fourth Industrial Revolution India has been a critical partner for us in conceptualizing Saagu Baagu and Agri Data Exchange, initiatives that highlighted yield, optimal use of inputs and ultimately farmers' income. Based on the success of the pilot with 7,000 farmers, we have scaled the initiative to 50,000 farmers and plan to scale it to impact 500,000 farmers in the next two years.



**Rama Devi Lanka**

Director, Emerging Technologies,  
Government of Telangana

# 03

## Revolutionizing health and biotechnology

Through application and advocacy, technology can create and secure equitable access to healthcare and improve care systems globally.

Understanding the structural restrictions on primary care in Rwanda, the Centre for the Fourth Industrial Revolution Rwanda has launched a pilot aimed at supporting community health workers by giving them greater access to information and treatment plans through the adaptation of LLMs and translation models [🔗](#) (see case study 5). The centre also aims to establish a centralized, secure repository for Rwanda's healthcare data.

The Centre for the Fourth Industrial Revolution Telangana in India has launched a Clinical Innovation Sandbox (CIS) to accelerate the clinical and regulatory validation of innovative health tech and medical devices through a partnership with the Research and Innovation Circle of Hyderabad (RICH), and called for proposals to participate in this sandbox programme. In collaboration with the Telangana health ministry, the centre has also launched a clinical registry on haemophilia using software provided by iCaRe. It has identified key hospitals to pilot the initiative, with the goal of using this

type of software for all high-burden diseases on the state server in the future.

The Centre for the Fourth Industrial Revolution Serbia's work on biotechnology and genomics has expanded through partnerships and international cooperation, including with the Centre for the Fourth Industrial Revolution Israel (see collaborations). Through a partnership with the Institute of Molecular Genetics and Genetic Engineering at the University of Belgrade and Roche, the centre has continued its work on public health and biotechnology with a pilot project on a retrospective study of non-small cell lung carcinoma.

The centre also hosted a workshop with the Open Data Institute, aimed at creating a responsible ecosystem for health and genetic data-sharing and use, resulting in a report published in 2023. Finally, the centre developed bylaws to support the establishment of a genomic register, which have been submitted to the Ministry of Health for adoption [🔗](#) (see case study 6).



## Case study 5:

# LLM tool for community health workers

Rwanda



### Context:

In Rwanda, community health workers (CHWs) are the backbone of primary healthcare. Yet, CHWs' lack of clinical training leads to delayed diagnoses, preventable deaths and extreme strain on the public health system. Large language models (LLMs) are showing significant potential in closing knowledge gaps in healthcare, but for this to be deployed in Rwanda, LLMs must converse in Kinyarwanda.



### Action:

The participants running the pilot developed a tool that leverages GPT-4 as a knowledge base and uses an Mbaza English-Kinyarwanda translation model to empower CHWs in Rwanda. This pilot focused specifically on malnutrition, which remains a critical challenge in Rwanda.

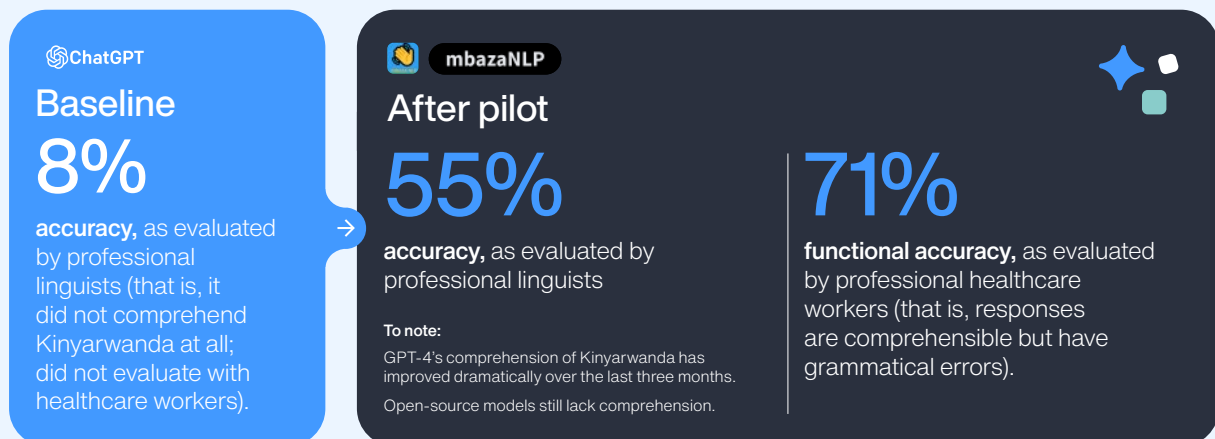


### Result:

Preliminary assessments have yielded promising results, underscoring the potential of LLMs to drive positive change in Rwanda's healthcare landscape.



Figure 1: Network outcomes



### Next steps: The next phase of rolling out this LLM tool includes two steps:

- 1 Evaluation of LLM datasets by collecting questions from CHWs and responses from both clinicians and LLMs. This dataset will be used to evaluate the performance of LLMs in a clinical setting.
- 2 Conducting a silent trial of an AI-enhanced CHW app in Rwanda, with a primary focus on evaluating the performance of LLMs within the CHW setting. The trial will assess the LLMs' ability to provide accurate and culturally relevant decision support for diagnosis and referral without altering CHW behaviour.

## Case study 6:

# Legislation for digital health

📍 Serbia



### Context:

Genetic and health data present a tremendous opportunity for advancing healthcare outcomes, medical research and public health initiatives. Recognizing the significance of data sharing, Serbia has adopted legislation on medical documentation and registries in healthcare. The Centre for the Fourth Industrial Revolution Serbia contributed to the legislation with regard to a genomic registry, secondary use of biomedical data and digitalization of the healthcare system in Serbia.



### Action:

To support implementation of the recently adopted legislation, the centre worked to develop bylaws to support the establishment of the initiatives.



### Result:

**The bylaws thus drafted regulate the detailed conditions and manner of establishing and maintaining a Genetic and Biomedical Data Registry, as well as other data relevant for research and development in the fields of biotechnology, bioinformatics, bioeconomy, genetics and medicine.**



### Next steps:

The Ministry of Health and the Ministry of Science, Technological Development and Innovation need to jointly adopt the proposed bylaws. The Centre for the Fourth Industrial Revolution Serbia will coordinate with the ministries and the Office for IT and eGovernment to build the information system for the Genetic and Biomedical Data Registry.



One of the Law's key innovations is the Genetic and Biomedical Data Registry, advancing modern diagnostics, early detection of genetic predispositions, and personalized medicine. It ensures high level data security, supporting biomedical science and software to enable faster diagnostics and identification of rare diseases.

**Jelena Bjović**

Director, Centre for the Fourth Industrial Revolution Serbia

# 04

## Accelerating energy transition and sustainability

With the future of energy under scrutiny, technology can support decarbonization efforts across industries, improve the efficiency of national energy networks and ensure the public is brought along on this complex transition.

The Centre for the Fourth Industrial Revolution Azerbaijan has launched a new initiative focused on transforming Azerbaijan's energy systems in urban environments by optimizing energy efficiency and enhancing energy management through the application of AI (see case study 7). Through domestic stakeholder consultations focused on the gaps and challenges in mobilizing AI for energy in the country, the centre is identifying and showcasing cutting-edge use cases of AI applications in Azerbaijan's energy sector, as well as implementing emerging AI solutions in collaboration with partners and innovators.

The Centre for the Fourth Industrial Revolution Malaysia is piloting an energy literacy programme to increase awareness and understanding of the energy transition among the public, advancing Malaysia towards a technologically advanced and sustainable future through comprehensive energy education. Through digital open-source modules and a certification programme, the energy literacy programme disseminates information to enhance awareness about the energy transition and cultivate the skills required to realize the shift to Net Zero, while enabling positive economic and social development.



The significant growth in both the breadth and depth of impact and engagement of our Centres over the past year highlights the Network's vital role as the leading global platform for strategic foresight, sharing of best practices and collaboration on the responsible governance and application of exponential technologies.



**Børge Brende**  
President and CEO, World Economic Forum

## Case study 7: AI and energy

Azerbaijan



### Context:

The AI in Energy Initiative seeks to explore opportunities for the integration of AI in Azerbaijan's energy systems with the aim of enhancing sustainability and energy efficiency, particularly in urban environments.



### Action:

To achieve its objectives, the initiative is conducting a series of detailed interviews with key stakeholders in Azerbaijan. These discussions focus on identifying the gaps, challenges and opportunities in the current energy management framework.



### Result:

**The information gathered will be instrumental in crafting targeted use cases and lessons learned that improve urban energy management through AI solutions, both in Azerbaijan and globally.**



### Next steps:

A workshop reviewed and triaged these use cases, with stakeholders selecting one representative case for pilot implementation, further analysis and inclusion in publications such as a white paper on AI and energy and a solution toolbox for net zero-carbon cities.



“

In close collaboration with the World Economic Forum, we are working on an AI in Energy pilot project aimed at optimizing energy consumption, enhancing energy efficiency, reducing operational costs, and minimizing environmental impact in Azerbaijan. The positive and successful outcomes will serve as a model for replication in other countries.

**Fariz Jafarov**

Executive Director, Centre for the Fourth Industrial Revolution Azerbaijan

# 05

## Innovating mobility with autonomous systems

In a rapidly changing world, the way people and goods move are evolving. Autonomous systems have the potential to drive the future of mobility.

The Centre for the Fourth Industrial Revolution Israel continues to support the Israel National Drone Initiative (INDI), through partnerships with the Israel Innovation Authority, Ministry of Transport and the Civil Aviation Authority of Israel. This initiative aims to integrate drone and airspace management technologies to provide safe, fair and economically feasible access to airspace. The initiative sees drones as the future for disaster management, medical supply delivery, supply chain security and the delivery of public services. It aims to implement regulatory systems and digital technologies that allow such equitable access.

The Centre for the Fourth Industrial Revolution India, in collaboration with the Medicine from the Sky community, and the state government of Arunachal Pradesh, has established the longest-standing drone network in India. Through pioneering drone-delivery operations, this initiative has set a national precedent in catalysing the growth of the drone economy, contributing to policy decisions, and expanding primary healthcare access to some of the most remote regions in India [🔗](#) (see case study 8).



## Case study 8:

# Medicine from the Sky

India



### Context:

India's healthcare system faces challenges in reaching remote and mountainous regions due to infrastructure limitations and adverse weather conditions, particularly in the Himalayan states.



### Action:

The Medicine from the Sky (MFTS) initiative was launched to leverage drone technology for improved healthcare access in remote regions. A comprehensive pilot programme was executed in partnership with the Arunachal Pradesh state government. The pilot conducted rigorous on-the-ground field studies with a team of experts to assess the programme's effectiveness and identify areas for improvement.



### Result:

#### The pilot successfully demonstrated:



Improved access to healthcare, especially in remote areas.



Job creation in drone operations and healthcare, particularly for women in drone operations.



The potential to reduce carbon emissions compared to traditional transportation methods.



The ability to influence infrastructure decisions.



### Next steps:

The programme plans to expand into three other Indian states, as well as Nepal, after demonstrating successful pilot programmes in the challenging Himalayan terrain. This initiative also looks to contribute to policy decisions supporting the growth of the drone economy.



India is at the threshold of a transformative shift in mobility. The aviation sector is poised for rapid growth driven by the government's aim to strengthen regional air connectivity. This collaboration with the World Economic Forum underscores our commitment to embracing innovation while ensuring safe and secure integration into our national airspace.

**Ram Mohan Naidu**

Minister for Civil Aviation, Government of India

# 06

## Upskilling tomorrow's workforce

As technology continues to advance, so does education and skill development in the workforce, with a growing need to close key gaps and prepare the workforce for cutting-edge research and technology.

The Centre for the Fourth Industrial Revolution Serbia has developed a new master's programme on biotechnology, with support from the Ministry of Education and the local biotech industry, to create bioinformatics expertise in the country (see case study 9), in response to the recent rise of biotechnology research and innovation ecosystems in Serbia.

The Indian state of Telangana's life sciences ecosystem is an emerging hub of innovation. With its exponential growth and global recognition, Telangana aims to create 400,000 new jobs by 2030. To meet industry demand and technological advancements in the life sciences sector, the Centre for the Fourth Industrial Revolution Telangana launched the pilot

phase of its upskilling and internship programme for final-year college students (see case study 10).

The US Center for Advanced Manufacturing is addressing the skill gaps in the manufacturing sector and exploring how to attract skilled workers to the sector and upskill its current workforce. Drawing from more than 40 interviews with shop floor operators on successful practices of adoption and introduction of emerging technology in daily operations across five industry sectors in New York, Pennsylvania, Michigan and Texas, the centre has identified five key practices that are instrumental to ensure technology skilling is designed in a sustainable, human-centric and effective way.



## Case study 9:

# Master's programme

📍 Serbia



### Context:

Until 2024, there was no formal education in bioinformatics in Serbia. While a shift began in 2024, there was still no master's degree education for bioinformaticians. To make the Serbian academic and business communities competitive in biotechnology and genomics, new educational programmes in bioinformatics were needed.



### Action:

The Centre for the Fourth Industrial Revolution Serbia designed the Master 4.0 Program that is being funded by the Ministry of Education of the Government of Serbia. Based on a needs assessment, a collaboration was established with the Ministry of Education to develop the curriculum.



### Result:

**Three consortia in Serbia have received funding for the [Master 4.0 in Bioinformatics](#).**

**What sets apart the Master 4.0 Program is the involvement of the business sector in the educational process. The three consortia included 23 companies from Serbia's biotechnology ecosystem. These provide 75 new positions for students for master's studies, of which 30 positions are financed from the government's budget.**



### Next steps:

The centre is working to ensure long-term implementation of the planned curriculum and quality control of knowledge outcomes for students, and to grow the number of new experts in the bioinformatics market. There are plans for expanding the programme to other universities in Serbia for larger groups, securing financing for another five years, and strengthening the collaboration between the academic and private sectors.



The focus of this year's public call for the Master's program is bioinformatics, as it is truly important to equip young people with the knowledge and skills that will enable them to perform jobs of the future, which is especially significant in light of the construction and development of the BIO4 Campus [the region's first bioinformatics hub].

**Slavica Đukić-Dejanović**

Minister of Education, Republic of Serbia

## Case study 10:

### Upskilling and development

📍 Telangana



#### Context:

The initiative aims to cultivate a highly skilled talent pool to advance the healthcare and life sciences sectors, supporting their scalable growth. A central challenge the initiative addresses is the substantial demand-supply gap in skilled talent, which has become a barrier to industry expansion.



#### Action:

Comprehensive research was conducted to pinpoint the skills gap and identify potential solutions. In collaboration with the Telangana Academy for Skill and Knowledge (TASK), the centre organized a workshop with principals and training and placement officers from 17 colleges across Telangana. This workshop aimed to understand student perspectives on upskilling programmes and identify challenges. A pilot programme focusing on medicinal and analytical chemistry was launched to deliver targeted training.



#### Result:

The initiative partnered with over

**100** colleges



and engaged more than 2,000 students. It offers a blend of theoretical knowledge and practical experience, preparing students for competitive roles in the life sciences sector. Early achievements also include the establishment of strategic partnerships with leading life sciences companies that have committed to providing mentorship and recruitment opportunities.



#### Next steps:

The initiative is on track to train over 50,000 students in the next five years. By integrating theoretical knowledge with practical experience and soft skills training, the initiative addresses the industry's demand-supply gap, equipping students to meet the demands of a competitive job market and contributing to the sustainable growth of the life sciences sector.



# 07

## Stimulating investments and competitiveness

New technologies continue to disrupt global industries, and economies around the world are seeking the best ways to capitalize on technological advancements to drive economic growth and accelerate economic transformation.

The Centre for the Fourth Industrial Revolution Azerbaijan, along with its partners, has launched the Digital FDI project focused on identifying and addressing barriers to investment while highlighting the opportunities in Azerbaijan's digital market. The initiative aims to align Azerbaijan's digital economy with global best practices, fostering a conducive environment for foreign direct investment [🔗](#) (see case study 11).

In 2024, the US Center for Advanced Manufacturing released the "State of US Manufacturing Report", highlighting the role of emerging technologies, such as AI and robotics, in enhancing manufacturing and supply-chain resilience. By involving both public and private sectors, the report aimed to serve as a strategic guide for decision-makers to align their efforts towards advancing manufacturing ecosystems across the country [🔗](#) (see case study 12).

The Centre for the Fourth Industrial Revolution India has launched the Future of Space Economy India initiative. The initiative will identify pathways for sustainable growth and innovation in the space sector. As part of this initiative, they have hosted

multiple events and workshops to bring together key stakeholders. The inaugural workshop, attended by senior officials from the Indian Space Research Organization (ISRO), led to a collaboration with the Indian National Space Promotion and Authorization Centre (IN-SPACe) and established a platform for a national dialogue series.

In April 2024, Saudi Arabia celebrated World Quantum Day with a series of events organized by the Centre for the Fourth Industrial Revolution Saudi Arabia. The celebration featured a central gathering, complemented by expert-led seminars and sessions, designed to enhance public understanding of quantum technologies. World Quantum Day also included an exhibition showcasing leading companies in the quantum technology sector, recent advancements in quantum applications and practical demonstrations of quantum technologies. This exhibition highlighted the significance of quantum science and its applications in Saudi Arabia, reflecting the country's prioritization of quantum technologies as a crucial area for future development.



## Case study 11:

# Digital economy and foreign investment

Azerbaijan



### Context:

In a rapidly evolving global landscape, where digital transformation is central to economic growth, Azerbaijan seeks to position itself as a competitive player by creating an attractive investment environment for both local and international stakeholders.



### Action:

The Digital FDI project began with a series of strategic meetings outlining objectives and defining actionable strategies. Surveys and interviews were conducted with local and international enterprises already active in Azerbaijan's digital economy, providing a comprehensive understanding of market dynamics, challenges and potential. The gathered data was analysed and presented during a workshop on 4 December 2023. Feedback from these sessions was instrumental in refining the initiative's approach, resulting in a draft report that was reviewed by relevant state institutions.



### Result:

The Digital FDI initiative has started making significant impact by **fostering a culture of innovation and entrepreneurship in Azerbaijan**. The workshops have facilitated knowledge-sharing and strategic efforts to align local businesses with global digital transformation trends. Companies and start-ups have been equipped with actionable insights into their digital readiness and areas for improvement, positioning them to attract investment and scale their operations.



### Next steps:

The project includes the creation of the InvesTech calculator – a tool designed to streamline investment decision-making by offering clear insights into the digital investment landscape. This tool represents a key component of the project's strategy to attract more foreign direct investment by enhancing transparency and simplifying the investment process.



“IDEA: Investing in the Digital Economy of Azerbaijan” has praised Azerbaijan for its notable progress in fostering a supportive environment for start-ups and innovation. The report highlights the crucial role of attracting foreign investment, invigorating the private sector, advancing digitalization and implementing relevant policies for driving the country's socio-economic development.

**Mikayil Jabbarov**

Minister of Economy, Republic of Azerbaijan

## Case study 12:

# US State of Manufacturing Report, US Center for Advanced Manufacturing

United States of America



### Context:

The State of US Manufacturing Report provides a comprehensive assessment of the current landscape of advanced manufacturing in the United States. With significant federal initiatives like the CHIPS and Science Act and the Inflation Reduction Act driving investment, the report addresses how these policy changes impact various industries.



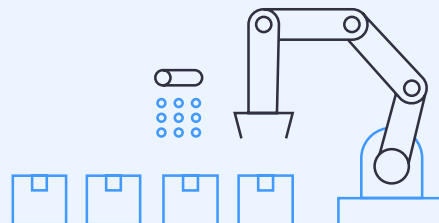
### Action:

The US Center for Advanced Manufacturing collaborated with industry leaders and academia to generate insights for the report. Collaborators contributed expertise on specific manufacturing topics such as supply-chain resilience, AI-driven automation and sustainable manufacturing. The centre held virtual and in-person roundtables in Boston and Seattle to capture diverse perspectives from industry experts. The final report aggregates these insights into chapters covering key topics such as AI, additive manufacturing and biomanufacturing, while also highlighting best practices and innovation case studies from partner organizations.



### Result:

The first in a series, this report raises awareness of the **critical challenges and opportunities in US manufacturing, particularly in smart manufacturing, industrial AI, cyber resilience and the supply chain.** It highlights 12 key takeaways to serve as a catalyst for both public policy adjustments and private-sector investments.



### Next steps:

Through insights provided in the report, the centre will foster strategic partnerships and collaborative projects across sectors to address workforce gaps, sustainability and digital transformation in manufacturing. Backed by this foundational report, the centre will collaborate continuously with industry leaders, policy-makers and academics to advance the US manufacturing ecosystem.



The State of US Manufacturing Report inspires action, uniting industry, government and academia to drive innovation. By addressing AI, sustainability and resilience, it empowers the US to lead globally in advanced manufacturing.

Cynthia Hutchison

CEO, US Center for Advanced Manufacturing

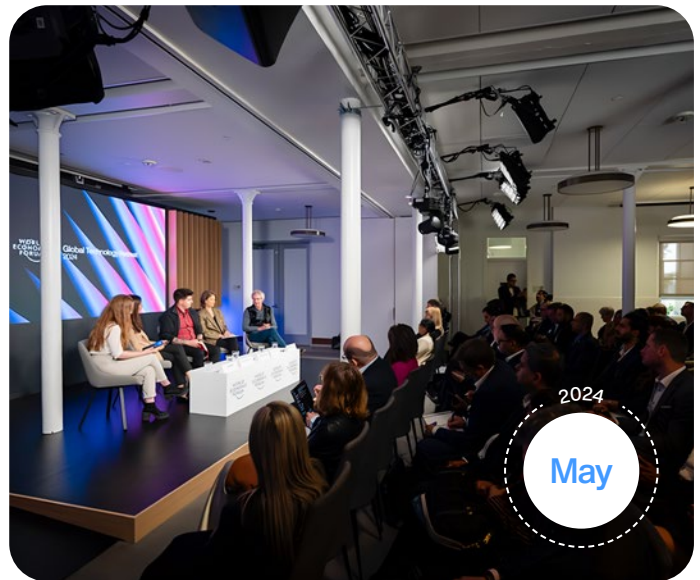
# 08

## Fostering partnerships and communities

### Events

#### Global Technology Retreat 2024

The Global Technology Retreat, held at the Forum Presidio Offices in San Francisco in May 2024, brought together leaders from business, government and civil society to discuss how to harness the full potential of technological progress for the equitable and human-centred transformation of industries, economies and societies. Leaders discussed how to build solutions from a new foundation and use technology to push through to new frontiers. Over 230 leaders from 40 countries participated, including 33 members from the Centre for the Fourth Industrial Revolution Network.



#### First anniversary of the Centre for the Fourth Industrial Revolution Malaysia

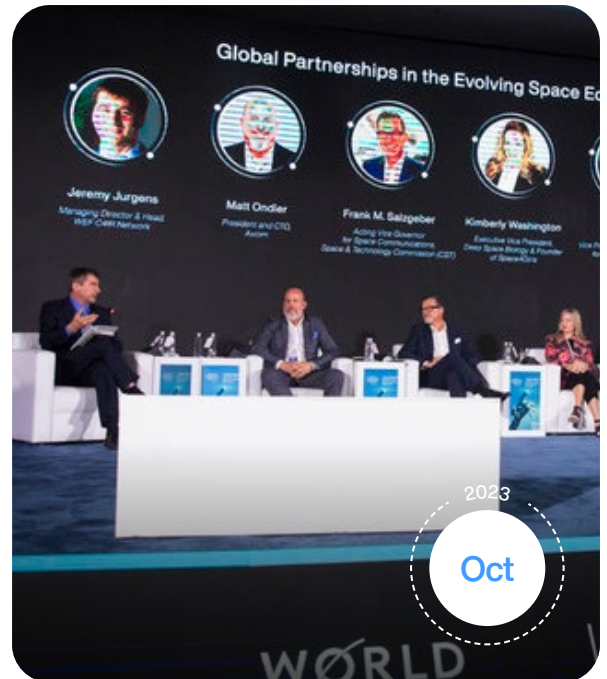
Held on 20 June 2024, the event was an opportunity to bring together the Centre's stakeholders and to announce future activities such as an Innovation Challenge, an Energy Literacy Programme and the launch of the centre's new Forum Spaces. Attendees included Fabian Bigar, Secretary General, Ministry of Digital, Malaysia; Munirah Looi, board member of MyDIGITAL Corporation; and Ma Sivanesan, Deputy Secretary General of the Ministry of Digital.



## Second Saudi Fourth Industrial Revolution Forum

The event, co-hosted with the World Economic Forum, took place in Riyadh in October 2023, focused on fostering innovation for sustainable development. The event highlighted Saudi Arabia's emerging role as a global leader in new technology and innovation, emphasizing the significance of supportive regulatory environments. Key topics included policy development and research coordination across essential sectors.

The forum saw significant participation with approximately 400 in-person attendees, over 700,000 online participants, and an assembly of ministers and international experts in Fourth Industrial Revolution technologies. Notable speakers included H.E. Bandar Alkhorayef, Minister of Industry and Mineral Resources, Saudi Arabia.



## Biotech Future Forum

The Biotech Future Forum 2023, held in Belgrade, Serbia, in October 2023, focused on fostering collaboration between academia, industry and policy-makers to promote innovation in AI and biotechnology and highlight their role in addressing global challenges such as healthcare, sustainability and climate change. The event attracted over 500 participants from more than 30 countries, including more than 40 speakers from cross-cutting sectors such as academia, government and business. Notable speakers included Ana Brnabić, Speaker of the National Assembly of Serbia, and Mathias Cormann, Secretary-General, Organisation for Economic Co-operation and Development (OECD).



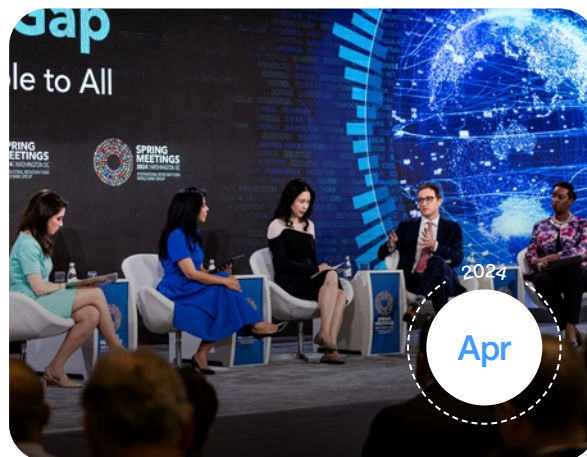
## Innovation Summit

The Innovation Summit 2024, held in Michigan, USA in August 2024, brought together over 160 industry leaders and decision-makers from the public and private sectors to drive the future of manufacturing at a national and global scale. This event focused on three key verticals: mobility, construction and textiles. The summit positioned the US Center for Advanced Manufacturing as a key driver of multistakeholder dialogue in the international manufacturing ecosystem.



## 2024 Spring Meetings of the World Bank Group and International Monetary Fund

Crystal Rugege, Managing Director of the Centre for the Fourth Industrial Revolution Rwanda, attended the meetings in Washington DC, USA, in April 2024. Rugege appeared on the panel, "AI Digital Gap: Making AI Accessible to All." The goal of the panel was to explore how people and economies will be impacted by the AI revolution.



## Alternative proteins networking event

The alternative proteins networking event, held on the sidelines of the Global Technology Retreat 2024 in San Francisco, USA, in May 2024, featured the launch of a key alternative proteins report, developed in collaboration with the World Economic Forum, Centre for the Fourth Industrial Revolution Israel, the Israel Innovation Authority (IIA) and The Good Food Institute (GFI). The event brought together a diverse group of stakeholders, including government officials, industry leaders, investors and representatives from Centres for the Fourth Industrial Revolution worldwide. The objective of the event was to promote international collaboration in the development and adoption of alternative proteins.



## InMerge Innovation Summit

The 2024 summit in Azerbaijan brought together over 3,000 participants, including more than 50 international investors and 150 start-ups, to explore the future of innovation ecosystems. Co-organized by the Center for Analysis and Coordination of the Fourth Industrial Revolution on behalf of the Ministry of Economy and the Innovation and Digital Development Agency, the event emphasized collaboration across the public and private sectors. A memorandum of understanding was signed to strengthen innovation and start-up collaboration in Azerbaijan.



## AI4AI – Digital agriculture and export promotion council meeting

The Centre for the Fourth Industrial Revolution India held an event for the Indian agritech sector in New Delhi, India in March 2024, focused on scaling Sustainable Development Goals (SDGs) for the Global South, by fostering dialogue on the successes and challenges of India's agritech sector, its significant contributions to SDGs, prospects for cross-border collaboration, and the pivotal role of various international organizations. The event fostered ideas on how to encourage effective cross-border collaboration.



## Future of AI: Perspectives from the Global Community

The Centre for Trustworthy Technology held its inaugural conference, The Future of AI: Perspectives from the Global Community, in New York City, USA, in October 2024. The event brought together 21 leaders from every continent to share insights across three panels on global governance, value alignment and supply chain dynamics. Focused on actionable strategies, the conference aimed to foster equitable progress and sought to forge new pathways for international collaboration, ensuring that AI development benefits a diverse range of communities and upholds shared values.





### Bio-convergence (Serbia and Israel)

Bio-convergence is a multidisciplinary field in which biology synergistically combines with other disciplines, mostly engineering and computing, to address unresolved challenges. To achieve this, the Centres for the Fourth Industrial Revolution in Serbia and Israel signed an agreement for a bilateral biotech workstream. The collaboration aims to support the establishment of an ecosystem of bio-convergence technologies integrated in industry, start-ups, academia, infrastructure, and the investor and research communities.

The agreement was signed in the presence of Aleksandar Vučić, President of Serbia, and Isaac Herzog, President of Israel, as part of the roundtable, “Synergy in Innovations, Talks between Serbia and Israel,” in Belgrade.



### AI fellowship programme

The Centre for the Fourth Industrial Revolution UAE launched a platform to bridge the gap between AI industry leaders, innovators and experts across the globe. The knowledge exchange platform was activated by a memorandum of understanding between the Centres for the Fourth Industrial Revolution UAE and Rwanda. The communities will not only share knowledge but also collectively address the challenges facing AI implementation and policy, ultimately steering the future direction of AI for a more inclusive and sustainable world.



### Establishment of Centre for the Fourth Industrial Revolution Israel Innovators Community

The Centre for the Fourth Industrial Revolution Israel has established an Israeli community from among the members of the Forum’s Innovator Communities, with a specific focus on presenting Israeli start-ups on a global platform and fostering connections with influential international stakeholders, including investors, experts and public sector leaders. The primary objectives of the community are to position Israeli companies as global leaders, cultivate a robust professional network and facilitate impactful global partnerships spanning various industries.

# Meet the Fourth Industrial Revolution Centres

## Centre for the Fourth Industrial Revolution Azerbaijan

**Host:** Centre for Analysis and Coordination of the Fourth Industrial Revolution, Ministry of Economy, Government of Azerbaijan

**About:** The Centre for Analysis and Coordination of the Fourth Industrial Revolution was established under the Ministry of Economy in accordance with a decree by the President of the Republic of Azerbaijan on 6 January 2021. The centre works towards cooperation between the Republic of Azerbaijan and international organizations operating in the field of the Fourth Industrial Revolution. It also analyses and coordinates challenges, initiatives, strategies and projects related to the digital economy. The main objective of the entity is to make the most of the opportunities created by the Fourth Industrial Revolution and to ensure a leading role for Azerbaijan in emerging technologies.

 **Launched 2021**

 **Partners:**

- ADA University
- Apple
- Azerbaijan Export and Investment Promotion Agency (AZPROMO) under the Ministry of Economy, Azerbaijan
- Azerbaijan Investment Holding
- Azerbaijan State Oil and Industry University
- Azerbaijan State University of Economics
- AzerGold CJSC
- Baku Higher Oil School
- Binance Academy
- BrainBox AI
- Coursera

- DOST Digital Innovations Center
- French-Azerbaijani University (UFAZ)
- Google
- International Centre for Industrial Transformation Limited (INCIT)
- IsDB
- Koçsistem
- KW Group
- McKinsey & Co
- MEXT Technology Center, Türkiye
- Ministry of Agriculture, Azerbaijan
- Ministry of Digital Development and Transport, Azerbaijan
- Ministry of Science and Education, Azerbaijan
- PASHA Holding
- Plug and Play Center
- Siemens
- SOCAR
- SOCAR Green
- State Agency for Public Service and Social Innovations under the President of the Republic of Azerbaijan
- StrategEast
- TikTok
- Trendyol
- UNESCAP
- Xsolla

## Centre for Trustworthy Technology

**Host:** Patrick J. McGovern Foundation

**About:** Founded in partnership with the Patrick J. McGovern Foundation and Deloitte, the Centre for Trustworthy Technology (CTT) in Austin, Texas, USA, unites stakeholders from government, business, academia and civil society to guide the development of emerging technologies that prioritize integrity, trust and social impact. CTT develops frameworks aligned with the Sustainable Development Goals (SDGs), ensuring technologies address global challenges, foster equity and promote inclusivity. CTT serves as a platform for global collaboration, ensuring technology advances responsibly and inclusively, benefitting all of society.

 **Launched 2023**

### **Partners:**

African Visionary Fund

Ahura AI

AI 2030

American Bankers Association

Beckn protocol

Consumer Financial Protection Bureau

Content Policy and Society Lab, Stanford

Data Privacy Brasil

Deloitte

Distributed AI Research Institute

Enterprise Development Group

Equiano Institute

FinTech4Good

Foundation for Interoperability in Digital Economy (FIDE)

Ghana Natural Language Processing

Global Center on AI Governance

Harvard Kennedy School

Hugging Face

Jambu Tecnologia

Lelapa AI

Mozilla Foundation

Open Network for Digital Commerce

Partnership on AI

Stripe

Techworker Community Africa

Technovation

The Collective Intelligence Project

## Centre for the Fourth Industrial Revolution India

**Host:** World Economic Forum

**About:** The Centre for the Fourth Industrial Revolution India, launched by Prime Minister Narendra Modi in 2018, has been a pioneer in driving the adoption and responsible deployment of emerging technologies. Over the past six years, its initiatives have directly impacted 1.25 million Indian citizens, addressing societal challenges in agriculture, food systems, healthcare, urban development and climate action. Collaborating with the global Centre for the Fourth Industrial Revolution Network, the centre has tailored solutions to India's unique context. Through partnerships with central and state governments, and active engagement with industries, start-ups, civil society and academia, the centre has launched into the next phase with initiatives across AI, space economy, AVIATE (Advancing Aviation Innovation and Autonomous Technologies), climate tech and advanced energy, advancing India's vision for the Intelligent Age, where technology meets impact for a sustainable and inclusive future for all.

 **Launched 2018**

### **Partners:**

Amazon India

Apollo Hospitals

Axis Bank

Bayer

BCG

Bill & Melinda Gates Foundation

CII

Coca-Cola

Cropin

Dell
Deloitte
Digital Green
Directorate General for Civil Aviation, India
Flipkart
Google
Government of Karnataka
Government of Andhra Pradesh
Government of Maharashtra
Government of Telangana
Government of Uttar Pradesh
HCL
Infosys
INSPACe
iSPIRIT
ISRO
KPMG
Mahindra Group
Mastercard
Microsoft
Ministry of Civil Aviation
Ministry of Heavy Industries
NASSCOM
NVIDIA India and South Asia
PwC
Reliance Group
SAP
Sarvam AI
Siemens
Skyroot Aerospace, India
United Nations, India
UNICEF
UPL
Wadhvani AI
Yara
2030 Water Resources Group, World Bank

## Centre for the Fourth Industrial Revolution Israel

**Host:** Israel Innovation Authority

**About:** The Centre for the Fourth Industrial Revolution Israel, established by the Israel Innovation Authority in 2019, drives innovative technology initiatives locally and globally by promoting cross-sector collaborations, multistakeholder engagement and ecosystem building. The centre focuses on groundbreaking areas such as alternative protein, autonomous systems and bio-convergence, working closely with the public and private sectors to promote development and implementation of emerging technologies. By fostering knowledge sharing and collaboration nationally and internationally among governments, corporations, leading technology companies and experts, the centre aims to navigate the challenges of the Fourth Industrial Revolution while enhancing productivity and growth. These efforts ensure Israel remains a leader in technological innovation, benefitting society through responsible technological adoption and application.



**Launched 2019**



**Partners:**

18 private and public hospitals
Ayalon Highways
Centre for the Fourth Industrial Revolution India
Centre for the Fourth Industrial Revolution Serbia
Centre for the Fourth Industrial Revolution Telangana
Civil Aviation Authority of Israel
EcoMotion
GFI Israel
HealthIL
ISAR (Israel Search and Rescue)
Israel Innovation Authority
Israel Police
Israeli municipalities
Local Government Economic Company (Mashcal)
Ministry of Finance, Israel
Ministry of Health, Israel
Ministry of Transport, Israel
National emergency entities: Magen David Adom
Prime Minister's Office of Israel

### Members of the Centre for the Fourth Industrial Revolution Israel Innovator Community:

A. ActiveFence

B. AIVF

C. AI21 Labs

D. Aleph Farms

E. BRAIN.Q

F. Dazz

G. Electriq Global

H. Enzymit

I. ImaginDairy

J. OTORIO

K. Tastewise

L. Wanda Fish

M. Wilco

### Companies part of Israel National Drone Initiative (INDI)

A. AIR

B. Air Taxi Israel (ATI)

C. Airwayz Drones

D. AGL

E. Brook Aviation

F. Cando Drones

G. Down Wind

H. Elsieht

I. F.T. Aerial Solutions

J. High Lander

K. Robotican

## Centre for the Fourth Industrial Revolution Kazakhstan

**Host:** Astana International Financial Centre

**About:** Launched in July 2021 by the Astana International Financial Centre (AIFC), the Ministry of Digital Development, Innovation and Aerospace Industry of the Republic of Kazakhstan (MDDIAI), the Centre for the Fourth Industrial Revolution Kazakhstan is developing a favourable environment to harness the emerging technologies that will significantly impact the innovative development of Kazakhstan. The key goal is to develop and implement scientific and technological solutions in various areas of human life, with the

subsequent improvement of approaches and policies aimed at increasing economic benefits and reducing global risks. The centre is working to develop a strategy for the implementation of Industry 4.0 projects, including the Internet of Things (IoT), data policy and digital trade.



Launched 2021



**Partners:**

Astana Hub International Technopark of IT

Department of Digital Transformation, Kazakhstan

Department of Industry Development, Kazakhstan

International Centre for Industrial Transformation (INCIT)

Kazpost

Ministry of Digital Development, Innovations and Aerospace Industry, Kazakhstan

Ministry of Energy, Kazakhstan

National Managing Holding "Baiterek"

Qazaqstan Investment Corporation

Republican Center for Space Communications

## Centre for the Fourth Industrial Revolution Malaysia

**Host:** MyDIGITAL Corporation

**About:** To realize the ambitious roadmap set out in Malaysia's various strategic plans, new, adaptive policy and regulatory frameworks are needed to enable technological transformation and deliver the benefits. The establishment of the Centre for the Fourth Industrial Revolution in Malaysia embeds the country into a global ecosystem of technology governance innovators and leaders. From adoption to transformation to regional leadership, the Centre for the Fourth Industrial Revolution Malaysia will drive an advanced digital economy – focused on sustainability, the energy transition and digital transformation.



Launched 2023

 **Partners:**

Bursa Malaysia

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CJ Century

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Curtin University

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Globetronics

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Grab Malaysia

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Institute for Strategic and International Studies Malaysia

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Intel

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Ipsos Malaysia

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Maybank

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Microsoft

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Ministry of Economy, Malaysia

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Ministry of Education, Malaysia

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Ministry of Higher Education, Malaysia

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Ministry of Science, Technology and Innovation, Malaysia

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NEXEA

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National Energy University, Malaysia

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OpenLearning

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Public Service Department, Malaysia

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REDtone

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RoomofLeaders

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Sunway Innovation Labs

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University of Technology Malaysia (UTM)

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Western Sydney University

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## Centre for the Fourth Industrial Revolution Rwanda

**Host:** Ministry of Information Communication Technology and Innovation

**About:** The Centre for the Fourth Industrial Revolution Rwanda is a collaboration between the Ministry of Information Communication Technology and Innovation of Rwanda and the Forum.

The centre facilitates the co-design, testing and refinement of governance protocols and policy frameworks to maximize the social benefits and minimize the risks from advanced science and technology.

 **Launched 2020**

 **Partners:**

AI Singapore

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Bill & Melinda Gates Foundation

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Digital Square (at PATH)

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Digital Umuganda

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GIZ Fair Forward

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Kigali Natural Language Processing (KINLP)

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Ministry of Agriculture, Rwanda

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Ministry of Health, Rwanda

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Ministry of ICT, Rwanda

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World Economic Forum

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## Centre for the Fourth Industrial Revolution Saudi Arabia

**Host:** King Abdulaziz City for Science and Technology (KACST)

**About:** The Centre for the Fourth Industrial Revolution Saudi Arabia, hosted by the King Abdulaziz City for Science and Technology (KACST) in Riyadh, operates as a dynamic “do tank” focused on leveraging the Fourth Industrial Revolution for progress. Aligned with Saudi Vision 2030, the centre’s mission is to drive economic diversification and technological advancement in the country.

The centre spearheads initiatives across cutting-edge technologies, including AI, the Industrial Internet of Things (IIoT), autonomous systems, quantum technologies and smart cities. Through these efforts, it is enhancing efficiency, fostering innovation and positioning the country as a global leader in technological development. By collaborating nationally, regionally and internationally, the centre shares knowledge and best practices, further reinforcing the objectives of Saudi Vision 2030.

 **Launched 2020**

 **Partners:**

BCG
Eyotic
FalconViz
Front End
IBM
ID Quantique
Intidadat Company
Infinity Q Technology
IoT Squared
Jahez
King Abdullah University for Science and Technology (KAUST)
King Abdulaziz City for Science and Technology (KACST)
King Fahd University of Petroleum and Minerals (KFUPM)
Ministry of Communications and Information Technology (MCIT), Saudi Arabia
Ministry of Economy and Planning, Saudi Arabia
Ministry of Environment, Water and Agriculture (MEWA), Saudi Arabia
Ministry of Industry and Mineral Resources (MIM), Saudi Arabia
Ministry of Transport and Logistics Services (MoTLS), Saudi Arabia
National Industrial Development and Logistics Program (NIDLDP)
NEOM
Obeikan Digital Solutions
Oliver Wyman
PASQAL
Public Investment Fund (PIF)
Quantum Brilliance
Quantinuum
Research Development and Innovation Authority (RDIA)
Saudi Air Navigation Services
Saudi Aramco
Saudi Central Bank (SAMA)
Saudi Industrial Development Fund (SIDF)
Saudi Post (SPL)
stc
The Saudi Data & AI Authority (SDAIA)
Transport General Authority (TGA), Saudi Arabia

## Centre for the Fourth Industrial Revolution Serbia

**Host:** Government Office for IT and eGovernment

**About:** The Centre for the Fourth Industrial Revolution Serbia facilitates scientific knowledge in the economy and positions Serbia as a global intelligent service exporter and innovation site. In addition to bringing together business, academia and governments, the centre aims to propose regulations to facilitate the application of new technologies, while protecting the rights and interests of the public and working to develop infrastructure.

 **Launched 2022**

 **Partners:**

Baza retkih bolesti
BIO4 Campus
British Embassy in Serbia
Comtrade
Embassy of Israel in Serbia
Embassy of Japan in Serbia
Embassy of Switzerland in Serbia
EPAM
European Bioinformatics Institute (EBI)
European Institute of Innovation & Technology (EIT)
European Molecular Biology Laboratory (EMBL)
Expo 2027
Faculty of Agriculture, University of Novi Sad
General Secretariat of the Government of Serbia
Genial
Ginkgo Bioworks
Global Alliance for Genomics and Health (GA4GH)
Informatika
Institute for Molecular Genetics and Genetic Engineering (IMGGI)
Institute for Oncology and Radiology of Serbia (IORS)
Institute for the Application of Nuclear Energy (INEP)
Lymphoma Patients Association (LIPA)
Ministry of Education of the Republic of Serbia

Ministry of Health of the Republic of Serbia

Ministry of Science, Technological Development and Innovation of the Republic of Serbia

NALED (National Alliance for Local Economic Development)

National Assembly of the Republic of Serbia

National Organization for Rare Diseases of Serbia (NORBS)

Novartis

Novo Nordisk

Office for IT and eGovernment

Office of the Prime Minister of the Republic of Serbia

Open Data Institute

Patient Association of Serbia

Persida Bio

PULSEC

Roche

Science Technology Park Belgrade

Takeda

The Genomics Section of the Serbian Society for Bioinformatics and Computational Biology (BIRBI)

The Institute for Artificial Intelligence Research and Development of Serbia

United Nations Development Programme

Visaris

Zdravlje Leskovac

## Centre for the Fourth Industrial Revolution Telangana

**Host:** Telangana Lifesciences Foundation

**About:** The Centre for Fourth Industrial Revolution Telangana is a thematic centre on healthcare and life sciences set up in collaboration with the state government of Telangana in India.

The centre will facilitate, advance and accelerate development and adoption of newer technologies including genomics, personalized medicine and healthcare manufacturing, with a focus on the interplay between the life sciences and technology. It will leverage the strengths that the state possesses, such as an abundant talent pool, world-class infrastructure, cluster-based approach and progressive industrial policies.

 **Launched 2023**

 **Partners:**

Calyx.ai

DiME

Dr. Reddy's Laboratories

Garmin

Granules India

Laurus Labs

MSN Labs

National University of Singapore (NUS)

Research and Innovation Circle of Hyderabad (RICH)

Roche

Telangana Lifesciences Foundation

## Centre for the Fourth Industrial Revolution United Arab Emirates

**Host:** Dubai Future Foundation

**About:** The Centre for the Fourth Industrial Revolution United Arab Emirates is the first affiliate centre of the Centre for the Fourth Industrial Revolution Network, serving as a global public-private entity for the collaborative development of technology governance and policy protocols.

The centre focuses on blockchain, distributed ledger and AI and works with a multistakeholder community to create, refine and test policy protocols.

 **Launched 2019**

 **Partners:**

Art Dubai

Dubai Culture

Dubai Design Lab

Neol

UAE Ministry of Cabinet Affairs

# US Center for Advanced Manufacturing

**Host:** Automation Alley

**About:** The US Center for Advanced Manufacturing is a national, non-profit organization dedicated to accelerating the transformation of the US manufacturing sector. With a mission to foster innovation, collaboration and industrial growth, it brings together key players from industry, academia and government. By promoting the adoption of emerging technologies such as AI, digital transformation and advanced manufacturing, it serves as a knowledge hub and catalyst for change.

Through its projects, events and strategic partnerships, the US Center for Advanced Manufacturing drives impactful initiatives that address the evolving needs of the US manufacturing ecosystem, ensuring that industry leaders are equipped to remain competitive on both national and global levels. It remains committed to leveraging the collective strength of its stakeholders to transform manufacturing, creating a resilient and sustainable future for the industry.



 **Partners:**

- DMSCA
- Everstream Analytics
- Fanuc
- Guidewheel
- International Trade Administration
- Lightguide Systems
- MMSDC
- New York University
- Novagard
- Schneider Electric
- Signify
- Tulip
- Western Digital

# The Centre for the Fourth Industrial Revolution Network

The Centre for the Fourth Industrial Revolution network connects technology policy experts and stakeholders through 19 independent centres across 16 countries. These centres focus on advancing impactful initiatives to accelerate the responsible adoption of technology and drive industry transformation at multiple levels.

Through this collaboration, centres can co-lead ambitious initiatives and contribute to the advancement of technology.

## Centres' focus

While united by a common mission, each centre operates independently, addressing region-specific challenges in areas such as AI governance, biotechnology and the space economy. This approach allows centres to contribute both locally and globally to technology governance and innovation.

## Centres' commitment

Each centre in the network is dedicated to promoting responsible technology adoption in close collaboration with a diverse range of stakeholders. By generating actionable insights and leading system-level initiatives, centres play a key role in advancing the network's goals.

## Becoming part of the network

Partnering with the World Economic Forum allows centres to become independent members of the network, establishing a commitment to collaborative engagement and shared resources for joint initiatives. This partnership provides centres with valuable access to expert connections, strategic guidance, best practices and opportunities for co-branding and enhanced global visibility.



Interested in leading the regional and global technology agenda and improving the state of the world through public-private partnership?



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Additional thanks go to all the **centres in the Centre for the Fourth Industrial Revolution Network** for participating in a reporting exercise to measure impact between Q3 2023 and Q3 2024.

## Production

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