

# AI PHOTO

  
inmarsat



# FOREWORD

## WELCOME TO THE FUTURE OF INDUSTRIAL IOT

These are testing times for businesses across the globe. They face an expanding range of challenges relating to global production and supply chain management. And this is compounded by a growing need for transparency and the impact of the Covid-19 pandemic.

In a world where the appetite for raw materials, agricultural products, fuel, and electricity shows no sign of slowing, the Internet of Things (IoT) is playing an increasingly important role in enabling the management of intricate webs of production, distribution, and delivery across global supply chains.

### **A catalyst for efficiency, sustainability and safety gains**

Our report, *Industrial IoT in the time of Covid-19*, finds a rapid increase in IoT deployments over the last few years and highlights the considerable progress global industry has made to overcome some of the world's most challenging forces.

Covid-19 has further catalysed businesses to increase their reliance on Industry 4.0 technologies, and particularly industrial IoT, to maintain business continuity. Those businesses implementing IoT technologies ahead of their competition and across their value chains are those who stand to win in the long-term, with IoT deployment driving significant uplifts in efficiency, sustainability and safety across global supply chains.

### **Inmarsat ELERA – a springboard for innovation**

Inmarsat's ELERA is the always-on communications network connecting people to IoT solutions that can reshape their world wherever they are and whatever they do.

Ideally suited to our rapidly evolving world, our industry-leading narrowband network provides global reach, extraordinary resilience, and the fastest speeds, along with the smallest, low cost, terminals in their class.

### **ELERA IoT**

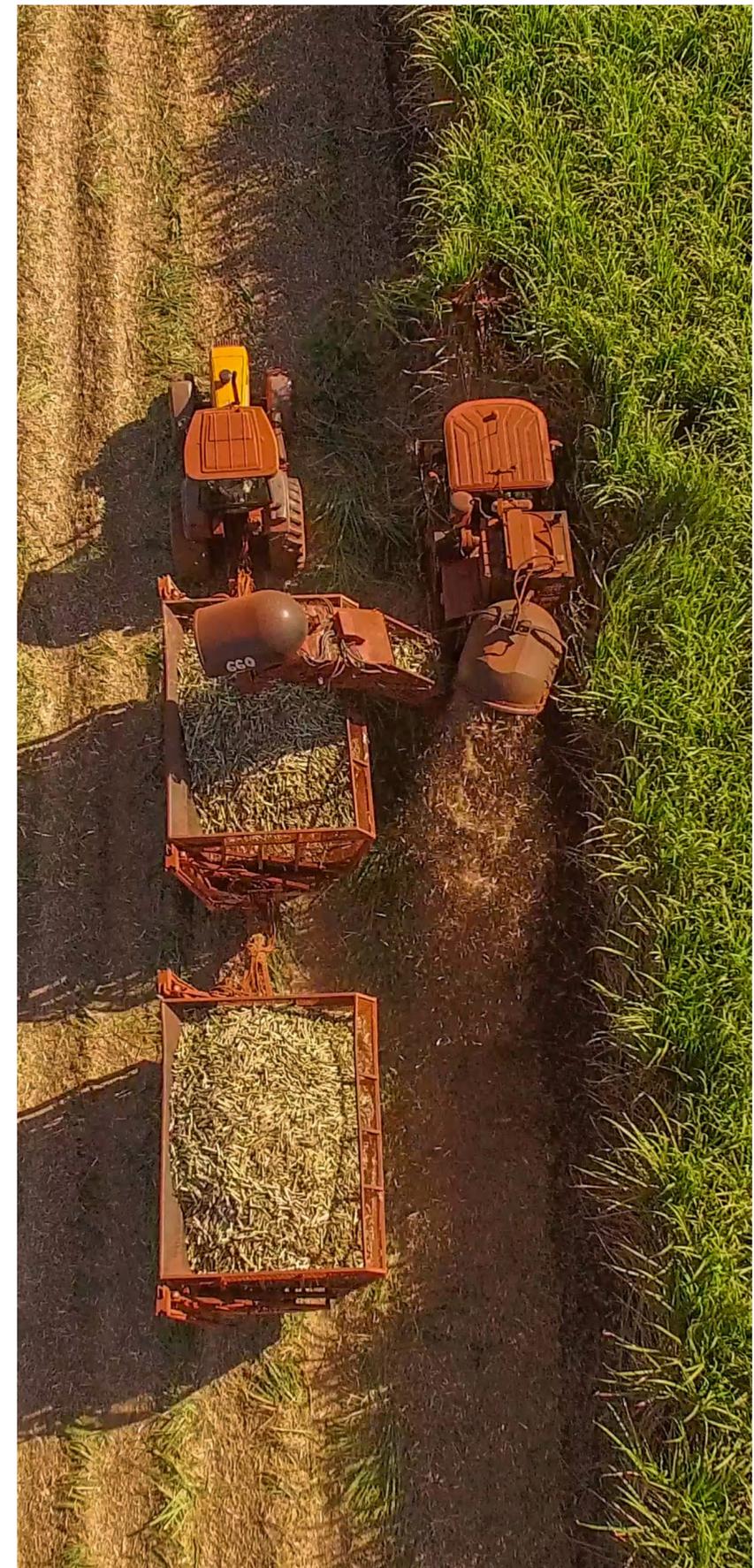
Built on the connectivity backbone of ELERA, our ELERA IoT proposition, provides the most flexible set of IoT options to support businesses and partners alike. Today, our connectivity is embedded across the world's commercial land markets, helping them optimise operations. We stand ready to support tomorrow's business models, yet to be defined.

I'm excited to share this vision with you and showcase how ELERA IoT can inspire you to a world of exciting new land IoT possibilities.

**Mike Carter, President of Inmarsat Enterprise**

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# INMARSAT ELERA

Inmarsat ELERA is the global network for the Internet of Things (IoT) and secure narrowband connectivity.

Designed for mobility and trusted to connect over a million assets globally, ELERA enables the next wave of world-changing technologies that will underpin our connected society and help build a sustainable future.

ELERA is a springboard for innovation. It is accelerating pioneering use cases for commercial and government customers and is inspiring new possibilities on land, at sea and in the air. In short ELERA is:

- An L-band network with unique resilience in all conditions with complete global redundancy, ultra-high security and market-leading, 99.9% availability
- Offers seamless coverage with global consistency and simple deployment in the field
- The only global Geo-synchronous Earth Orbit (GEO) operator, with more usable spectrum in every region than any global provider, ensuring the delivery of mission-critical data

## ASSURED FOR THE FUTURE

Our commitment to the future of narrowband services is demonstrated in Inmarsat-6s (I-6s) – the most sophisticated satellite constellation ever launched. The I-6s will enter commercial service in early 2023 and will significantly expand the fleet – enhancing resilience and supporting new and existing services into the 2030s and beyond.

## INMARSAT ELERA

- The world's most reliable satellite network
- The most sophisticated commercial communications satellites ever built
- Global coverage
- 24/7/365 customer service
- Supported by the largest global partner network

## ABOUT INMARSAT

Inmarsat is the leading provider of global mobile satellite communication services. Since 1979, Inmarsat has been providing reliable voice and high-speed data communications to governments, enterprises and other organisations, with a range of services that can be used on land, at sea or in the air. Inmarsat operates around the world, with a presence in the major ports and centres of commerce on every continent.

For more information, please visit [www.inmarsat.com](http://www.inmarsat.com)

# ELERA IOT – DELIVERING THE RIGHT CONNECTIVITY OPTION FOR YOUR NEEDS

ELERA IoT is the most versatile satellite IoT connectivity platform available. It combines the ELERA L-band satellite network, Inmarsat's industry-leading IoT services, entire IoT ecosystems, expert solution providers and the widest global distribution partner network.

Whether you are an agricultural producer looking for a cattle tracking solution, an IoT solution provider looking to break into new markets, or an IoT ecosystem provider looking for a connectivity backbone, we have the right option for you.

WHO ARE YOU?

## A BUSINESS

DEPLOYING IOT PROJECTS IN:

- Agriculture
- Electrical utilities
- Mining
- Oil and gas
- Transport and logistics

WHAT DO YOU NEED?

I have a team to build a solution and just need **CONNECTIVITY** to enable it

HOW WE HELP

Our ELERA IoT connectivity services provide proven, ultra-reliable

[See page 5 >](#)

WHAT DO YOU NEED?

## A FULL CONNECTIVITY SOLUTION

built by someone who understands my industry

HOW WE HELP

Our ASP partners leverage their industry expertise to build solutions for you

[See page 13 >](#)

Our ecosystem partners also provide solutions featuring our ELERA IoT connectivity services

[See page 6 >](#)

WHO ARE YOU?

## AN ORIGINAL EQUIPMENT MANUFACTURER

WHAT DO YOU NEED?

### LEASING CAPABILITIES

to provide dedicated access for my customers

HOW WE HELP

Our leading network leasing services allow you to deliver dedicated connectivity options underpinned by quality-of-service guarantees

[See page 5 >](#)

WHAT DO YOU NEED?

**INTEGRATION** of existing ELERA IoT connectivity chipsets with our hardware

HOW WE HELP

Our ELERA IoT connectivity services are easily integrable with your proposition, so you can deliver the best experience to your customers

[See page 5 >](#)

WHO ARE YOU?

## A PROVIDER OF SOLUTIONS

OR APPLICATIONS TO VERTICAL MARKETS

WHAT DO YOU NEED?

I need **SATELLITE CONNECTIVITY** to break into new markets and connect customers in remote areas

HOW WE HELP

Joining our ASP programme provides you with access to marketing, commercial and technical integration capabilities to help grow your business

[See page 13 >](#)

WHO ARE YOU?

## AN IOT-AS-A-SERVICE PROVIDER

WHAT DO YOU NEED?

The **NETWORK BACKBONE** to create an IoT ecosystem

HOW WE HELP

Our leading network leasing services allow you to create a virtual network and IoT ecosystem using our expert knowhow

[See page 6 >](#)

WHO ARE YOU?

## AN INMARSAT DISTRIBUTION PARTNER

WHAT DO YOU NEED?

I want to **ADD CONNECTIVITY TO A SOLUTION** I am building or building with a solution provider

HOW WE HELP

Our ELERA IoT connectivity services provide proven, ultra-reliable connectivity that just works

[See page 5 >](#)

WHAT DO YOU NEED?

I need a **SOLUTION PROVIDER WITH EXPERTISE** in a particular industry

HOW WE HELP

Our ASP partners build solutions for verticals featuring our ELERA IoT Connectivity services

[See page 13 >](#)

# ELERA IOT CONNECTIVITY SERVICES

Inmarsat ELERA's reliable, global, fully mobile, and easy-to-use connectivity services are suitable for all industries and locations – to fuel your IoT progress and innovations, today and tomorrow.

## ISATDATA PRO

### Transform your operations with IDP

For reliability, security and scalability, nothing compares to Inmarsat's IsatData Pro (IDP) service. From simple tracking and monitoring, to more sophisticated telemetry, logistics and safety compliance, IDP gives you the platform you need to stay connected, secure and efficient, while lowering operational costs and risk.

Featuring global connectivity, up to 99.9% uptime and operating in near real-time, IDP enables and enhances a host of industrial IoT applications where small data packet, event-driven messaging is key. With a host of easily integrable hardware options and flexible service plans, IDP provides mission critical data connectivity in a compact, affordable package. Its very low power consumption makes it ideal for remote "off grid" locations.

## BGAN M2M

### Stay in control with BGAN M2M

This global, two-way IP data service is designed for long-term machine-to-machine (M2M) management of fixed and mobile assets – no matter where they are.

If you want to monitor and control assets and infrastructure in remote global locations, where mobility of assets is key, BGAN M2M is the service for you. BGAN M2M provides transparency and operational efficiency. And with up to 99.9% uptime, it's the service that always works – even when others don't.

BGAN M2M is ideal for applications with moderate data volume requirements ranging from megabytes to gigabytes, such as real-time surveillance or high-volume metering and telemetry. It provides full IP data connectivity supported by remote terminal management, debugging and configuration options.

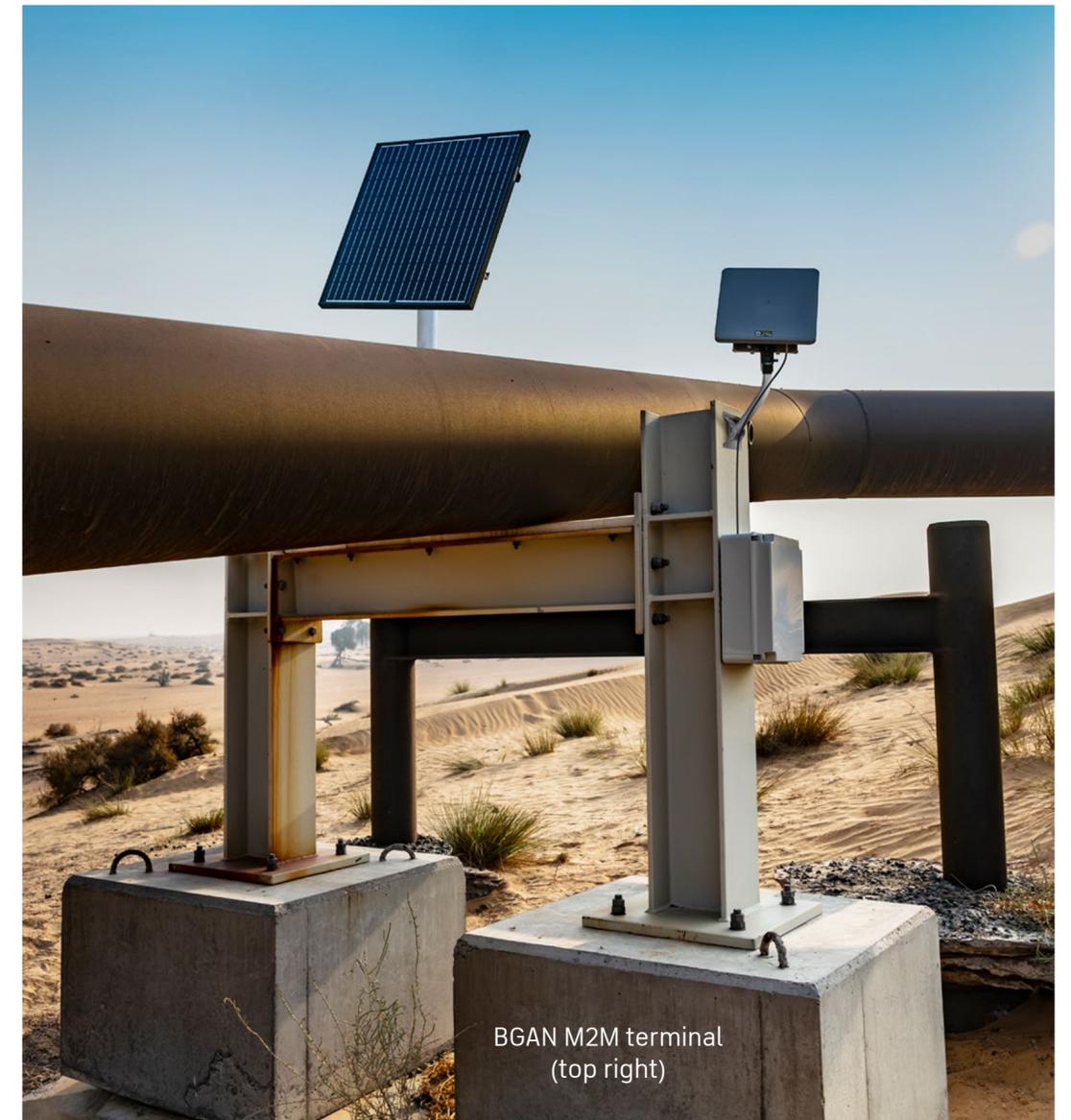
Using robust and lightweight hardware, BGAN M2M enables a wide range of M2M applications. The small form terminals are typically deployed for over 10 years – making them an attractive and cost-effective way to connect infrastructure in the most remote and inaccessible locations.

## LEASING

### Freedom to create your own rules

Inmarsat offers the most powerful and flexible IoT leasing services for commercial enterprises leveraging ELERA's ultra-reliable L-band connectivity. Completely customisable by spot or regional beams, it allows IoT ecosystem providers to develop IoT hardware and software ecosystems built on Inmarsat's proven L-band constellation. There is no need for expensive satellite development and management when you can create a virtual network using our satellite infrastructure, manned by our expert team.

Typical applications for IoT are vehicle tracking, rail services, differential GPS, commercial asset tracking and weather reports. However, because the service is fully mobile, the possibilities are limitless and is perfect for use on anything from locomotives to light industrial vehicles and more.



BGAN M2M terminal  
(top right)

## INMARSAT DISTRIBUTION PARTNERS

ELERA IoT connectivity services are procured through our distribution partners. Boasting the widest global network of distribution partners of any satellite provider, we are able to put you in touch with an Inmarsat distributor wherever you are. With experience in IoT and M2M going back several decades, our distribution partners possess expertise in integrating Inmarsat's connectivity and working with solution providers.

# ELERA ENABLED IOT ECOSYSTEMS

Our IoT partner-enabled ecosystem offers access to a range of innovative IoT solutions. All underpinned by our best-in-class satellite connectivity.



Hiber is an IoT-as-a-service scaleup serving the transport, logistics, mining, agriculture, and other industries. Hiber designs, builds and operates end-to-end solutions for the Internet of Things, focused on industrial use.

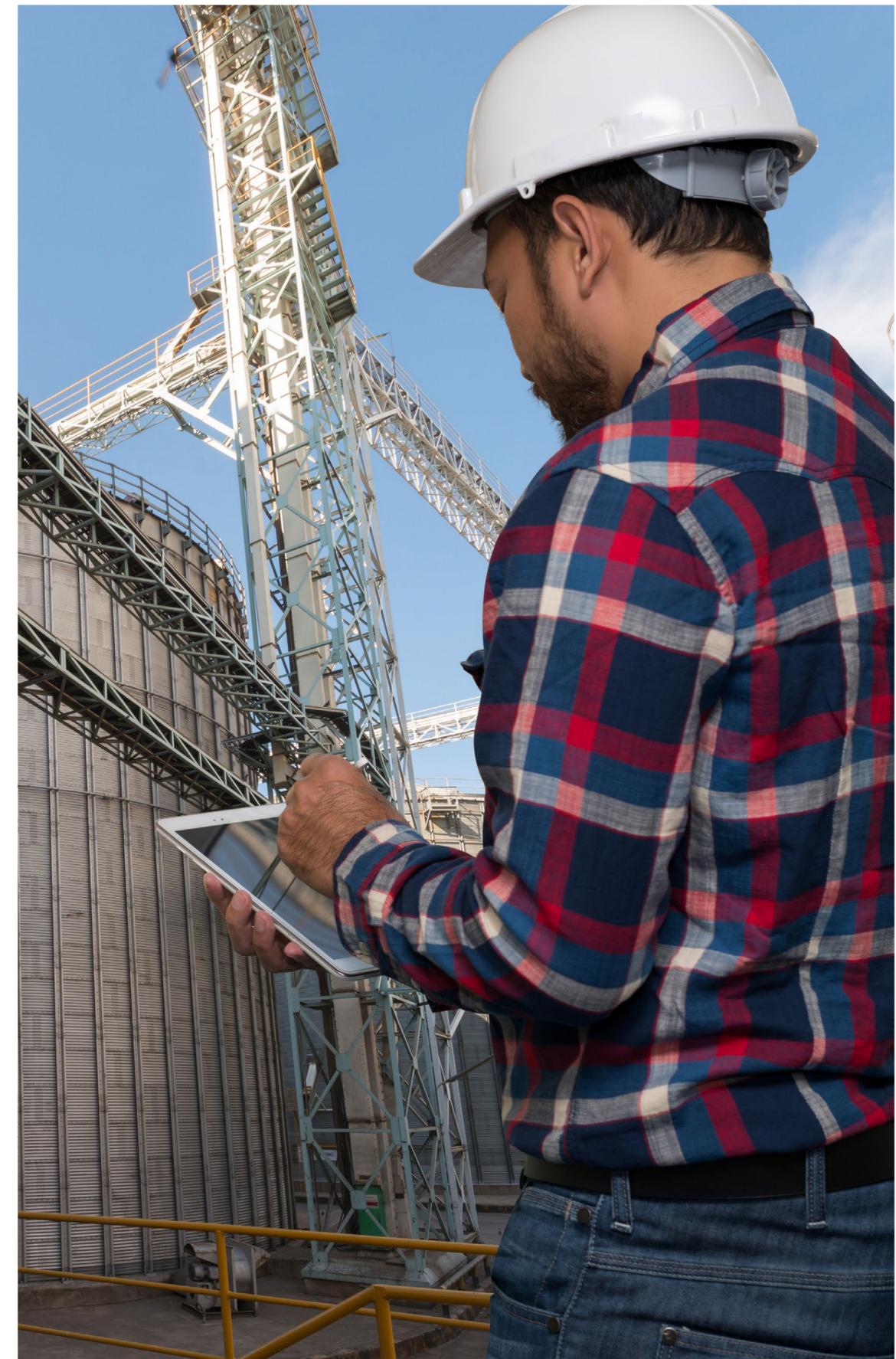
Hiber has launched the world's first global IoT satellite network to help it to deliver cost-effective, easy-to-use solutions. These include HiberHilo for oil and gas well integrity monitoring, and HiberEasypulse for asset tracking and fleet monitoring.



ORBCOMM is a global leader and innovator in the industrial Internet of Things, providing solutions that connect businesses to their assets to deliver increased visibility and operational efficiency. The company offers a broad set of asset monitoring and control solutions, including seamless satellite and cellular connectivity, unique hardware and powerful applications, all backed by end-to-end customer support, from installation to deployment to customer care. ORBCOMM has a diverse customer base including premier OEMs, solutions customers and channel partners spanning transportation, supply chain, warehousing and inventory, heavy equipment, maritime, natural resources, and government.



Skylo is a satellite-based narrowband IoT (NB-IoT) solutions company that seamlessly connects machines and sensors for immediate and actionable data insights. With Skylo, users benefit from continuous, real-time data transmission through its Skylo Hub – a rugged endpoint terminal that sends and receives sensor data through Skylo Connect, the company's satellite network. Using Skylo Apps, customers can send two-way secure messaging, SOS alerts, and continuously transmit valuable sensor data including location, vibration, air quality, geofencing, and much more.



# INMARSAT ELERA IOT

## BUILT FOR KEY INDUSTRIES INCLUDING

- Agriculture
- Electrical utilities
- Mining
- Oil and gas
- Transport and logistics



# ELERA IOT IN AGRICULTURE

ELERA IoT is driving the AgTech revolution. It offers the agricultural sector a suite of ways to improve yield, quality and profitability, now and in the future. From connecting cutting-edge solution providers who help producers do more with less, to connecting tens of thousands of farming vehicles through our relationships with the largest original equipment manufacturers, to enhancing livelihoods of farmers in developing nations, ELERA IoT is helping the agriculture sector overcome its biggest challenges.

## Global, reliable, agile

ELERA is the world's most reliable satellite network. With over 40 years' experience in communications to and from remote areas and a range of small, easy-to-use devices, you can count on us to keep you connected.

With a presence in over 60 countries and expert global partner networks, we've got agriculture covered with IoT connectivity and support – wherever farmers or producers are located.

## ELERA IOT IN ACTION

### Field and ranch monitoring

- Field based IoT monitoring to ensure full visibility of cropping environments, including weather, soil moisture, pest and disease monitoring
- Manage livestock with improved efficiency and peace of mind through real-time data, including water troughs, fences, animal tracking and remote cameras

### Precision farming and process automation

- IoT connected innovations enable precision farming technologies to provide targeted management of agricultural land, based on highly accurate understanding of variability within fields
- Process automation technologies optimise entire fleets in real time to allow agriculture vehicles to cover more acres in less time

### Control and monitoring of infrastructure

- Reduce time spent driving to site by controlling assets remotely, from water pumps to access gates, through IoT enabled devices
- Manage irrigation systems from your HQ to detect faults and blockages or alter speeds and flow according to site conditions
- Monitor grain silos and fuel tanks to detect problems and plan deliveries in advance

## Case study

# FARMBOT



Farmbot Monitoring Solutions relies on ELERA IoT-enabled connectivity to provide a range of innovative remote monitoring tools for the cattle industry:

- Unreliable connectivity on terrestrial networks had been a barrier to technology adoption on Australian farms
- Farmbot's solutions underpinned by ELERA IoT connectivity services are helping transform the sector with real-time data to vastly improve decision making
- Farmers can now use innovative IoT solutions to remotely monitor their operations and control pumps and machinery in real time, saving them money and improving yields

*Being involved with Inmarsat's Application and Solution Provider Programme is an exciting step forward in the development of Farmbot solutions. It has the potential to significantly improve the management of critical water resources for farmers worldwide, resulting in tangible productivity gains, carbon reduction and ultimately more sustainable outcomes. We look forward to announcing the development of on-demand cameras for farmers over the coming months.*

**Andrew Coppin**  
Managing Director, Farmbot Monitoring Solutions



Discover how ELERA IoT can help support your IoT objectives  
[www.inmarsat.com/agriculture](http://www.inmarsat.com/agriculture)

# ELERA IOT IN ELECTRICAL UTILITIES

ELERA IoT is supporting a step change across the electrical utilities sector, delivering the smart grid for everyone, not just those in urban areas. Working closely with our partner network and electrical experts, our connectivity is providing anytime visibility and control across entire networks, no matter how remote. By enabling monitoring and automation across grids spanning thousands of kilometres, electrical producers and distributors are ensuring their customers' lights are kept on and their mandated uptime targets are hit. ELERA IoT enabled solutions are even enhancing organisations' ability to support remote workers and improve safety in even the most challenging environments, including in disaster events.

## Reliable, efficient and secure

Electrical utilities companies trust ELERA to provide reliable connectivity in every situation. With global coverage, ultrahigh-security and market-leading 99.9% availability, ELERA is ideal for a wide variety of use cases. When other satellite connectivity methods fail because of the weather, ELERA IoT services, such as BGAN M2M and IDP, keep transmitting data, supporting better decision-making, improved efficiencies and enhanced environmental operations.

This reliable connectivity, trusted by governments around the world, delivers maximum uptime via small, robust terminals – notebook-sized with a long field life – to place strong security front and centre of IoT deployments. Always-on, secure connectivity maximises uptime for grids, which is critical for meeting fluctuating demand levels and associated revenues.

## ELERA IOT IN ACTION

### Smarter grids and distribution automation

- Electrical utilities companies are increasingly moving toward smart grids, where electricity distribution and consumption can be effectively managed
- ELERA IoT is helping companies monitor and automate reclosers, advanced metering infrastructure and other aspects of the smart grid

### Field workforce safety optimisation

- With workers operating in remote areas, wearable smart cameras connected over reliable and secure communications, optimises performance and safety of the workforce in the field
- Additionally, the tracking of assets like maintenance vehicles helps ensure safety and visibility

### Security monitoring

- Video over satellite can validate any alarms that are triggered. Extra information, via better high-quality video, supports optimal and more cost-effective decision making

## Case study

# CEMIG

Inmarsat partner, OnixSat, developed a solution featuring ELERA satellite connectivity to help CEMIG, Brazil's largest integrated electric power company, improve performance by enabling its distribution reclosers to be controlled remotely.

- The lack of connectivity in remote areas hampered communication with CEMIG's centre of operations, meaning it wasn't possible to send remote commands to the automated reclosers in the field
- OnixSat developed a solution featuring BGAN M2M, assuring connectivity and reaching reclosers in very remote locations in the CEMIG distribution network
- Its coverage enables CEMIG's field equipment to send and receive data regardless of its location, so that the centre of operations can more efficiently manage the flow of electricity to its customers



*Now we rarely send teams to remote areas where the satellite communication solution was installed, reducing the need to travel for several hours to operate our reclosers manually on site. With OnixSat's satellite communications solution, we are able to assure availability and automatically activate the equipment remotely. The solution has helped us to restore the power supply more quickly, thus enabling an improved service provision to our customers.*

Flavio Henrique Martins Vieira  
Distribution Automation and Protection Engineer  
CEMIG



Discover how ELERA IoT can help support your IoT objectives  
[www.inmarsat.com/utilities](http://www.inmarsat.com/utilities)

# ELERA IOT IN MINING

ELERA IoT is helping underpin the rapid digitalisation of the mining industry, supporting efficient, sustainable and safe mining practices. Our connectivity can be found enhancing the safety of workers in isolated pits, securing visibility of remote fleets thanks to real-time telemetry data and monitoring and automating business-critical processes and assets. Working with our expert partners alongside majors, mid-tier and junior miners ELERA-enabled services and solutions support today's realities - and the technological advancements and changes to come.

## Reliable, efficient and sustainable

The resilience of our ELERA network ensures the operation of the connected mine, wherever it is. With global coverage, government-grade security and a market-leading 99.9% availability regardless of weather conditions, you can be sure downtime is minimised for your connected processes. This seamless coverage, coupled with robust terminals and easy field deployment however remote the site, minimises IoT implementation and training costs.

## ELERA IOT IN ACTION

Inmarsat ELERA's IoT connectivity is enabling innovation across the mining industry, with future-facing use cases that are delivering a competitive advantage today.

### Mining exploration

- IoT sensors at the drill rig capture telemetry data which can be backhauled to a central location via reliable, highly secure connectivity. This real-time information underpins a smarter, more efficient decision-making process
- ELERA IoT connectivity services enable geological analysis undertaken in the field to be relayed to HQ in real-time, allowing drilling efficiencies, and time and cost savings

### Remote video inspection

- Enable engineers in the field, wherever they are - and no matter how isolated the location - to communicate with HQ in real time, using HD video to troubleshoot on the fly, saving time and money
- Use UAVs to conduct remote visual site inspection providing a safer, more efficient way to survey mine sites

### Data capture for connected vehicles

- IoT monitoring of connected vehicles can predict maintenance issues before long-term problems arise. This preventative approach offers huge operational savings and efficiencies - particularly for bigger fleets
- ELERA IoT connectivity services can also be used to optimise haulage routes, ensure trucks are fully laden and that drivers are operating safely and efficiently. All this data can be made available in real time to improve operational decision making and understand potential issues as they happen

## Case study

# INSIGHT TERRA

Insight Terra, built on ELERA's satellite connectivity, provides an end-to-end risk management IoT solution to support compliance with global ESG standards initially for the monitoring of tailings facilities, water dams and geohazards.

Insight Terra is built to deliver actionable real-time insight to the global mining, water and environmental sectors and is centred around three core elements:

- Connected sensors monitor conditions such as piezometric pressure, water flow and environmental inputs
- Inmarsat ELERA's, all-weather L-band satellite connectivity ensures ultra-reliable real-time data transfer from the mine and environmental sites to the cloud-based Insight Platform
- Mining companies, water resource entities and government infrastructure managers are able to understand conditions on the site itself in real-time and make changes accordingly, helping them to safely manage their facility and comply with national regulations



insight terra



*Insight Terra enables mining companies to monitor their tailings facilities and manage associated risks much more effectively, complying with the Global Industry Standard on Tailings Management and satisfying their ESG commitments to investors and regulators.*

**Alastair Bovim**  
Chief Executive Officer, Insight Terra



Discover how ELERA IoT can help support your IoT objectives  
[www.inmarsat.com/mining](http://www.inmarsat.com/mining)

# ELERA IOT IN OIL AND GAS

ELERA IoT is helping deliver operational success across the oil and gas sector. Where visibility can be the difference between success and failure, ELERA ensures operational transparency from extraction through to distribution, even in the most remote locations. Connecting thousands of gas wells and hundreds of thousands of kilometres of pipelines, ELERA IoT connectivity services provide the reliable connectivity to monitor and automate processes, delivering efficiencies, while reducing risks to the environment and to people.

## Global reliability, increased safety and efficiency

The ELERA network is trusted by governments and companies the world over because of its security credentials. It also provides 99.9% uptime in any continental location where extractive industries operate. This reliability means critical data, from test reports to images and video, gets where it's needed in real-time. ELERA IoT connectivity services are easily deployed in the field, with robust terminals and weather resistant operations. Inmarsat's partner network is located across 60 countries, and with over twenty years of experience in the field, it can build the right solution for you.

## ELERA IOT IN ACTION

Inmarsat ELERA is helping organisations throughout the oil and gas sector to create and deliver cutting-edge IoT applications that are shaping the future of the industry and delivering tangible benefits today.

### Remote control of infrastructure

- When conducting operations in remote and/or inaccessible locations, increasing safety and efficiency is a key objective. ELERA IoT connectivity services enable IoT solutions to control and manage artificial lift, drill rigs, and oil pipelines – making difficult and potentially costly operations safer and more efficient

### Remote inspection

- UAV remote inspection, powered by satellite connectivity, dramatically reduces the need to travel to sites across the world to review assets, often in potentially hazardous conditions. This provides a positive environmental impact – saving fuel costs – but critically, supports a smarter and safer way of working

### Environmental monitoring

- A sustainability agenda is only as effective as the data it can measure. That's why accessing green energy performance and analysing the data in real time, through IoT-enabled innovations, is critical to achieving sustainability KPIs

## Case study

# HARVEST TECHNOLOGY



Customers turn to Harvest Technology Group to stay connected in real-time with their remote operations anywhere in the world. Harvest's Network Optimised Livestreaming solutions provide secure high-definition video, audio, and data while cutting data usage over existing networks by up to 80%. Staying connected to remote operations in real-time means faster decision making to resolve field issues quicker and more cost-effectively while decreasing exposure to health and safety risks.

Harvest Technology Group's Network Optimised Livestreaming provides:

- Livestreaming 30 frames per second HD video, high-res images, two-way communications, and data in real-time, eliminating the struggle with signals that can barely carry traffic
- Data transmission over ultra-low bandwidth maximises connection performance on your existing network
- Proprietary video encoding and decoding technology delivers market-leading compression of signals
- Network self-healing error correction algorithm stops data loss and minimises latency across even the most inconsistent connections

*Harvest Technology provides the 'eyes and ears' to our customers working in some of the world's most remote and dangerous locations – not only increasing efficiency, but also keeping people out of harm's way. Connectivity from Inmarsat ELERA is key to our solution working.*

**Paul Guifoyle**  
Group Chief Executive Officer,  
Harvest Technology Group



Discover how ELERA IoT can help support your IoT objectives  
[www.inmarsat.com/oilandgas](http://www.inmarsat.com/oilandgas)

# ELERA IOT IN TRANSPORT AND LOGISTICS

Inmarsat's ELERA network was designed for connecting mobile assets and stands head and shoulders above the competition in connecting the multi-modal supply chain. Our connectivity enables the real-time visibility of moving assets wherever they might be, supporting the drive toward efficient, sustainable and safe operation. In the rail sector, ELERA IoT connectivity services are found on thousands of locomotives making the most critical journeys through remote regions, carrying people and things.

Multi-modal logistics companies trust us to track vehicles and other assets on land when terrestrial networks are not able to keep them connected. Need sea and air coverage too? We've got you covered.

## Reliable, safe, agile

The ELERA network ensures that all data producers can share their insight with your business across the multi-modal supply chain on land, sea and air. It offers global availability, government-grade security and a market-leading 99.9% availability. With a global network spanning 60 countries, our expert partners build solutions based on the specific needs of moving assets.

## ELERA IOT IN ACTION

Inmarsat ELERA is helping transport and logistics organisations create and deliver cutting-edge IoT applications that are both shaping the future of the industry and delivering tangible benefits today.

### Fleet management

- IoT-connected devices significantly enhance real-time visibility. This improves safety and fleet management by accurately identifying where transport assets are at any time, understanding fuel usage and providing feedback on whether drivers are adhering to safety procedures, as well as broader driver behaviour
- Our global coverage enables companies to take their assets anywhere and have the reassurance they will be covered

### Supply chain visibility and tracking

- In an increasingly complex supply chain, the extra visibility IoT offers – tracking items in real time – is a boon for many industries. By understanding and monitoring optimal transport conditions, quality can be assured for even the most perishable items such as foodstuffs or medicine cold chains
- A connected supply chain offers greater traceability, helping to manage inventory more effectively – and avoiding wastage

### Telemetry and advanced signalling systems

- Providing ultra-reliable coverage, either as a primary or back-up bearer, enable crucial signalling and train control applications including ERTMS, CBTC and more
- ELERA IoT connectivity services support remote voice communications with drivers and enable more autonomous applications, helping usher in increased use of driverless systems to further increase cost and operational efficiencies

## Case study

# RUMO

Brazilian rail logistics company, Rumo, joined forces with Globalsat Group, Inmarsat and our partner Cobham, in an attempt to realise improvements in operational efficiency. Thanks to the speed of communication and enhanced reliability of connectivity, Rumo now has greater visibility over its assets and infrastructure through an ELERA IoT-enabled solution.

- Since implementing the satellite-enabled solution, the team has gained access to real-time data and voice communications between the driver and the Operations Control Centre (CCO)
- The solution enables the accurate, real-time tracking of each train on the Rumo network, as well as reliable voice and data communication between drivers, maintenance teams and the CCO
- Rumo has saved millions of Reais in not having to install a fibre network and by being able to safely add more locomotives to their rail network



*The connectivity offered by the new solution makes cargo transportation by rail more efficient and safer. With the locomotives properly equipped, we will have a flow of information in real time, facilitating communication with all links in the operation and increasing the productivity of the logistics system.*

Darlan Fábio De David  
Vice President of Operation Norte at Rumo



Discover how ELERA IoT can help support your IoT objectives  
[www.inmarsat.com/transportandlogistics](http://www.inmarsat.com/transportandlogistics)

# INTRODUCING OUR APPLICATION AND SOLUTION PROVIDER PROGRAMME

Looking for a solution built by an industry innovator on the world's most reliable satellite network for IoT? Our Application and Solution Provider Programme (ASP) is the marketplace for IoT solutions that work anywhere. Constantly expanding, we are working with new solution providers across agriculture, electrical utilities, mining, oil and gas and transport and logistics.

## JOIN THE ASP PROGRAMME

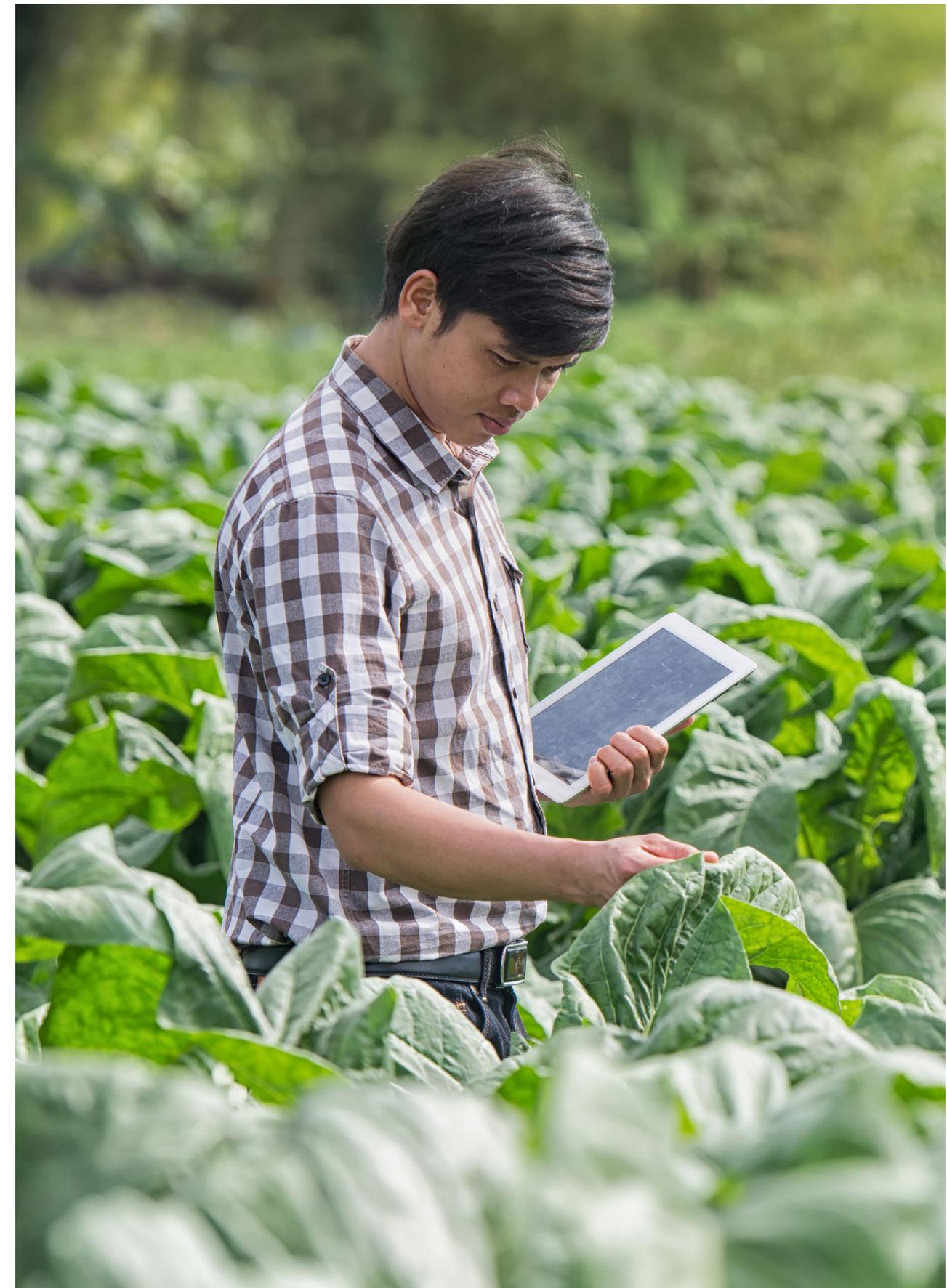
We collaborate with Application and Solution Providers (ASPs) around the world that would benefit from Inmarsat ELERA's industry-leading satellite connectivity, global reach and technical and commercial expertise. The ASP Programme will accelerate the availability of IoT solutions across commercial land markets by providing connectivity and a support framework to innovators.

Whether ASPs provide digital solutions for crop monitoring, irrigation management, rail telemetry, or other remote communication needs, this programme helps our collaborators to future-proof industry-relevant products and services, accelerate time to market and, potentially, reduce development costs.

## BENEFITS OF THE ASP PROGRAMME

- Reliable global connectivity will enable anyone to scale products and services across commercial land markets
- Gain access to expert sales and marketing support from Inmarsat and our distribution partners
- Get technical support to help get the most out of our satellite connectivity
- Access to loan hardware
- Open relationships with our developer portal
- Access and promotion to our global partner channel
- Use of the Inmarsat ASP brand in your marketing materials

Learn about the solutions our ASP partners offer, or join our programme here:  
[www.inmarsat.com/ASP-Programme](http://www.inmarsat.com/ASP-Programme)



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