



HEXAGON

empowering an autonomous, sustainable future

Corporate Presentation

I. Introduction

Empowering an autonomous future (video)
Global leader in digital reality solutions
Is data holding you back or setting you free?
The digital reality feedback loop
The Smart Digital Reality™

II. Story

Hexagon in brief
Innovation at scale
Relevancy that is vital
Stability that is proven
Sustainability integral to strategy

III. Sustainability

Our sustainability impact
Driving sustainable change through our solutions
Driving sustainable outcomes through our actions

IV. Solutions

Solutions that drive sustainable value creation in complex ecosystems:

- Autonomous Mobility ecosystem
- Buildings ecosystem
- Cities & Nations ecosystem
- Defence ecosystem
- Farms ecosystem
- Industrial Facilities ecosystem
- Infrastructure ecosystem
- Manufacturing ecosystem
- Mines ecosystem

V. Approach

Contributors to our vision and mission
Shared purpose

I. Introduction



Empowering an autonomous future

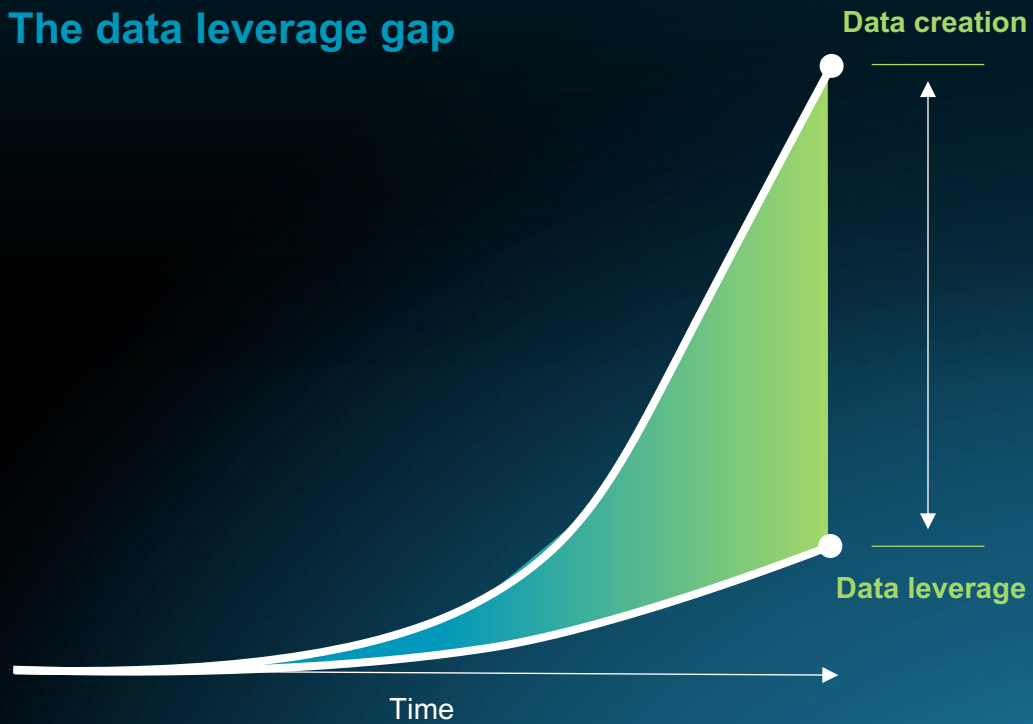
Global leader in **digital reality solutions**
that are empowering an autonomous, sustainable future by putting data to work



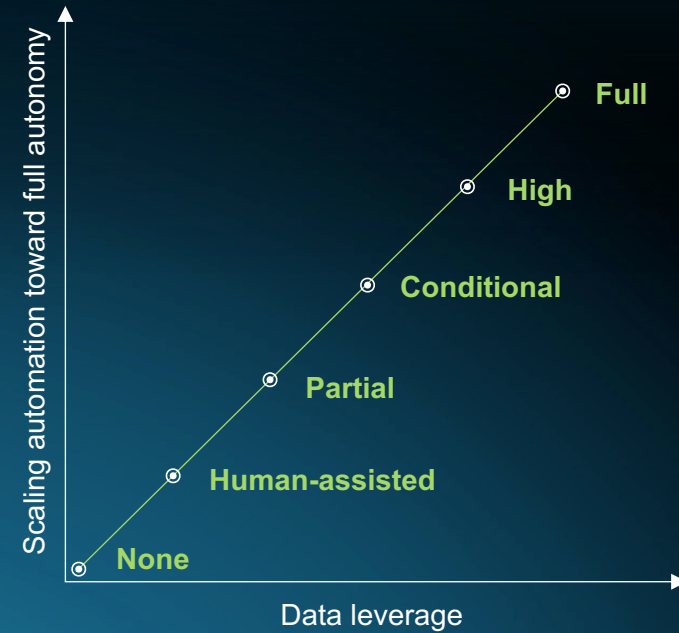
Is data holding you back or setting you free?

Autonomous leverage of data frees us from the constraints that impede sustainable growth

The data leverage gap



Autonomous leverage of data



The digital reality feedback loop

Hexagon's core technology competencies enable a digital reality feedback loop – creating freedom of insight so you can be proactive, preventative and event-predictive

Reality Capture

Digital capture of the physical world



Positioning

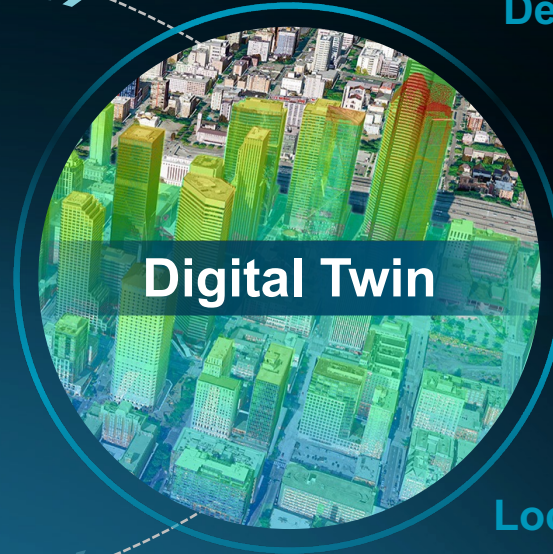
Location, tracking, navigation and/or control of anything, anywhere

Autonomous Technologies

Automation of any task, workflow, machine or decision – enabling action without human intervention

Design & Simulation

Design and replication of real-world scenarios

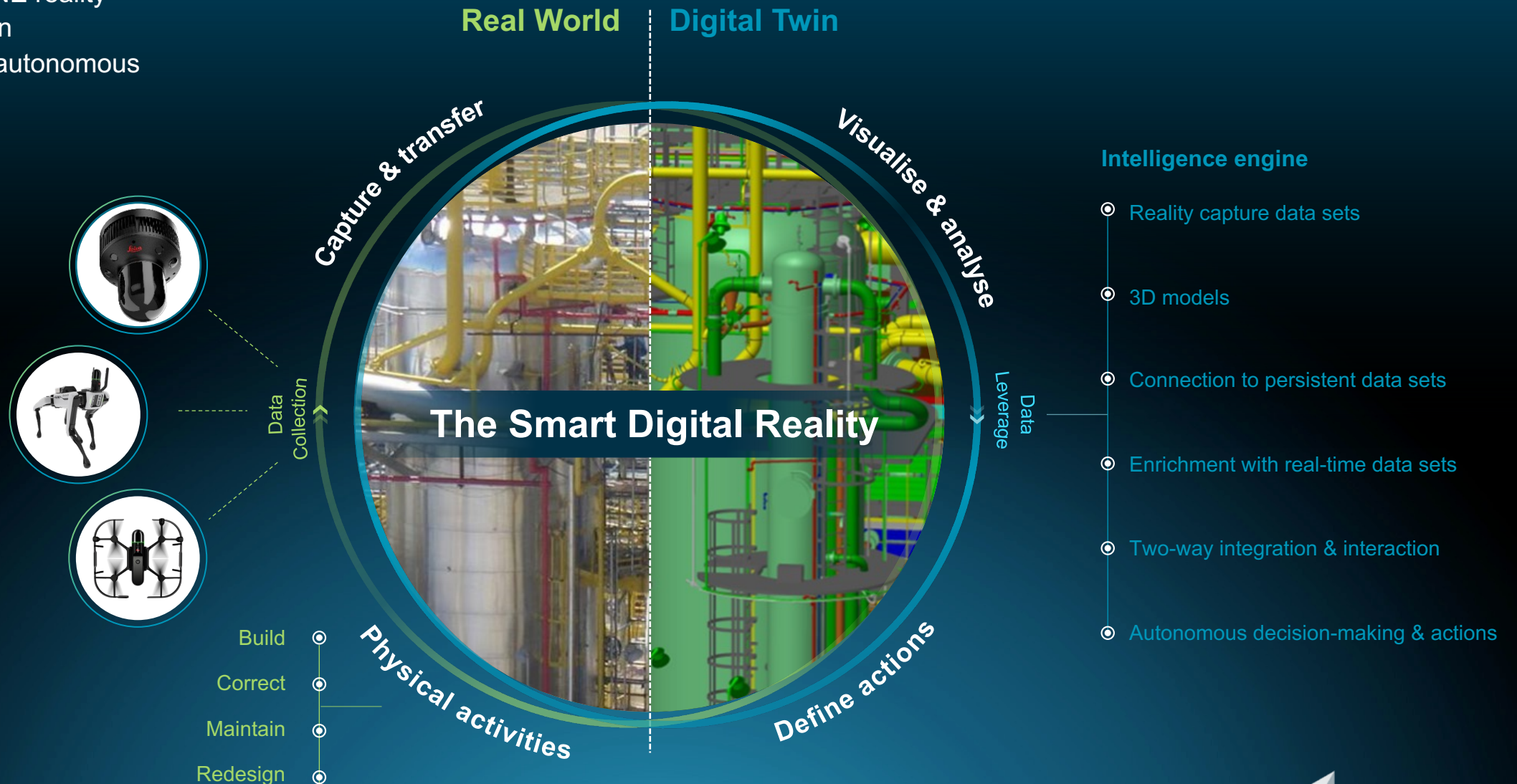


Location Intelligence

Active, geo-referenced intelligence of real-world situations

The Smart Digital Reality

Two worlds, ONE reality
Workflow-driven
Real time and autonomous



II. Story

Hexagon in brief



INNOVATION at scale

15% of revenues for R&D
6,500+ R&D employees
5,500+ active patents
Complementary emerging tech
through acquisitions (170+ in 20+ yrs)



RELEVANCY that is vital

Serving manufacturing,
infrastructure, construction, city
services and more
Solutions that drive fewer inputs,
less waste and less pollution from
efficiency, productivity, quality
and safety gains



STABILITY that is proven

€500mn (2000) to €5.4bn (2023)
Approximately 24,500 employees
across 50 countries
Increasing role in customers'
businesses



SUSTAINABILITY integral to our strategy

Committed to driving profitable
business value that ensures
economic growth, but not at the
expense of the planet or people

INNOVATION

at scale

Powered by Xalt.
Brought to you by Hexagon.

A proprietary platform that underpins Hexagon's solutions to fast-track the ability to harness data and extract its full value

- Manage unlimited data inputs from all kinds of sensors
- Erase data access and interoperability barriers
- Turn data into visualisations for faster insights
- Put data to work autonomously



RELEVANCY

that is vital

Manufacturing related

Aerospace	General manufacturing
Automotive	Healthcare & life sciences
Consumer products	Heavy machinery & equipment
Electronics	Shipbuilding

Urban & government services related

Defence	Transportation
Government	Utilities & communications
Public safety	

Energy & resources related

Agriculture	Forestry
Chemicals	Mining
Energy & power generation	Oil & gas

Construction related

Buildings
 Heavy construction for industrial facilities
 Heavy construction for infrastructure
 Surveying

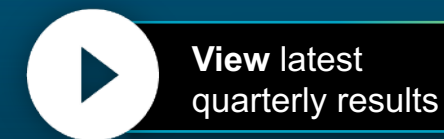
**Broad and deep
 industry
 expertise**

Additional

Education & research	Marine positioning
Engineering services	Other...
Mapping & geospatial content	

STABILITY

that is proven



Growth and market cap facts

	2000	2023
Revenues	~500mn EUR	5.4bn EUR
Market cap (at FYE)	169mn EUR	27.3bn EUR
EBIT	6.0%	29%
Employees	~4,000	~24,500
Countries	17	50

Headquartered in Stockholm, Sweden and traded on NASDAQ Stockholm (HEXA B)

2022-2026 financial targets



5-7%
Average
organic growth
per year



>30%
EBIT

8-12%
Average total
growth per
year



3-5%
Average
growth from
M&A per year



SUSTAINABILITY

integral to our strategy

Since 2000

Creating continuous and meaningful improvements toward a more sustainable future via our solution portfolio

Last 10 years

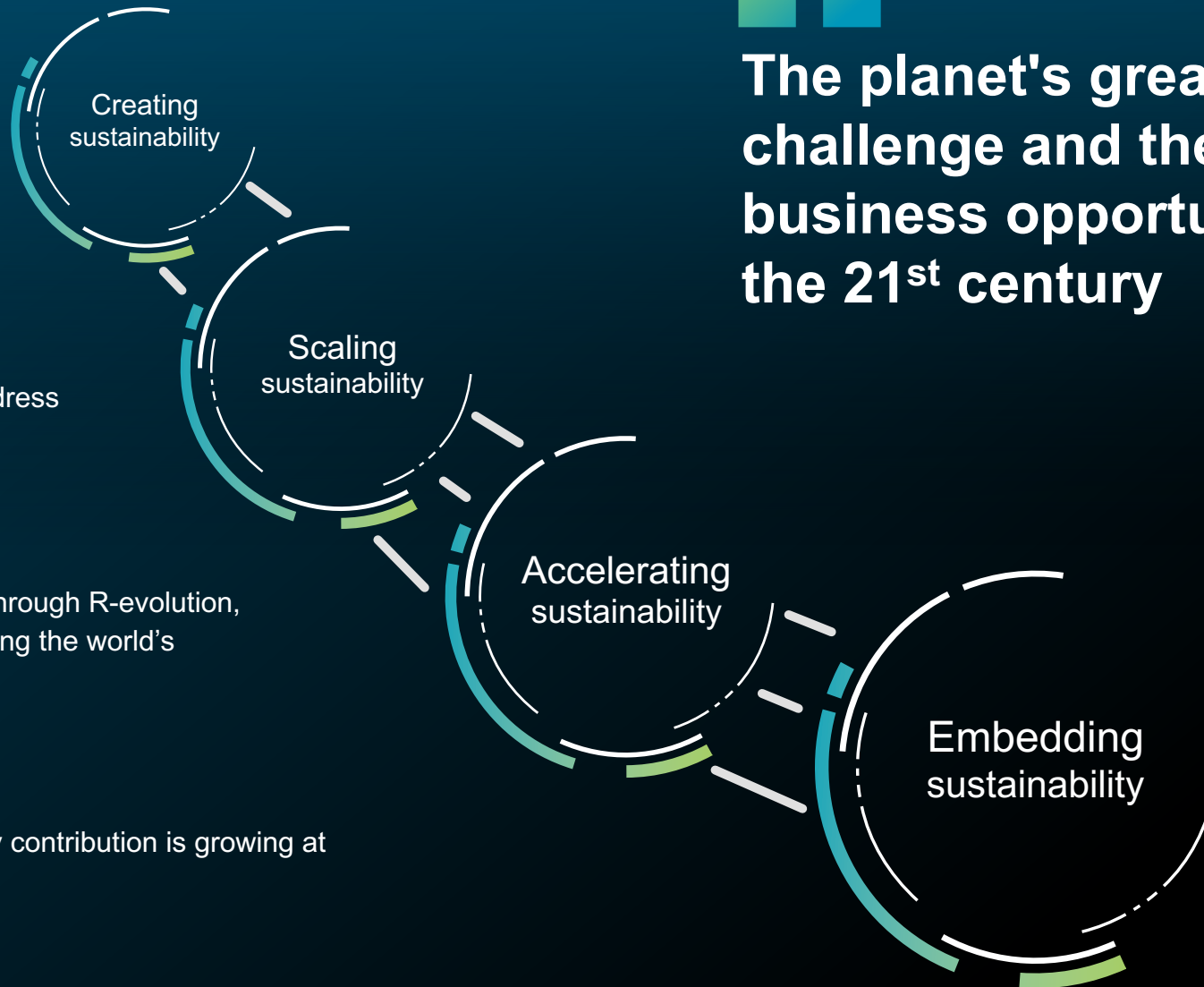
Portfolio expansion and innovation to better address the urgent needs of green-tech markets

2021—a pivotal year

Further scale and accelerate our commitment through R-evolution, a business venture 100% focused on accelerating the world's sustainable transition using our technology

Today and beyond

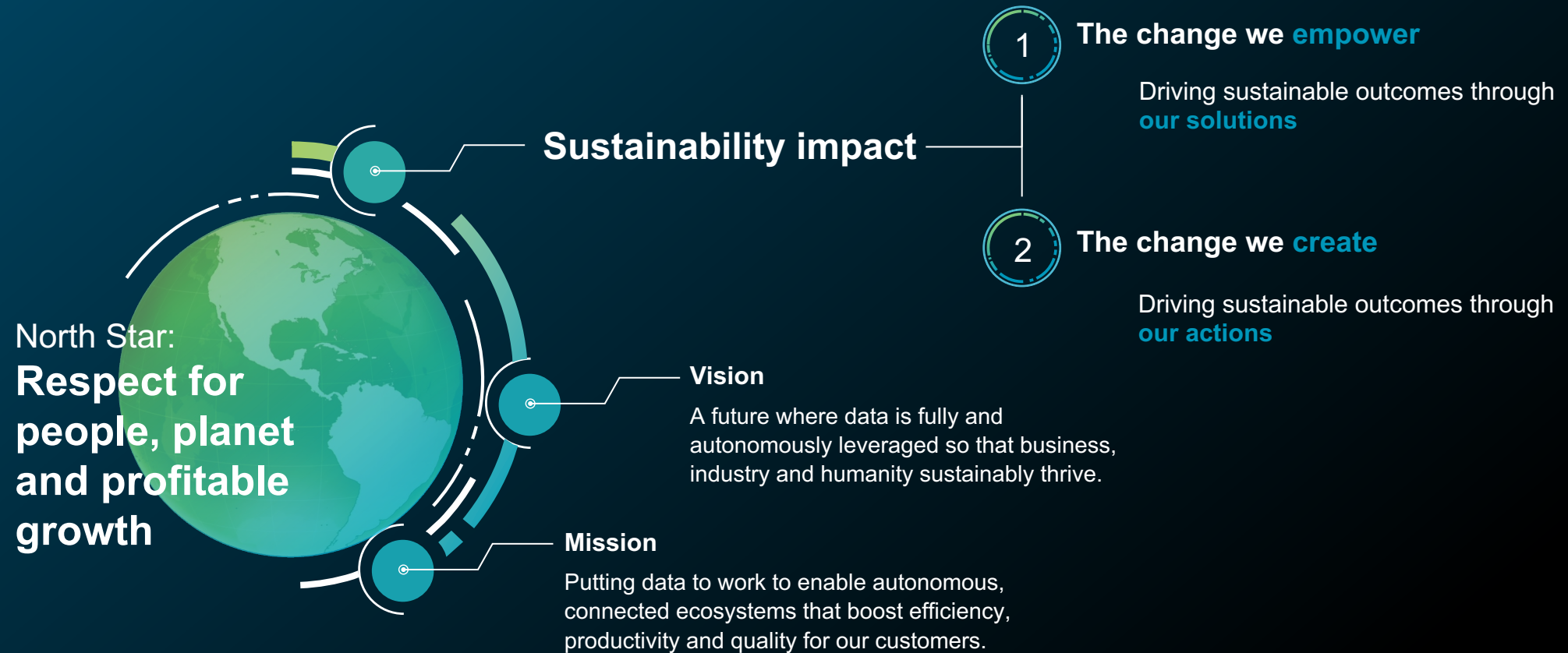
We are committed to ensuring our sustainability contribution is growing at an increasingly faster rate



The planet's greatest challenge and the biggest business opportunity of the 21st century

III. Sustainability

Sustainability strategy



Sustainability strategy

1 Change we empower

Enabling sustainability through our solutions

- Sustainability criteria in product innovation
- Innovations to optimize efficiency, productivity, quality, and safety at scale

Empowering other stakeholders to accelerate change

- Engaging Industry specific platforms
- Distribution Partners Program
- Accelerating green-tech with R-evolution

2 Change we create

Improving sustainability across our value chain

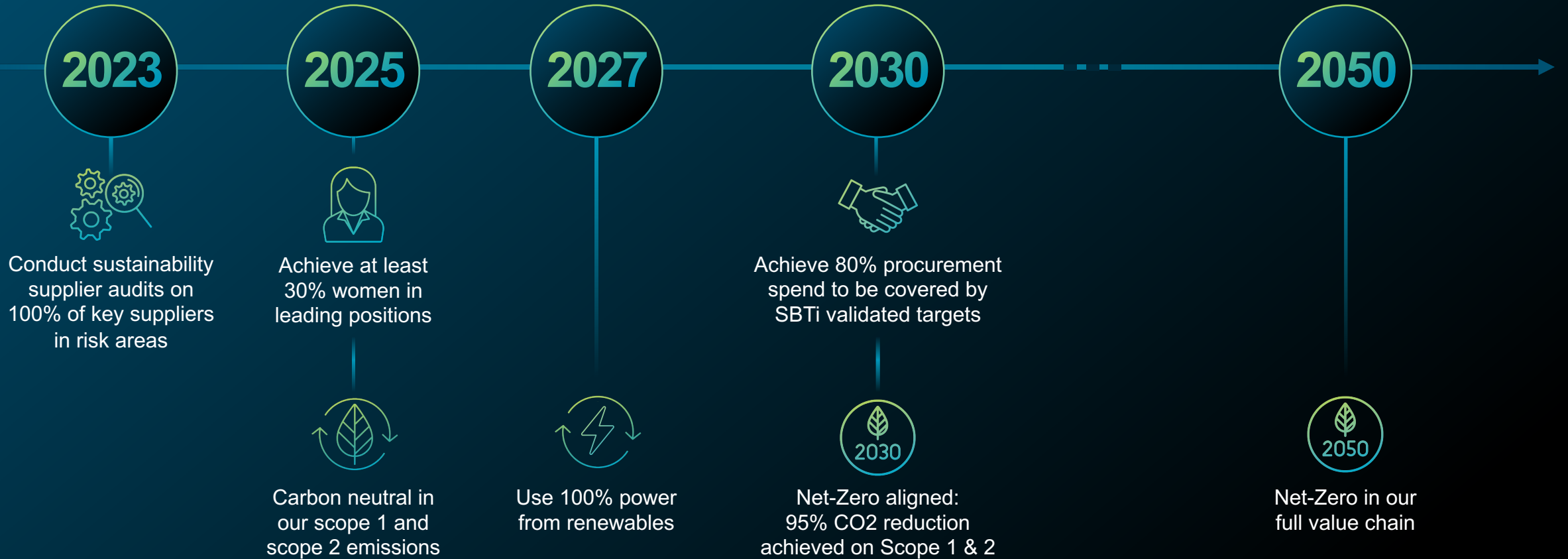
- Division specific Net-Zero Roadmap
- Resource efficiency improvements
- Sustainable Procurement Program

Driving sustainability through our culture and our people

- Inclusive and performance driven culture
- Social Responsibility through education and partnerships



Sustainability commitments



Driving sustainable outcomes through *our solutions*



IV. Solutions

Solutions that drive sustainable value creation in the world's most complex ecosystems

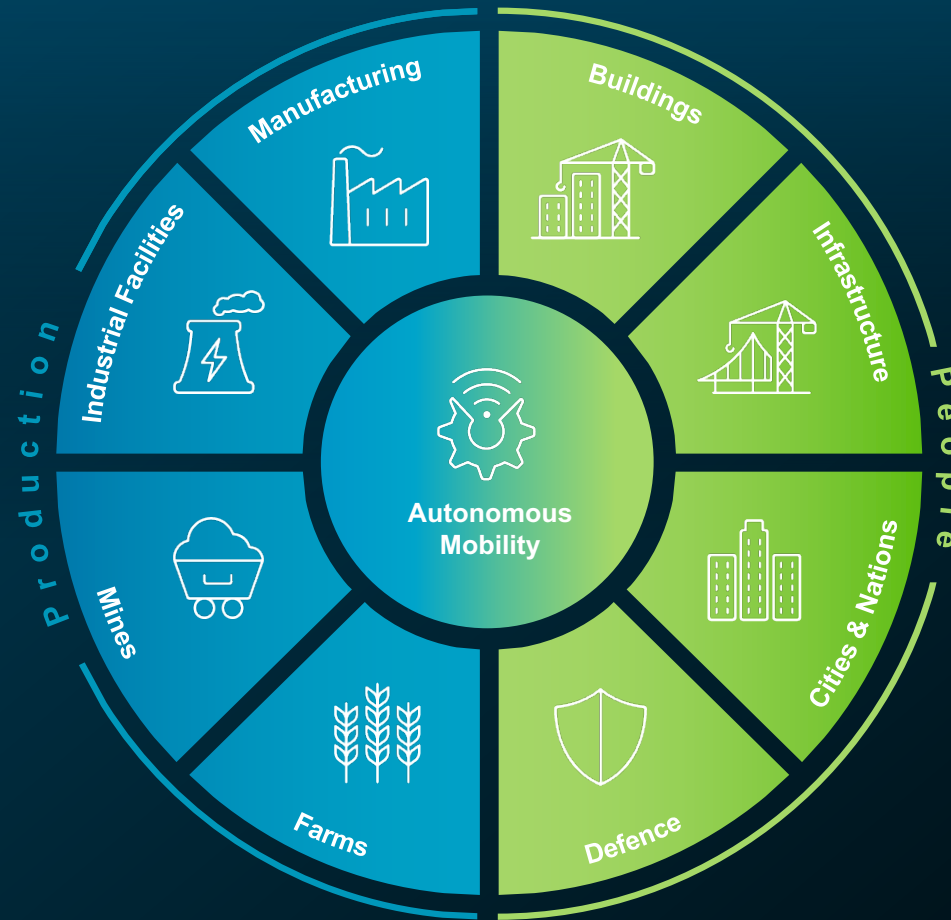
Production ecosystems

Solutions for the complete lifecycle of:

- discrete manufacturing
- complex industrial plants and ships
- open pit and underground mines
- agricultural crops and forests

Solutions that accelerate the R&D and deployment of autonomous mobility applications, including:

- off-road vehicles and equipment
- marine vessels
- drones
- robotics



People ecosystems

Solutions for the complete lifecycle of:

- vertical structures
- large-scale engineering projects

Solutions for ensuring:

- public safety
- economic vitality and quality of life for citizens
- security and defence of nations

Solutions that accelerate the R&D and deployment of autonomous mobility applications, including:

- on-and-off-road vehicles and equipment
- drones
- robotics

Autonomous mobility ecosystem

Digital reality solutions that accelerate the R&D and deployment of autonomous mobility applications, including:

- on-and-off-road vehicles and equipment
- marine vessels
- drones
- robotics

Did you know?



Hexagon has delivered more safe, reliable autonomous driving research vehicles than any other company in the world.

Human driving—causes 94% of traffic accidents

Autonomous vehicles—increase mine productivity by 30%

Autonomous robotics—reduce consumption of agrochemicals by 90% and improve yield by 5-10%

Autonomous mobility ecosystem

Hexagon's solutions are critical to capturing, connecting and fusing the vast amounts of data required to deliver the world's safest, most advanced autonomous mobility solutions for on- and off-road vehicles and equipment, marine vessels, drones, robotics and more.

Enabling solutions—Autonomous mobility research and development platforms that enable automation functionality across a diverse set of control systems and industrial applications.

Accelerating solutions—Autonomous mobility testing that creates a seamless workflow between real-world and simulated environments to accelerate, optimise, verify and validate billions of test drive kilometres and real-world scenarios.

Deployment solutions—Autonomous mobility research and development platforms that enable automation functionality across a diverse set of control systems and industrial applications.

Hexagon's
sustainable
value
creation



Buildings ecosystem

Digital reality solutions for the complete lifecycle of vertical structures, ensuring that:

- projects are optimised to reduce rework and build to plan – on time and on budget
- human and material resources are protected throughout the life of the asset

Did you know?



Hexagon's technology helped construct the world's tallest building, the Burj Khalifa, in Dubai at 829.8 meters (over a half mile high).

13,000 buildings per day—the number of buildings that must be built per day to keep pace with population and urban growth

Sustainability diet needed—#1 consumer of global raw materials is the construction industry

Energy and climate change—40% of global greenhouse gas emissions are attributable to our built environment

Buildings ecosystem

Hexagon's solutions are changing the way buildings are planned, designed, constructed and utilised—ensuring data is captured, connected, visualised and updated throughout the lifecycle to deliver better performance and lower environmental impact and at a lower cost.

Design phase—Capture an accurate digital reality of a building site's existing conditions, features and positioning to help digitally design initial concepts that minimise inputs and reduce waste during the project.

Plan phase—Transform your vision and design into a plan of action, digitally mapping out every detail for the construction phase including materials, scheduling and cost.

Build phase—Orchestrate the construction process more simply, creating a model of productivity and efficiency with higher quality, fewer reworks and less waste while ensuring worksite safety.

Operate & maintain phase—Leverage all data from design, plan and build phases, to create a Smart Digital Reality that delivers full transparency to every element of the completed building to optimise operations, maintenance, safety and resiliency.

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Cities & nations ecosystem

Digital reality solutions for the complex systems of enabling governments, industry and citizens to work together to build safe and vibrant communities that promise:

- public safety
- economic vitality and quality of life for citizens

Did you know?



Hexagon's public safety solutions protect almost 1 billion people on the planet.

Deep impact—cities occupy just 3% of the Earth's land but account for up to 80% of energy consumption, waste and carbon emissions

Cities can save the world—achieving up to 40% of the emissions reductions necessary to limit global warming to 1.5 °C

900 million people—by most conservative estimates reside in poor living conditions

Cities & nations ecosystem

Hexagon's solutions make cities and nations safe, resilient, agile and sustainable while reducing their total operating cost by connecting mission and business-critical data to make timelier, well-informed decisions.

Industrial and commercial resiliency—Forge safer industrial and commercial facilities with scalable surveillance, security and incident management capabilities.

Mapping solutions—Leverage location intelligence with solutions that capture, visualise, analyse and derive insights from location data to address a variety of urban and national challenges.

Public administration solutions—Easily share data for census, cadastral management, public works and interagency situational awareness with cloud-based applications and collaborative solutions.

Public safety solutions—Improve the quality, accuracy and availability of critical information with integrated technology solutions that enhance public safety and security performance and productivity.

Transportation solutions—Deploy intuitive, integrated solutions for roads, railways, aviation and maritime to ensure effective planning and operations and enhance safety with minimal disruption.

Utilities and communications solutions—Achieve greater network service reliability, enhance integrity, increase efficiency and fulfil the expectations of utility stakeholders with Hexagon's location-based technologies.

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Defence ecosystem

Digital reality solutions for the complex systems that ensure:

- security and defence of nations
- constant situational and strategic awareness – autonomously and securely

Hexagon's solutions improve situational awareness, making troops safer, and improving operational resilience for defence organisations worldwide.

Increased defence—military spending in 2020 reached €1.71 trillion, compared to €98 billion in 2001 (adjusted to 2019 prices)

Global C4ISR demands continue—market size in 2019 was €101 billion and is expected to climb to €120 billion by the end of 2026

Jamming and spoofing on the rise—over 7,900 ships have experienced GPS outages connected to spoofing activity since 2016

Did you know?



Defence ecosystem

Whether operating in hostile environments, monitoring rapidly evolving events or ensuring security during peaceful times, Hexagon's defence technology solutions help leverage and transform complex data into timely, accurate and actionable information.

Administration solutions—Build safe and resilient bases and facilities with scalable computer-aided dispatch (CAD), security software and reality capture systems, including surveillance sensors.

APNT (Assured positioning, navigation and timing)—Ensure resilient and robust positioning, navigation and timing through anti-jamming and anti-spoofing technologies critical to prevail in contested environments.

C4ISR solutions—Deploy high-performance visualisation and analysis applications for C4ISR across air, land, sea and joint battlefield operations and command centre strategies.

Mapping solutions—Leverage end-to-end mapping solutions that improve workflows, with integrated capabilities for geospatial data collection and management, map production and information-sharing.

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Farms ecosystem

Digital reality solutions for the complete lifecycle of agricultural crops and forests, enabling farms to cultivate data in ways that:

- optimise inputs
- drive higher yields while lowering costs

Did you know?



Hexagon is working to lower the impact of nearly one-quarter of the world's greenhouse gases that are generated by agriculture, forestry and land use changes by putting data to work.

Farming the planet—food production takes up almost half of the planet's land surface and threatens to consume the fertile land that remains



Farms

Hexagon's solutions improve coordination and management of cultivation and harvest logistics, assure GNSS positioning for precision farming and deploy new autonomous capabilities. The result: produce more with fewer inputs, sustainably and profitably.

Automation and autonomy—Adopt turnkey automation and positioning solutions — from machine control to fully autonomous — that reduce inputs, optimise yields and assure safety-critical operations while ensuring sustainability and resiliency across crop lifecycles.

Data management, logistics and analysis—Leverage data across the entire crop lifecycle of agricultural and forestry operations — from preparation to planting, cultivation to harvest — to ensure efficient field operations that align to plan and optimise yield and maximise profitability.

OEM Solutions—Integrate field-ready advanced technologies for OEMs, including GNSS assured positioning and correction services for precision farming, machine controls and visualisation for analysis and planning.

Planning and optimisation—Overcome the inherent challenges of planning across multiple time horizons with Hexagon's unique approach to smart farming that optimises agricultural and forestry land use, workflows, equipment and processes to increase productivity and yield, and minimise waste.

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Industrial facilities ecosystem

Digital reality solutions for the complete lifecycle of complex industrial plants and ships, enabling industrial assets to:

- ramp up quickly
- operate safely and reliably throughout a more sustainable, longer-term lifespan

Did you know?



Hexagon's technologies are driving efficiency for more than half of all oil, gas and chemicals processed around the world.

Oil & gas companies—with vast amounts of semi-structured data on hand, are using less than 1% of it

Oil demand—slated to peak by 2030 at about 100 million barrels per day

Global power—electricity demand is growing almost twice as fast as total energy demand

Industrial facilities

Hexagon’s solutions are enabling customers to leverage data throughout the asset lifecycle—transforming industrial facilities into lean, efficient, safe operations that improve the bottom line while assuring a sustainable future.

Design phase—Transform the project vision into a Smart Digital Reality with Hexagon’s design and engineering software that is the gold standard for precision and ease of use.

Plan phase—Capture an exact digital twin of a site’s existing conditions, features and precise location to facilitate digital design concepts that drive efficiencies and reduce waste throughout the asset lifecycle.

Build phase—Orchestrate a construction project that is a model of productivity and efficiency — achieving the highest quality while avoiding rework and waste.

Operate & maintain phase—Leverage data from the planning, design and build phases to create an operational twin: a smart, digital reality that connects people, processes and events throughout the entire industrial facility lifecycle.

**Hexagon’s
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Infrastructure ecosystem

Digital reality solutions for the complete lifecycle of large-scale engineering projects, ensuring that:

- projects are optimised to reduce rework and build to plan — on time and on budget
- human and material resources are protected throughout the life of the asset

Did you know?



Hexagon's solutions helped build the world's longest railway tunnel (Gotthard Base Tunnel, Swiss Alps) and the world's widest suspension bridge linking two continents (Yavus Sultan Selim Bridge, Istanbul).

Global infrastructure—investment needs will be €81\$94 trillion by 2040, averaging €\$3.7T 2T per year

Greenhouse gas emissions—are linked to approximately 70% of infrastructure construction and operations



Infrastructure

Hexagon's smart infrastructure solutions are putting data to work for the world's largest infrastructure projects, with data doing the heavy lifting to deliver projects faster, more profitably and with a lower impact on the environment.

Plan phase—Visualise the site above and below ground, digitally mapping out every detail for the construction phase, including time, materials, estimating, scheduling and cost.

Design phase—Digitally capture all the right distances and volumes that are key to construction performance, with accurate positioning and measurements integrated into the 3D model.

Prepare phase—Ensure that your infrastructure project is set up for success through careful site preparation. Our solutions can help with everything from site evaluation to preparing the machines — from underground utility detection to setting up GNSS corrections — and the effective mobilisation of your team and resources.

Construct phase—Maintain a data-driven approach to orchestrate the entire construction phase, creating a 3D model of productivity and efficiency — with higher quality, fewer reworks and less waste — while layering 4D cost and 5D BIM scheduling data throughout the project.

Operate and maintain phase—Empower asset owners and operators with solutions that go beyond smart infrastructure and provide 24/7 visibility into the operational twin to optimise safety and efficiency throughout all operations and maintenance while extending the life of the infrastructure asset.

Hexagon's
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100%
92%
89%

Manufacturing ecosystem

Digital reality solutions for the complete lifecycle of discrete manufacturing, enabling asset owners to:

- learn and adapt quickly to changing conditions in real time
- pursue perfect quality with optimised design, requiring fewer inputs and producing less waste

Did you know?



Hexagon's manufacturing technologies are used in:

95% of cars produced worldwide

90% of aircraft produced worldwide

80% of orthopaedic implants produced

75% of smartphones produced worldwide

98% of manufacturing organisations—report that a single hour of downtime costs over €100,000

Global CO₂ emissions—were a result of 17% of manufacturing in 2019

Manufacturing

Connect the vast manufacturing ecosystem via a Smart Digital Reality—a real-time 3D replica connecting product requirements with outcomes and enabling proactive corrective actions and maintenance while reducing waste and increasing productivity sustainably.

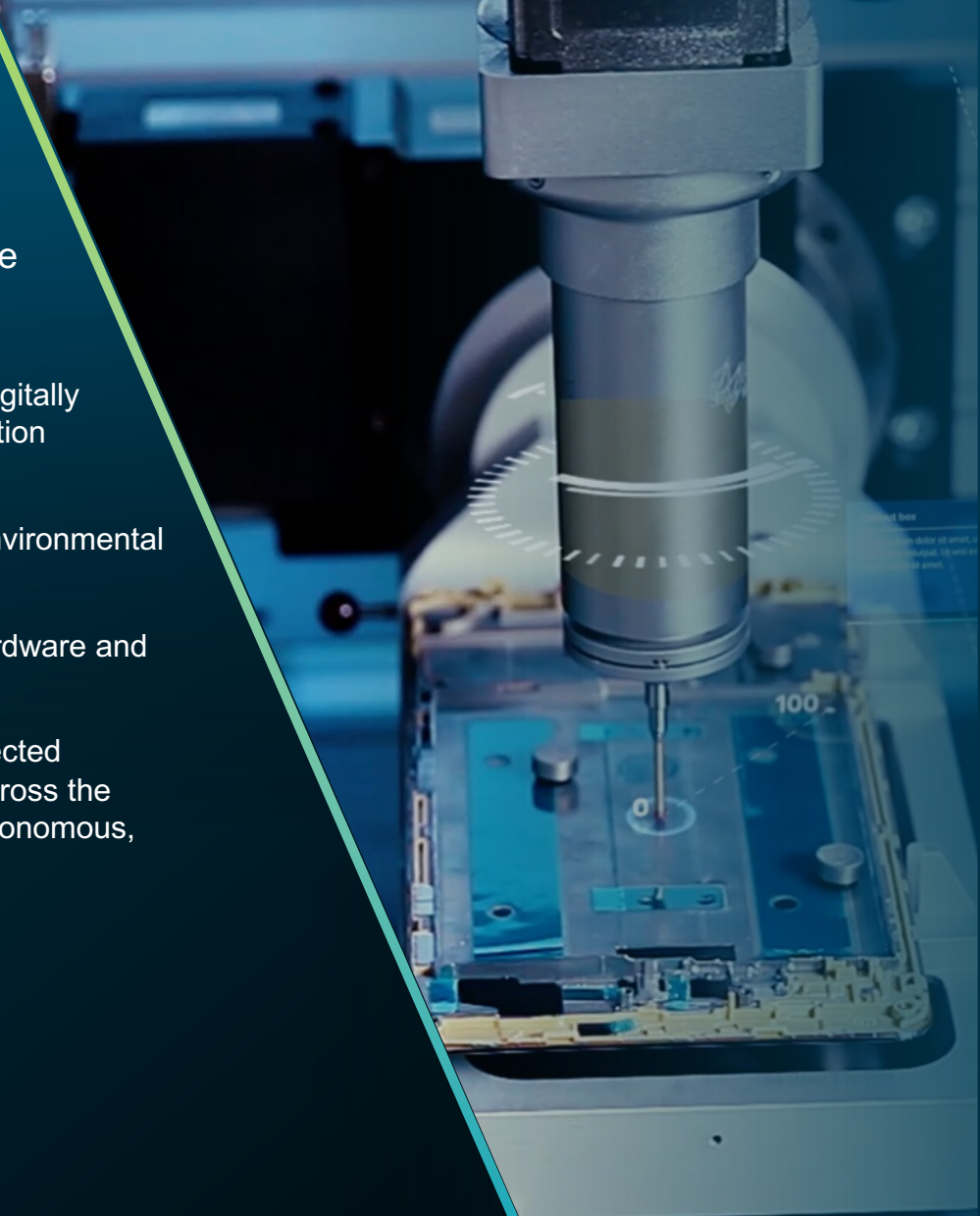
Design & engineering phase—With Hexagon’s innovations in manufacturing technology, users can digitally simulate and optimize product design and engineering to ensure component manufacturability, production productivity and output quality.

Production phase—Maintain a digital thread through production, optimize machine tools, measure environmental variances and prevent downtime with predictive data analyses.

Inspection phase—Automate and digitalise quality measurement with our world-leading metrology hardware and software, creating a bridge between the real and digital worlds.

Digital transformation—Deploy Hexagon’s sensor software systems to transform siloed and disconnected processes into an integrated, data-driven manufacturing ecosystem that captures and creates value across the product lifecycle, enabling new business models and automating workflows to become increasingly autonomous, efficient and sustainable.

**Hexagon’s
sustainable
value
creation**



Mines ecosystem

Digital reality solutions for the complete lifecycle of open pit and underground mines, enabling mines to:

- operate efficiently
- maximise safety
- minimally impact the environment

Did you know?

Hexagon's collision and avoidance systems protect 40% of mining sites worldwide.

12% of Global GDP—mining revenue is expected to reach \$2.4 trillion by 2025 with a CAGR of 7%

Energy and climate change—the world's move to clean energy is dependent on mines, with EV batteries increasing the demand for nickel 10-fold from 2018 levels

Diminishing returns—the net profit margin of the mining industry decreased from 25% in 2010 to 11% in 2020



Mines

Hexagon's life-of-a-mine solutions connect and leverage data from planning to operations—from safety to sustainable reclamation—making it possible for customers to extract 100% of a mine's potential value safely, sustainably and profitably.

Drill and blast—Calculate and analyse the efficiency of each step in the drill and blast process via a tailored feedback loop to ensure continuous improvement through accuracy and precision. **Exploration**—Empower the mine exploration process with the ability to store, manage and analyse drillhole data, perform geological interpretation of deposits and generate accurate block models.

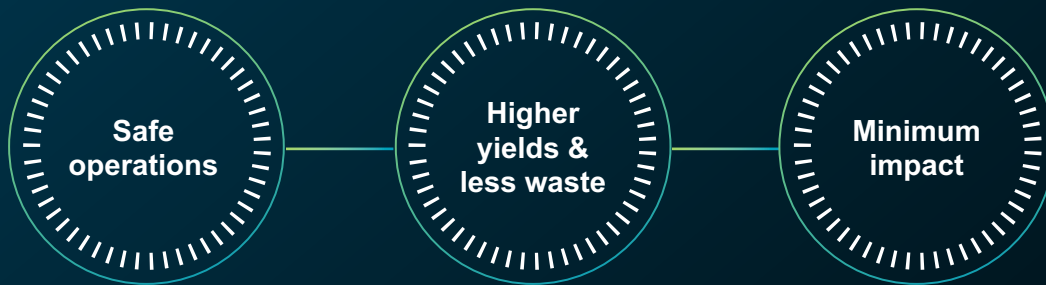
Exploration phase—Empower the mine exploration process with the ability to store, manage and analyse drillhole data, perform geological interpretation of deposits and generate accurate block models.

Material movement solutions—Execute successful material movement through planning, fleet management, safety and slope monitoring powered by integrated mining technology.

Planning solutions—Access powerful 3D modelling and simulation, data visualisation and planning software for geologists and engineers that supports seamless workflows from exploration to production.

Survey and monitoring solutions—Enable quick and informed decision-making with intelligent and comprehensive monitoring solutions that don't compromise on safety or productivity.

Hexagon's
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V. Approach

Purpose is good. Shared purpose is better.

We see customers as **co-creators** of the solutions we deliver.

Putting data to work to increase efficiency and productivity while simultaneously improving safety and quality is a purpose we share with you.



Thank you.



HEXAGON

empowering an autonomous future

