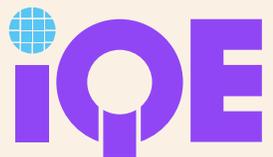


IQE Capital Markets Day

2022



**Architects
of tomorrow**

Disclaimer

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This presentation may contain forward-looking statements. Forward-looking statements can be identified as anything other than statements of historical fact contained in this presentation and by their nature are subject to uncertainty and risks. These statements are based on current expectations, estimates and projections about the factors that may affect our future performance, including global economic conditions, and the economic conditions of the regions and industries that are major markets for IQE plc.

These expectations, estimates and projections are generally identifiable by statements containing words such as “believes,” “estimates,” “targets,” “plans,” “outlook,” “on track,” “may,” “will,” “could,” “should” or similar expressions.

IQE plc faces risks and uncertainties, many of which are beyond our control, that could cause our actual results to differ materially from any forward-looking information disclosed in this presentation and which could affect our ability to achieve any or all of our stated targets or anticipated transactions.

Important factors that could cause such differences include, but are not limited to:

- business risks relating to macroeconomic and geopolitical matters;
- unanticipated costs, such as those associated with compliance activities;
- market acceptance of new products and services;
- changes in governmental regulations and currency exchange rates; and
- general market conditions.

Although IQE plc believes that the expectations, estimates and projections constituting any forward-looking statement in this presentation are based upon reasonable assumptions, it can give no assurance that those expectations will be achieved.

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Welcome



Christine Dunbar
Vice President, Global Sales



**Architects
of tomorrow**

Agenda

Strategic vision and market outlook

Americo Lemos, CEO

Market-led innovation

Rodney Pelzel, CTO

Break

Scaling for growth

Keith Anderson, COO

Financial vision

Tim Pullen, CFO

Q&A



**Architects
of tomorrow**

Strategic vision and market outlook



Americo Lemos
Chief Executive Officer



**Architects
of tomorrow**

The new normal

Sunak must bet big on our semiconductor industry – or we'll lose out to competition

'Tech cold war': rising tensions in the critical chip industry

\$2.4bn on joint chip with U.S.

The US-China chip war is reshaping tech supply chains

UK becomes first major economy to pass net zero emissions law

Biden to sign CHIPS act in bid to boost US over China

Europe

When the chips are down: global shortage to keep crimping carmakers

Climate crisis fuelling unseasonably warm October in UK and Europe, say experts

Leading the charge towards a competitive EV infrastructure

Chips on the table in new trade war

Invest Up to \$44 Bn to Beef Up EV Production

Sources: Financial Times, Wall Street Journal, The Guardian, The Times, The Independent, gov.uk



**Connectivity is
no longer optional**



**Architects
of tomorrow**

We are market-led

We will capture value for what we do

We will scale and grow the business



**Architects
of tomorrow**

Strategically positioned in the global value chain



Epiwafer production



Substrates
Base materials



Foundries
Device fabrication



Fabless
Design



Device makers
Device manufacture

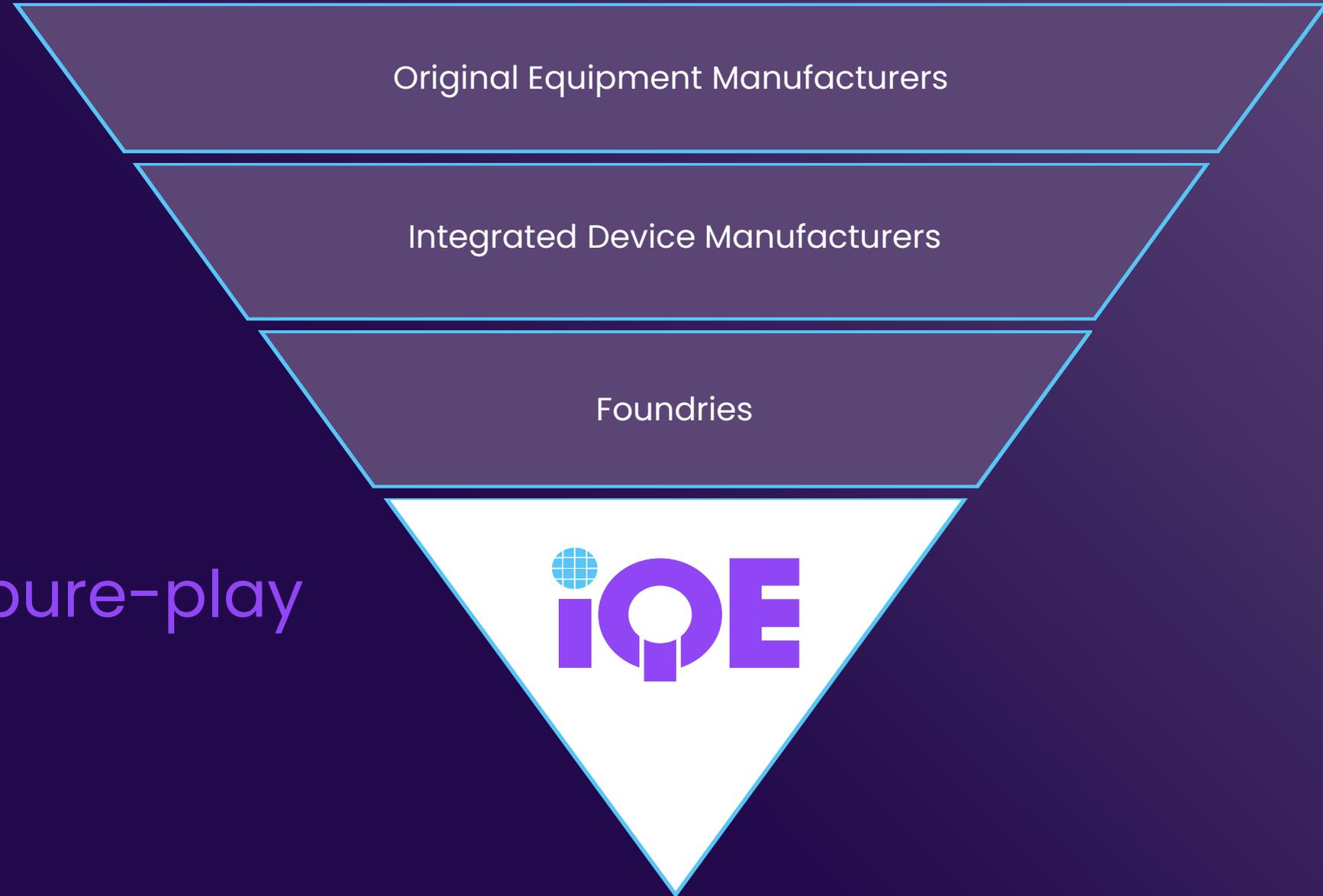
Growth Markets

Smart connected devices

Communications infrastructure

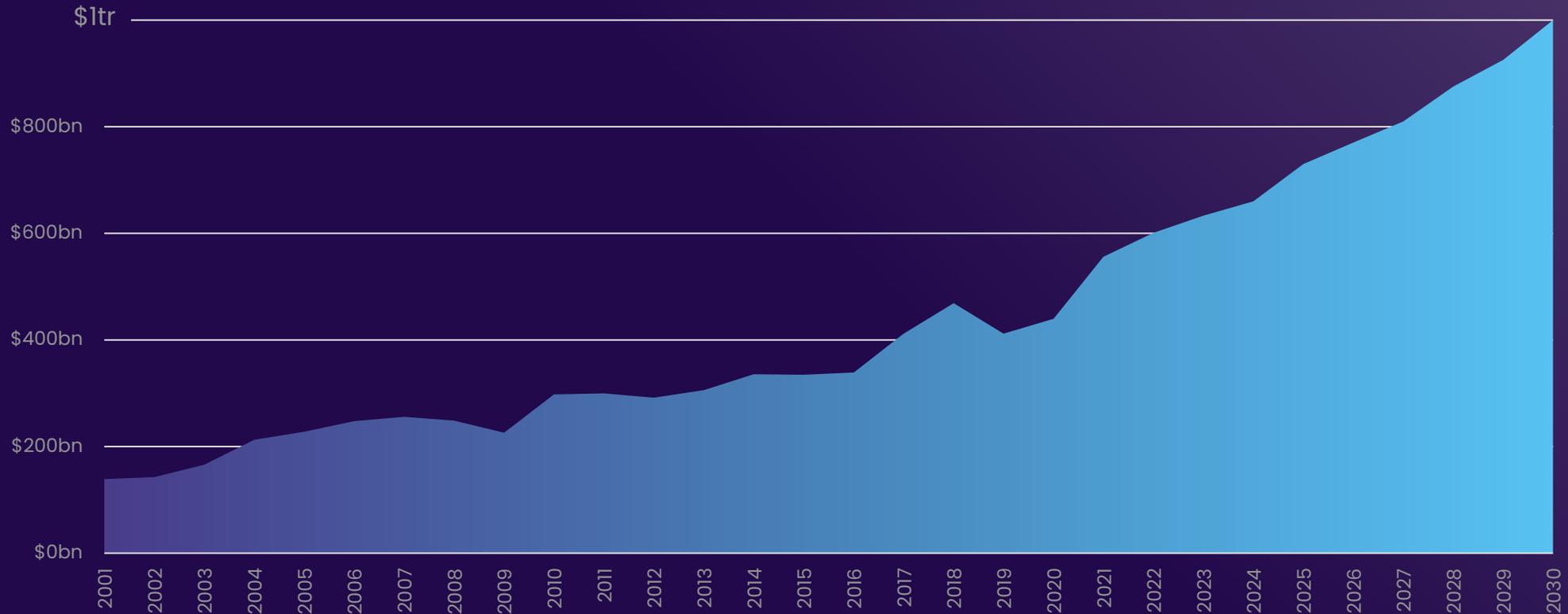
Automotive and Industrial

Strategically positioned in the global ecosystem



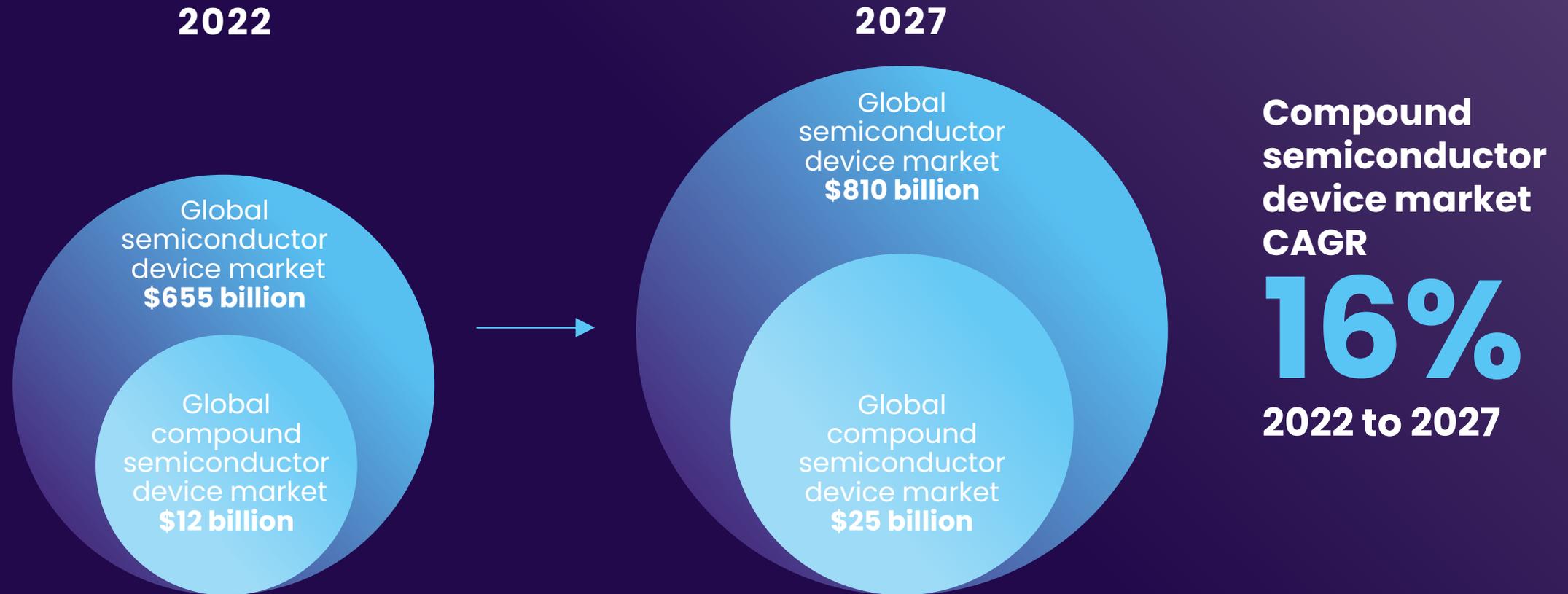
The only **global** pure-play epitaxy provider

Global semiconductor industry growth continues



Sources: SIA, McKinsey

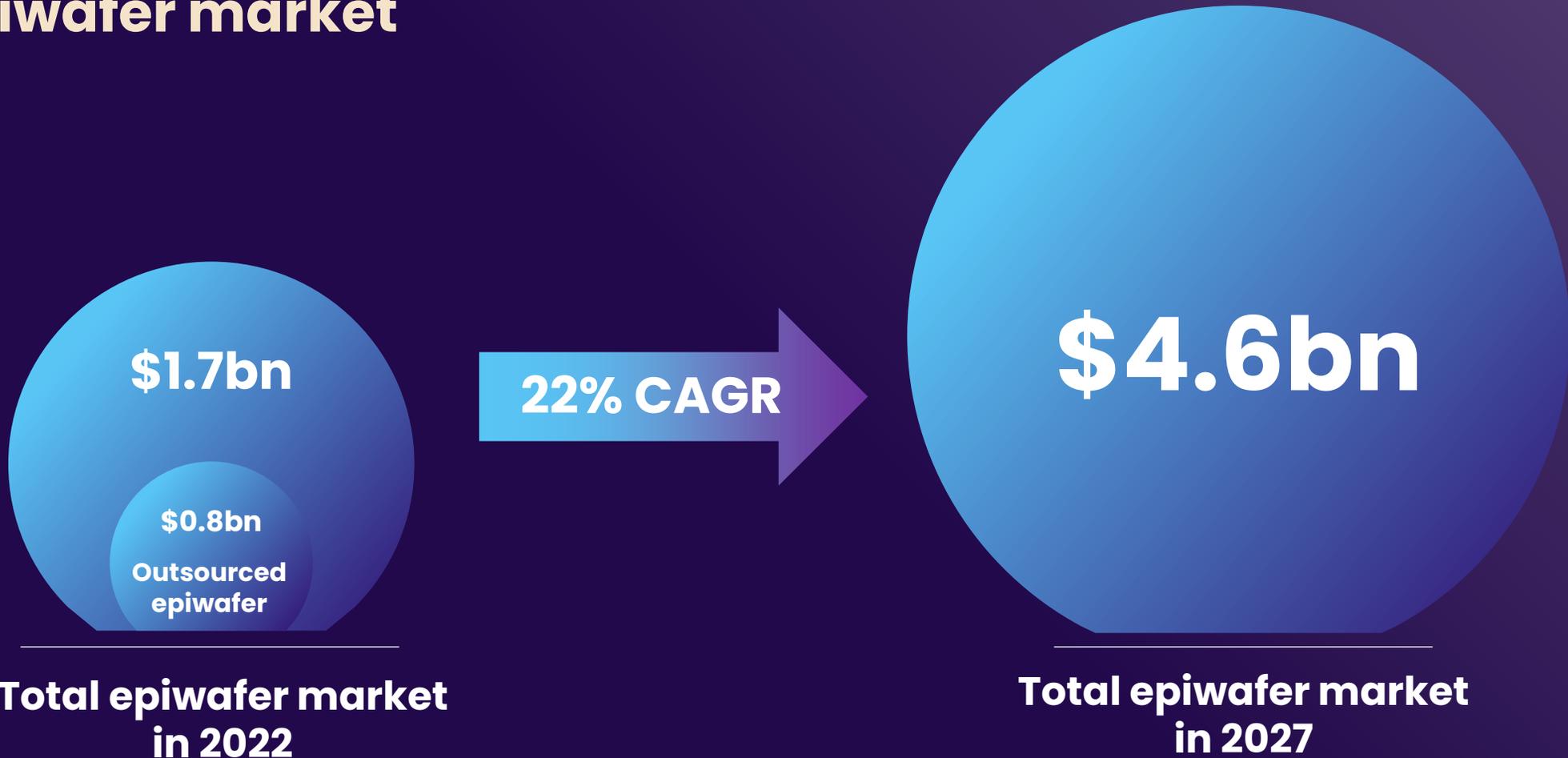
Compound semiconductor device market growth



Source: Yole Intelligence Q4 2022

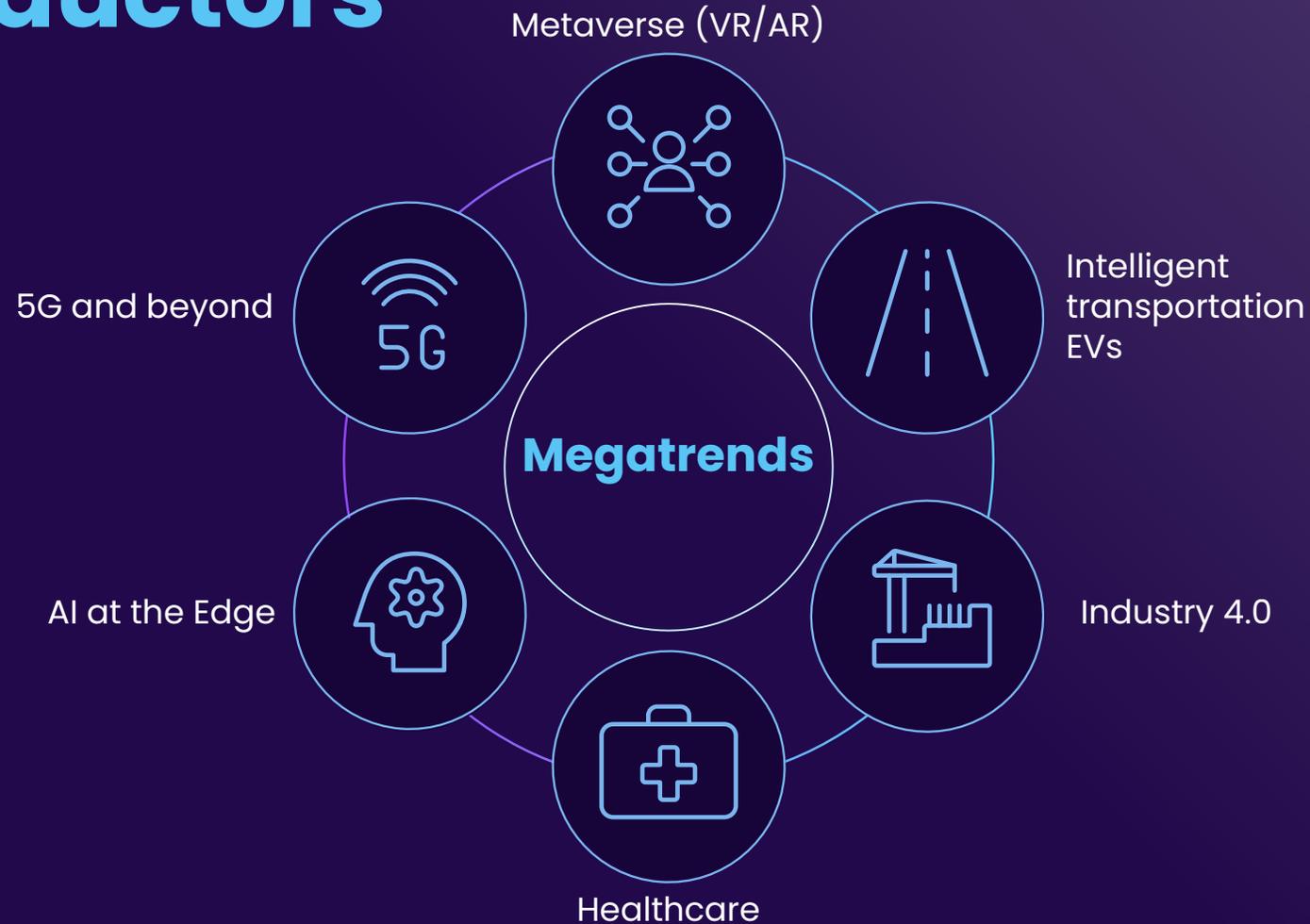
Our addressable market

The epiwafer market



Source: Yole Intelligence Q4 2022, IQE sources

Megatrends driving demand for semiconductors



Smart connected devices

Yole

**Partnerships
in action**



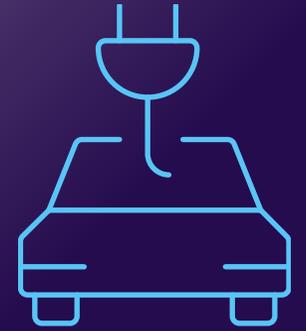
**Architects
of tomorrow**



Smart connected devices



Communications infrastructure



Automotive and Industrial

Markets for growth

An aerial, top-down view of a dense urban center, likely a financial district. The image shows a complex network of roads, numerous skyscrapers with various architectural styles, and green spaces. The word "Connect" is overlaid in the center in a large, white, sans-serif font. The bottom portion of the image is faded and serves as a background for the logo and tagline.

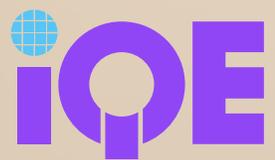
Connect



Architects
of tomorrow



Power



**Architects
of tomorrow**

Sense



Architects
of tomorrow

A person wearing a VR headset is shown from the chest up, looking towards the camera. In the foreground, a hand is interacting with a glowing digital globe. The globe is surrounded by various icons representing technology, business, and innovation, such as gears, a lightbulb, a shopping cart, a bar chart, a document, a person with a globe, a cloud with arrows, a fingerprint, a bar chart with a dollar sign, and a computer monitor. The background is a soft, out-of-focus purple and blue gradient.

Display



**Architects
of tomorrow**

Maintain and grow our position in connect and sense markets



CONNECT



SENSE

Diversify into power and display markets



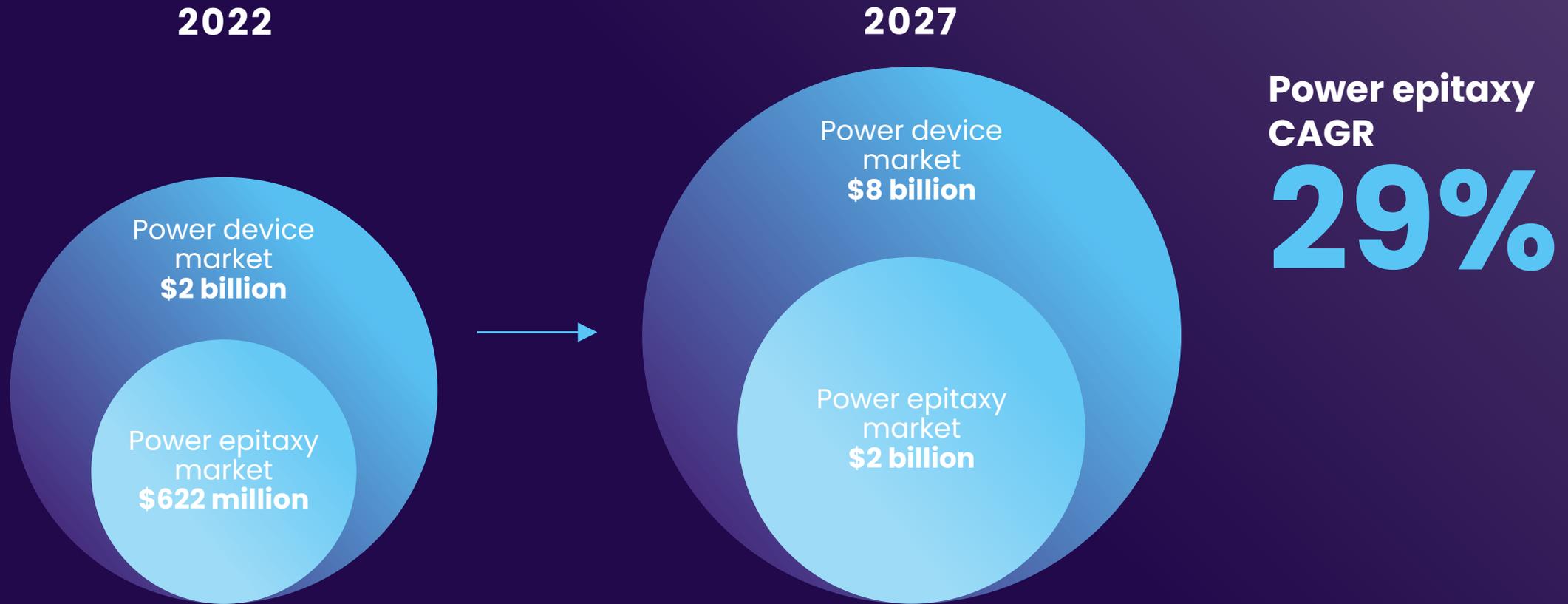
POWER



DISPLAY

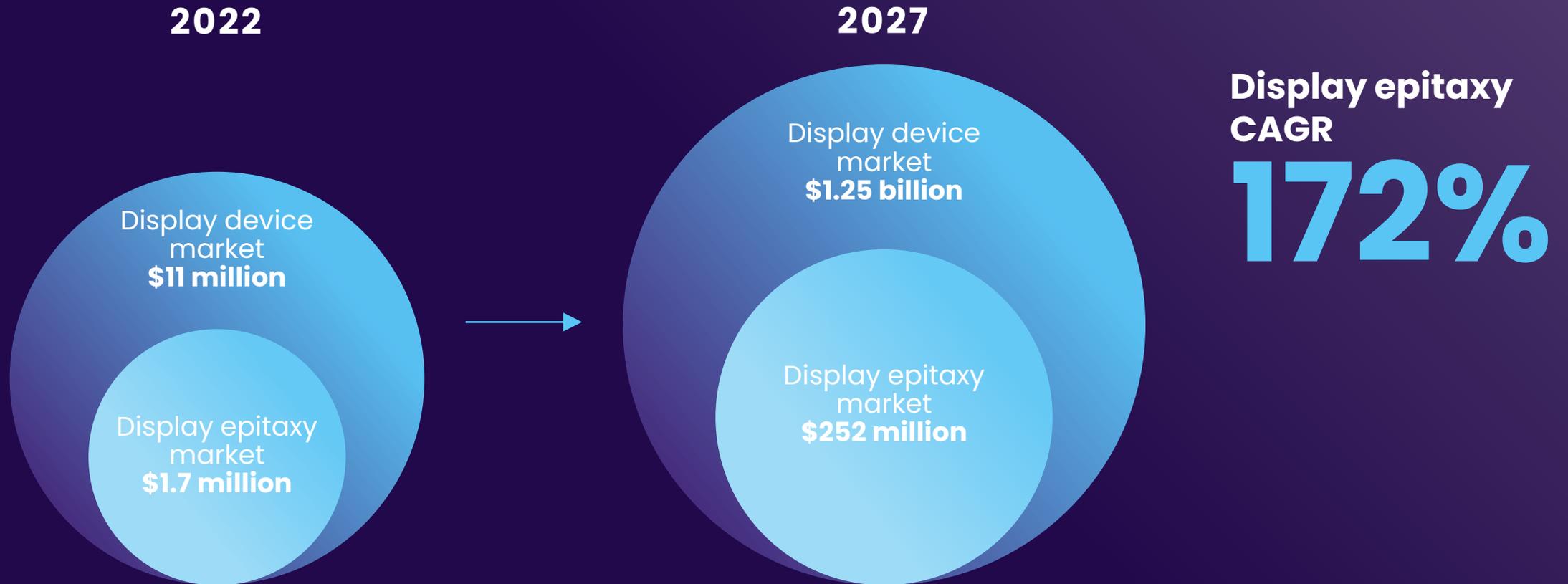
Power electronics market

Diversification strategy



Source: Yole Intelligence Q4 2022

Display market Diversification strategy



Source: Yole Intelligence Q4 2022

**Increase
revenue 3x
by 2027**

*3x versus FY22

Over

30%

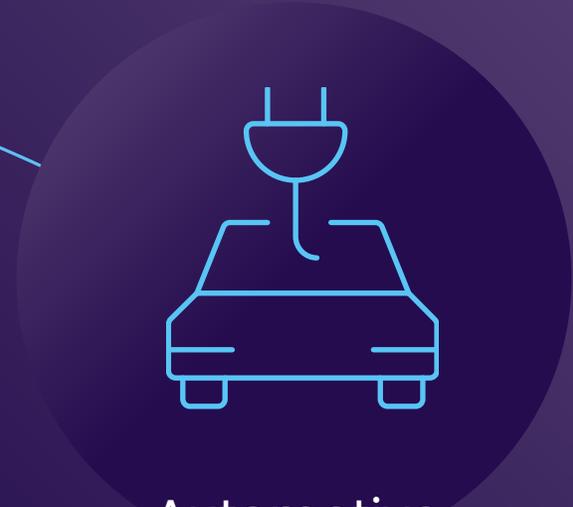
EBITDA
margin
by 2027



Smart connected devices



Communications infrastructure



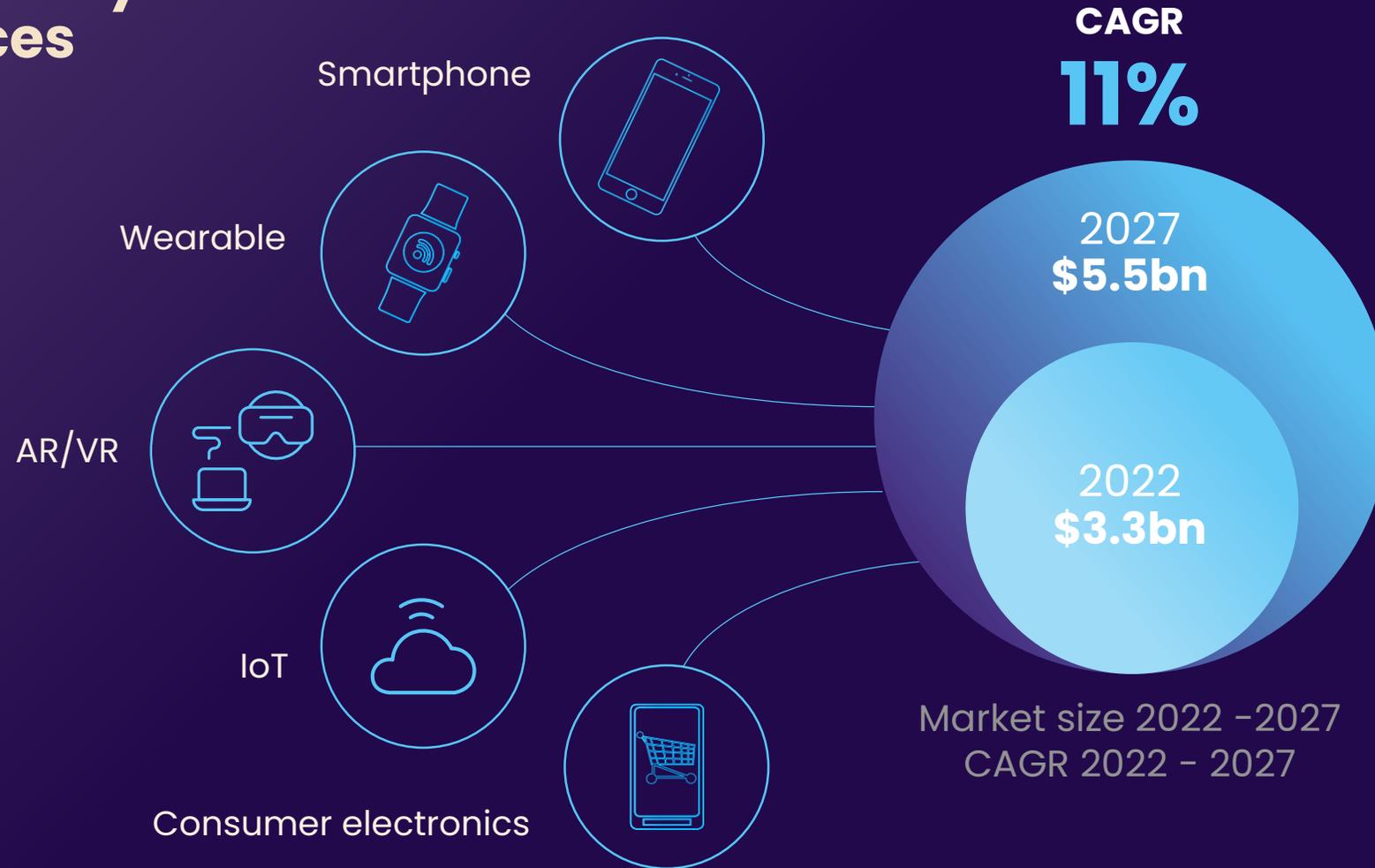
Automotive and Industrial

Markets for growth



Smart connected devices

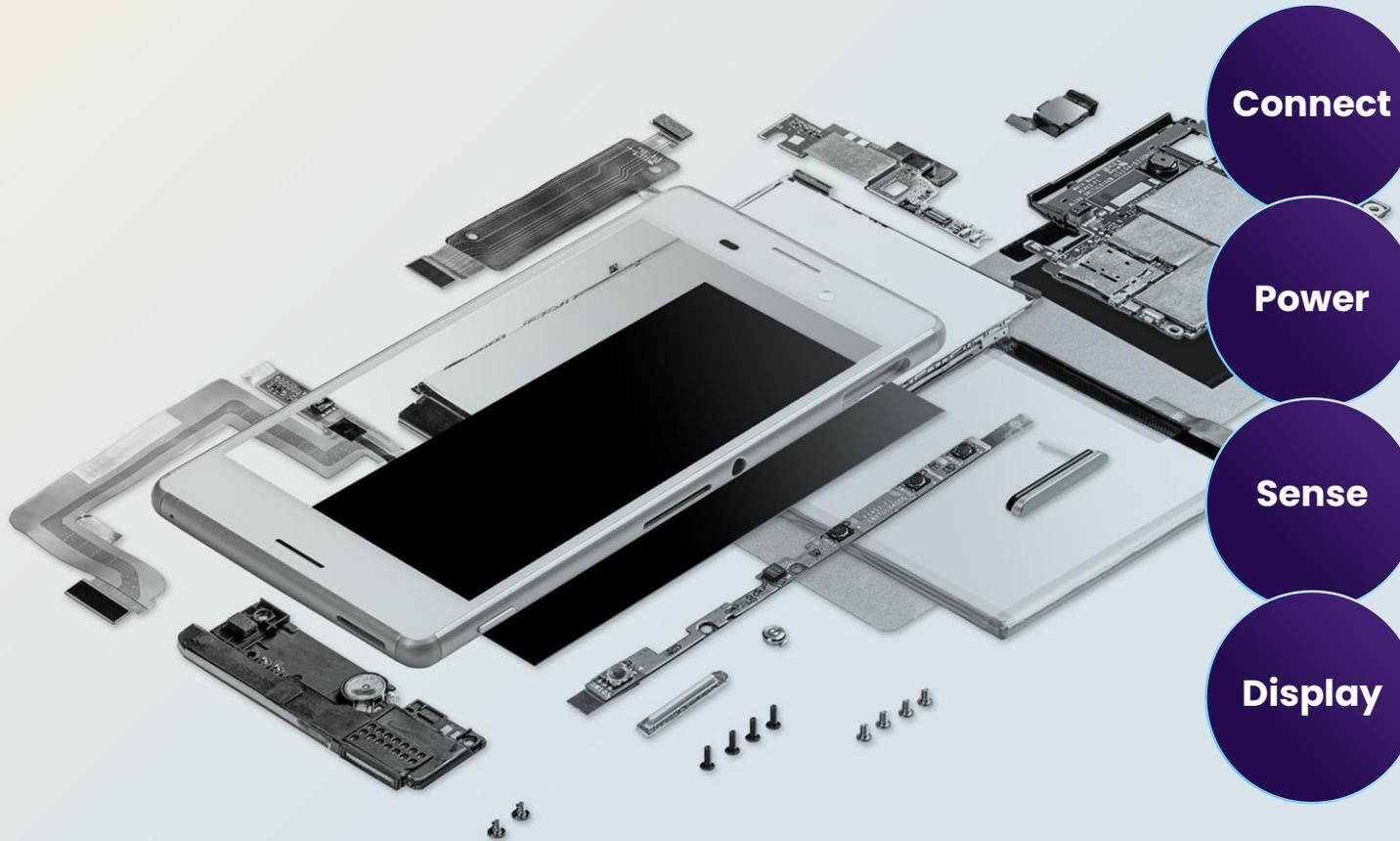
Enabling intelligently connected devices



Source: Yole Intelligence Q4 2022

Increasing amount of compound semiconductor materials...

...in smart connected devices



Connect

Power Amplifiers

Power

Charging

Sense

Proximity sensor
Facial recognition
World Facing Camera

Display

MicroLED

Smart connected devices

**Lumentum
Vanchip**

**Partnerships
in action**

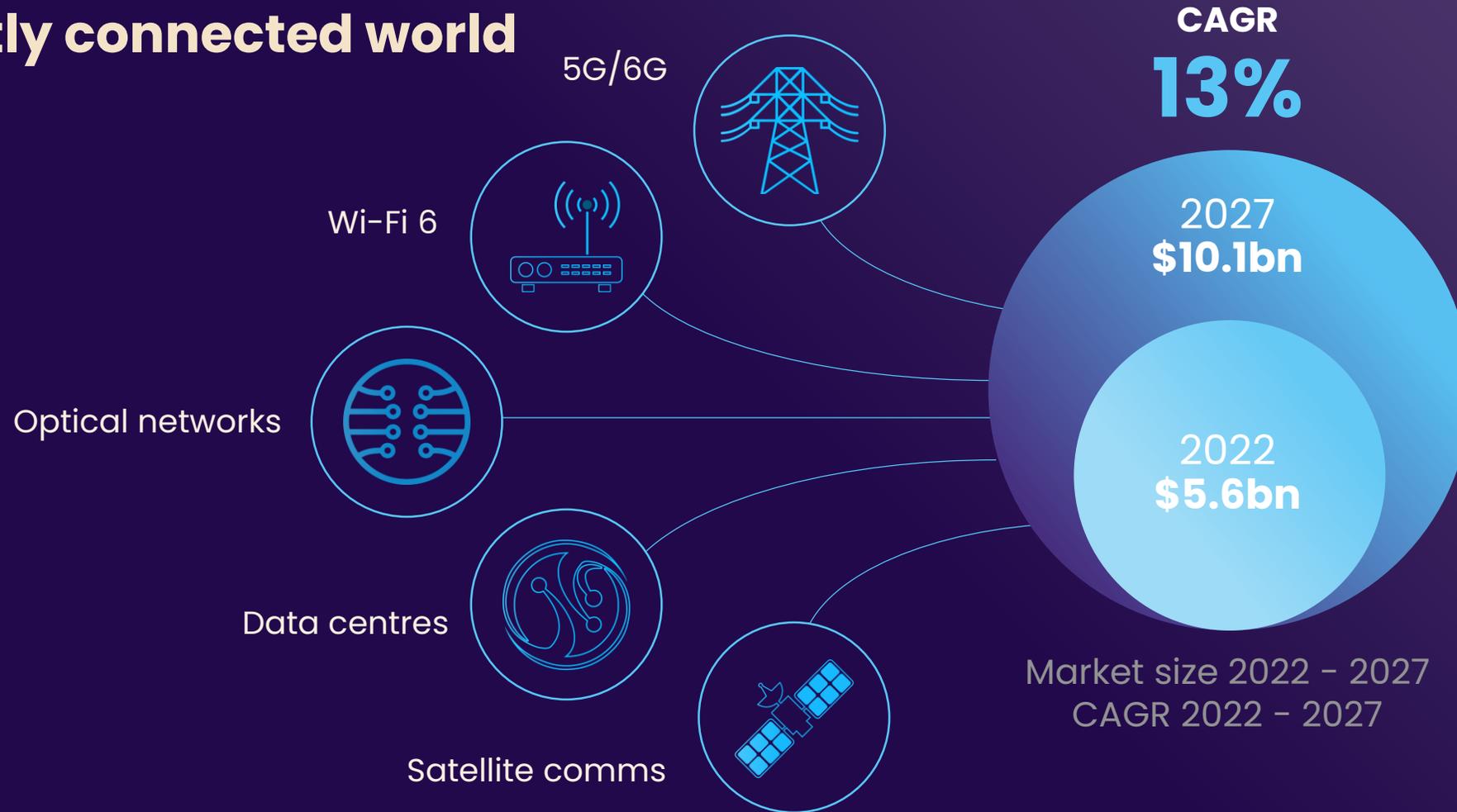


**Architects
of tomorrow**



Communications infrastructure

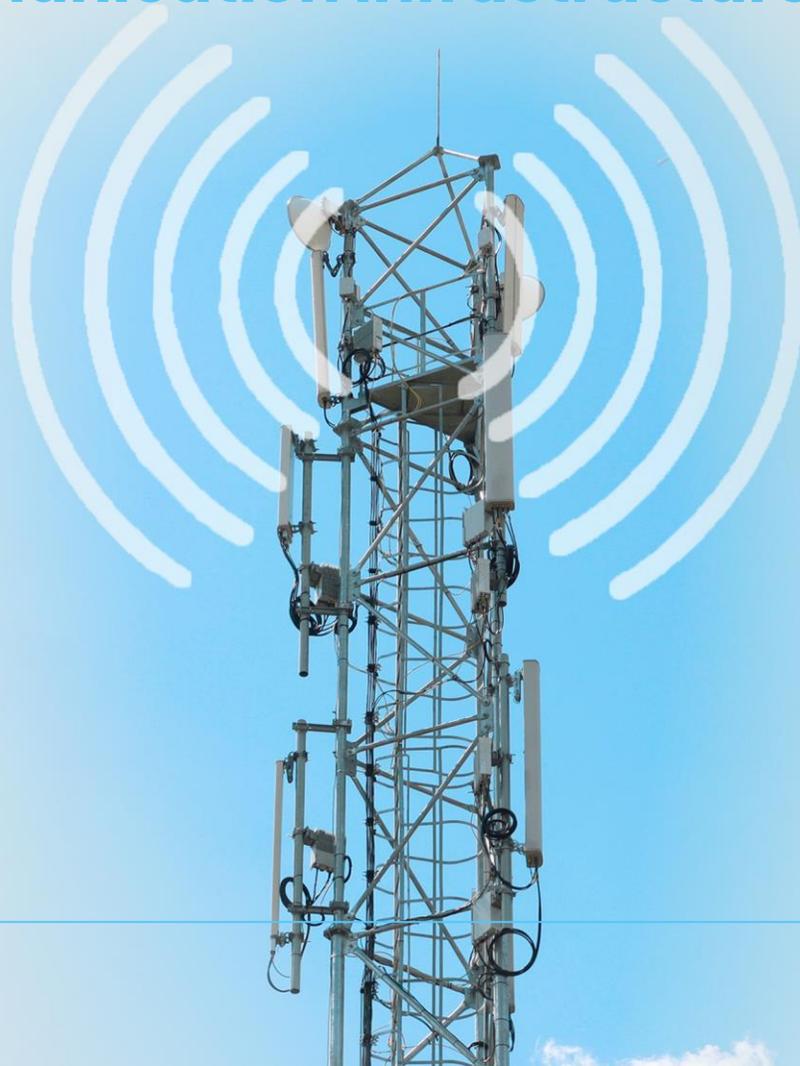
Foundation for an ultra-fast
intelligently connected world



Source: Yole Intelligence Q4 2022

Increasing amount of compound semiconductor materials...

...in communication infrastructure



Connect

Antennae, Fibre networks, Data centres
Base station

Power

Power supplies
Switches

Sense

Diagnostics
Test & Measurement

Communications infrastructure

GCS

**Partnerships
in action**

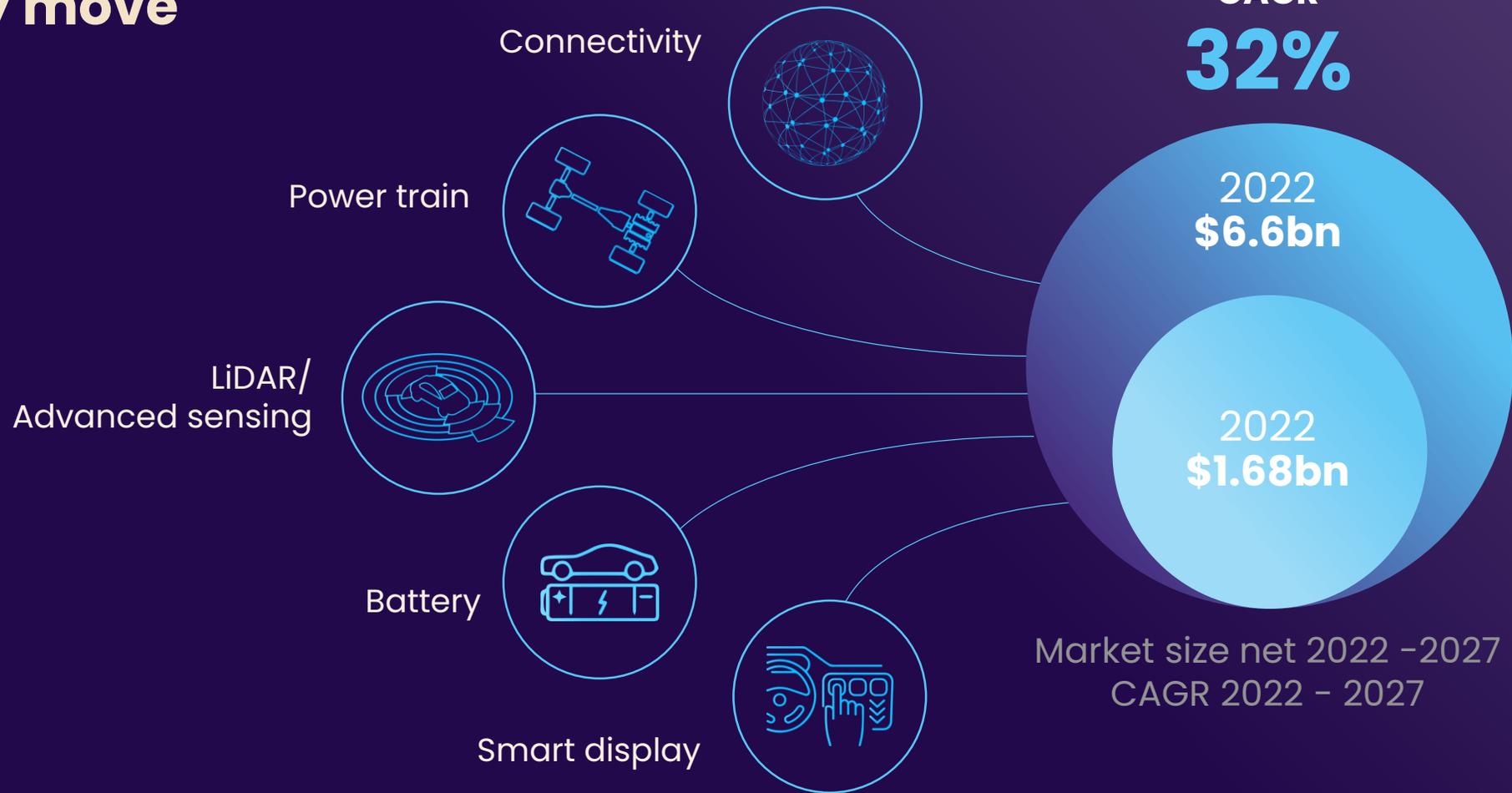


**Architects
of tomorrow**



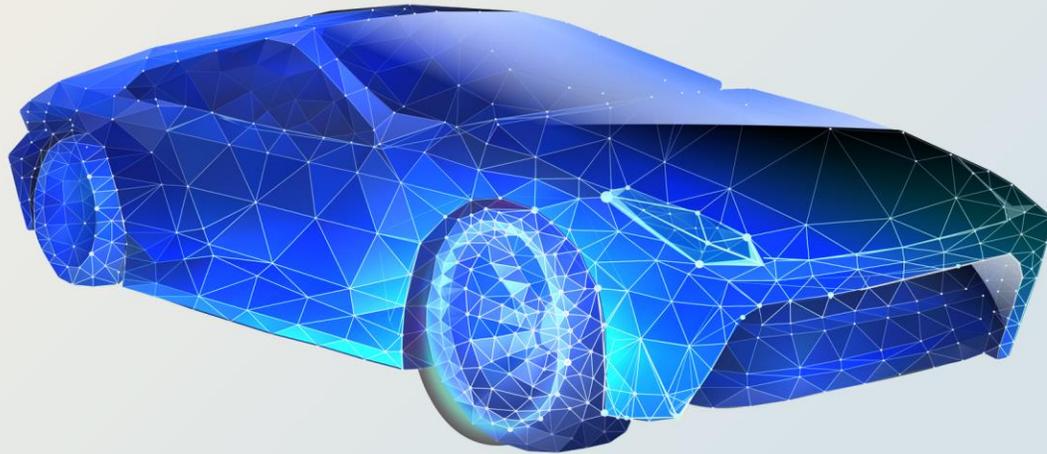
Automotive and Industrial

Compound semiconductors are transforming our every move



Source: Yole Intelligence Q4 2022

Compound semiconductors critical for intelligent transportation



Connect

Vehicle to Vehicle, infrastructure, Autonomous driving

Power

On board charger, traction inverter, DC-DC converter, charging infrastructure

Sense

LiDAR, radar, cameras, night vision, gesture control, driver monitoring

Display

Digital cockpit, laser lights, ambient lighting

Automotive and Industrial

Lumentum

Partnerships
in action



Architects
of tomorrow

Enabling customer growth



Established and deep customer partnerships



Broadest product and platform portfolio



Global footprint across three continents



Scalable manufacturing platform

Capturing value through strategic advantages

**Unparalleled
technology
and material
platforms**

Global footprint
**Secure and
resilient
supply chain**

**Ability to scale
with customer
demand**

Partnering across the value chain

Enabling customers and industry to succeed



BAE SYSTEMS



AIIXTRON



Strategic partnership

Lumentum
SK siltron

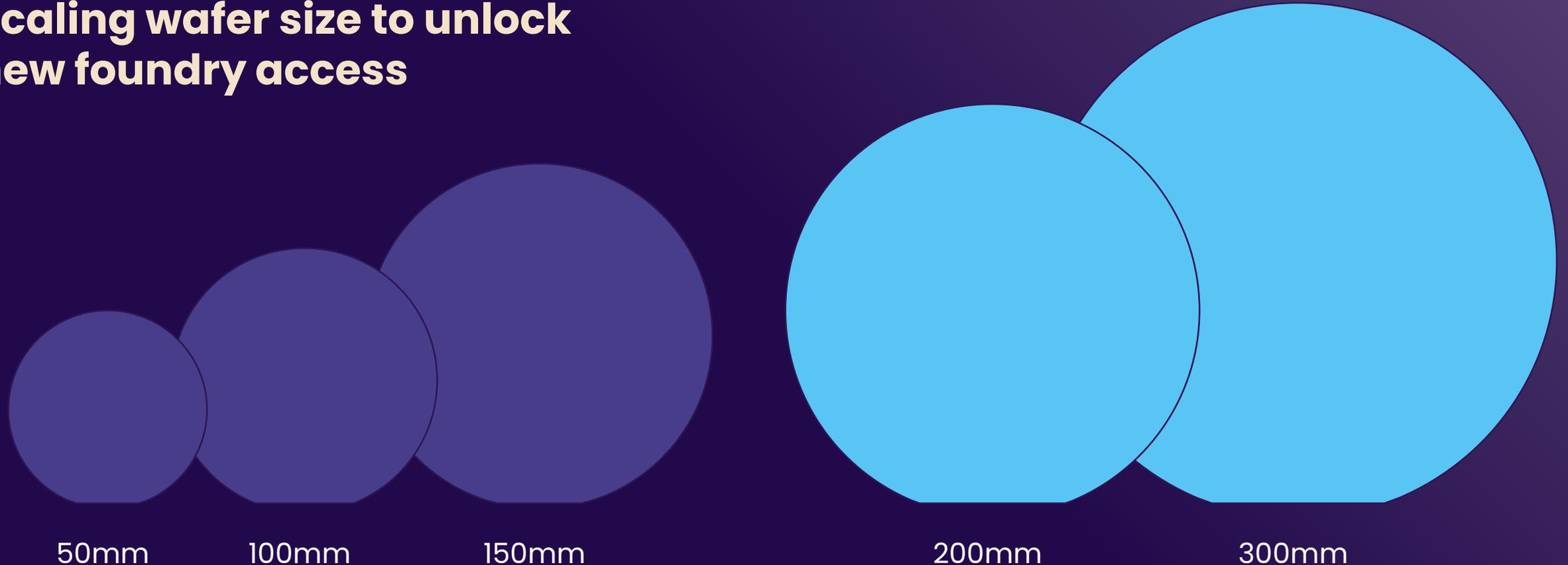
**Partnerships
in action**



**Architects
of tomorrow**

The revolution in compound semiconductors

Scaling wafer size to unlock new foundry access



Strategic partnership

Freiberger

Partnerships
in action



Architects
of tomorrow



**We are
market-led**

**We will capture
value for what
we do**

**We will
scale and grow the
business**

**We are the
architects
of tomorrow**

Market-led innovation



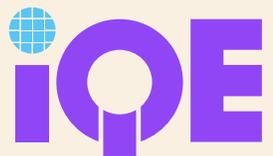
Dr Rodney Pelzel
Chief Technology Officer



**Architects
of tomorrow**

An aerial photograph of a city at night, viewed from a high angle. The city is partially obscured by large, white, billowing clouds. Overlaid on the city and sky are numerous vibrant, multi-colored light trails in shades of yellow, orange, red, purple, and white, suggesting a long-exposure shot of light trails or data flow. The word "Innovate" is centered in the middle of the image in a large, white, sans-serif font.

Innovate



**Architects
of tomorrow**

Epitaxy is at the core of innovation

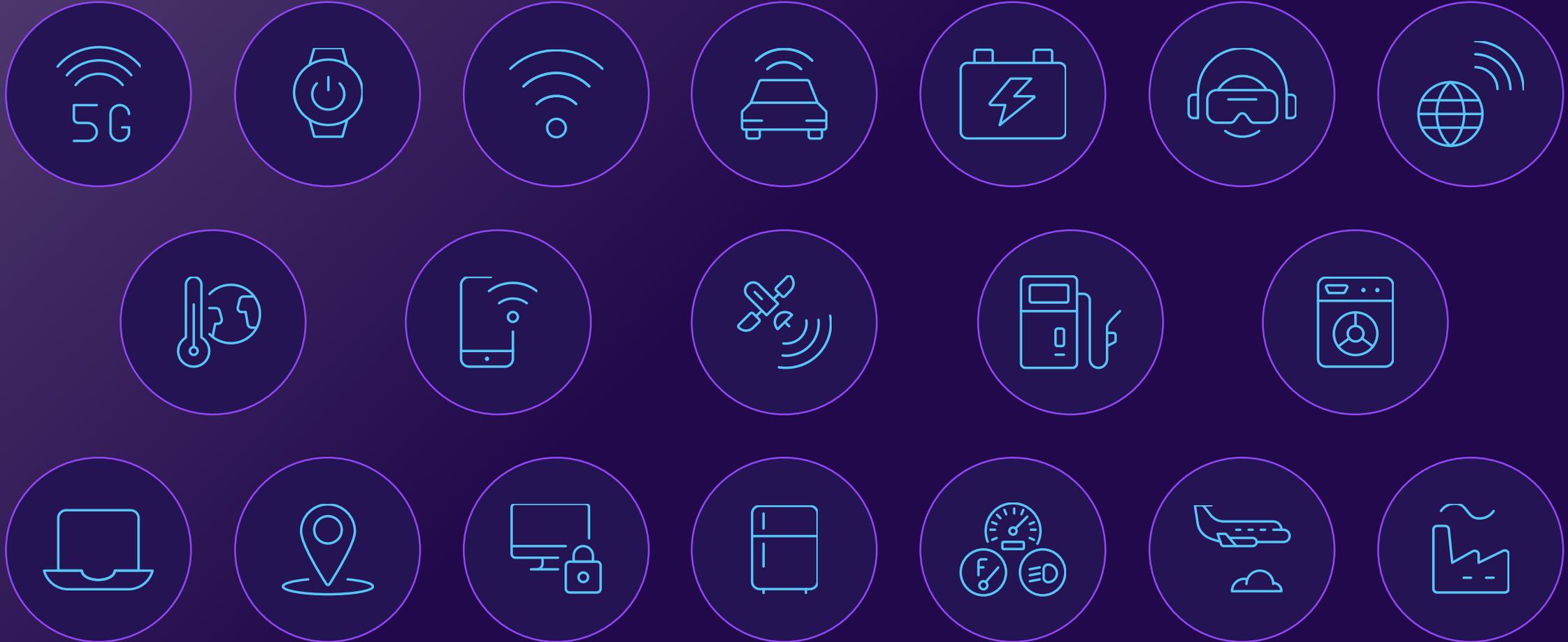
Technology portfolio is market-led

200mm+ epiwafers unlock the potential of
compound semiconductors

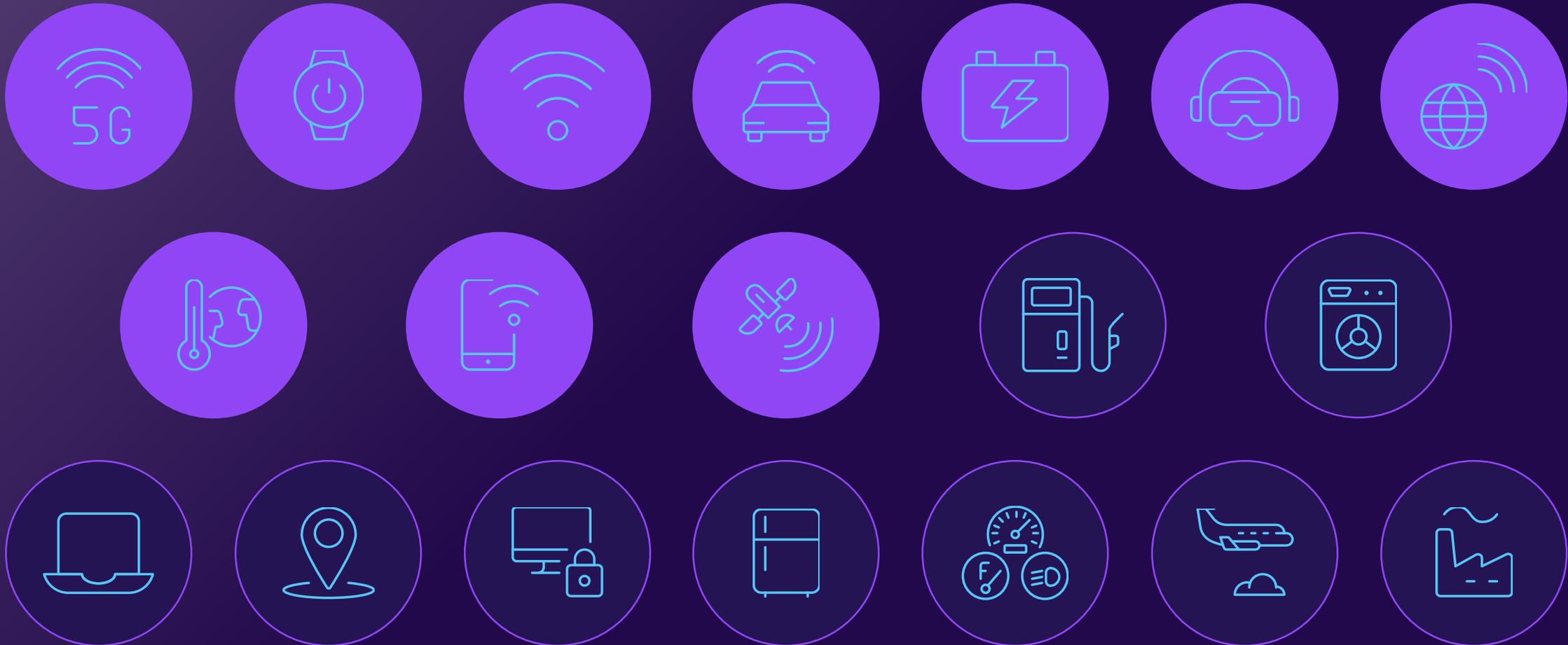


**Architects
of tomorrow**

Our world relies on semiconductors



Increasing reliance on compound semiconductors



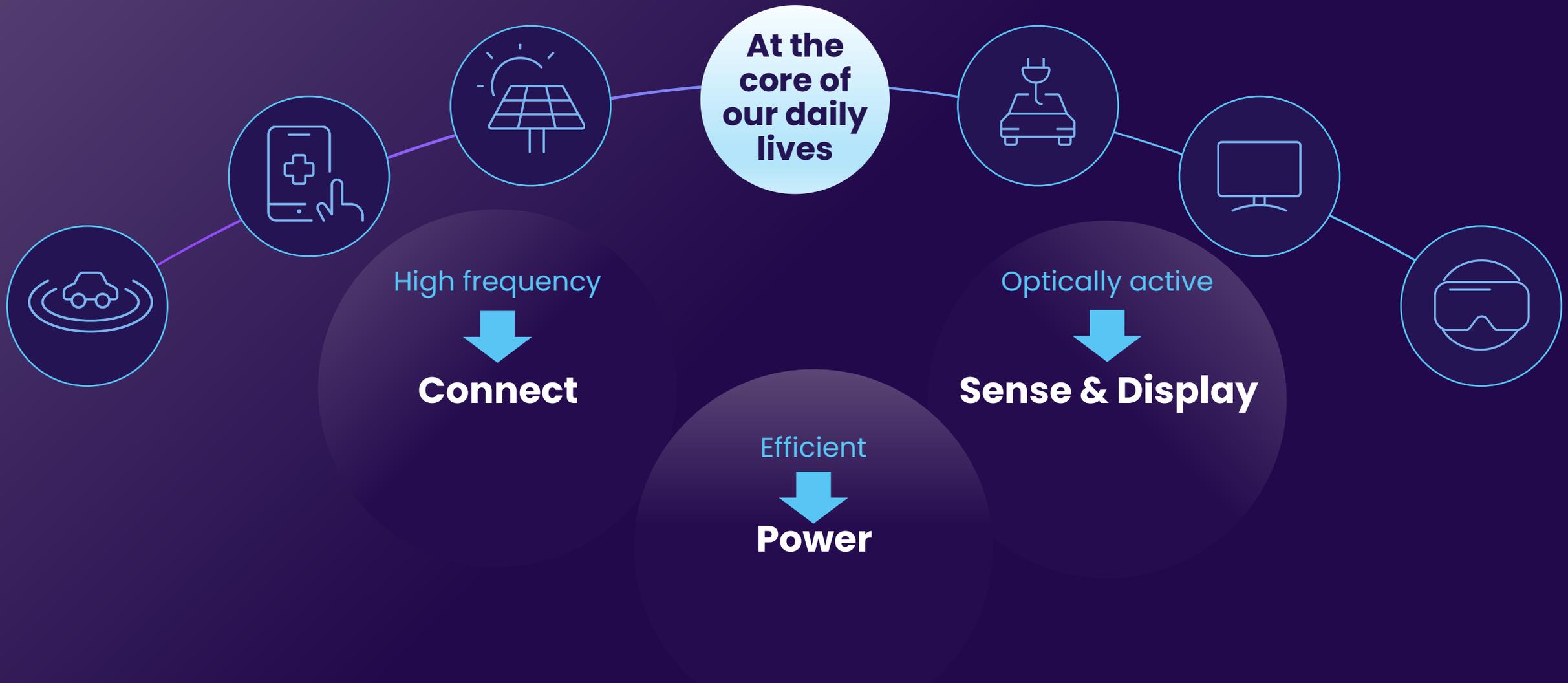


Compound semiconductors deliver a world of more



Architects
of tomorrow

Key pillars of innovation



Compound semiconductors use less energy

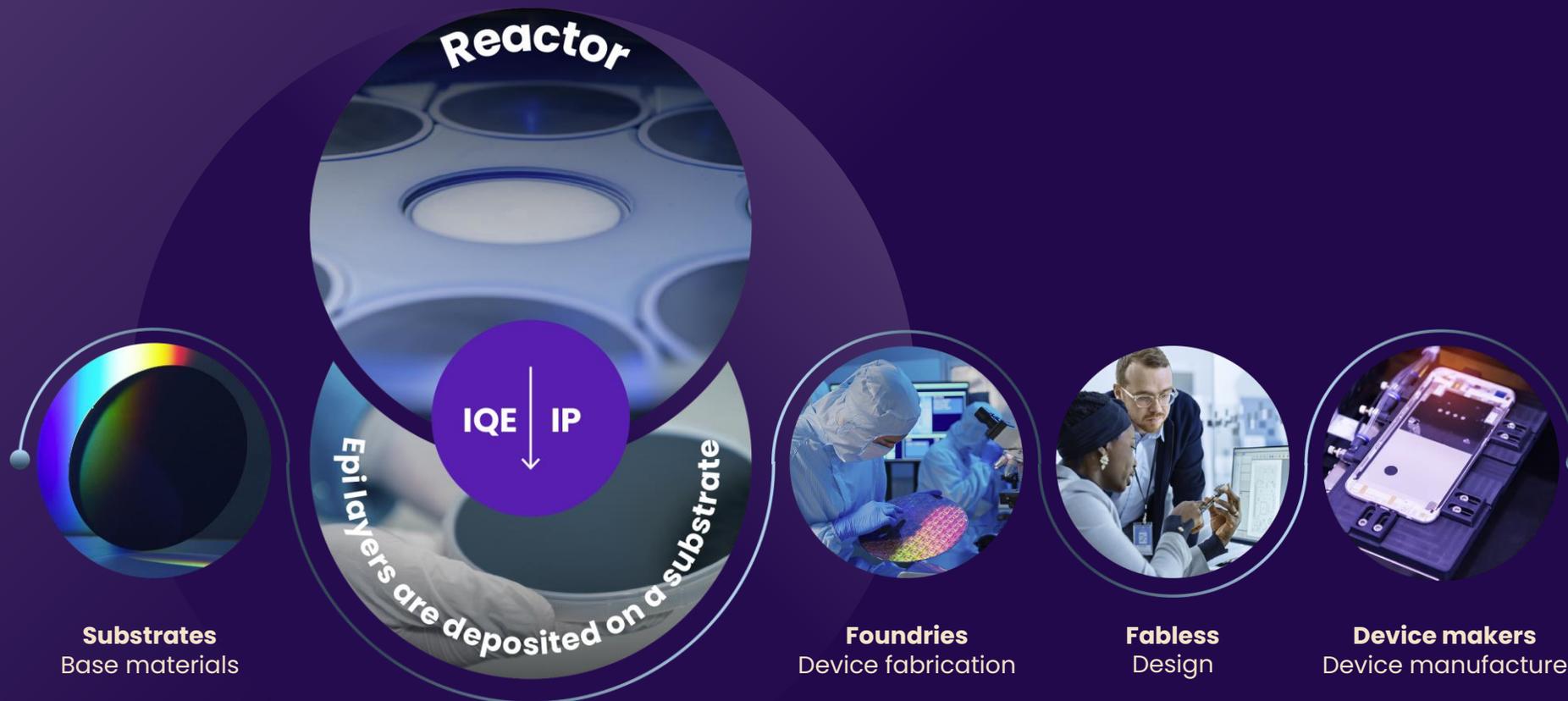
Heat = inefficiency



Uniquely positioned in the global value chain



Epitaxy is where the value is created



Epitaxy is the lithography of compound semiconductors

Lithography



Silicon chips
scaled down in size



Unlocks full
potential of silicon

Epitaxy

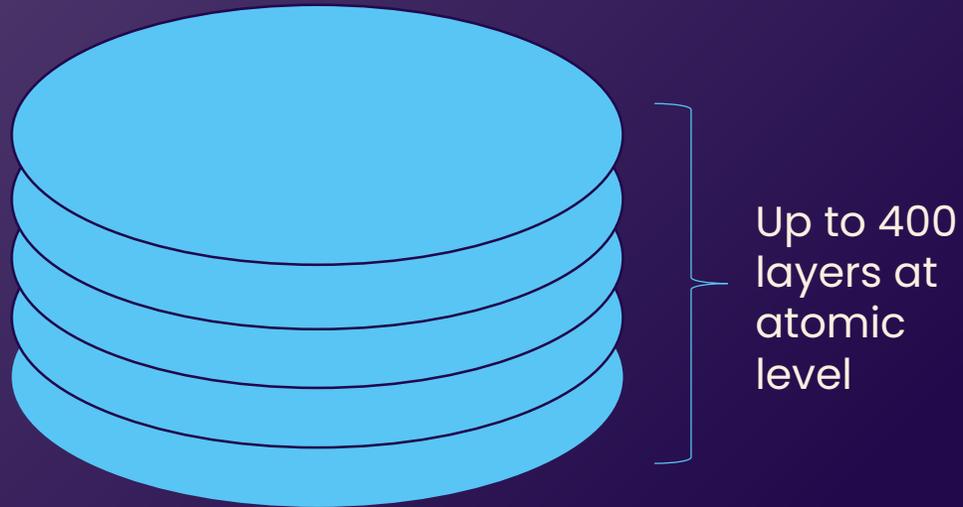


Atomic level control



Unlocks full potential of
compound semiconductors

Innovation starts at the materials level



Temperature

Pressure



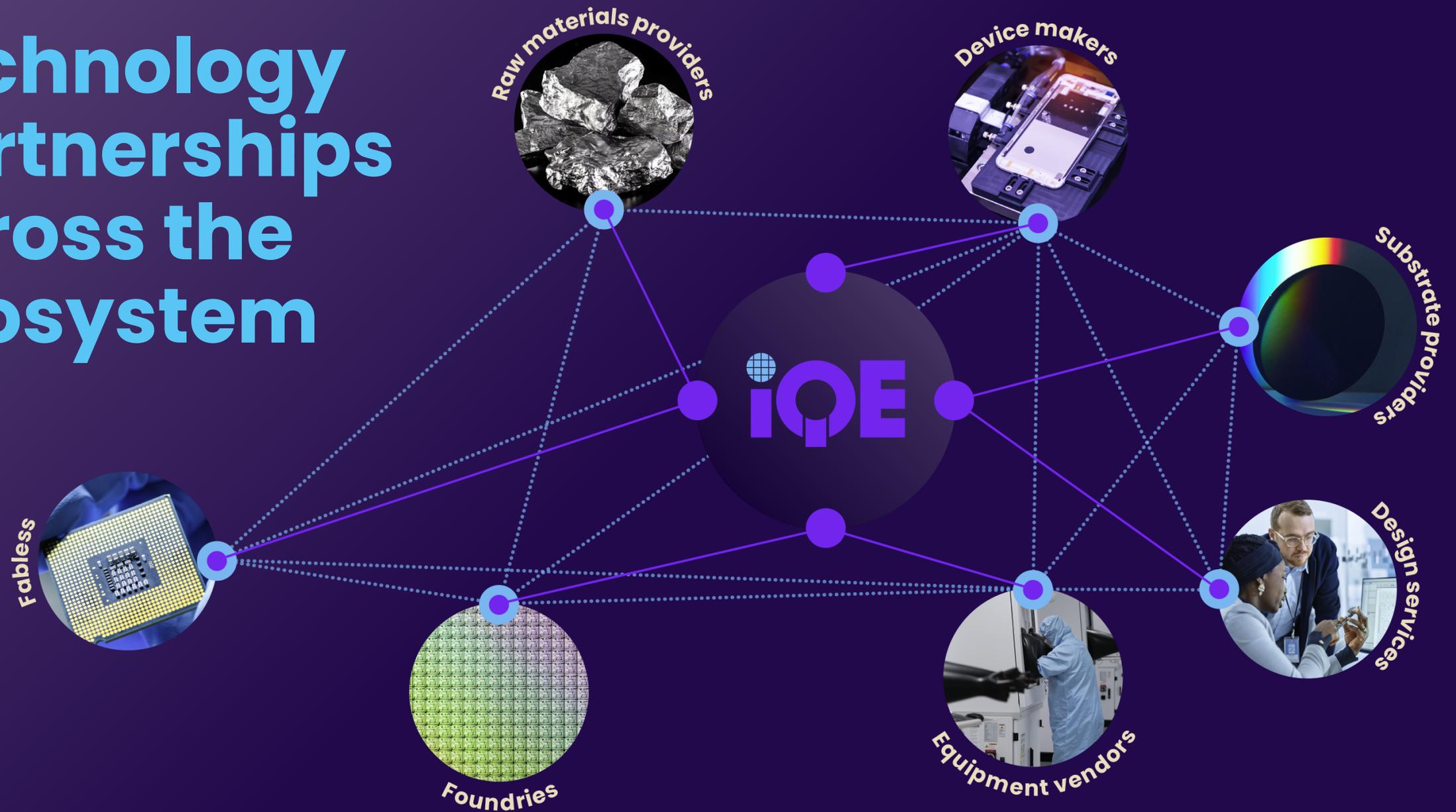
Materials

Time

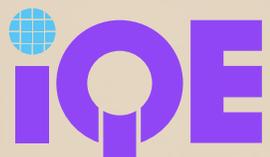


30+ year pedigree
in leading edge epitaxy

Technology partnerships across the ecosystem



Research and development centre



**Architects
of tomorrow**



Market-led innovation

Creating solutions that address market challenges



Architects
of tomorrow

Enhancing our technology value capture

Previous model

Market push

Anticipating market need

Limited value capture

New operating model

Market pull

Linked to a market need

Full value capture



MicroLED

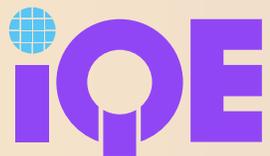


Architects
of tomorrow

MicroLED market

Partnerships
in action

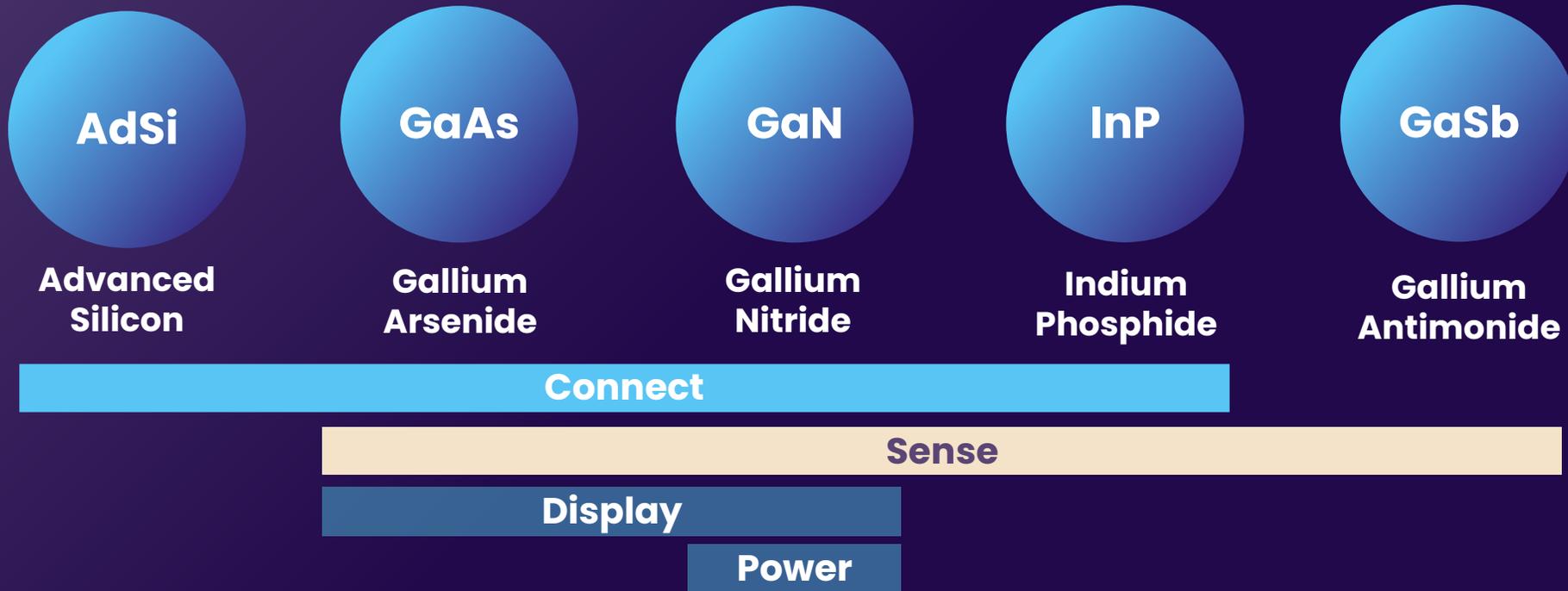
MICLEDI Microdisplays



Architects
of tomorrow

Industry leading technology portfolio

Scaled material platforms



Scale across all epitaxy manufacturing technologies: MOCVD, MBE, CVD

Leading patent portfolio

260

Granted or pending patents

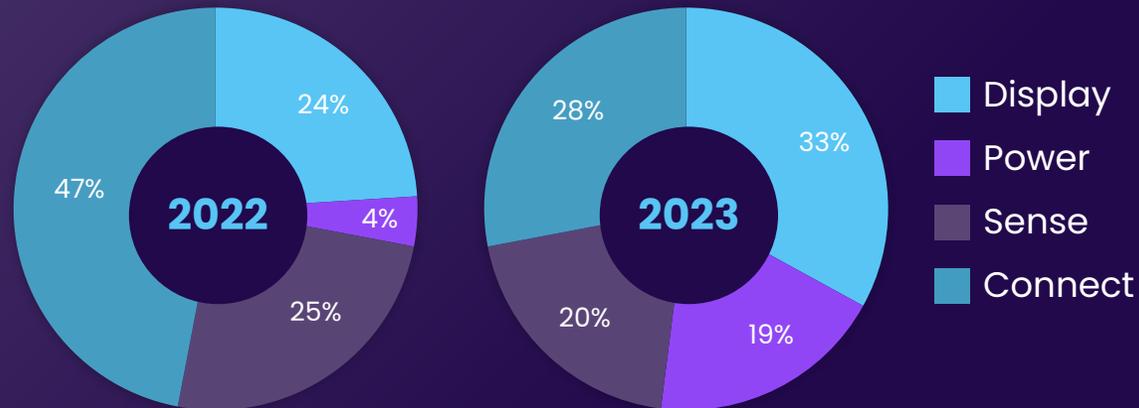
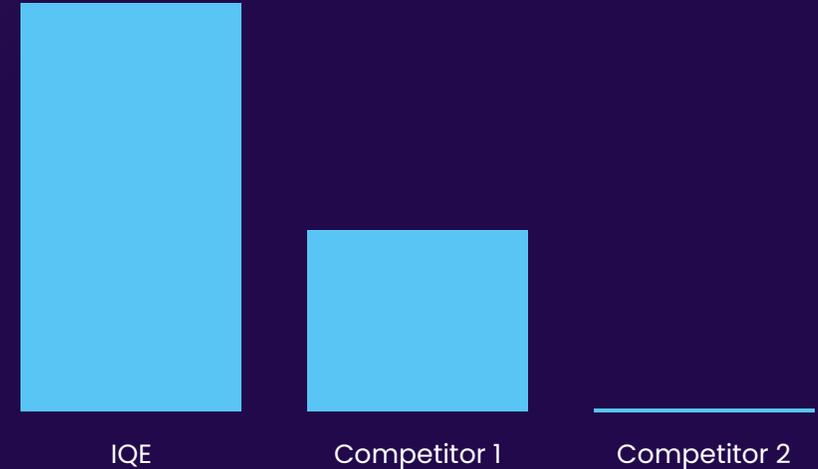
16

Expected number of first filings in 2022

45

Target annual filings by 2027

More patent families than other pureplay epi providers



>2000

Citations of IQE patents

x4

IQE patents cited vs competitor 1 patents

Materials platforms unlock diversification



Smart
Connected Devices



Communications
Infrastructure



Automotive
and Industrial

GaN			
GaAs			
ADSi			
InP			
GaSb			

Leveraging the versatility of GaN

Underpins today's business and creates waves of innovation for growth

Connect

Communications
Infrastructure

Smart Connected
Devices



GaN device
CAGR
= 14%



Power

Smart Connected
Devices

Automotive
& Industrial



GaN device
CAGR
= 50%



Display

Smart Connected
Devices

Automotive
& Industrial



GaN device
CAGR
= 158%



Source: Yole Intelligence Q4 2022

Think GaN
Think IQE

Strategic partnership

**GlobalFoundries
SK siltron**

**Partnerships
in action**



**Architects
of tomorrow**

200mm+ epiwafers will be the new standard

The first commercially available 200mm VCSEL wafer

Nearly **doubles** number of useable die

Leverages **30+ year** pedigree in scaling

Roadmap for **scaling** all materials platforms to **200mm** and **300mm**

Summary

**Compound
semiconductors
epitaxy
at the core of
technology
innovation**

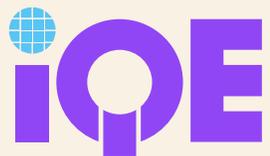
**Market-led
deployment of
best-in-class
technology
ensures rapid
value capture**

**Scaling to
200mm+ with the
market makers
brings
compound into
the mainstream**

Scaling for growth



Keith Anderson
Chief Operating Officer



**Architects
of tomorrow**

An aerial view of a car body assembly line. Several yellow robotic arms are positioned around two car chassis, performing welding or assembly tasks. The floor is a light grey with dark grey diamond-plate sections. The word "Grow" is centered in the image in a large, white, sans-serif font.

Grow



Architects
of tomorrow

**We are transforming at pace to
standardise, centralise and scale**

**Only global pure play epitaxy provider for
supply chain resilience**

Ready with the facilities and expertise



**Architects
of tomorrow**

Strategic sites for high volume manufacturing

Europe

Newport

Manufacturing platform: MOVCD

North America

Massachusetts

Manufacturing platform: MOVCD

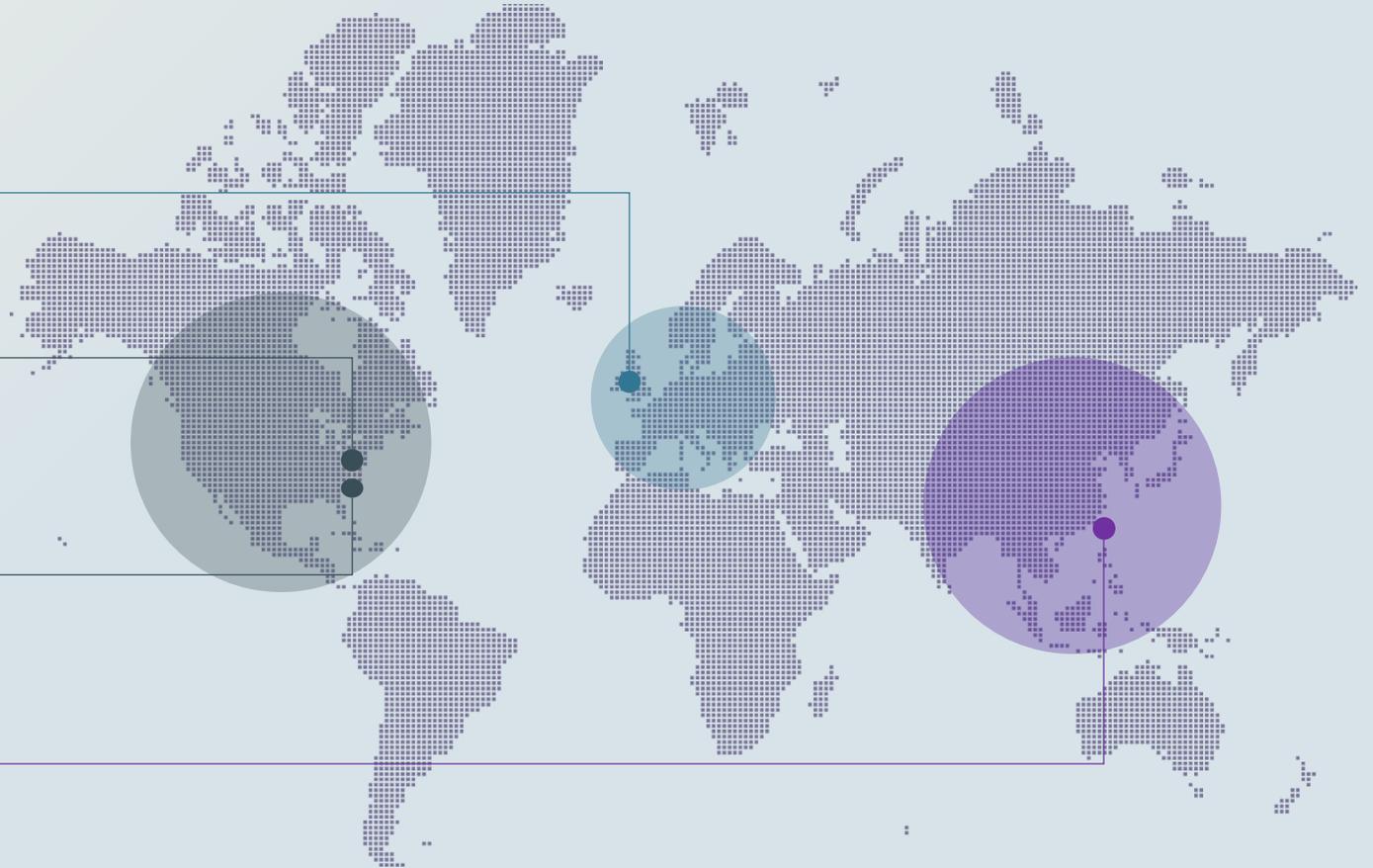
North Carolina

Manufacturing platform: MBE

Asia

Taiwan

Manufacturing platform: MOVCD, MBE

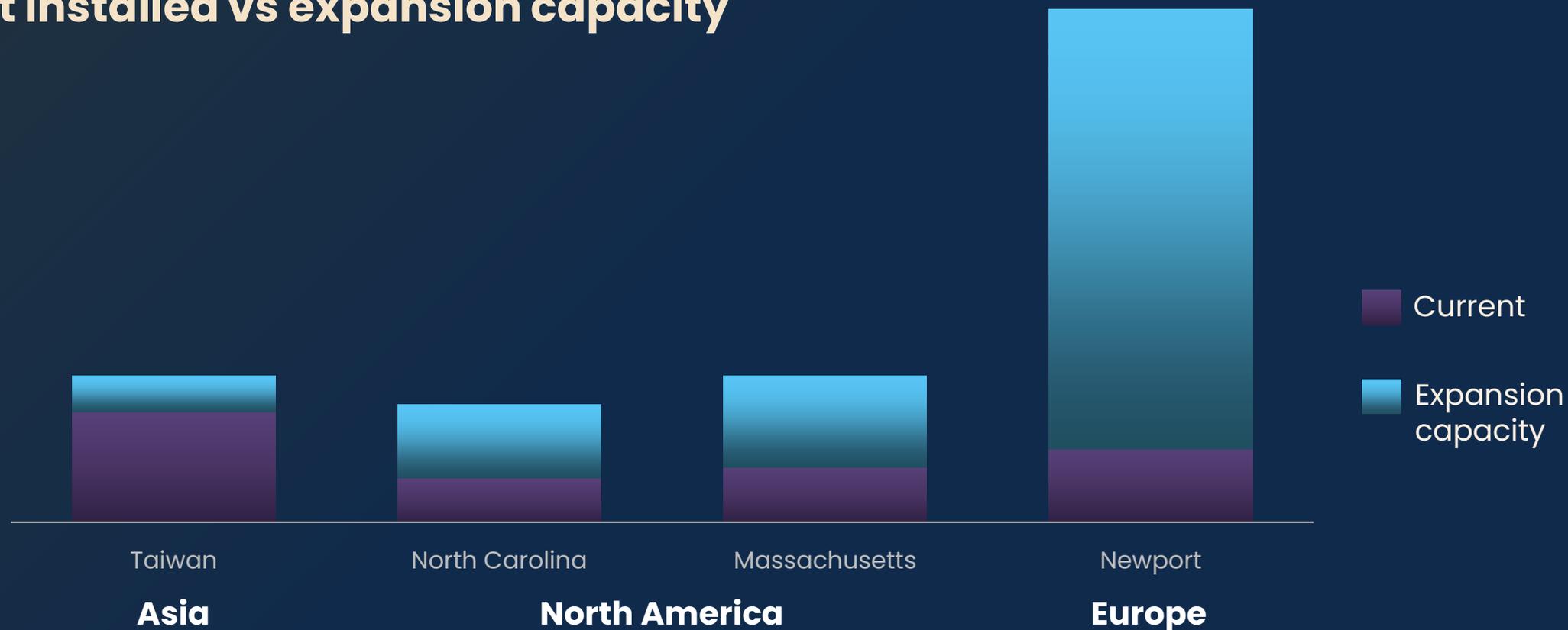


Resilience, flexibility and ability to rapidly scale

3X capacity growth
within current
footprint

Regional tool expansion capacity within four walls

Current installed vs expansion capacity





World's most advanced epitaxy facility



**Architects
of tomorrow**

Significant first mover advantage to get to scale

3 to 4 years to design, build, qualify and ship first wafer from a new facility



Strategic partnerships

GlobalFoundries

Partnerships
in action



Architects
of tomorrow

Transforming our operating model

Previous model

Multiple acquired sites

Site-focused execution

Standalone manufacturing systems

Semi-automated manufacturing

New operating model

Optimised strategic footprint

Standardised, centralised and scalable approach

Single integrated manufacturing system

Fully automated manufacturing

Standardisation roadmap

Standardisation of operations

Systems and processes



Manufacturing intelligence



Automation



Virtual vertical integration with customers

Centralising operations

Autonomous sites



Standardised strategic manufacturing sites

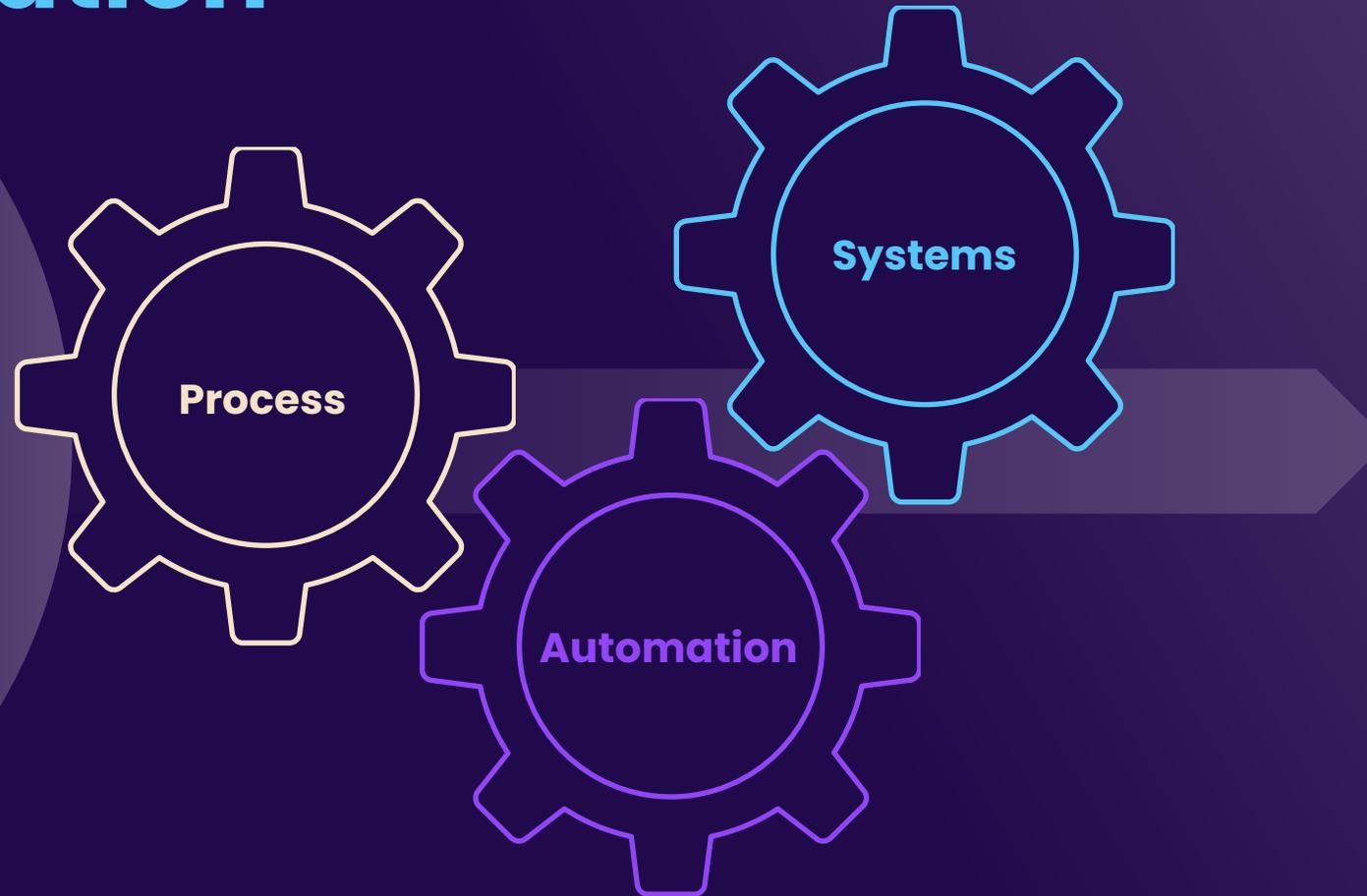


Centralised functions

Standardised and centralised for value creation

Manufacturing execution engine

Repetitive and robust product control



**High quality
High volume
High margin**

Strategic partnerships

Aixtron

Partnerships
in action



**Architects
of tomorrow**

Base enablers to scale

Safety



Our #1 priority

People



Deep talent pipeline

Quality



Customer centricity

Sustainability



Commitment to Net Zero

Secure supply chain

Resilience

Security

Responsibility



Strategic partnership

Sumitomo

Partnerships
in action



Architects
of tomorrow

Summary

**Only global pure
play epitaxy
provider**

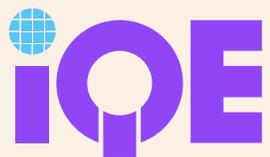
**Transforming
at pace to
standardise,
centralise and
scale**

**Ready with the
facilities and
expertise**

Financial vision



Tim Pullen
Chief Financial Officer



**Architects
of tomorrow**

Delivering 3X revenue growth in 5 years

Generating margin expansion from our business model

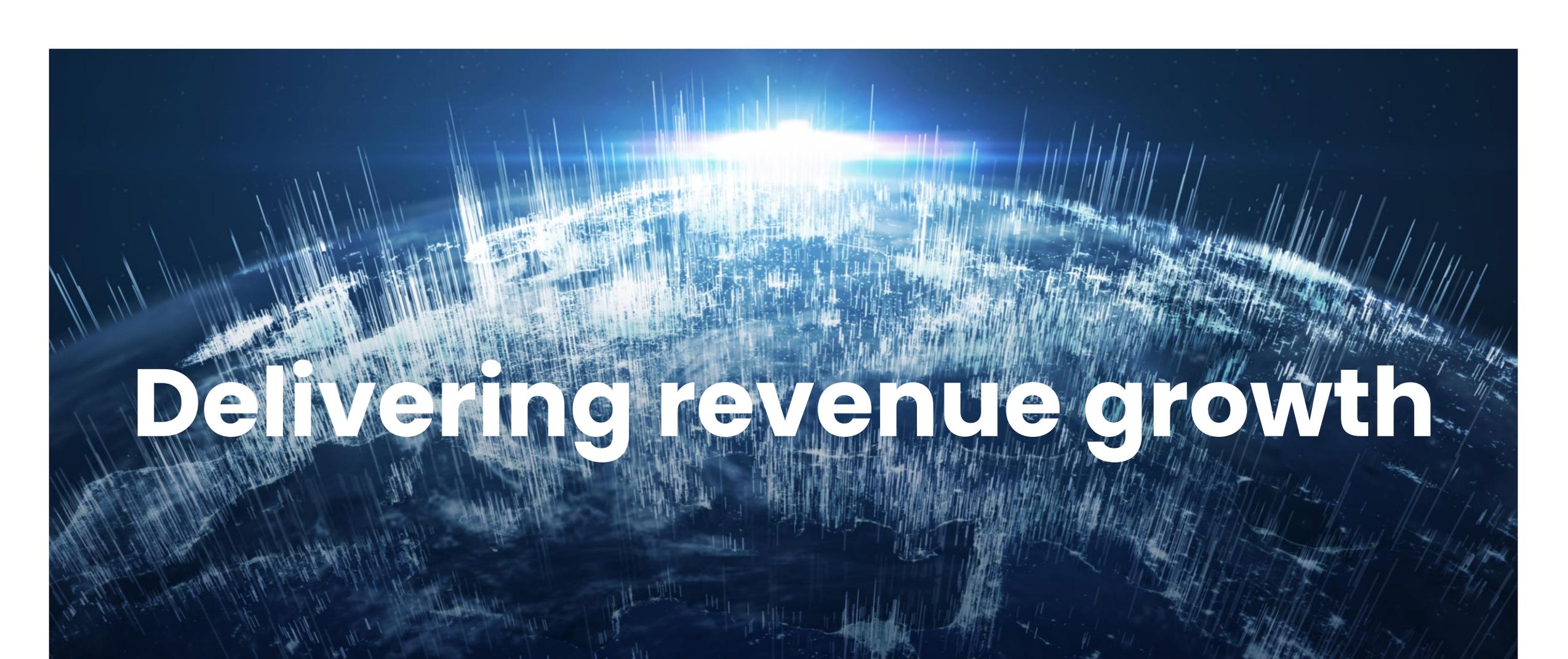
Making IQE the Champion of the Industry



**Architects
of tomorrow**

Navigating global challenges



A futuristic digital landscape with a glowing horizon and data streams. The scene is dominated by a bright, glowing horizon line that stretches across the width of the image, emitting a strong blue and white light. From this horizon, numerous vertical lines of varying lengths and thicknesses, representing data streams or digital rain, fall downwards. The background is a dark, deep blue, suggesting a vast digital space or a night sky filled with data points. The overall aesthetic is high-tech and visionary.

Delivering revenue growth



**Architects
of tomorrow**

Business and commercial model

**Transformed
commercial
model to
capture value**

**Becoming the
outsourced
epitaxy
champion**

Strategic capacity expansion

Transforming our commercial model

Previous model

Transactional wafer sales

Short order visibility

IQE invests in capacity

Self-funded technology-led R&D

New model

Strategic long-term agreements

Long-term commitments

Co-invest for capacity expansion

Collaborative, market-led R&D

Benefits of the commercial model

3X customer
engagement
in 2022

More consistent growth

Improved visibility

Stronger returns on investment

Higher profitability

Captive epitaxy is addressable

The case for outsourcing



Our business model for outsourced global epitaxy supply



**Long term
agreements**



**Economies
of scale**



**Three continent
operations**

Virtual vertical R&D and manufacturing integration

Our market opportunity

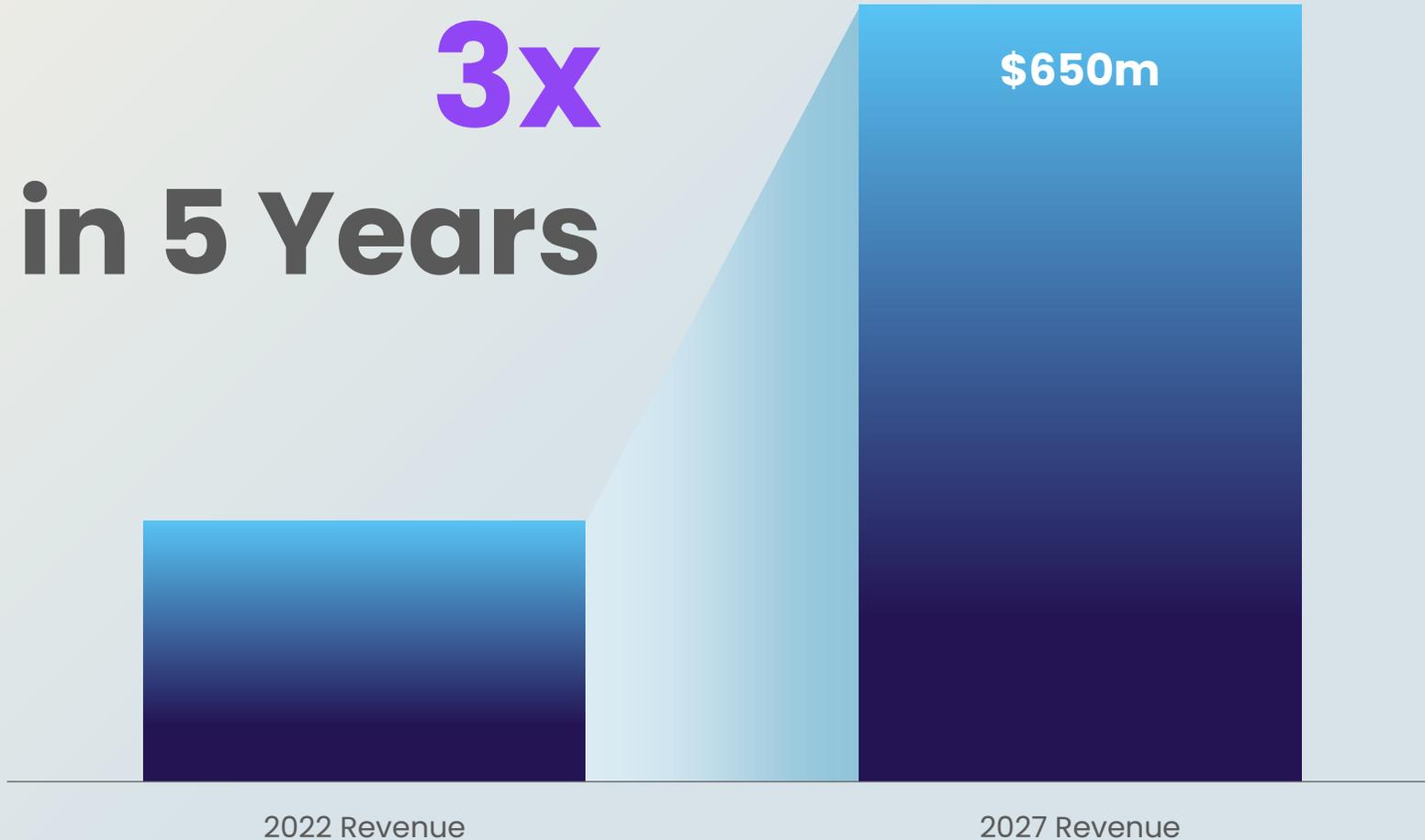
The epiwafer market



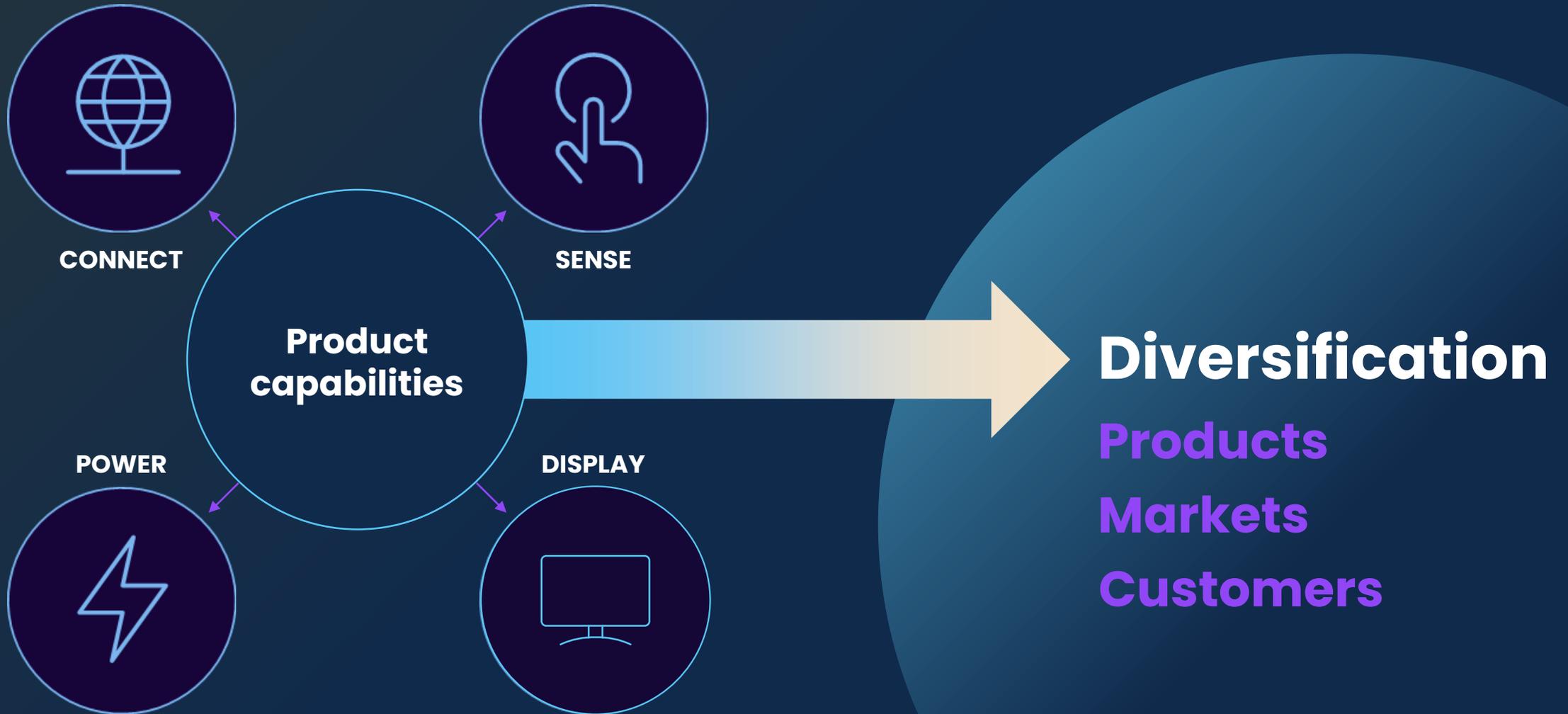
Total epiwafer market = captive + outsourced markets

Source: Yole Intelligence Q4 2022

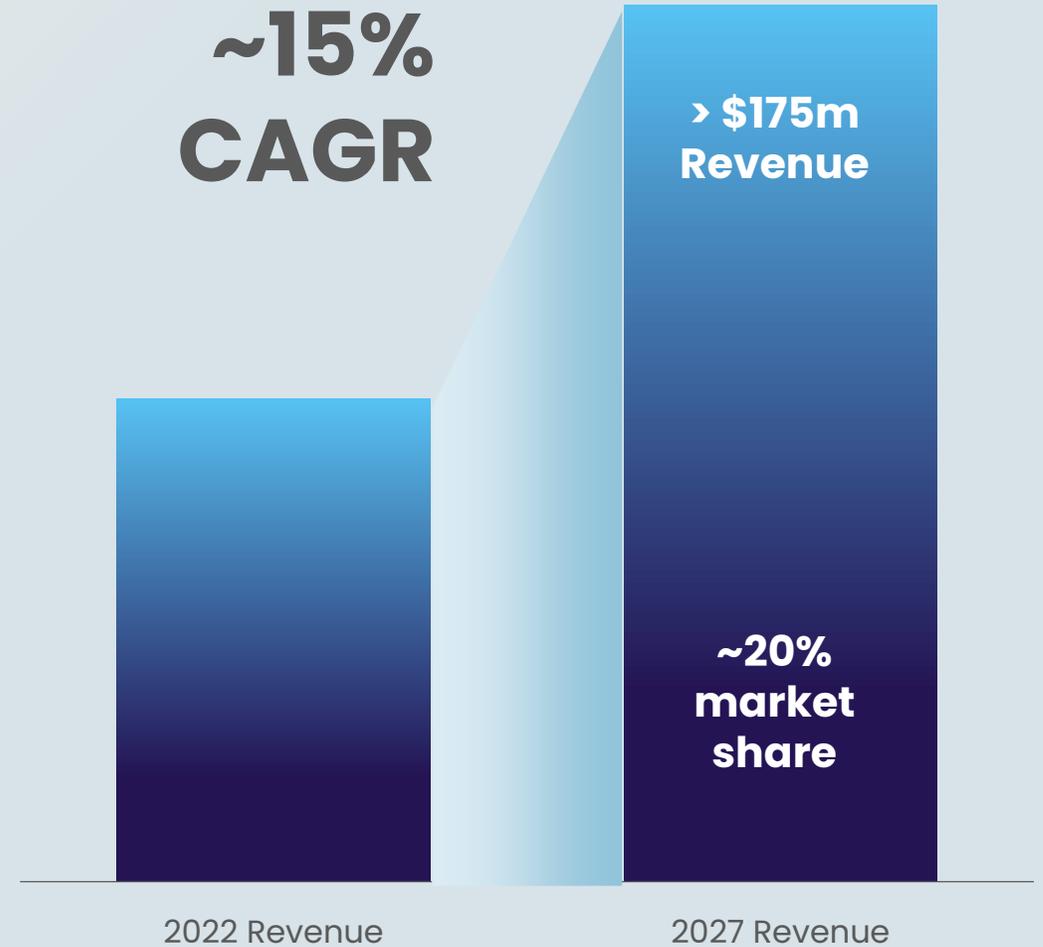
Revenue target



Diversification strategy



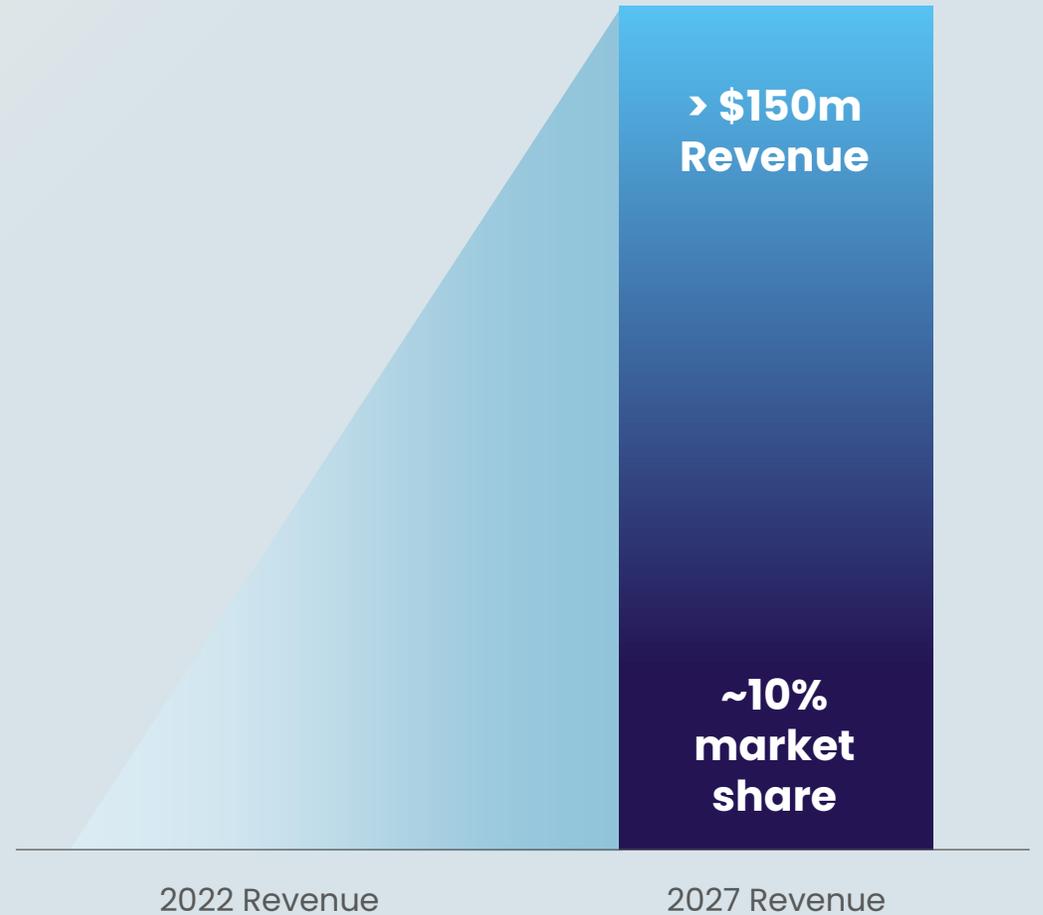
Connect revenues targeted to grow faster than the market



Sense revenue growth target builds on market leading position



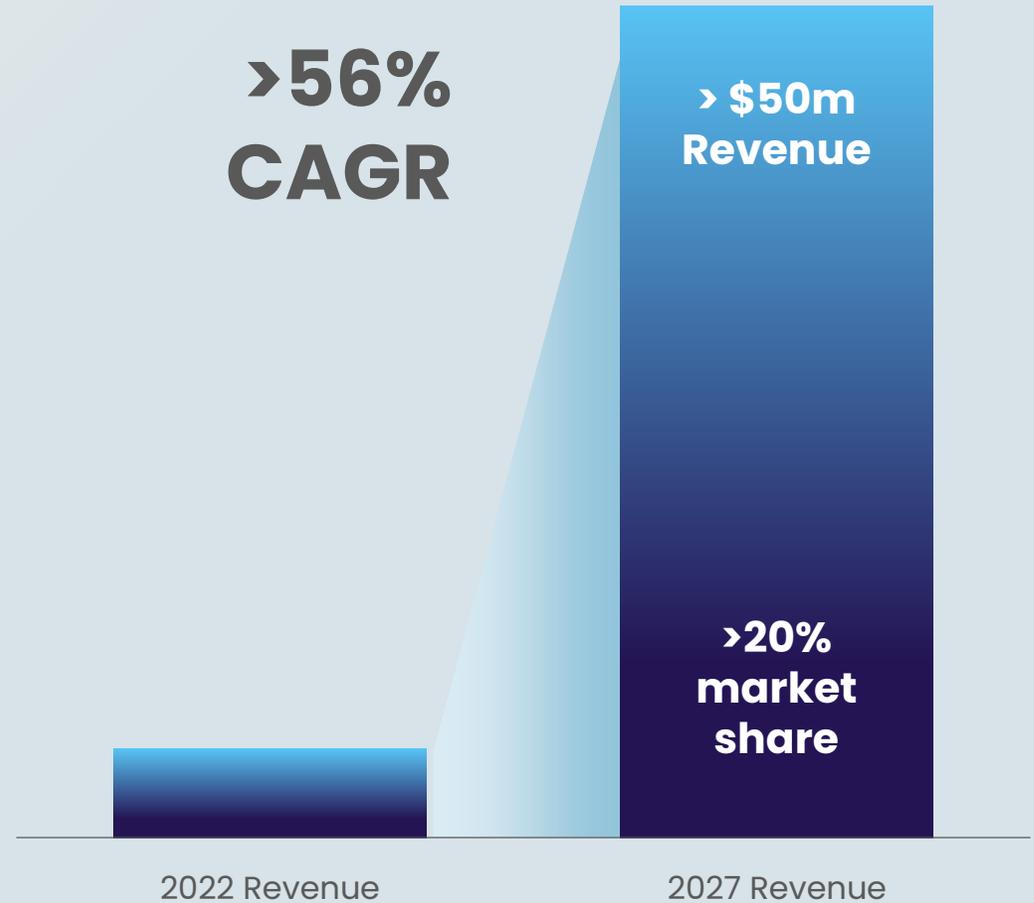
IQE will enter the **Power** market through strategic partnerships



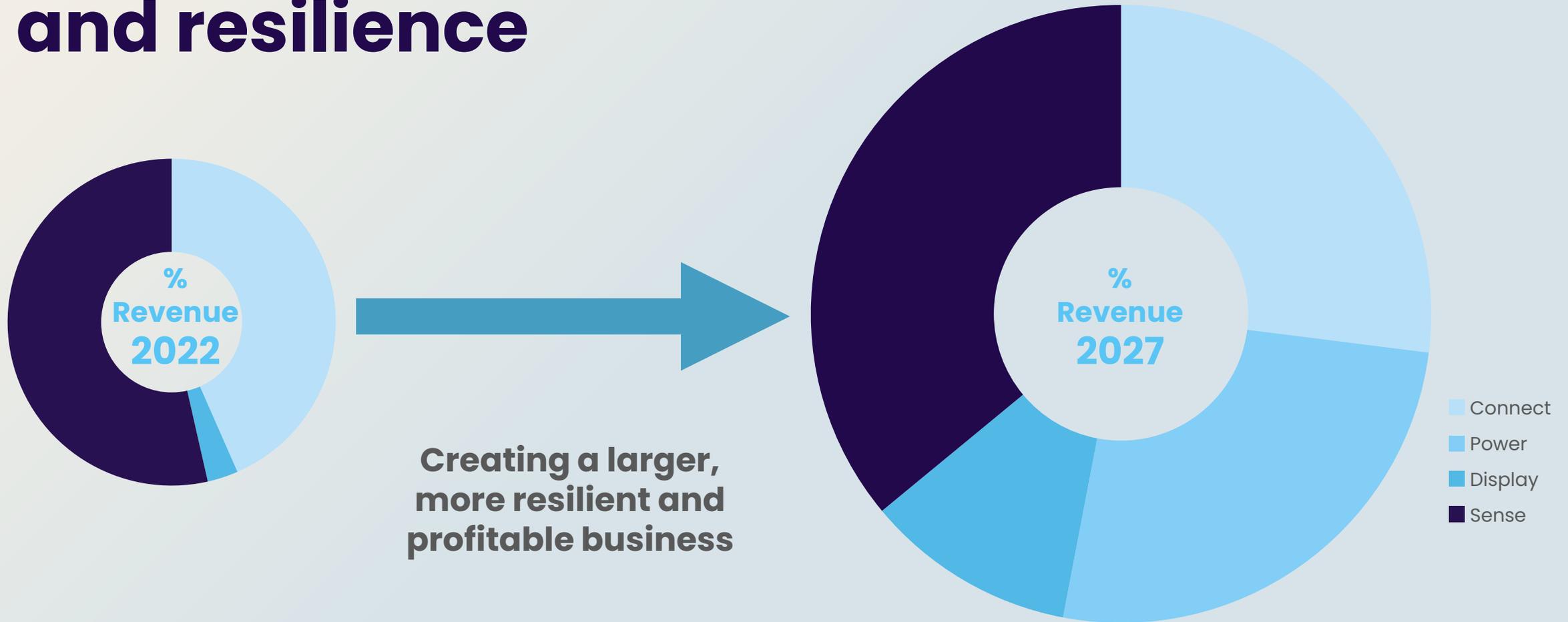
IQE will enable the development of microLED Display



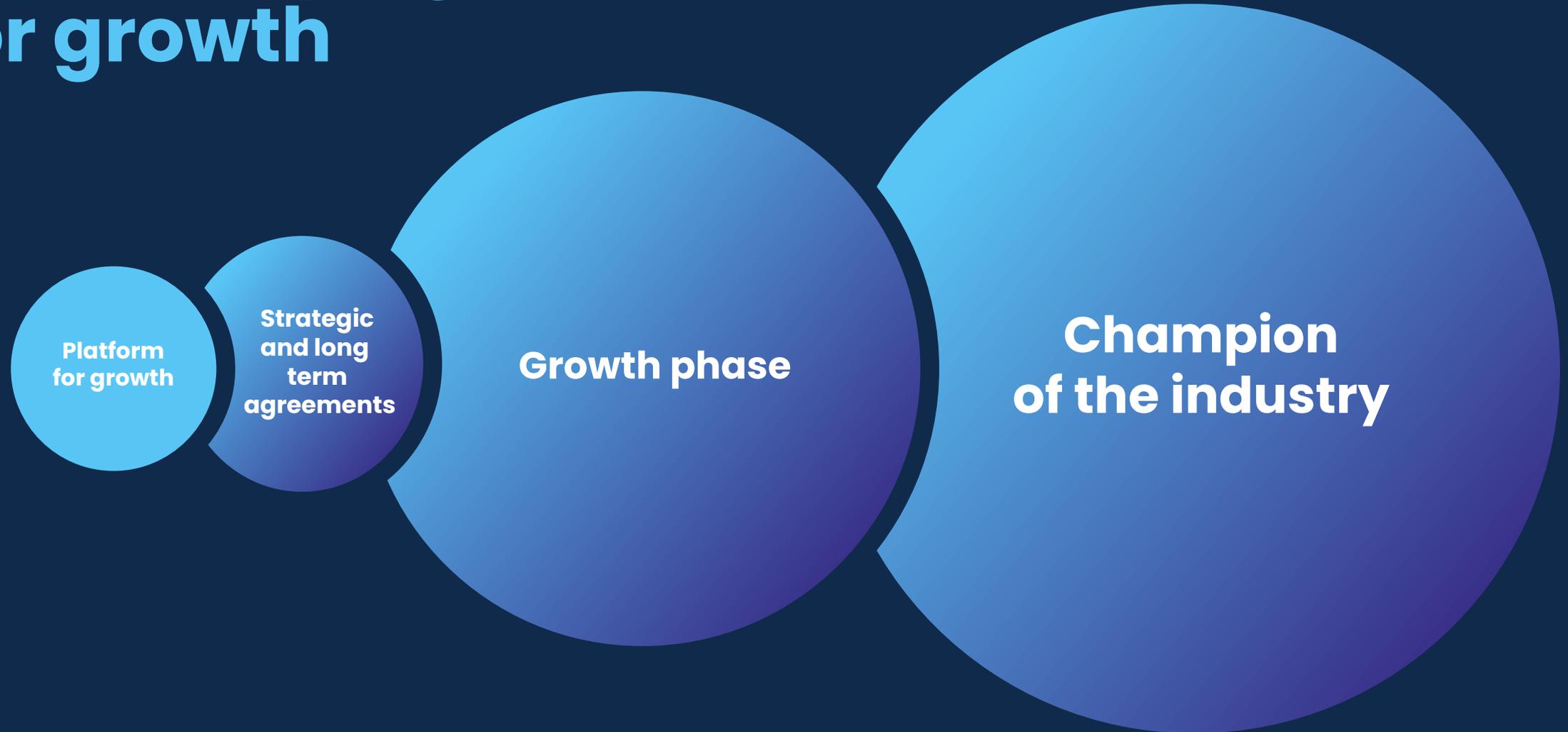
**>56%
CAGR**



IQE's diversification strategy will enable long term growth and resilience



We are laying the foundations for growth



A person wearing a white cleanroom suit and blue gloves is holding a large, circular silicon wafer. The wafer has a grid of small, colorful squares (red, green, blue) on its surface. The background is a cleanroom environment with blue lighting and computer monitors.

Margin expansion



**Architects
of tomorrow**

Over
30%

**EBITDA margin
target by 2027**

Margin expansion



Delivering margin expansion over the next 5 years

2022



Lower wafer volume



6 epitaxy sites



High fixed costs as a % of revenue

2027



3X reactor capacity manufacturing at high volume



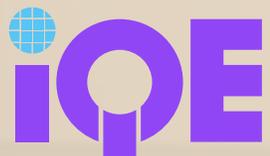
4 strategic, scalable epitaxy sites



Optimised fixed costs as a % of revenue

A person wearing a full-body blue protective suit is working in a cleanroom environment. They are positioned in a long, brightly lit hallway lined with large, white industrial machines labeled "RIXTRON". The machines have control panels and various warning signs. The floor is highly reflective, and the ceiling has recessed lighting. The overall atmosphere is sterile and professional.

Investment approach and capital structure



**Architects
of tomorrow**

Shifting the approach to R&D Investment

Technology Push

Balance sheet funded

Long time-to-market

Technology risk sits with IQE

Development of leading edge advantage

Market Led

Collaborative strategic partnerships, capturing the value of our knowledge-base

Accelerates time-to-market

Technology risk shared/managed

Maintaining and leveraging our leading edge technology advantage

Capacity investment and capital structure

Tactical

Single reactor expansions

Material specific

Enabling development programmes

Funded by credit facilities and/or collaborative partnerships

Strategic

Multiple reactor expansions

Mass production oriented

Creation of economies of scale

Funded by customer commitment – long term agreements

Summary

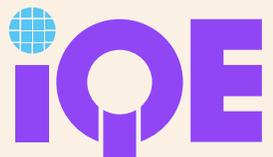
Margin
expansion

3X
revenue

Champion
of the
industry

IQE Capital Markets Day

2022



**Architects
of tomorrow**

We are market-led

We will capture value for what we do

We will scale and grow the business



**Architects
of tomorrow**