

# sondrel

digital turnkey services  
*Complexity delivered simply*

HY 2023 Results

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## Delays in design and production dates in weaker market

- Worldwide semiconductor extended market downturn compared to 2022
- Timings impacted by cost inflation, weaker end consumer confidence, shortfall in private equity financing, and political instability
- Revenues slipped from 2023 into 2024

## Reduced Revenues and cash generation in 2023

- Full year revenue to be not less than £13m
- Production revenue still expected to commence late in 2023
- Managing cash effectively with significant project inflows expected over the next few months

## No change in medium term ambition

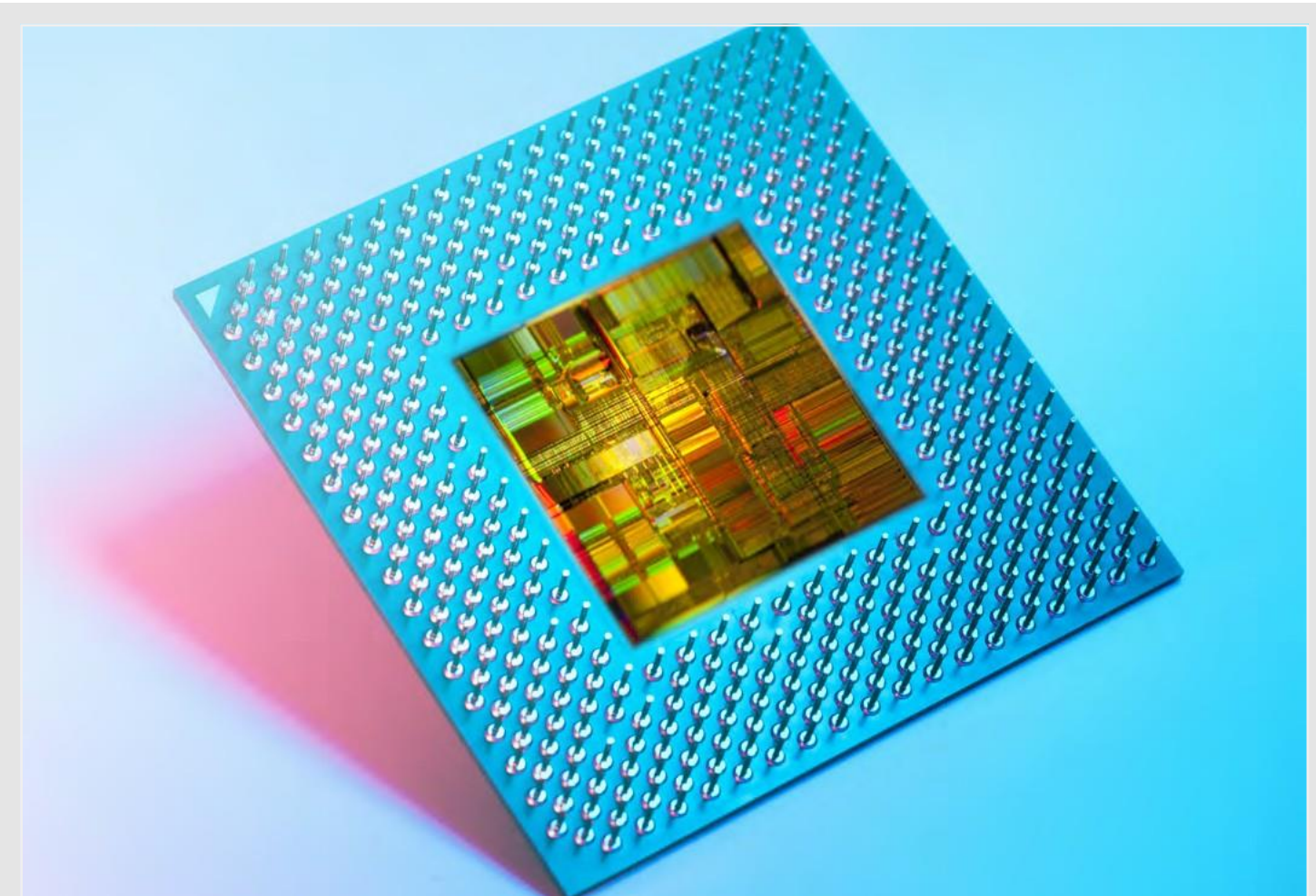
- Target annual revenue to exceed £100m
- Investment case remains intact

## Increase in potential production pipeline

- Increase from \$95m to \$170m
- Positive momentum in US market with 18 potential customers
- US sales pipeline now exceeds \$100m of prototype and design opportunities

# Strong strategic progress since IPO

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*“Increasingly, companies want custom-made chips fitting their applications’ specific requirements rather than use the same generic chips as their competitors”<sup>1</sup>*

<sup>1</sup>Accenture

USA office established

4 ASIC projects in progress

4 further ASIC designs in discussion with repeat customers in addition to new customer engagements

Staff retention rate at >90%

Enlarged design centre opened in Hyderabad, India

Engineering team reorganised for improved focus on ASIC projects and R&D

Direct account status with TSMC, GlobalFoundries & Samsung

Continued investment in long-term software tools

## Revenue

£9.3M  
+17%

## ASIC Revenue

£8.1M  
+50%

## Adjusted EBITDA

£0.4M  
+50%

## Prod'n Pipeline

\$170M\*  
+78%

## Cash

£0.1M  
-80%

## Revenue per head

£111k  
+14%

\*As of 31st August 2023

# Financial Highlights

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£m	HY23	HY22	Change	FY22	Notes
Revenue	9.3	8.0	16%	17.5	• Growth in period despite market downturn
Adj EBITDA*	0.4	0.3	33%	(1.1)	• Adjusted for Restructuring and IPO costs
Adj PBT*	(1.9)	(1.5)	-27%	(5.0)	• Increase in interest costs and exceptional items
Adj EPS	(0.02)	(0.03)	0%	(6)p	
Statutory PAT	(1.8)	(1.6)	-13%	(3.2)	
Debt	0	2.3	-100%	0.7	• Remaining loan of £0.7m repaid in January 2023
Cash	0.1	0.7	-80%	4.4	• Significant project payment rx since period end



# Income Statement

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£m	HY23	HY22	Notes
Consultancy	1.2	2.6	<ul style="list-style-type: none"> <li>Successful shift away from consultancy revenue continues</li> </ul>
ASIC	8.1	5.4	
<b>Total Revenue</b>	<b>9.3</b>	<b>8.0</b>	<ul style="list-style-type: none"> <li>Significant growth in ASIC revenues to drive future production volumes</li> </ul>
Cost of sales	(8.2)	(5.6)	
Gross Profit	1.2	2.4	<ul style="list-style-type: none"> <li>Cost of sales includes mask development costs for future production, engineering costs and R&amp;D</li> </ul>
Admin expenses	(3.5)	(3.8)	
Restructuring / IPO costs	(0.5)	(0.1)	<ul style="list-style-type: none"> <li>Restructuring costs in China due to strategic focus on the US, IPO costs in prior period</li> </ul>
Other operating income	1.3	0.3	
Finance costs	(0.4)	(0.3)	<ul style="list-style-type: none"> <li>£1.3m of R&amp;D tax credits in other operating income</li> </ul>
<b>Loss before Tax</b>	<b>(1.9)</b>	<b>(1.5)</b>	
Tax	0.1	0	
<b>Loss after tax</b>	<b>(1.8)</b>	<b>(1.5)</b>	

# Balance Sheet

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£m	HY23	FY22	Notes
Tangible assets	0.8	0.9	
Intangible assets	16.7	17.7	
<b>Non-current assets</b>	<b>17.5</b>	<b>18.7</b>	
Inventory/WIP	0	1.0	• WIP in prior year was the development cost associated with a mask set
Trade and other receivables	13.8	10.3	• Increase in trade receivables due to increases in project receivables and R&D tax credits
Cash	0.1	4.4	
<b>Total current assets</b>	<b>13.9</b>	<b>15.8</b>	
<b>Total assets</b>	<b>31.4</b>	<b>34.5</b>	• Bank borrowing repaid, shareholder loan repaid in January 2023
<b>Current liabilities</b>	<b>16.9</b>	<b>15.0</b>	
Other long-term payables	7.9	10.4	• Long-term liabilities reduced due to the software acquisition per IFRS 16
Borrowings	--	0.7	
<b>Total Liabilities</b>	<b>24.8</b>	<b>26.0</b>	
<b>Net assets/(liabilities)</b>	<b>6.7</b>	<b>8.5</b>	

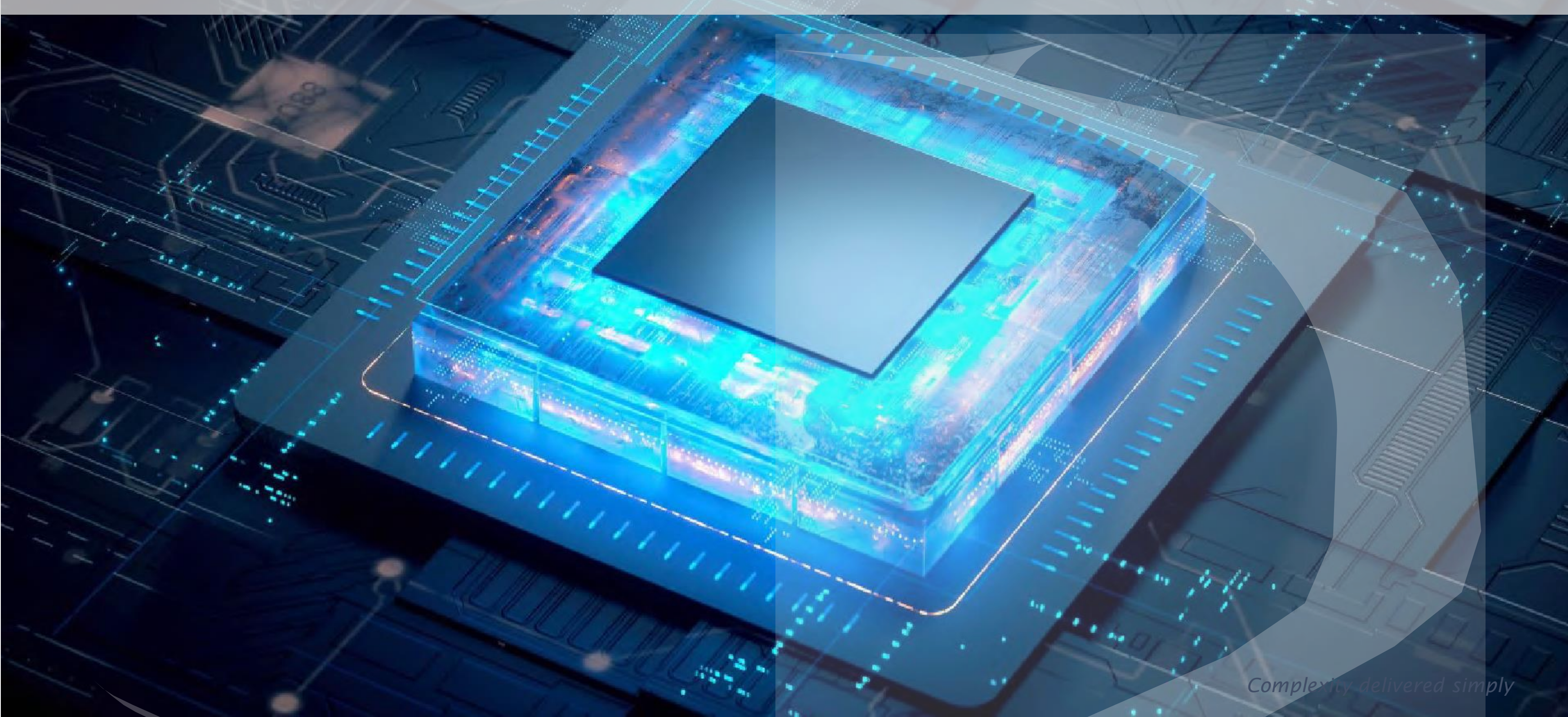


£m	HY23	HY22	Notes
Loss after tax for the year	(1.8)	(1.6)	
Non-cash adjustments	1.8	1.8	
Working capital movements	(1.9)	3.4	
<b>Cash generated from operations</b>	<b>(1.9)</b>	<b>(3.7)</b>	<ul style="list-style-type: none"> <li>• Non-cash adjustments largely amortisation and depreciation of £1.3m</li> </ul>
<b>Net cash outflow from investing activities</b>	<b>(1.1)</b>	<b>(2.4)</b>	<ul style="list-style-type: none"> <li>• Working capital movement due to incidence of project milestones – large payment received post period end</li> </ul>
Borrowings repaid	(0.7)	(0.2)	
Interest and lease payments	(0.6)	(0.3)	
<b>Net increase/(decrease) in cash and cash equivalents</b>	<b>(4.3)</b>	<b>(0.8)</b>	<ul style="list-style-type: none"> <li>• Investing: acquisition of software.</li> </ul>
Cash and cash equivalents at the beginning of the year	4.4	(1.2)	
<b>Cash and cash equivalents at the end of the period</b>	<b>0.1</b>	<b>(0.4)</b>	



# Business Update

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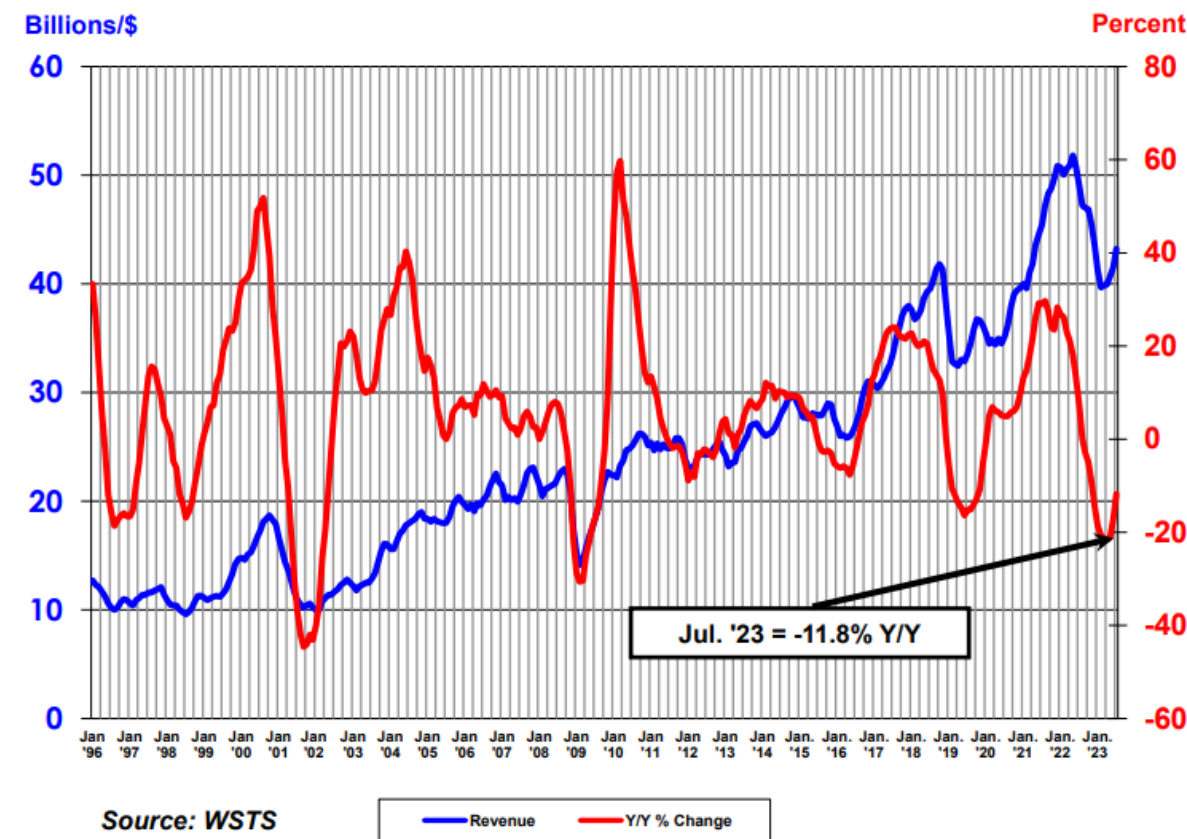
# Signs of Recovery in WW Semiconductor Market

In July 2023, TSMC reported that second quarter was impacted by the overall global economic conditions, which dampened the end market demand and customers' ongoing inventory adjustment.

Persistent weaker overall macroeconomic conditions, slower-than-expected demand recovery in China, and overall softer end market demand conditions, mean customers are more cautious and intend to further control their inventory into 4Q '23.

(Source: TSMC Earnings call July 20, 2023)

**Worldwide Semiconductor Revenues**  
Year-to-Year Percent Change



(SIA) announced global semiconductor industry sales totaled \$43.2 billion during the month of July 2023, an increase of 2.3% compared to the June 2023 total of \$42.2 billion but 11.8% less than the July 2022 total of \$49.0 billion.

Global sales remain down compared to last year, but the year-to-year decrease in July was the smallest gap of the year to date, providing reason for optimism over the remainder of 2023 and beyond.

(Source : [www.semiconductors.org/global-semiconductor-sales-increase-2-3-month-to-month-in-july](http://www.semiconductors.org/global-semiconductor-sales-increase-2-3-month-to-month-in-july))

# Well positioned for growth

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## Fast growing market

- Worldwide semiconductor market forecast to reach \$1tn by 2030
- ASIC market around 40% of the total semiconductor market
- Focused on supporting key growth markets of Automotive, High-Performance Computing, Industrial IoT, and AI

## Multiple drivers of revenue and earnings growth

- Addressing leading edge designs with increasing cost of ASIC design – EDA, IP, Masks, Wafers,
- Increasing value of 3rd party IP and associated revenue
- First production orders expected by end 2023

## Well supported by strong, industry leading partners

- TSMC DCA partner with direct support
- ARM Approved Design Partner
- One of 2 non-Asian Samsung SAFE partners
- Direct engagement with GlobalFoundries, Amkor, ASE

## Well-known / limited competition

- Only advanced ASIC company able to offer localised supply chain and management to EMEA and USA customers
- Enabling IP capability

## A clear growth strategy with a proven and differentiated business model

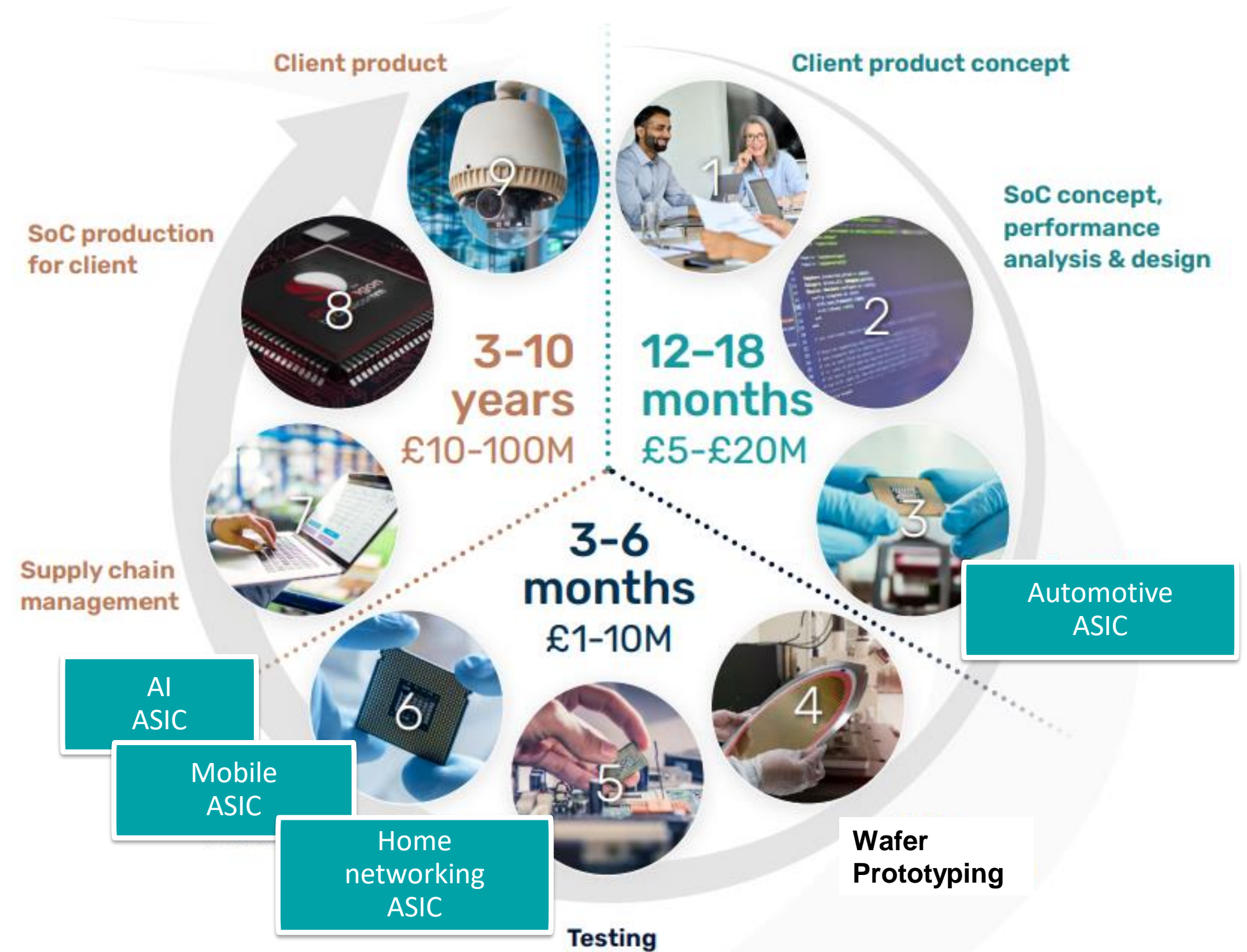
- ASIC design → Prototyping → Production

## Entered the US market

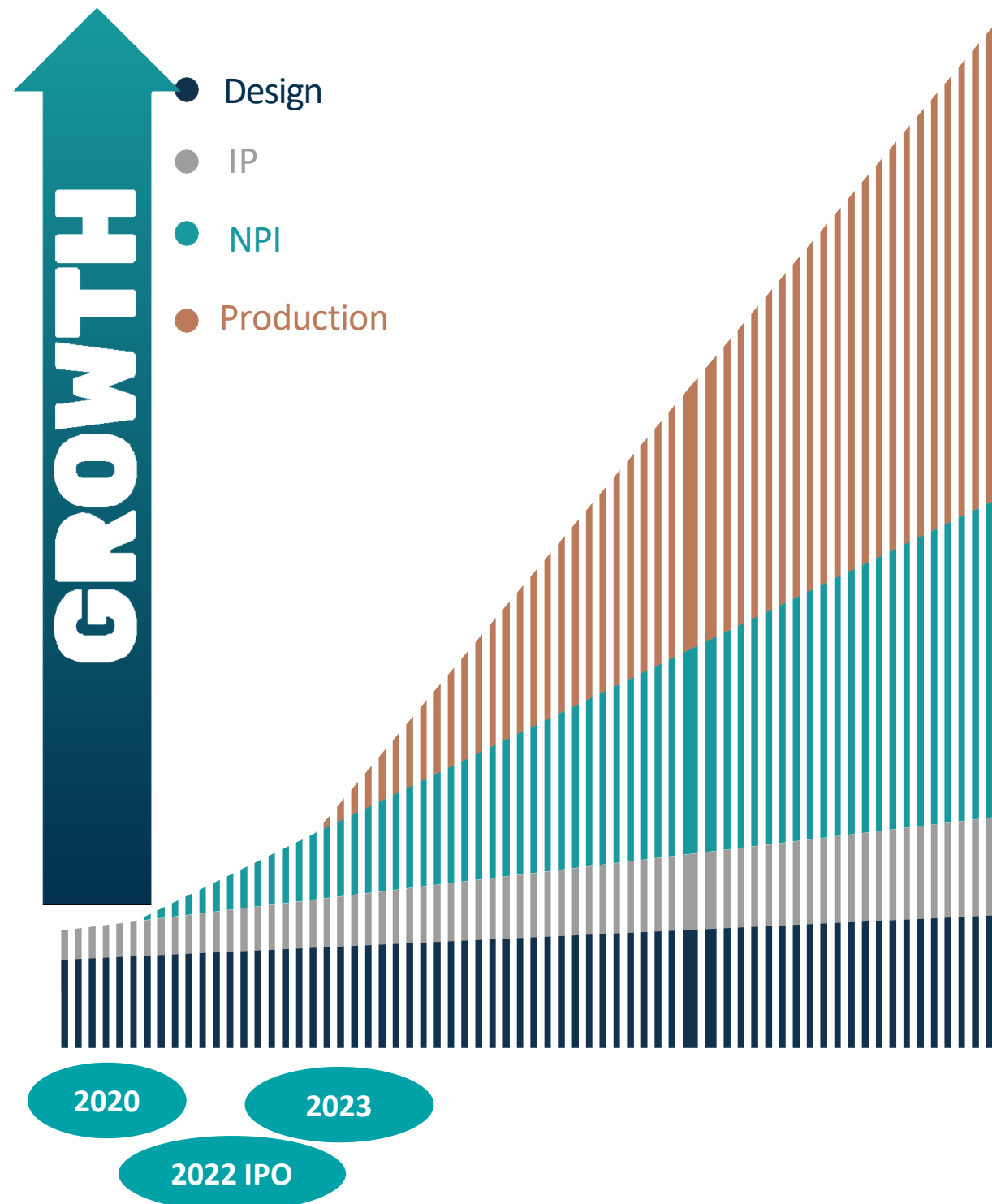
- Many requests for localised supply chain
- Office opened in Santa Clara, California
- Engineering and sales teams established and growing

# Project Progress

- ✓ Projects continue to make good progress towards release for production
- ✓ Range of applications provide insurance against volatility in any one market vertical
- ✓ Successful production release often enables next project within roadmap



# Multi-tier revenue growth



Production: Highly leveraged growth as multiple designs reach production

NPI (New Product Introduction): Production tool costs (masks, etc.) rising exponentially with process geometry

IP: IP revenue rises with design complexity

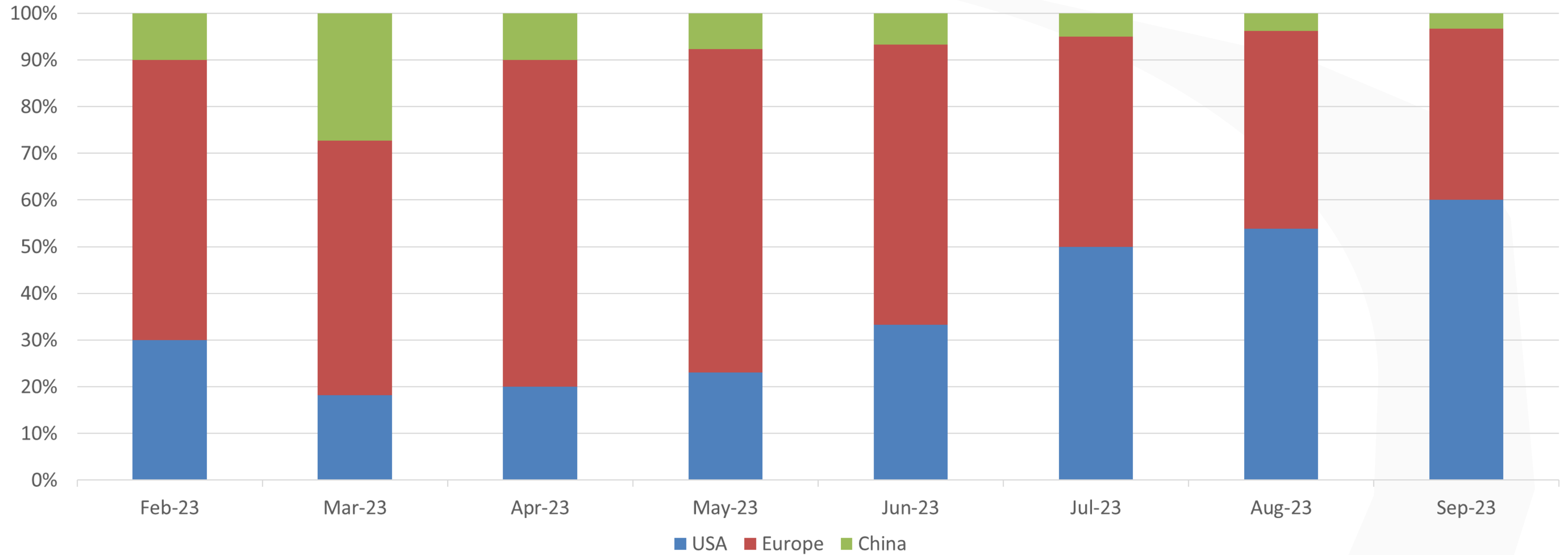
Design: Design revenue driven by headcount growth



# Strong progress with US sales pipeline

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Pipeline Proportions

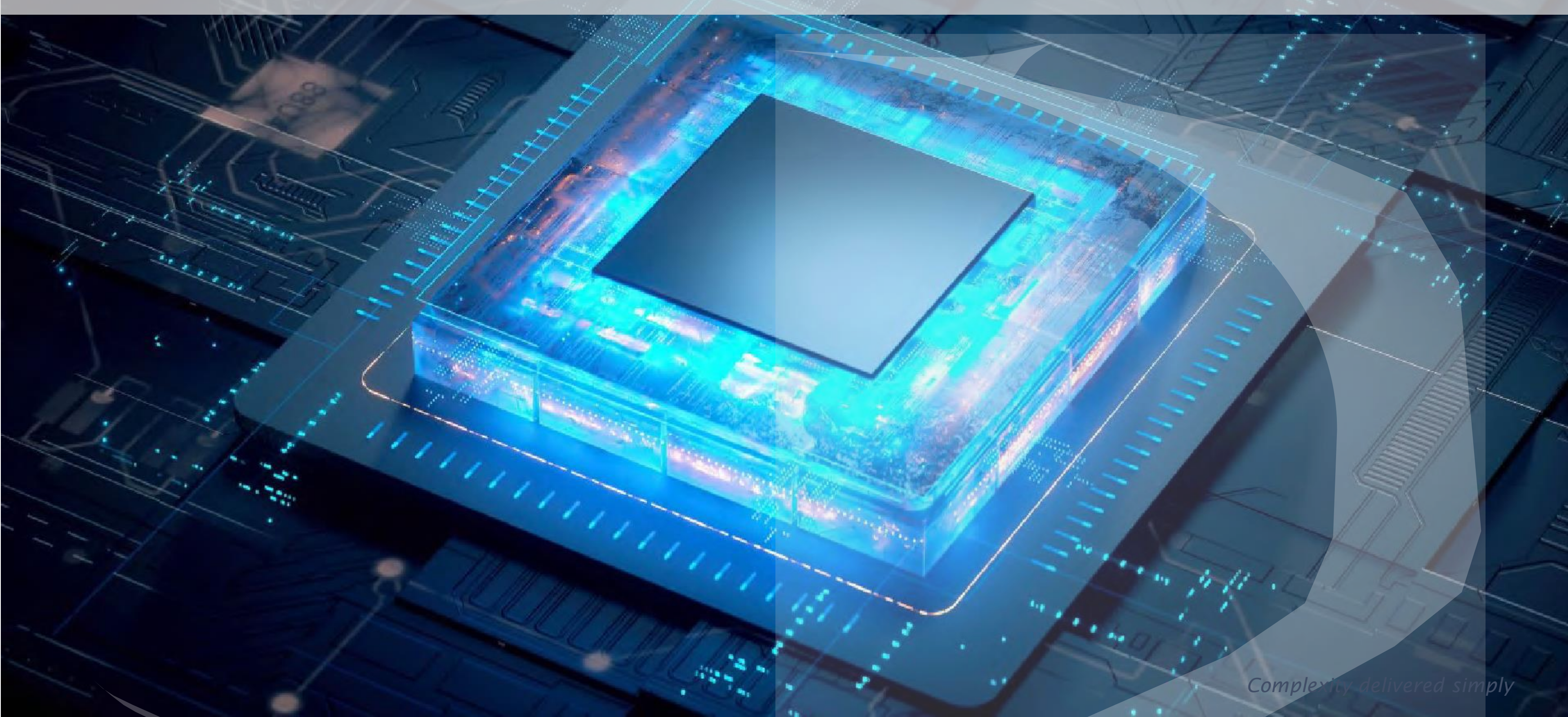


- **Softening of end demand during 2023** around VC investment, certain end markets (e.g., mobile phones), China/Russia trade restrictions, and inflation.
- **Signs of the market picking up in the second half** and production revenues expected to commence in 2023
- **We remain confident in medium-term ambition** to reach £100m revenue
- **Well positioned in growth markets** – automotive, AI, AR/VR, and image processing
- **Strong growth** in US ASIC opportunities
- **Continue to deliver live ASIC projects** moving towards production
- **Timing of revenue and cash receipts** remain linked to end customer sentiment and decision-making
- Well placed to benefit from **USA & and European government investments** in semiconductors and customer demand to shorten supply chains.



# Appendices

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# Megatrends driving our business

## End market megatrends

- |            |   |
|------------|---|
| Data       | <ul style="list-style-type: none"> <li>• Generation</li> <li>• Consumption</li> <li>• Processing Storage</li> </ul>   |
| Driven by: | <ul style="list-style-type: none"> <li>• Adoption of AI</li> <li>• Expansion of 5G</li> <li>• Autonomous Cars</li> <li>• Deployment of IoT</li> <li>• Data Analytics</li> </ul> |

## Semiconductor megatrends

- |  |
|--|
| <h3>Low Power / High Performance</h3> <p>Driven by 'green' drive for electrically connected devices or longer life for battery driven devices.</p> |
| <h3>Cost</h3> <p>ASIC costs massively increasing at leading process nodes.</p>   |
| <h3>Immutable Security</h3> <p>Authenticate everything.<br/>Ethical implementation of AI.</p>  |

## SoC turnkey services megatrends

- |  |  |
|--|--|
| <h3>SoC Turnkey Services</h3> <p>adoption driven by:</p>         | <ul style="list-style-type: none"> <li>• Product Differentiation</li> <li>• Increased Performance</li> <li>• Reduced Cost</li> </ul> |
| <h3>Continual Refresh Cycles</h3> <p>driven by evolution of:</p> | <ul style="list-style-type: none"> <li>• Standards</li> <li>• Speeds</li> <li>• Process Nodes</li> </ul>                             |

## Geopolitical megatrends

The semiconductor chip pendulum is slowly swinging west

The US had fallen behind Asian production levels but that may be about to change  
*Opinion Technology*

*"On the question of where Britain should focus its energies, expert after expert raises design and intellectual property (IP) as beacons of light"* **The Times**

Senate advances more than \$50 billion bill to boost U.S. semiconductor production

*The Wall Street Journal*

*"The U.S. and European Union have pledged tens of billions of dollars to eventually increase domestic chip manufacturing and competitiveness with Asia."* **The Wall Street Journal**

EU plans multi-billion euro boost for chip production to ease supply disruptions

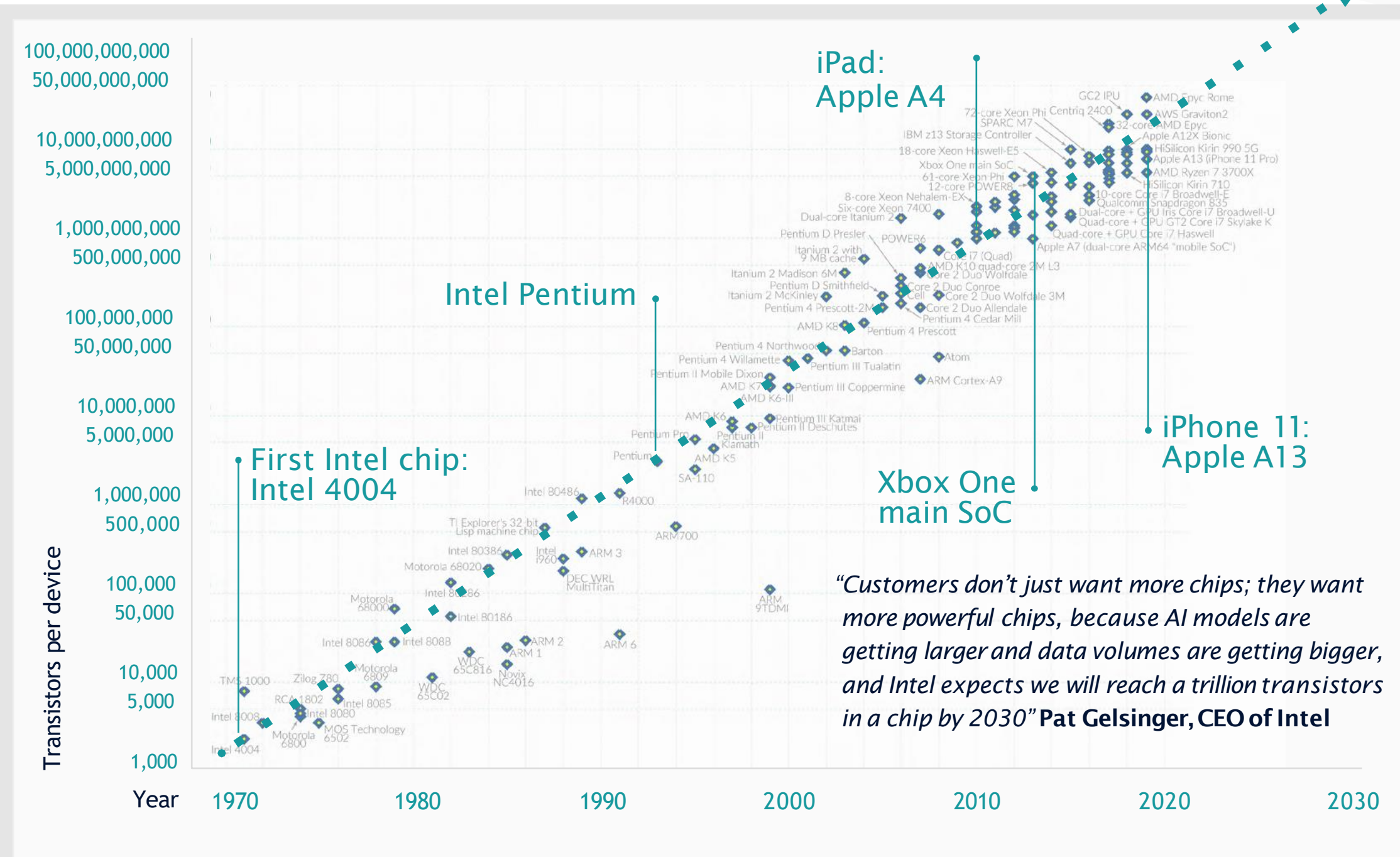
*The Wall Street Journal*

Semiconductors + Add to myFT  
Intel to invest \$20bn in new Ohio chipmaking complex

*"[The location of] oil has defined geopolitics in the past five decades. But fabs [ie fabrication factories for chips] will shape the next five —this is the new geopolitics,"* **Pat Gelsinger, CEO of Intel**

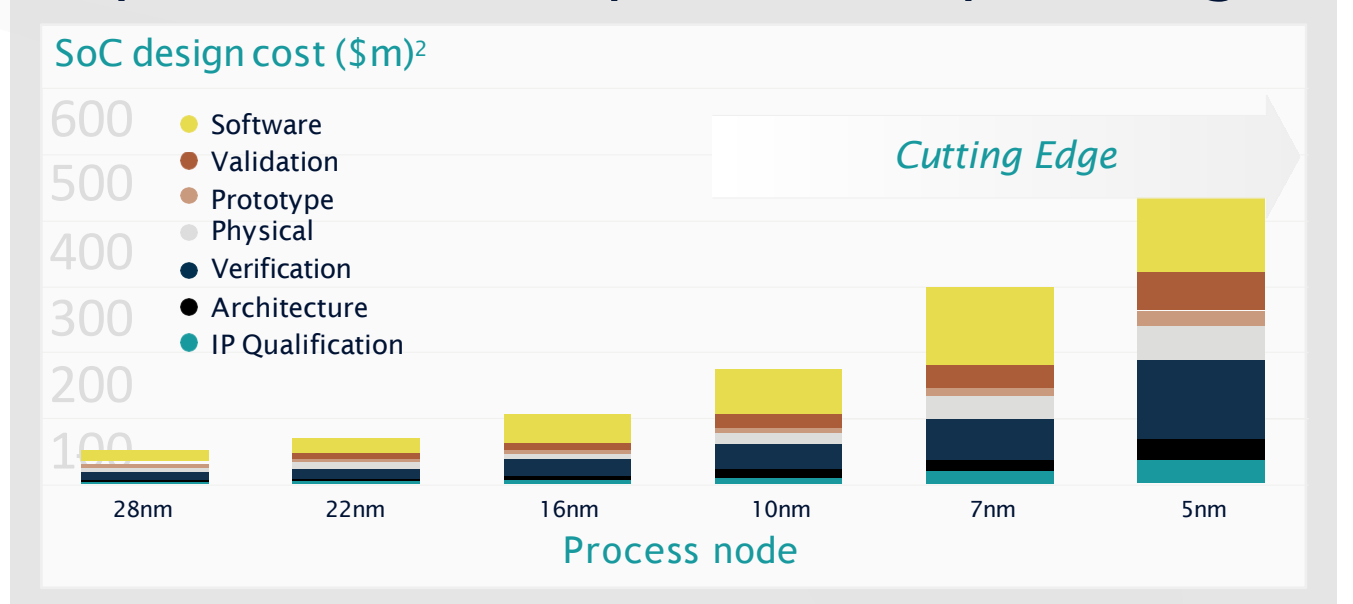
# Key trends in SoCs

## Moore's Law: number of transistors<sup>1</sup>

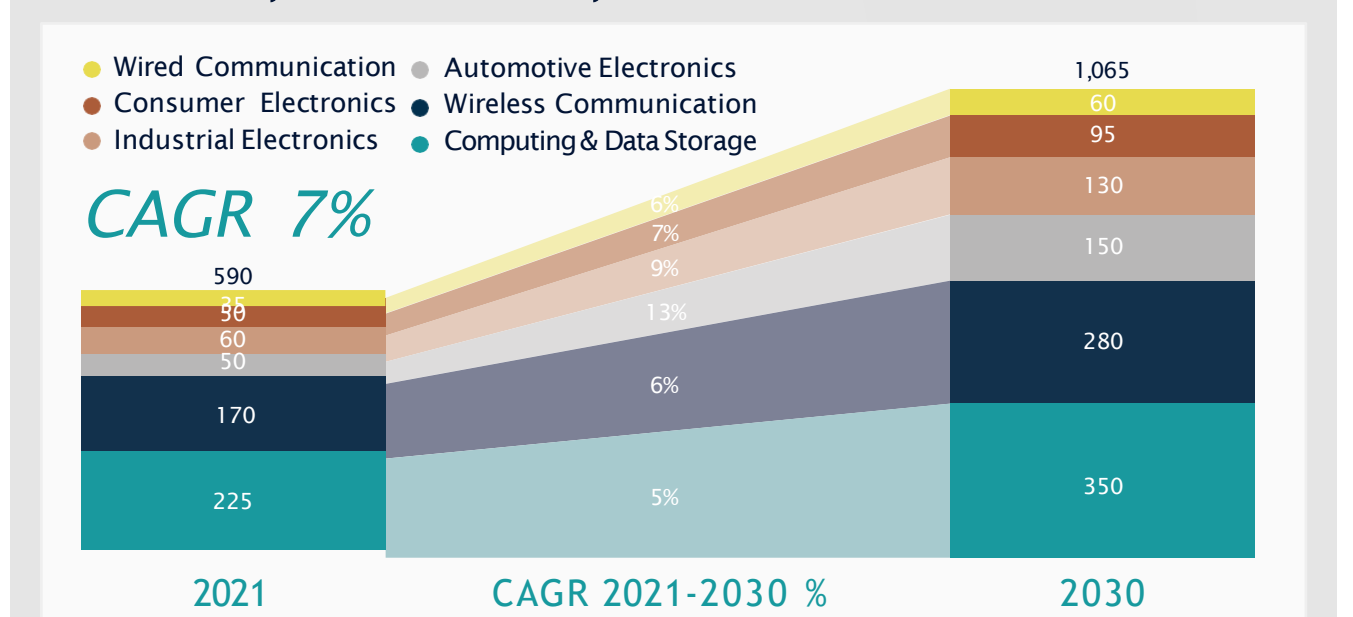


1. Wikipedia, 2. IBS, 3. McKinsey

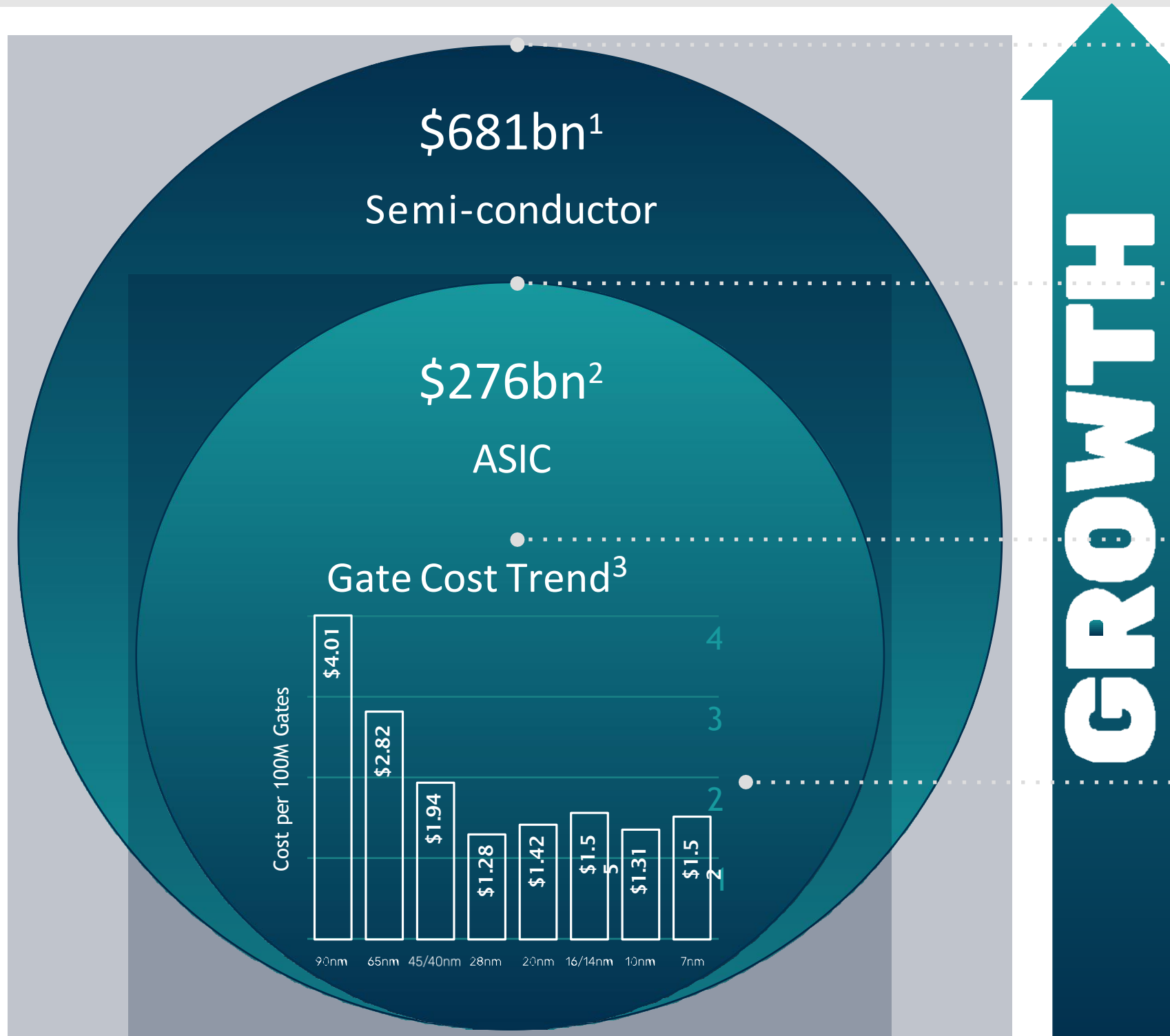
## Exponential development cost per design<sup>2</sup>



## Global semiconductor market value by vertical, indicative, \$billion<sup>3</sup>



# ASIC market growth



The overall semiconductor market is growing at a CAGR of 8.6% - \$803bn by 2028<sup>4</sup>

Total ASICs market accounts for c.40% of the value of the global semiconductor market in 2022

As cost/transistor levels off, specialist custom devices lower cost or improve performance per \$

Power, performance, cost & product differentiation drive growth in demand for custom silicon

1. European Parliamentary Research Service, 2. Precedence Research, 3. International Business Strategies, Inc. \$1.52 is based on the cost of TSMC's 7nm node, 4. Fortune Business Insights



# Continued investment in R&D to drive growth sondrel

Accelerating Time to Market (TTM) & building product differentiation

## Scalable IP

Hardware, software, tools

Graphics

Video Processing

AI

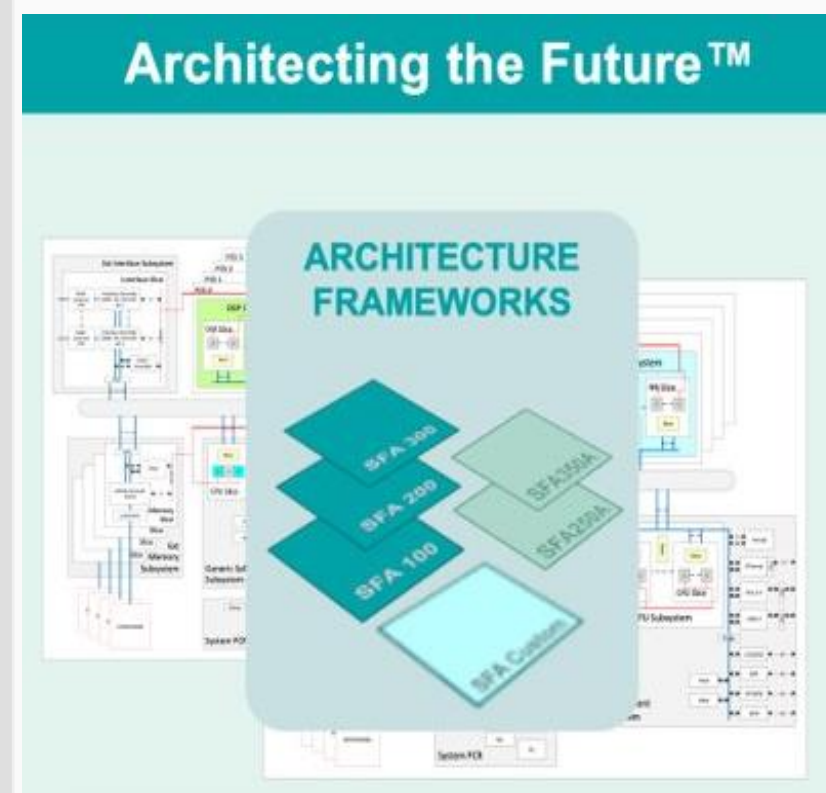
Processors

Communications



## Customisable Sondrel Platform

Pre-validated multi-IP configs, drivers, OS port, development boards



## Partners Differentiated ASIC

3<sup>rd</sup> party applications

Partner-specific applications

CPU

GPU

Video

Comms

Partner IP



## Optimised End Products

- Higher performance
- Lower power
- Lower cost



# Competitive landscape

Revenues	Examples	Strategy
Large	<b>BROADCOM</b> <sup>®</sup> <b>MEDIATEK</b> <b>MARVELL</b> <sup>™</sup>	<p>Large corporations with extensive IP portfolio. Focussed on very high-volume ASIC designs based around their IP. Do not compete against these companies.</p>
Medium	<b>socionext</b> <sup>™</sup> <b>MegaChips</b> <b>GUC</b> <b>VeriSilicon</b> <sup>™</sup> <b>alchip</b> <b>FARADAY</b> <sup>™</sup>	<p>Three of these target different foundries or geography. Major competitors are GUC, Alchip, Socionext, all based in Asia (Taiwan or Japan). First two are public on Taiwanese stock exchange. (GUC: staff 797, Revenue &gt; \$500m, Market Cap \$2.8bn)<sup>1</sup>.</p>
Small	<b>EnSilica</b> <small>your trusted IC partner</small> <b>AVNET</b> <sup>®</sup>	<p>Smaller mixed signal design companies normally using older technologies. Projects typically small, in both size and value. Rarely compete against these companies.</p>

1. As of 31 December 2021. Sources: GUC ESR Report 2021, Factset



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