



**u-blox**

**Locate and connect every thing.**

ZKB Swiss Equity Conference  
November 2024

# Disclaimer

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Should such risks or uncertainties materialize, or should underlying assumptions prove incorrect, actual results may vary materially from those described in this presentation.

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# u-blox at a glance - offering semiconductor solutions to Locate and Connect every thing

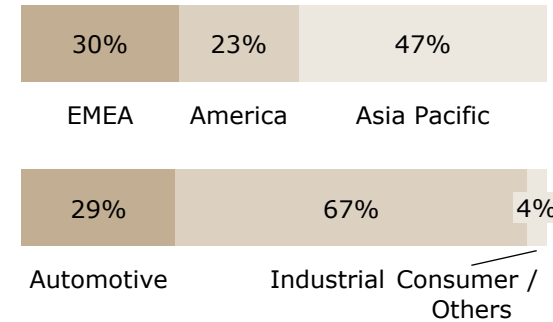
## Team



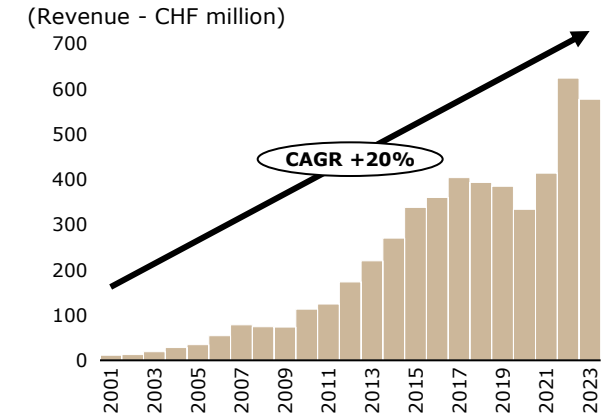
## Products



## Segments



## Track record



- Team of 1,400 experts
- Diverse culture with 60+ nationalities for a global market
- Founded in 1997, spin-off from ETH Zurich, CH

	Chip	Module	Service
<b>P</b> Positioning	●	●	●
<b>C</b> Cellular	●	●	●
<b>S</b> Shortrange		●	●

- Strong in industrial and automotive markets
- Regionally well balanced
- Highly diversified customer base (10,000+)
- Asset light (no own factories)

- Track record of robust growth
- Exposure to megatrends boost performance beyond semiconductor average

Note: KPIs in the slide as of 31.12.2023

# A day with u-blox – we support you, 24/7, everywhere



# u-blox contributes with chips and modules to enable key applications like automated driving

## Application: automated driving (ADAS)



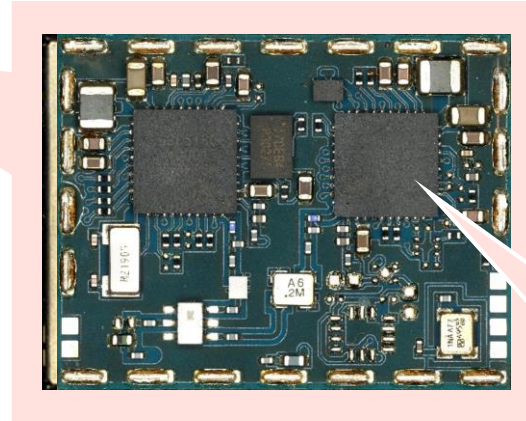
~150 ECUs per car

## ADAS Electronic Control Unit (ECU)



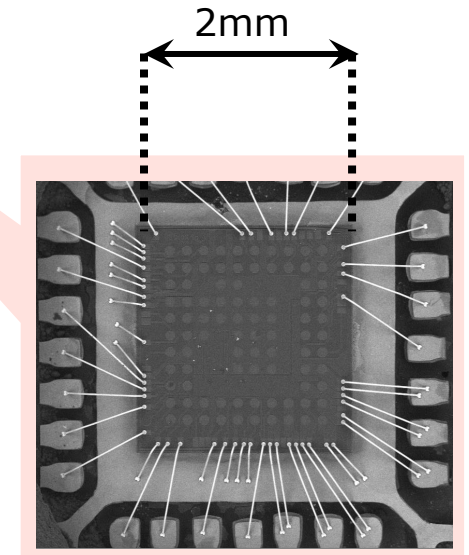
~hundreds to  
thousands components

## u-blox module



~50-500 components

## u-blox chip



~100 million transistors

# u-blox has a unique combination of technical competencies: algorithms, chip, software, cloud

## Signal processing: algorithms, software, chips



- Why: required for data transmission and reception by modifying signals for clarity, reliability, and efficiency
- u-blox experience
  - GNSS: > 25 years experience
  - Cellular: >12 years experience
  - Shortrange: > 8 years experience
  - Mixed-signal chip design: > 20 years experience

## Embedded systems connected to the cloud



- Why: highly optimized in functionality, size, power consumption, cost
- >25 years experience
- Optimized radio frequency design
- Certified
- Connected to the cloud
- Easy to use

## Reliability

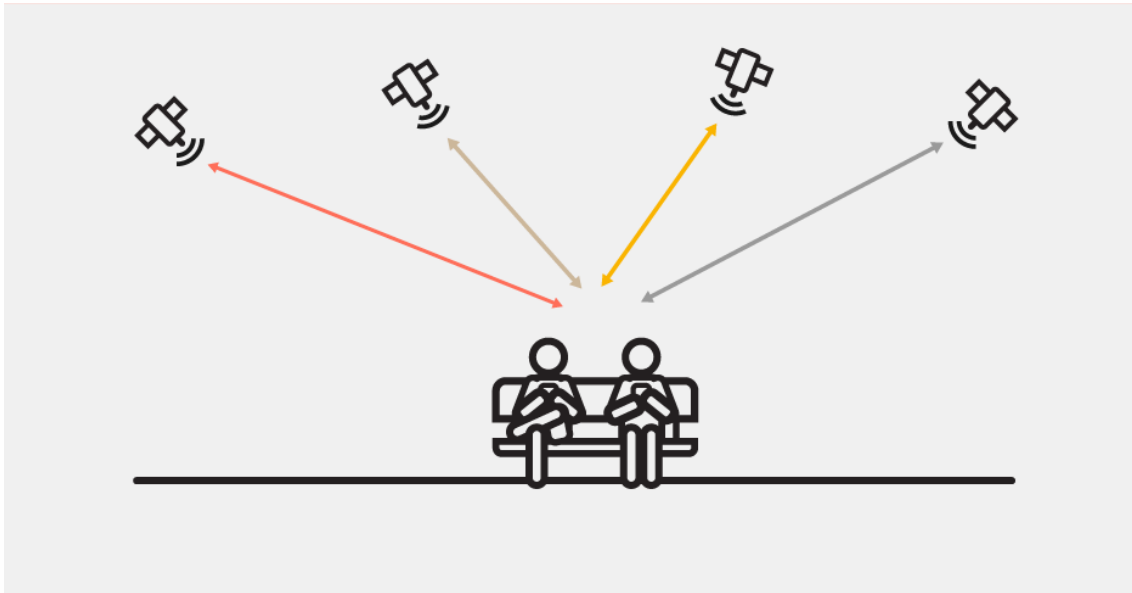


Why: key differentiator for automotive and industrial applications

- Quality
- Safety
- Security

# The concept of positioning is simple, making it better will continue for decades

## Positioning in theory



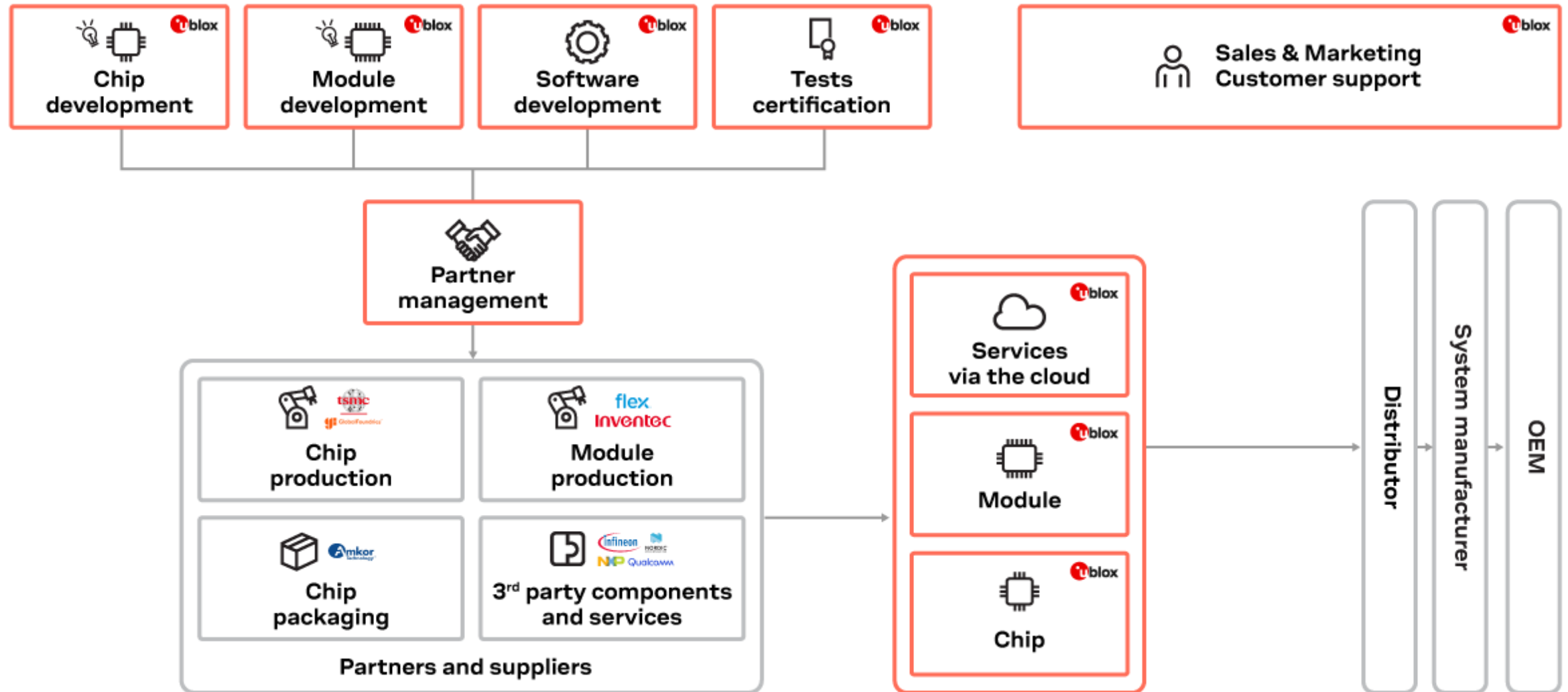
- Mathematical problem with 4 unknowns: "length, width, height, time"
- Time measurement between receiver and 4 satellites allows for the solution
- Stationary receiver and satellites, perfect environment

## Leading edge positioning solution by u-blox



- Up to 100 satellites for:
  - best signal strength
  - faster time to first position calculation
  - avoiding reflection
- Sensor fusion for dead reckoning
- Anti-spoofing and anti-jamming algorithms

# u-blox – an asset light engineering, marketing, and partner networking machine

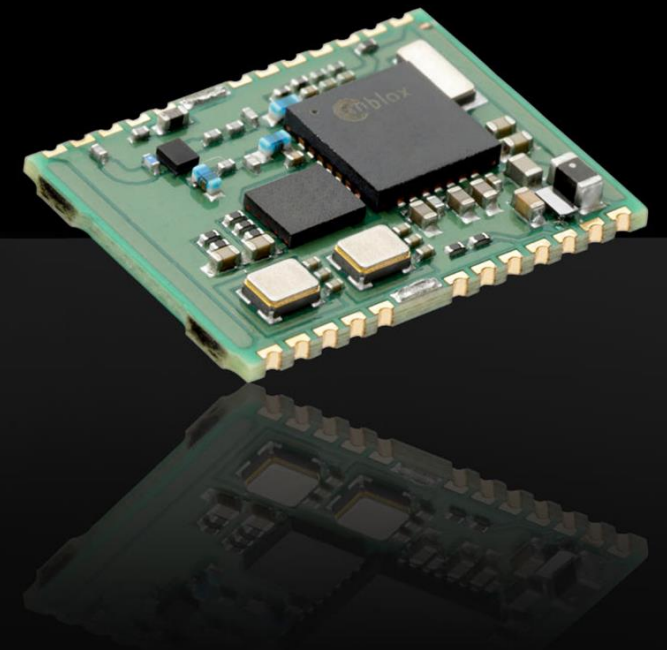


# u-blox has all competencies required to provide innovative, optimized and reliable solutions

	POS			CEL			SHO		
	Chip	Module	Service	Chip	Module	Service	Chip	Module	Service
<b>u-blox</b>	●	●	●	①	●	●		●	●
Nordic				○	○		●	○	●
Quectel, Telit Cinterion, Fibocom, Sunsea		●			●	●		●	
Semtech		●			●	●		●	
Hexagon, Trimble	○	○	○						
Airoha, Furuno, Sony, STM, Unicorecomm	●	○							
Broadcom	○						●		
Sequans				●	●				
Espressif, Silicon Labs							●	●	
Altair, ASR, UniSoC				●					
Alps, Azurwave, Laird, Murata								●	

● coverage    ① partial coverage    ○ no coverage

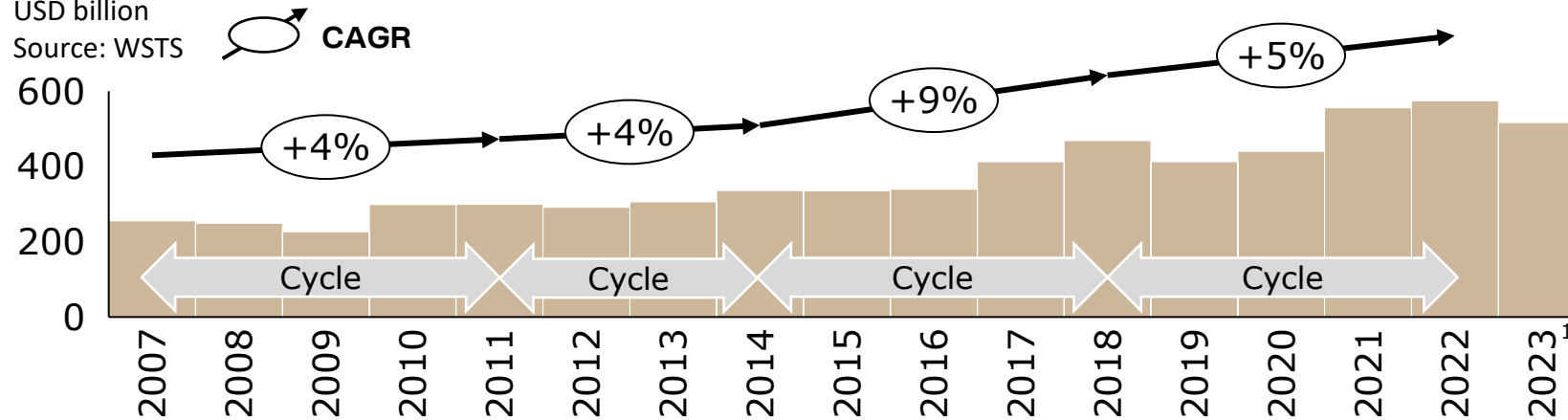
# Market and Strategy



# u-blox outperformed the semiconductor market growth rates consistently

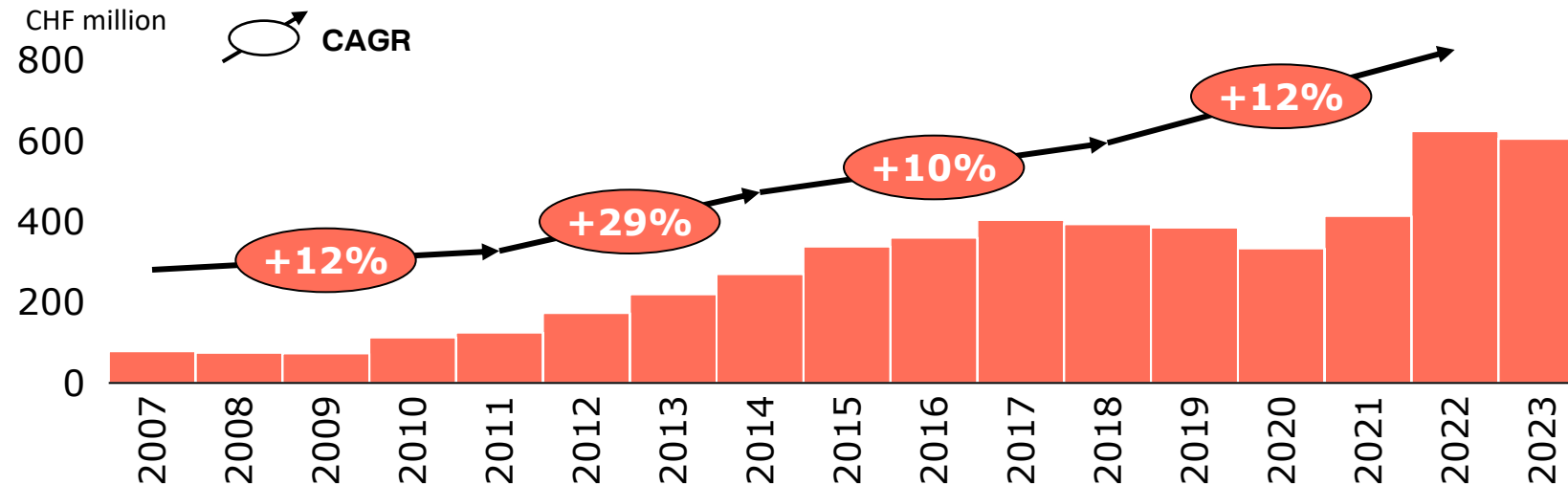
## Worldwide semiconductor sales

USD billion  
Source: WSTS



## u-blox sales

CHF million

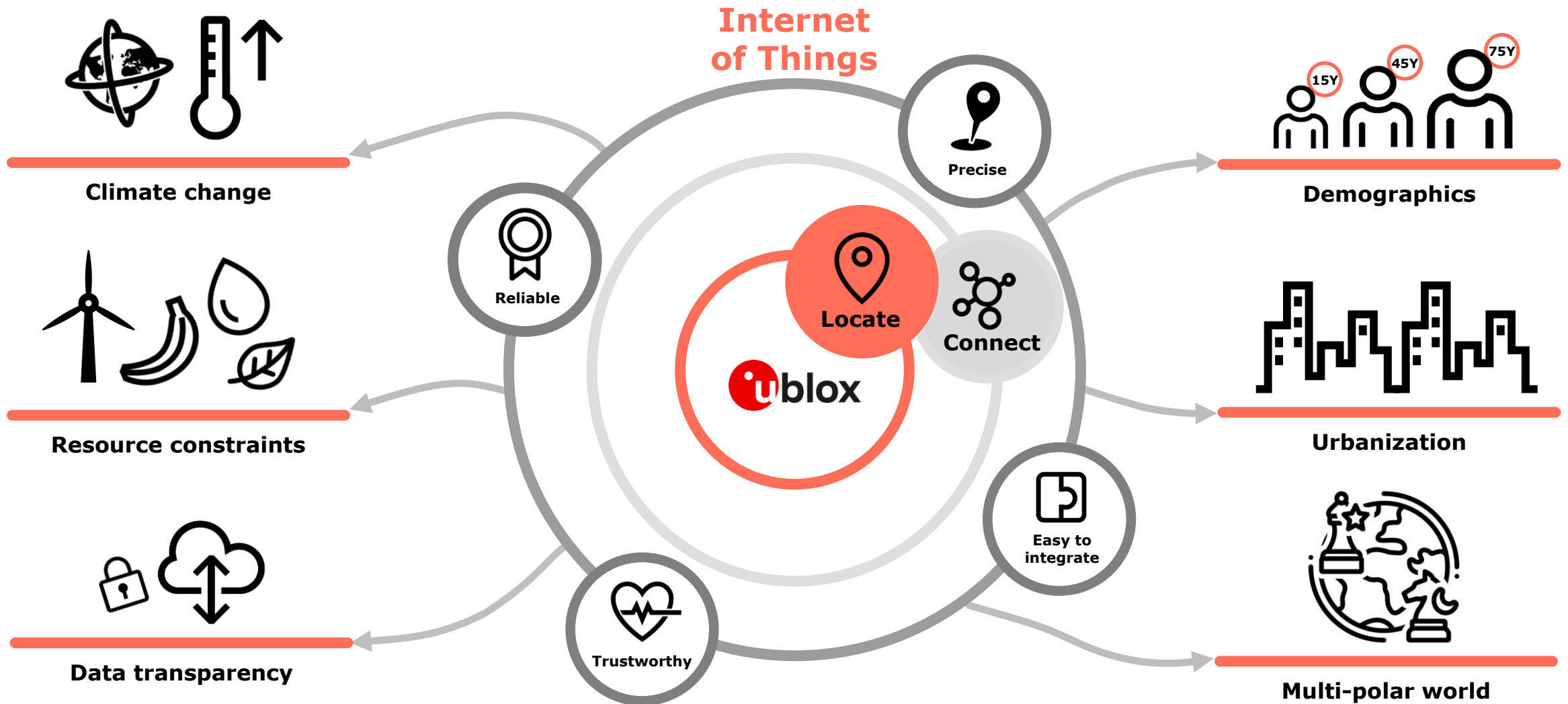


- u-blox's business is correlated with the semiconductor cycle
- u-blox outperformed the semiconductor market over every cycle
- A cycle could last 3-7 years

Notes:

<sup>1</sup> Source: World semiconductor trade association

# u-blox addresses megatrends by locating and connecting every thing



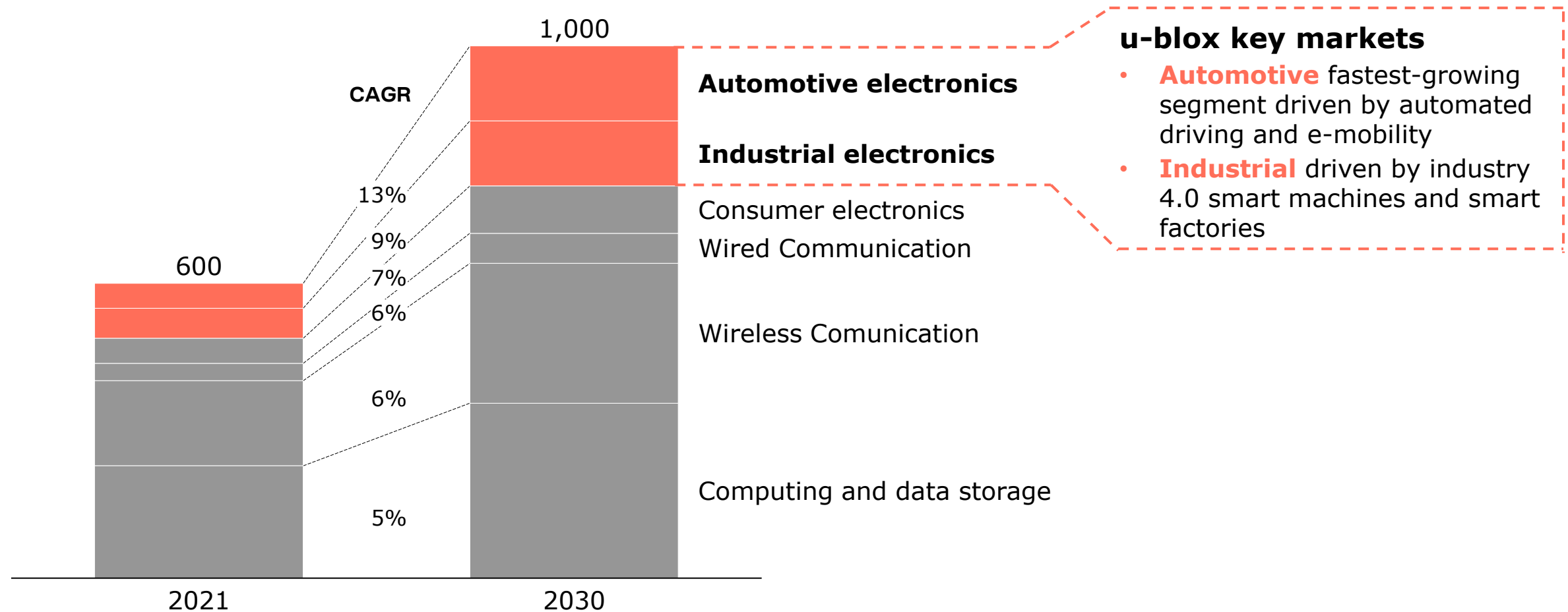
# Semiconductor industry: USD 1 trillion by 2030

## u-blox is active in high-growth markets

### Global market value by vertical

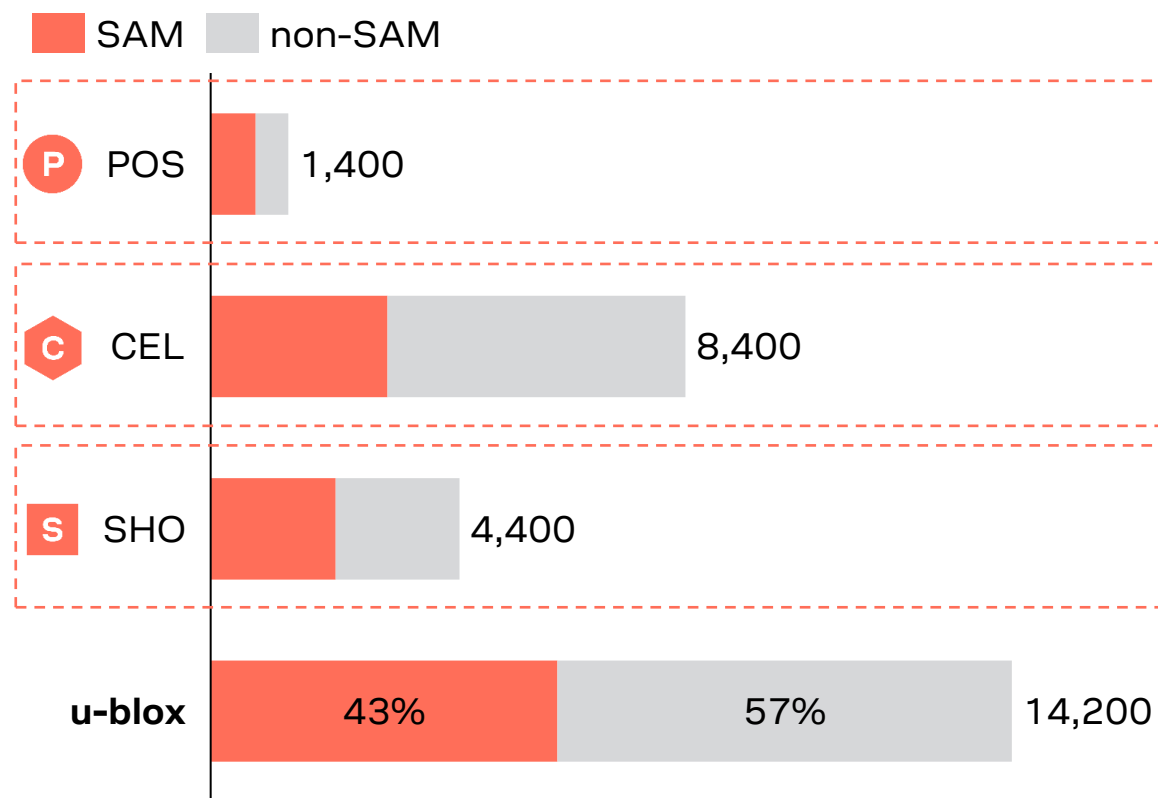
Indicative (USD billion)

Source: McKinsey



# u-blox addresses about 40% of its TAM – a wide field to expand based on our core competencies

u-blox TAM and SAM 2022 (USD million)



SAM content

- Automotive, Standard Precision GNSS, High Precision GNSS, and Timing
- 2G, 3G, NB-IoT, Cat-M, Cat-1 (bis), Cat-4, 5G (all markets ex-China)
- Wi-Fi includes car infotainment, OEM Telematics Unit, Home Appliances
- BLE includes Healthcare Devices, LED Lighting, Home/Building Automation & Security

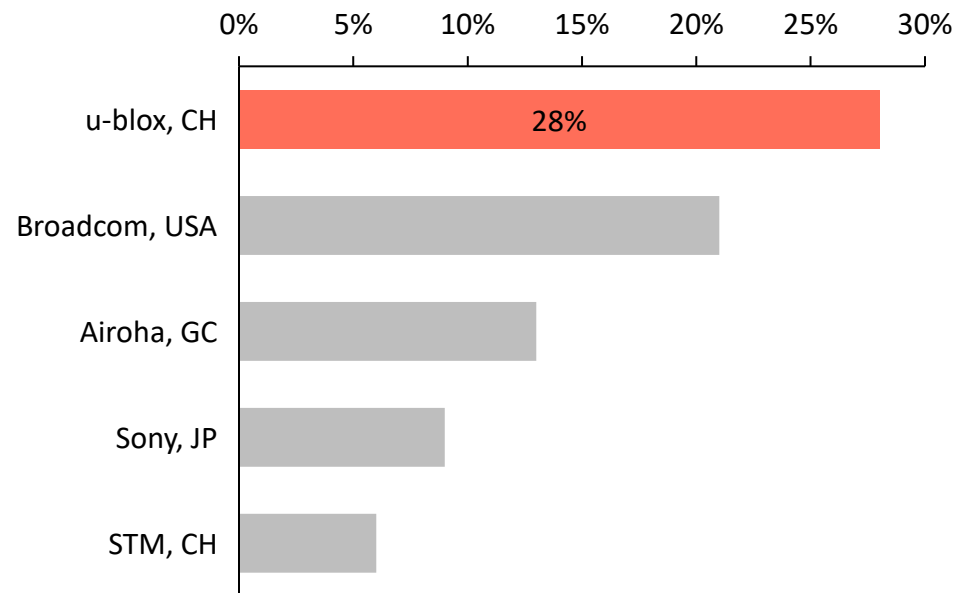
- P** POS Positioning
- C** CEL Cellular
- S** SHO Short-range

TAM = Total addressable market  
 SAM = Serviceable addressable market  
 Non-SAM = TAM – SAM  
 Source: u-blox, TSR, ABI, OMDIA  
 Note: TAM w/o mobile phones

# u-blox is the clear leader in POS and is well positioned for further market share gains in CEL

## POS market share

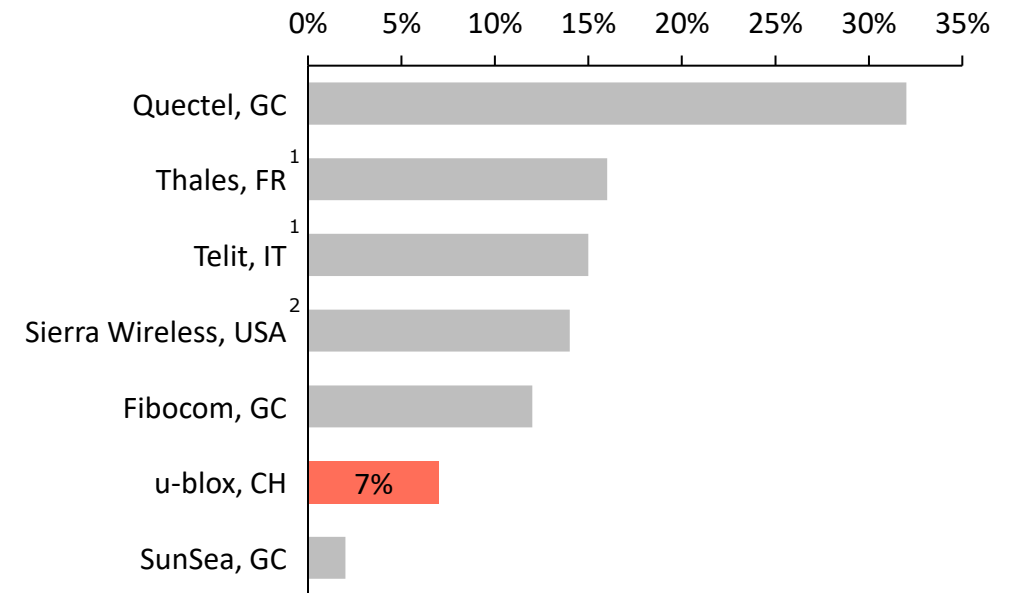
(modules + chips)



Standalone GNSS chips/module market in 2022 (TAM): USD 1.4bn

## CEL market share

(modules)



Cellular module market outside China in 2022 (TAM<sup>3</sup>): USD 6.7bn;  
SAM: USD 3.1 bn

### Notes:

1. Telit acquired the assets of Thales cellular IoT products in July 2022. The deal closed in January 2023. The new company is called Telit Cinterion.
2. Semtech acquired Sierra Wireless in August 2022. The deal closed in January 2023.
3. Based on OMDIA and TSR market share data, China 2022 cellular module TAM is about \$1.7B

GC: Greater China  
Source: u-blox

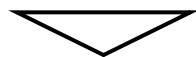
# u-blox generates significant value with its core offering and will continue to improve value creation in other high growth areas



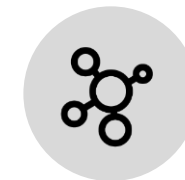
## Locate

POS, SER	2022	Direction
Revenue	~350m	↑
EBIT margin	>30%	→

- u-blox core strength
- Almost 1bn devices in the field



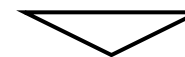
**Rock solid continuous growth**



## Connect

CEL, SHO	2022	Direction
Revenue	~275m	↑
EBIT margin	<0%	↑↑

- Significant growth in the last 5 years
- 25m CEL, 45m SHO devices in the field



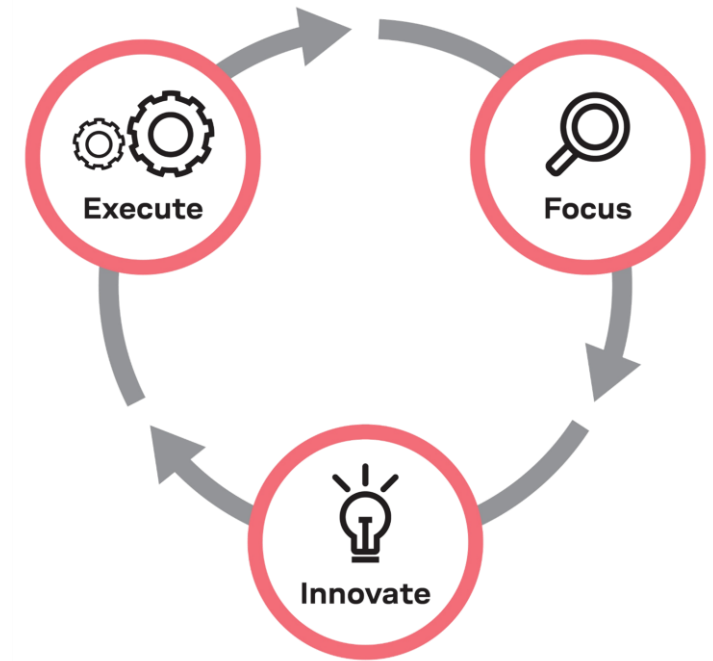
**Transformation plan in place**

Notes:  
Revenue in CHF million; EBIT margin adjusted  
SER: Services

# Strategic changes

- To support the development of u-blox to the next level, we have announced strategic changes at our CMD in November 2023
- These strategic changes have already been initiated and will support u-blox to achieve its new Target Operating Model

- 1 Increase focus on Positioning business
- 2 Turn around the Connectivity business
- 3 Improve execution performance



## Target Financial Model (over the cycle)

- >10% revenue growth (CAGR)
- ~14% EBIT margin (adj.)
- ~8% Free cash flow margin

# 1 Increase focus on the Positioning business

- **Goal**

- Secure continued profitable growth
- Expand into new application and customer segments

- **Key measures**

- Intensify R&D efforts for Positioning to accelerate product innovations
  - Executed: 60% of internal R&D staff dedicated to POS
  - Ongoing: further strengthening of POS
- Develop offerings for new applications
- Use services as additional customer value creator



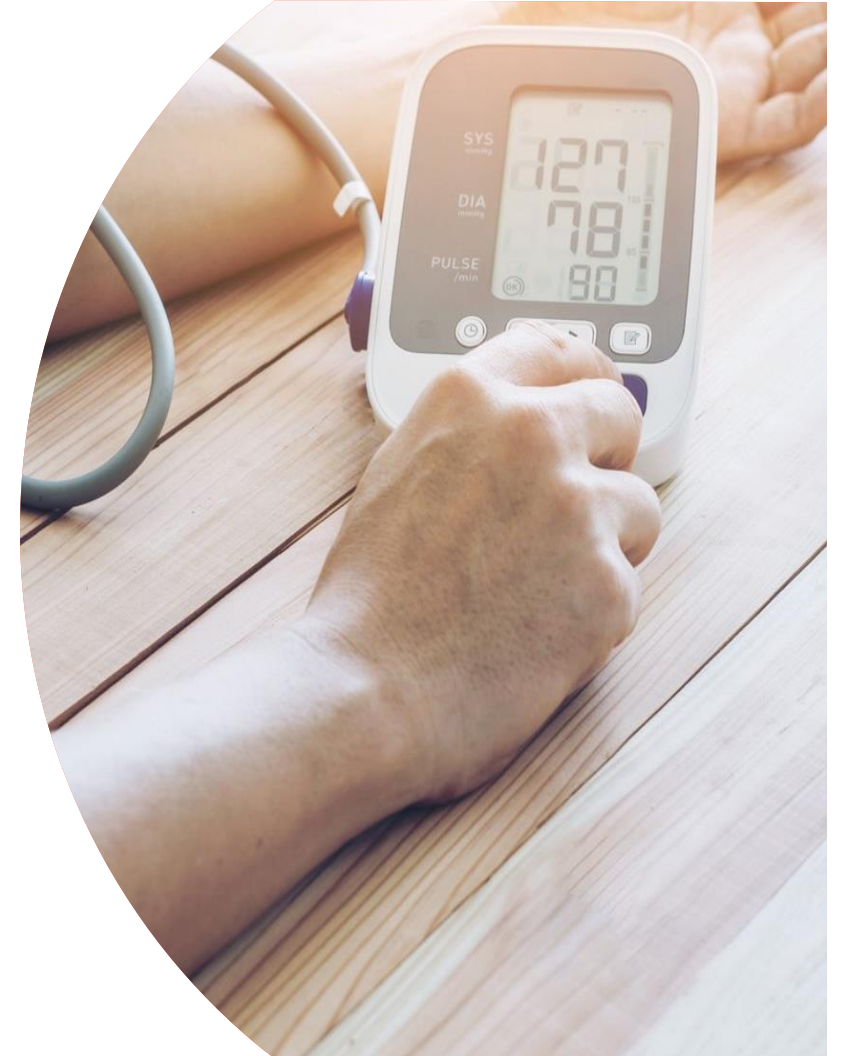
## 2 Turn-around the Connectivity business

- **Target**

- Accelerate winning market share
- Gain economies of scale to improve margins

- **Key measures**

- Win market share by leveraging our trustworthiness as a Swiss supplier in a multi-polar world
- Use scale to become the Western cost leader
- Stop future cellular chip development
- Focus on differentiating innovations, e.g. cellular + satellite + positioning hybrid modules



### 3 Improve execution performance

- u-blox grew from a start-up to a relevant IoT solutions company in the semiconductor sector
- To allow the company to reach the next level, more systematic approaches need to be introduced while staying efficient and agile

#### **Effectiveness**

- Improve R&D output with agile methods
- Implement an integrated company-wide ERP system, replacing the current multiple systems in place
- Improve focus on profitability to effectively steer the organization

#### **Efficiency**

- Improve procurement performance
- Improve product cost, especially for cellular, by establishing a design-to-cost toolset
- Improve net working capital management
- Leverage global site footprint to optimize cost



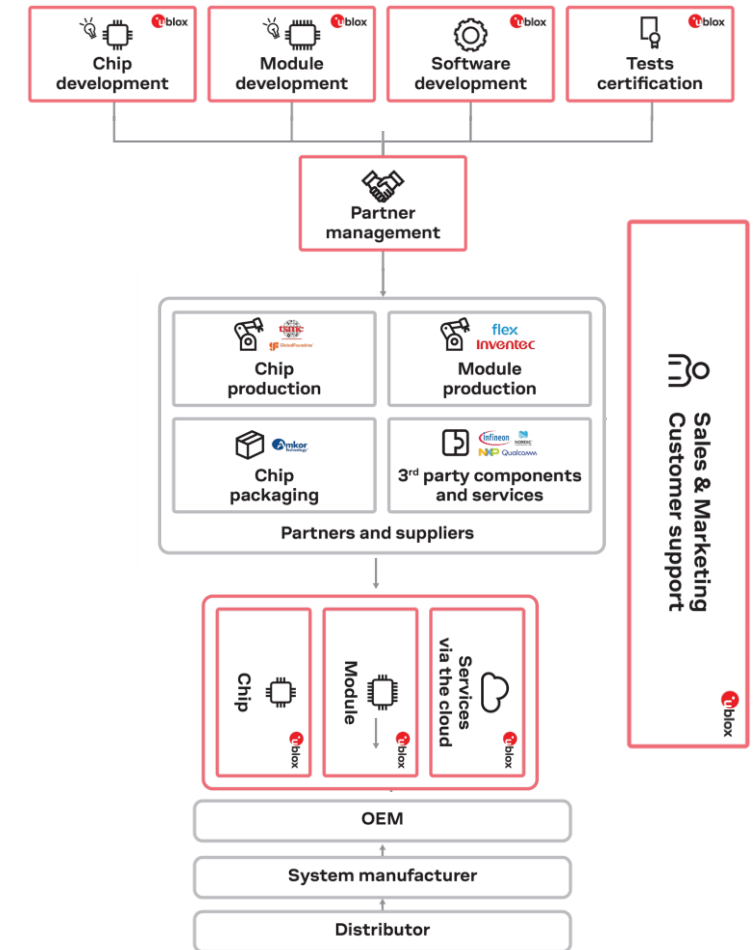
# 3 Integrated Business Planning

- u-blox identified improvement potential in its management systems that provide information for decision-making
  - Ownership
  - Data consistency across departments
  - Planning processes
- Integrated Business Plan approach kicked-off in 2023
  - Monthly reviews
  - 3-18 months horizon
  - Cross-functional
  - Drive alignment, transparency, and accountability
- Results achieved so far
  - Synchronized planning steps and data transparency across departments
  - Increased cross-functional visibility and collaboration
- Focus to continue on building solid management systems and processes to allow for timely and accurate decision-making



### 3 Significant changes in our procurement organization and approach, already implemented

- With a sourcing volume of over CHF 300 million in 2023, u-blox identified improvement potential in its procurement activities
- Procurement organization was reorganized: Global responsibility and volume pooling for key commodities
- Process adaptation to involve procurement early in the development process, enabling a systematic design-to-cost approach
- Benchmarking and product cost and process improvement projects initiated
- New procurement information systems in place

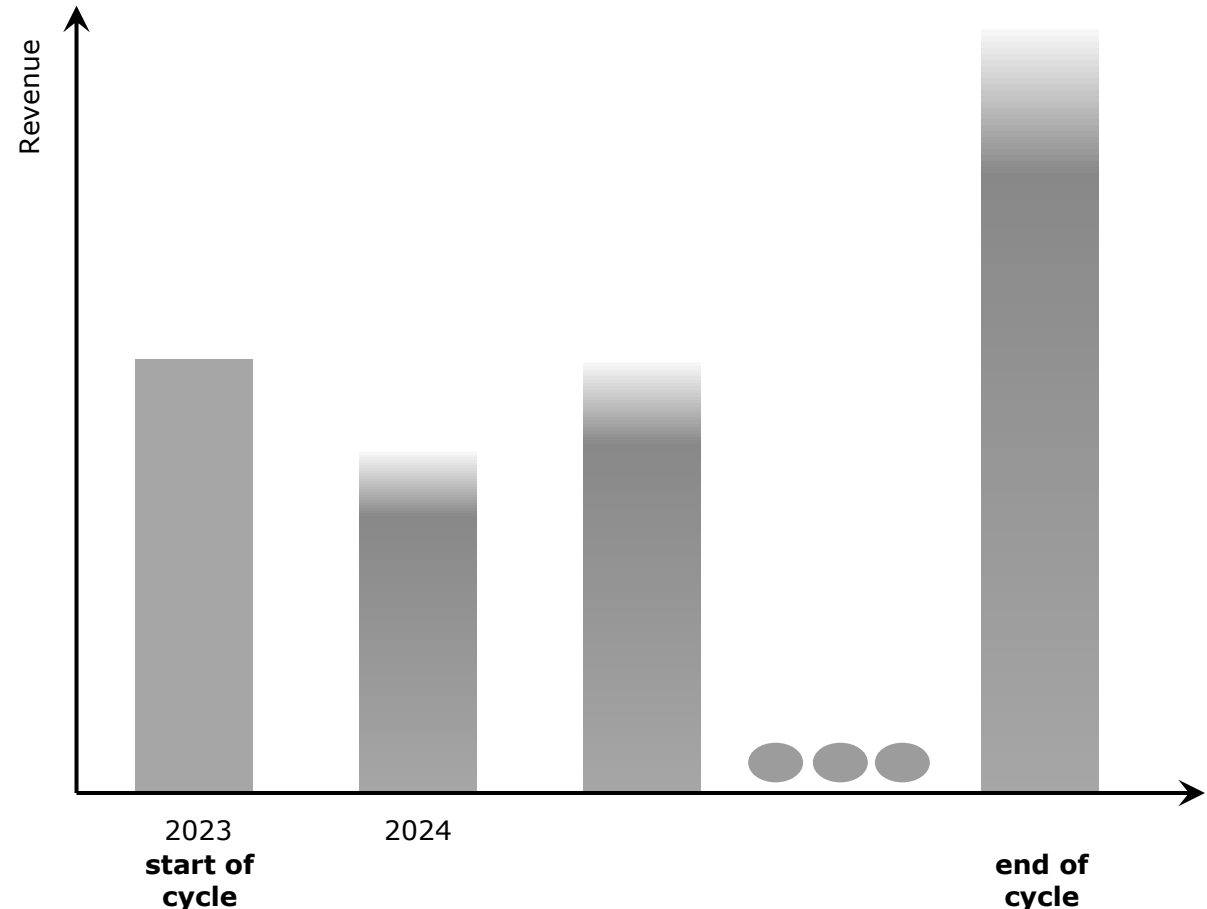


# Strategic changes will allow for reaching our new Target Financial Model

## Target Financial Model

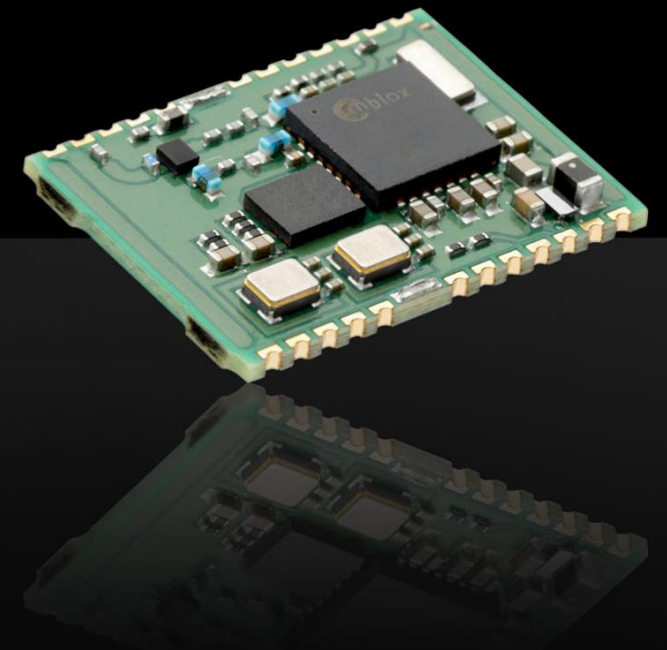
over-the-cycle

Revenue growth (CAGR)	>10%
<ul style="list-style-type: none"><li>• Grow the business sustainably</li><li>• Benefit from megatrends</li></ul>	
EBIT margin (adj.)	~14%
<ul style="list-style-type: none"><li>• Benefit from revenue growth</li><li>• Cost discipline</li></ul>	
Free cash flow margin	~8%
<ul style="list-style-type: none"><li>• Take advantage of the light asset model</li><li>• Working capital management</li></ul>	



*Illustrative, no guidance*

# Recent Highlights



# We win in our target applications and are preferred partners of industry leaders

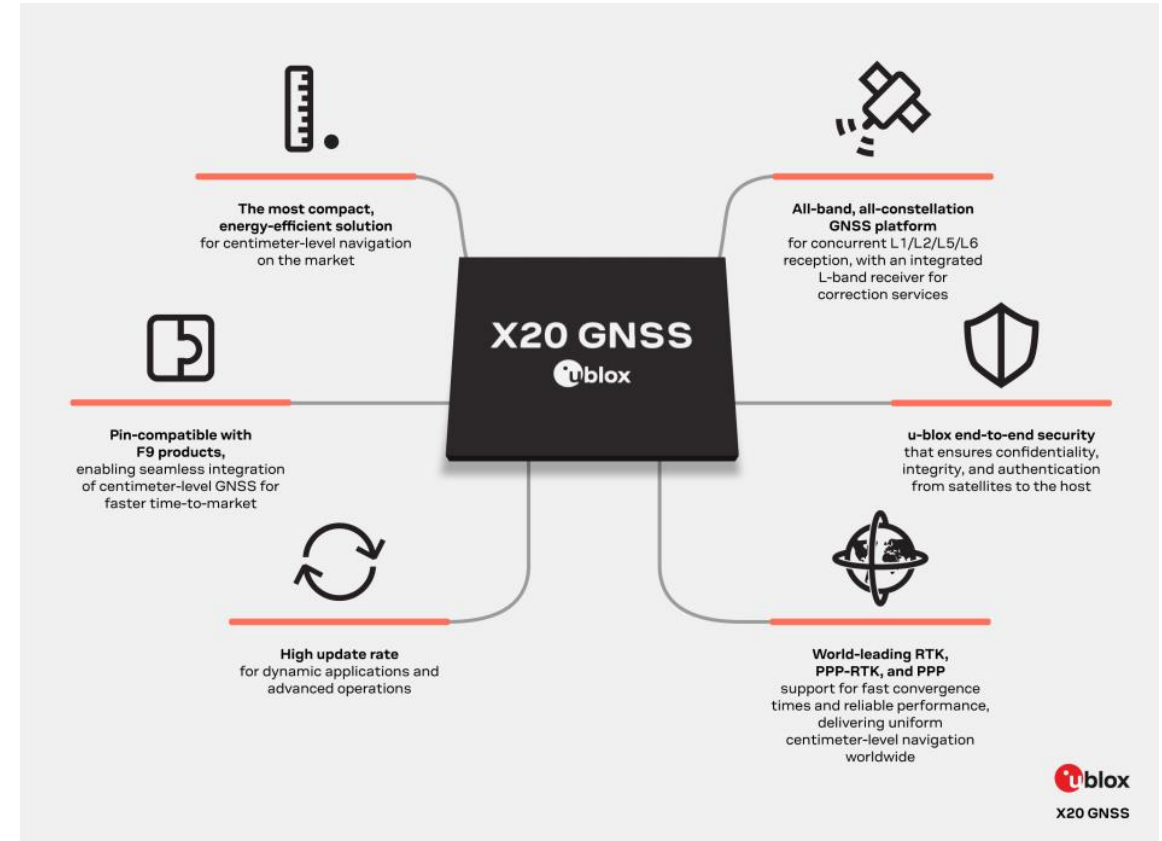


- **USD 100 million** revenue expected from 2026 over the lifetime of the projects
- u-blox is the market leader for positioning solutions used in Advanced Driver Assistance Systems (ADAS)
- Dedicated ADAS positioning solutions penetration: **32%** by 2030\* vs. 10% in 2023
- **USD 100 million** revenue expected from 2024 over the lifetime of the projects
- Robotic lawnmower market: ~2.6 million units in 2024, growing with ~18.5% p.a.
- High-precision GNSS technology penetration rate to reach a **33%** by 2030
- u-blox contributes to NVIDIA platforms with positioning solutions
- AI for autonomous machines and autonomous driving
- Customer benefit: Engineers can quickly develop and deploy AI-powered functionality

\*Based on ABI, TSR, u-blox market research

# X20, u-blox's next generation high-precision GNSS platform

- u-blox launched its next-generation X20 platform which will bring centimeter-level accuracy to the mass market, globally
- The integrated satellite (L-band) receiver allows access to correction data services, such as u-blox' Point Perfect, globally, independent of terrestrial mobile network coverage.
- X20 combines the unique capabilities of u-blox GNSS chips, software, modules and correction services for a new offering that outperforms alternative solutions in accuracy, performance and security



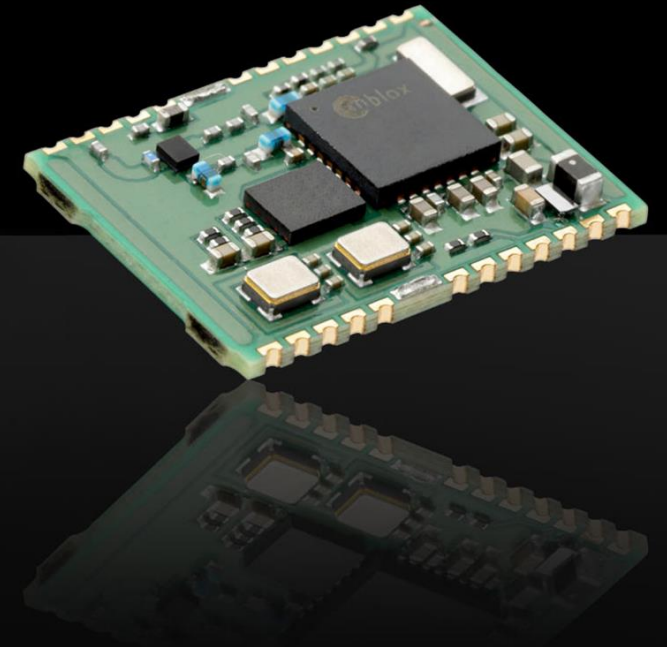
# Strategic partnership with Topcon Positioning Systems

- In August, u-blox announced a strategic partnership with Topcon Positioning Systems creating one of the world's largest high-precision GNSS correction service offers.
- This collaboration brings together Topcon's cm-level network correction service solutions for agriculture and infrastructure with mass-market capabilities, enabling u-blox to offer the widest range of correction service performance choices in the industry.
- The partnership will involve specific reseller agreements, joint GNSS station data acquisition, and shared cost efficiencies on reference stations.



# Financial Review

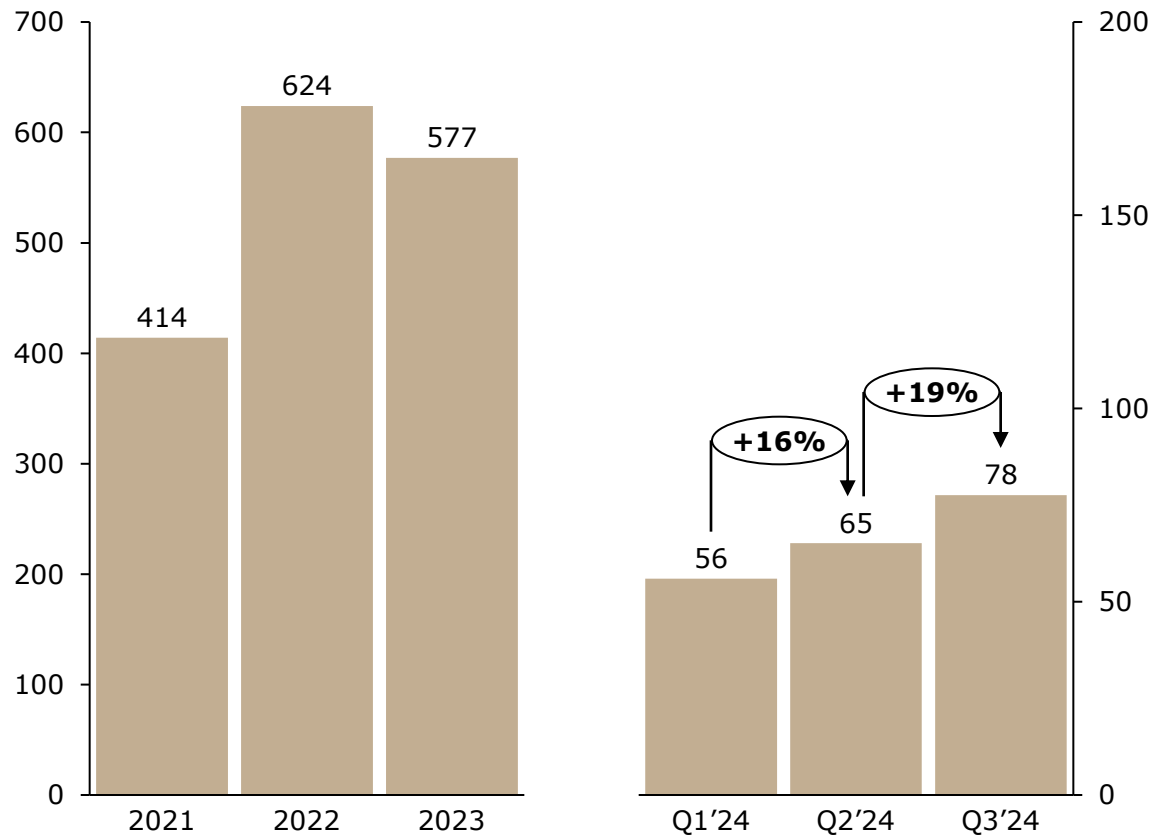
Q3 2024  
Trading update



# Gradual revenue recovery from Q1 to Q3 2024

## Revenue

(CHF million)

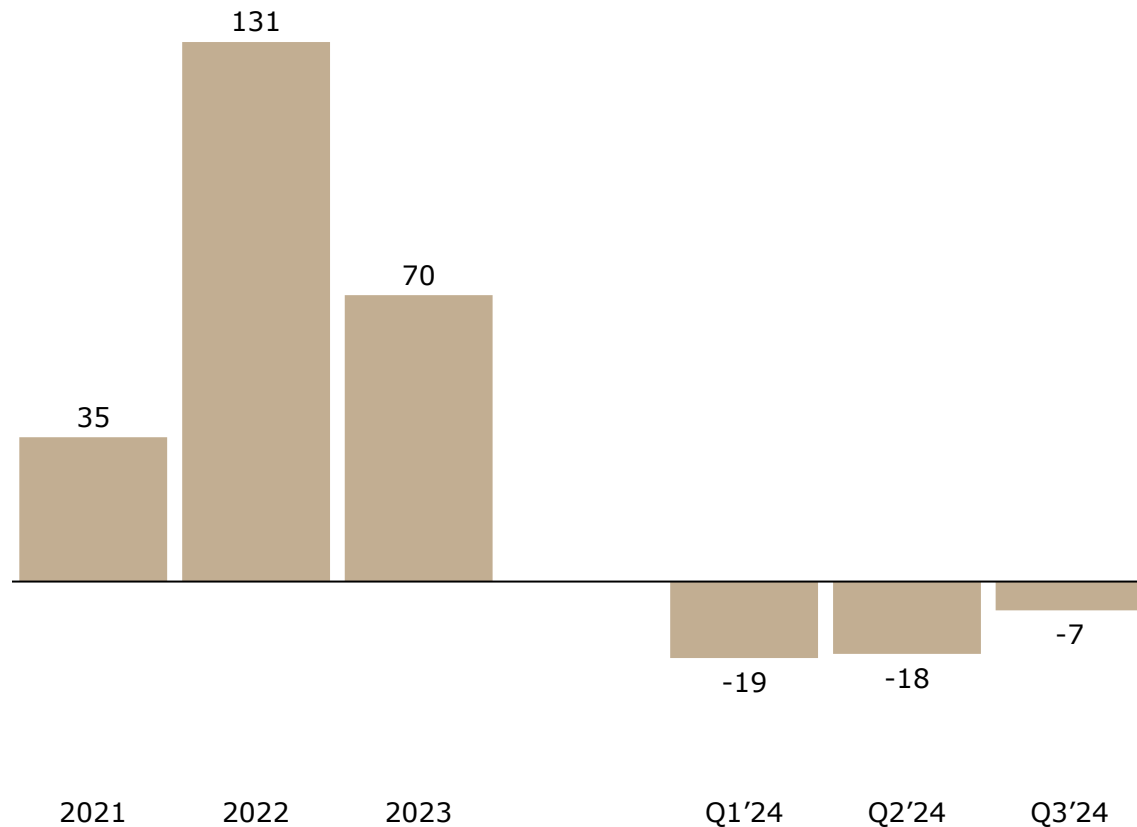


- Weak 2024 revenue as expected
  - High inventory levels at customers
  - Weaker industrial and automotive end markets
- Gradual QoQ improvement
  - Trough in Q1'24

# EBIT impacted mainly by the lower Revenue

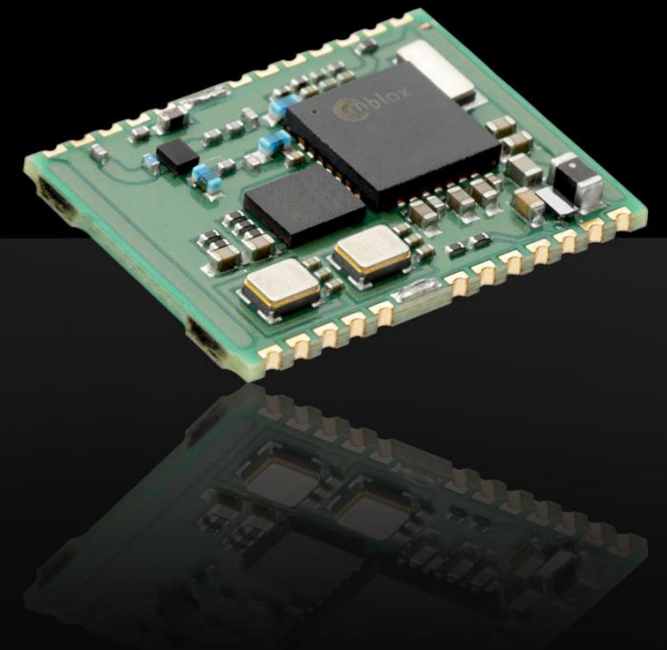
## EBIT

(CHF million)



- Lower revenue drives EBIT to negative territory in 2024
  - Rigid cost structure (mostly personnel related R&D costs)
- Cost optimization program launched in August 2024
  - Target savings of over CHF 20 m
  - One-off costs of up to CHF 20 million are expected in H2'24

# Outlook



# Guidance and Outlook

## Q4 2024 guidance

Revenue	EBIT margin
CHF 60 - 70 m	-25% to -15% EBIT margin (adjusted)*

\*Excluding restructuring costs

- Whilst the sequential improvement from Q1 to Q3, challenges remain with overstock in the value chain and continued weakness in industrial and automotive end markets
- Q4 2024 to remain subdued
- Recovery anticipated to resume in 2025
- Broader cost reduction program in implementation
  - Targeting annual savings of over CHF 20 m
  - Approx. 70% executed as of October 2024

Note: FX rates for Q4 2024 guidance: EURCHF 0.94, USDCHF 0.85

For the definitions of u-blox's alternative performance measures, please refer to u-blox's HY 2024 Financial Report

# Broadened cost optimization plan targeting over CHF 20 m

- Due to the continued weak economic environment in the industry, the scope of the existing cost optimization plan was broadened
- Expected savings of over CHF 20 m
- Implementation in H2'24 (Approx. 70% executed as of October 2024)
- First savings reflected in the P&L in H2'24, full effect in H1'25
- One-off costs below CHF 20 m in H2'24

# Update on Connectivity turnaround

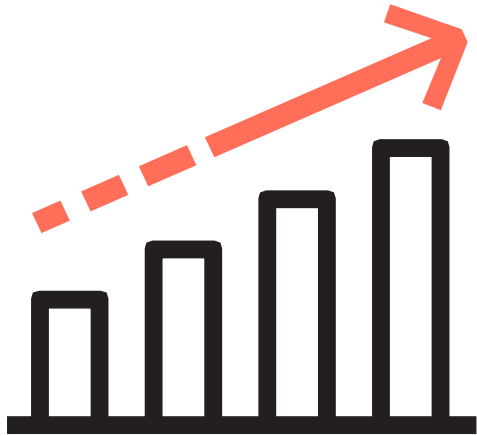
## Assumptions for Connect turnaround

- ✓ Stopped future cellular chip development
- Win market share leveraging our trustworthiness as Swiss supplier in a multi-polar world
- Use scale to become the western cost leader



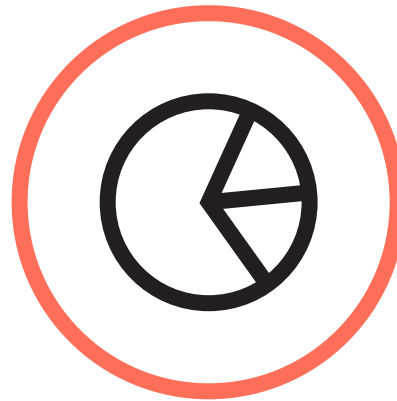
Review  
strategic  
options  
by end of  
2024

# u-blox investment thesis



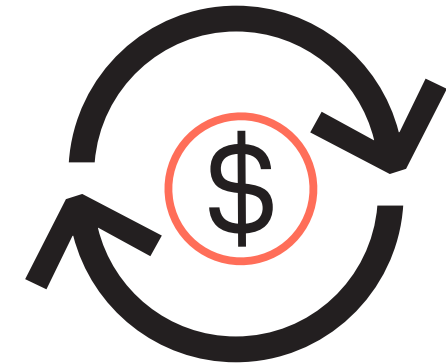
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Strong in structural  
growth markets



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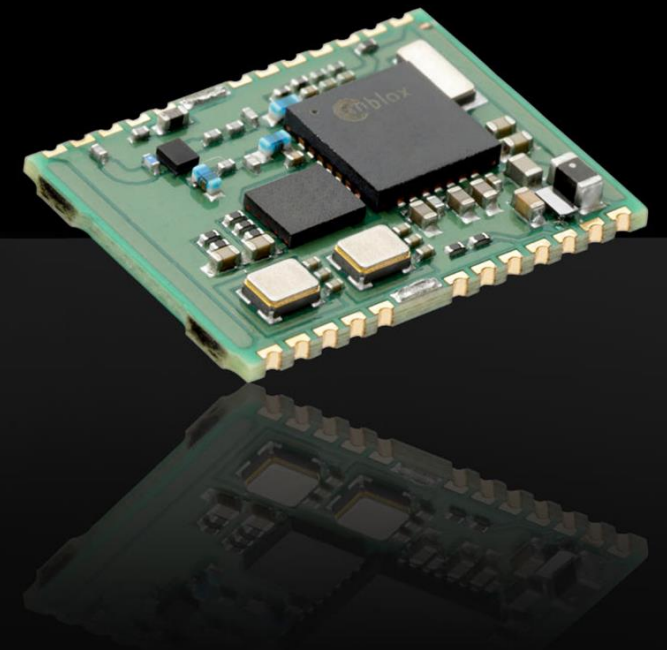
Undisputed market  
leader in Positioning  
based on unique IP



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Sustainable value  
creation

# Q&A





## Contact

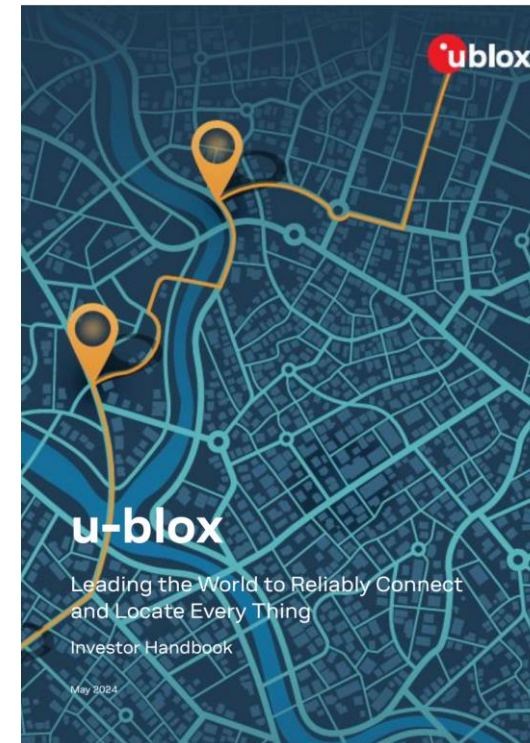
Rafael Duarte

Head of Investor Relations

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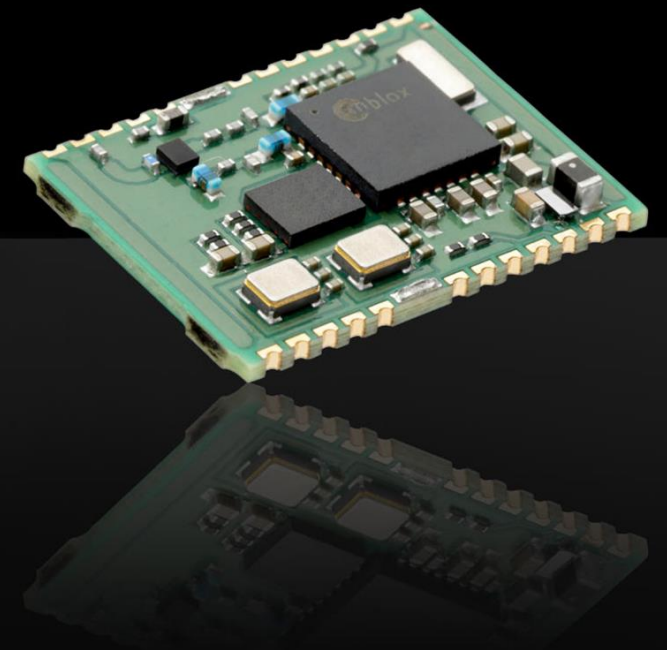
[rafael.duarte@u-blox.com](mailto:rafael.duarte@u-blox.com)

Check out our Investor Handbook at  
<https://www.u-blox.com/en/investor-relations>



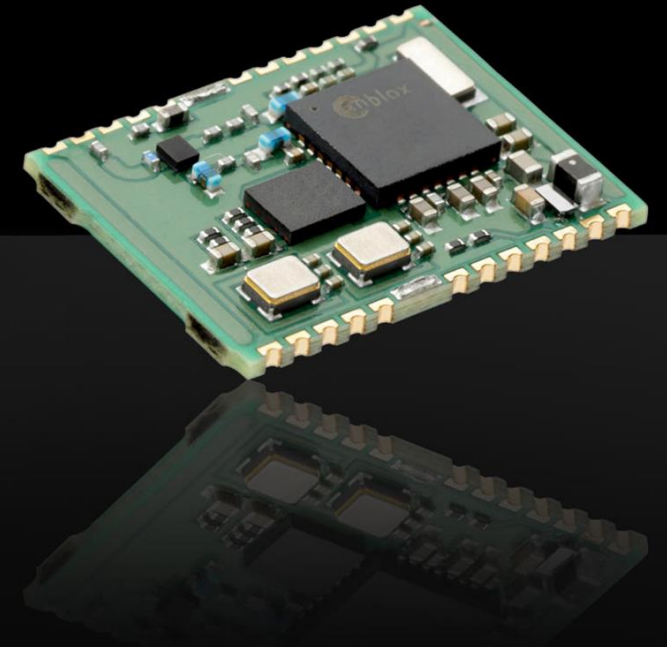
# Thank you for your attention

# Appendix



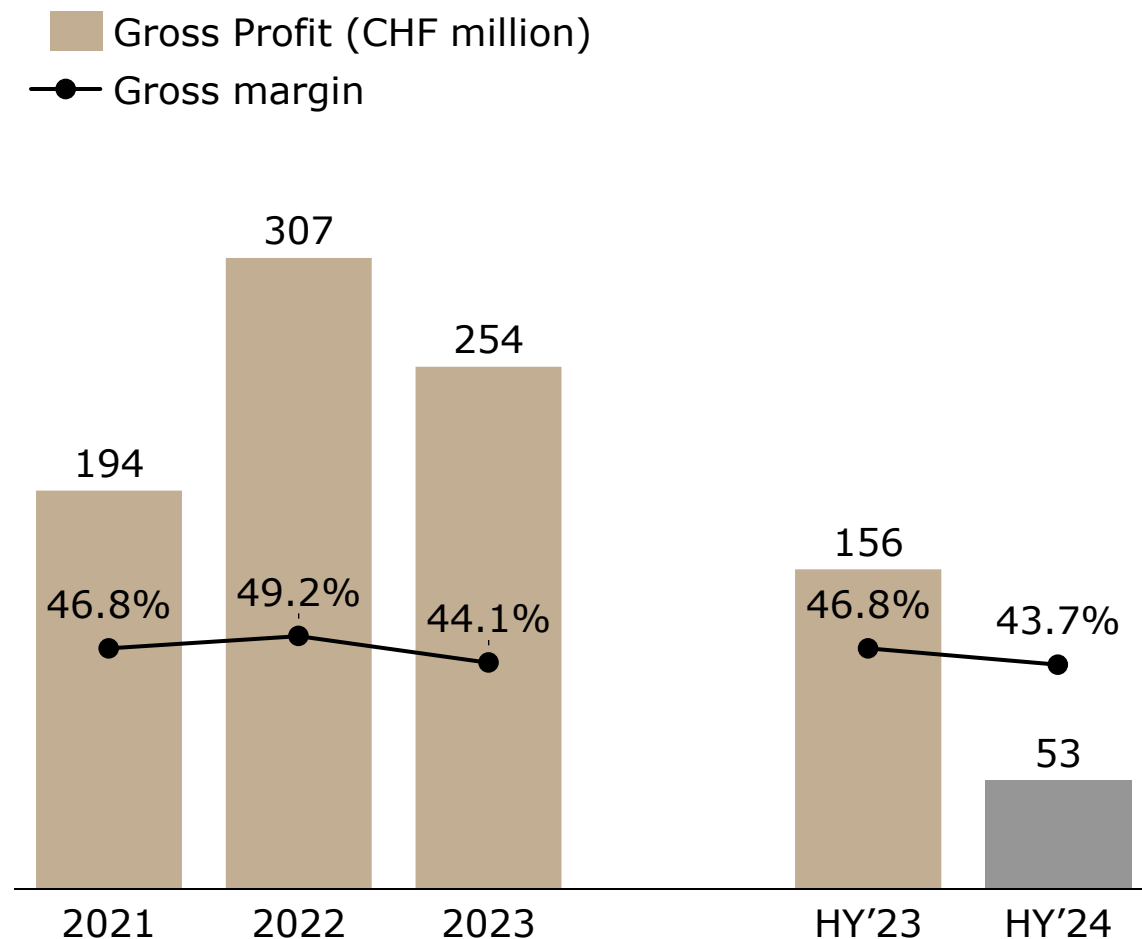
# Financial Review

## HY 2024 Results



# Gross profit margin: Positive mix effect offset by lower operational leverage

## Gross profit (adjusted)

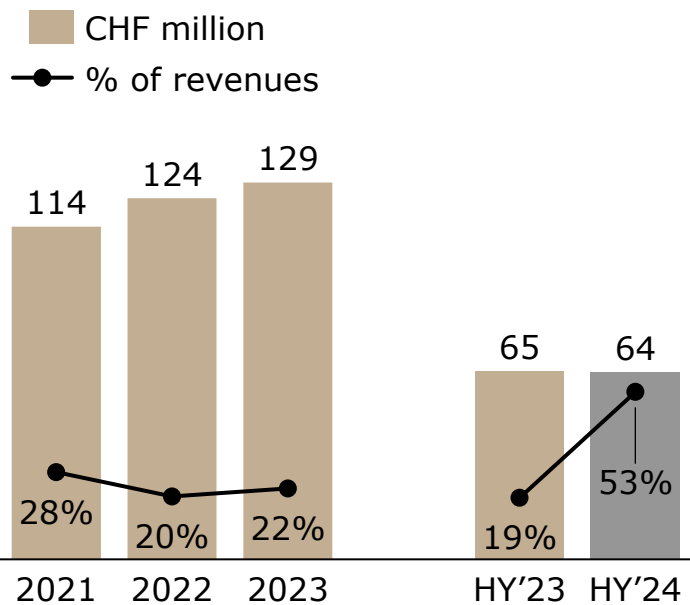


- Gross profit (adjusted) of CHF 52.9 m (CHF 155.6 m in HY'23)
- Gross margin (adjusted) reached 43.7% from 46.8% driven by lower operating leverage
- Better performance of Locate created a positive mix effect, offset by the lower operating leverage

Note: For the definitions of u-blox's alternative performance measures, please refer to u-blox's HY 2024 Financial Report

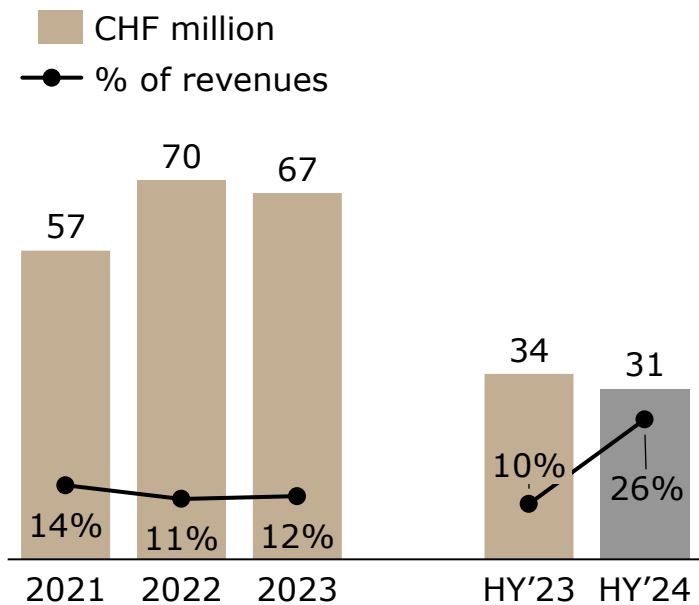
# EBIT impacted mainly by the lower Revenue

## Cash R&D expenses (adj)



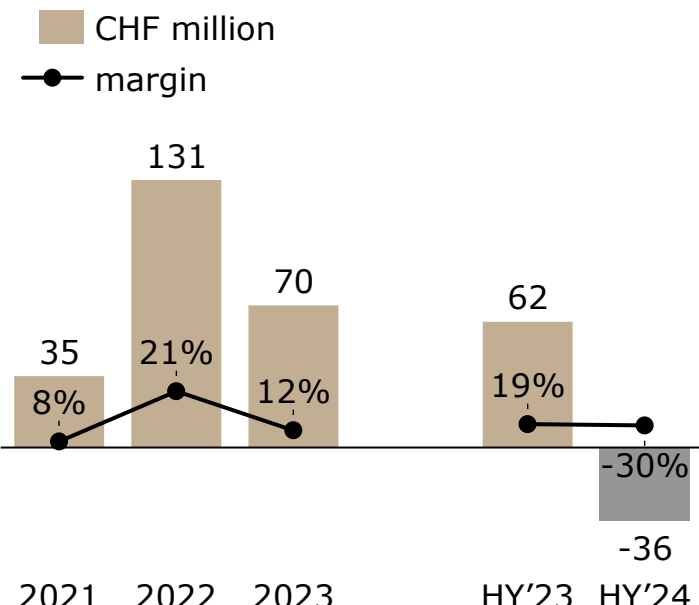
- R&D cost reduction initiatives generated CHF 2.7 m in savings in HY'24.

## SG&A expenses (adj)



- SG&A (adj) expenses reduced by CHF 3 m, mainly due to CHF 2.2 m savings from a hiring freeze and a reduction in admin costs.

## EBIT (adj)



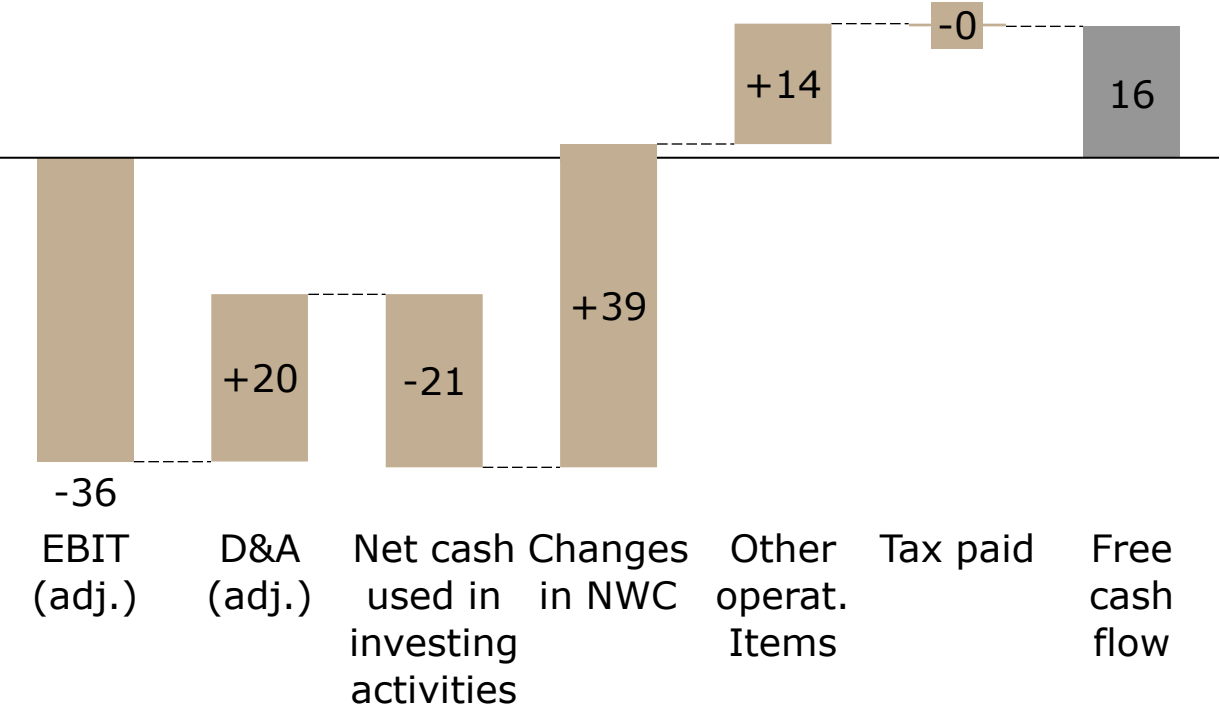
- EBIT (adj) reached CHF -36 m (CHF 62 m in HY'23).

Note: For the definitions of u-blox's alternative performance measures, please refer to u-blox's HY 2024 Financial Report

# Positive free cash flow in HY 2024

## Free cash flow HY 2024

(CHF million)

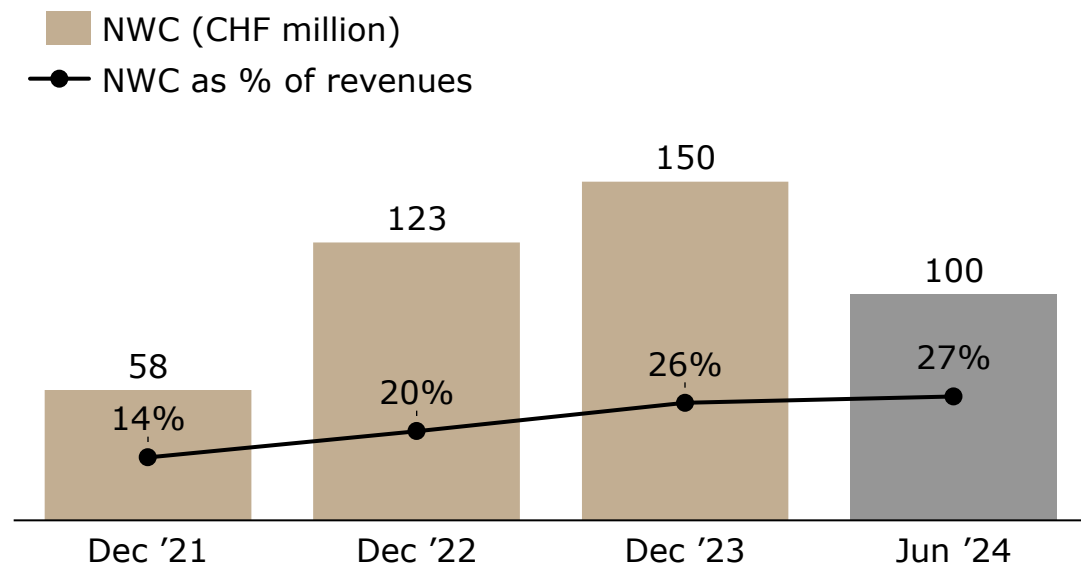


- Strong free cash flow in HY'24 of CHF 15.7 m (CHF -12.9 m in HY'23), despite negative EBIT
- Net working capital improvement of CHF 38.5 m mainly from a reduction in trade receivables
- Capex reached CHF 20.6 m in HY'24 (CHF 23.4 m in HY'23)

Note: For the definitions of u-blox's alternative performance measures, please refer to u-blox's HY 2024 Financial Report

# Substantial reduction in working capital supports healthy cash position

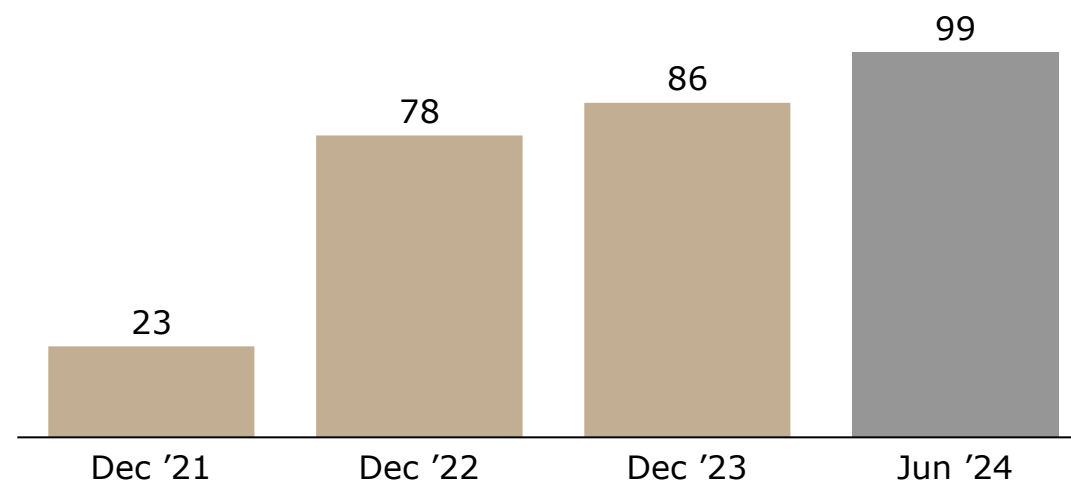
## Net working capital



- Substantial reduction in net working capital by CHF 50 m versus Dec '23
  - Inventories down by CHF 11 m
  - Trade receivables down by CHF 57 m
  - Trade payables down by CHF 18 m

## Net cash position

(CHF million)



- Net cash position reflecting positive free cash flow despite dividends of CHF 7.3 m to group shareholders
- Debt free

Note: For the definitions of u-blox's alternative performance measures, please refer to u-blox's HY 2024 Financial Report