

u-blox 2023

Capital Markets Day

Focus – Innovate – Execute

November 2023



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Speakers



André Müller
Chairman



Stephan Zizala
CEO



Roland Jud
CFO



Andreas Thiel
Executive Director, Co-Founder
Head of Product Centers



Jean-Pierre Wyss
Executive Director, Co-founder
Head of Production and Logistics



Markus Schaefer
Executive Director
Head of Marketing & Sales

Agenda

Welcome

Who we are

Our strategic ambitions

Where we play / How we win

Product lines

Go-to-market

Operational excellence

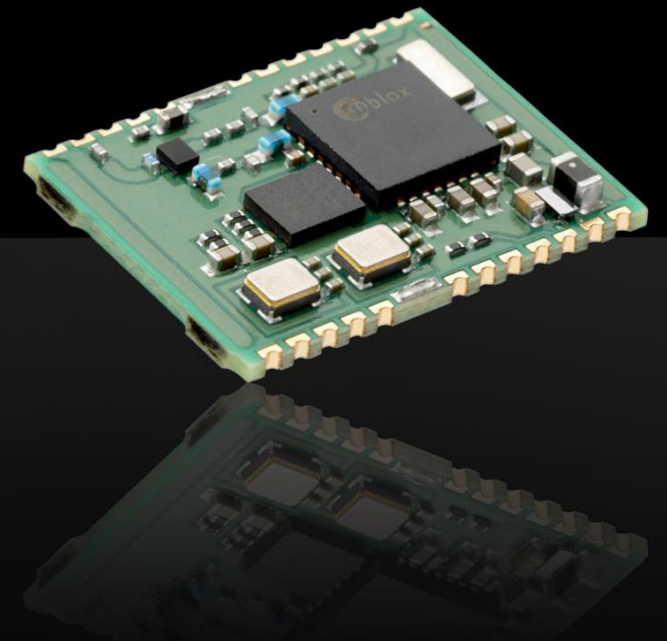
Financials / Capital markets

Outlook / Summary

Questions and Answers

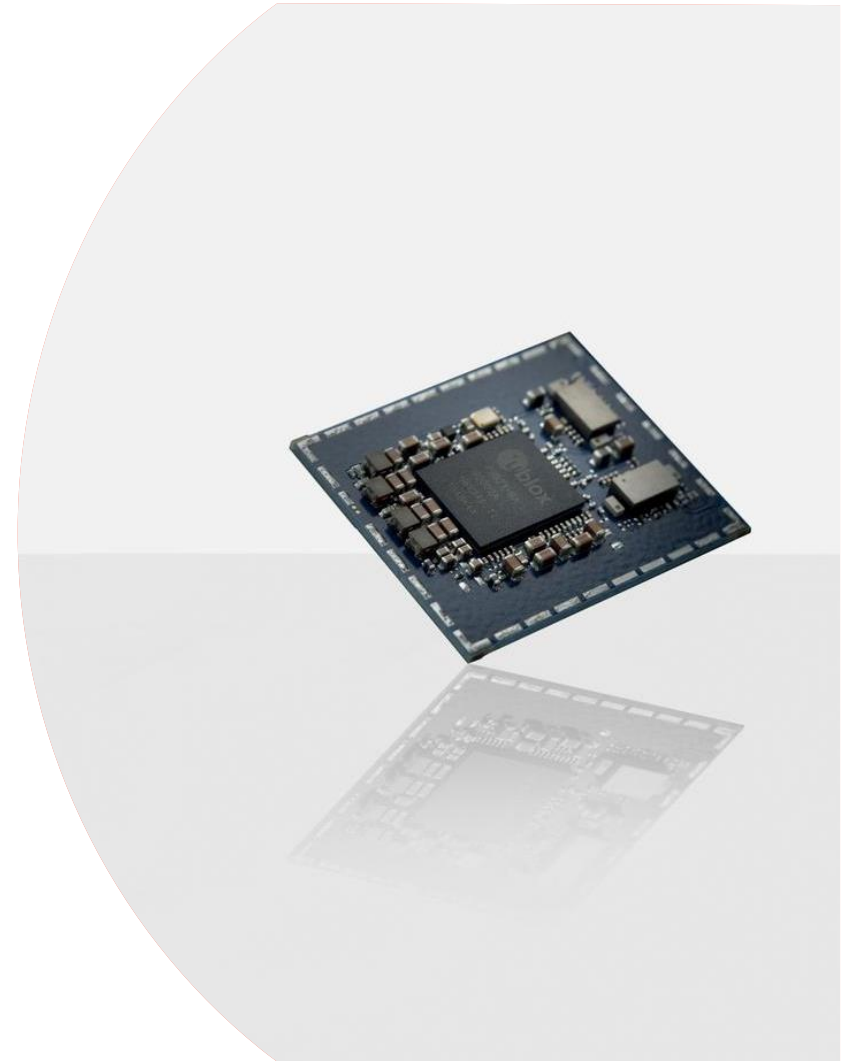
Welcome

André Müller
Stephan Zizala



Welcome from the Chairman

- We focus on long-term growth drivers such as autonomous driving and Internet of Things
- Our innovations set the standard in the industry
- We have refined our strategy and are happy to share the key outcomes with you today
- Our “Focus – Innovate – Execute” strategy is the right step for unlocking u-blox’s value for years to come
- Our strategy is supported by a highly motivated u-blox team and a new anchor shareholder



Our Mission

**Leading the world
to reliably locate
and connect
every thing.**



Summary: Focus – Innovate – Execute

Positioning innovation and Connectivity economies of scale

Key long-term growth drivers

- Strong structural growth: automated driving, asset tracking and management, industrial automation and monitoring (digitalization), remote healthcare
- Trustworthy partner with a reliable supply chain

Strategy

- 1) Increase focus on highly differentiated Positioning business and substantially shift R&D teams to Positioning innovations
- 2) Turn-around the Connectivity business by stopping cellular chip development and by gaining scale, leveraging our trustworthiness as Swiss supplier in a multi-polar world
- 3) Improve execution performance by agile development and increased bottom line focus

Target Financial Model

Over the cycle

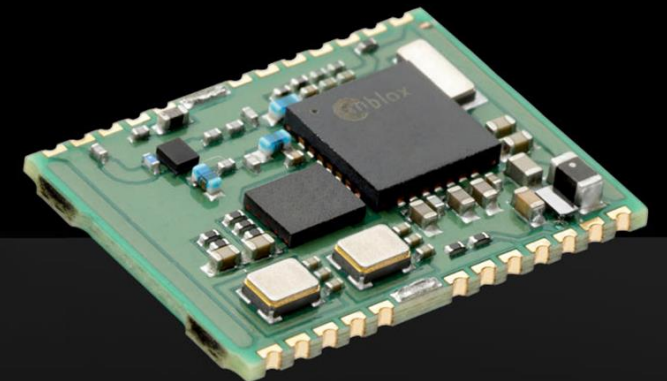
- >10% revenue growth (CAGR)
- ~14% EBIT margin (adj.)
- ~8% Free cash flow margin

Notes:

- Basis for next cycle: 2023
- Target margins as average for cycle
- Target Financial Model replaces mid-20's ambitions

Who we are

Stephan Zizala
Jean-Pierre Wyss
Andreas Thiel



u-blox offers semiconductor solutions to locate and connect every thing







Our team



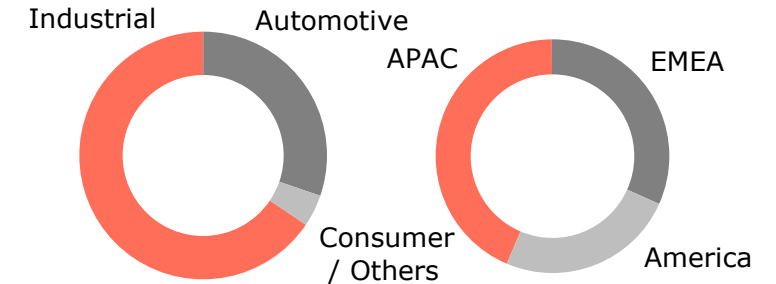
- Team of 1,300+ experts
- Diverse culture with 60+ nationalities for a global market
- Founded in 1997, spin-off from ETH Zurich, CH

Our products



	 Chip	 Module	 Service
 Positioning	●	●	●
 Cellular	◐	●	●
 Shortrange		●	●

Our business



- CHF 624 million revenue in 2022
- Strong in industrial and automotive markets
- Regionally well balanced
- Highly diversified customer base (10,000+)
- Asset light (no own factories)

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



Livestock tracking



Home healthcare



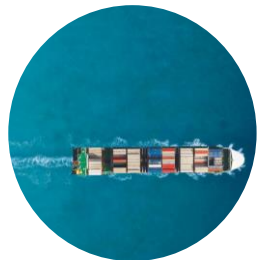
Wearables



Navigation



Automated car



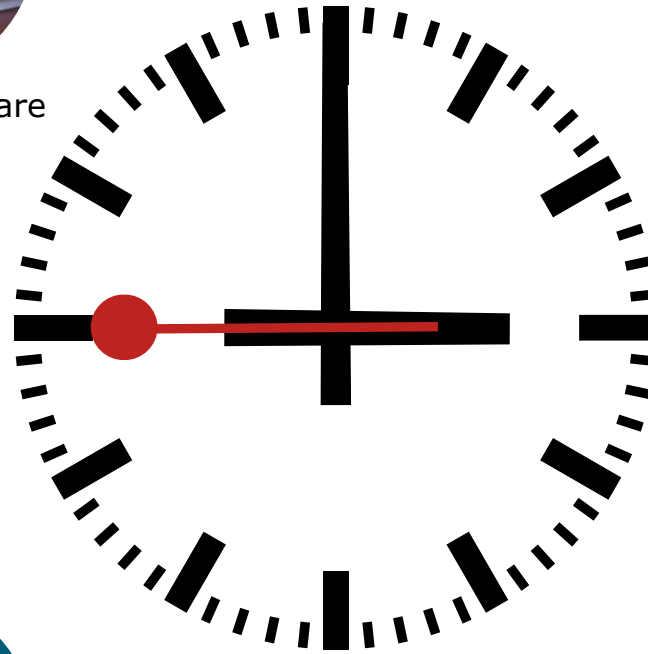
Asset tracking



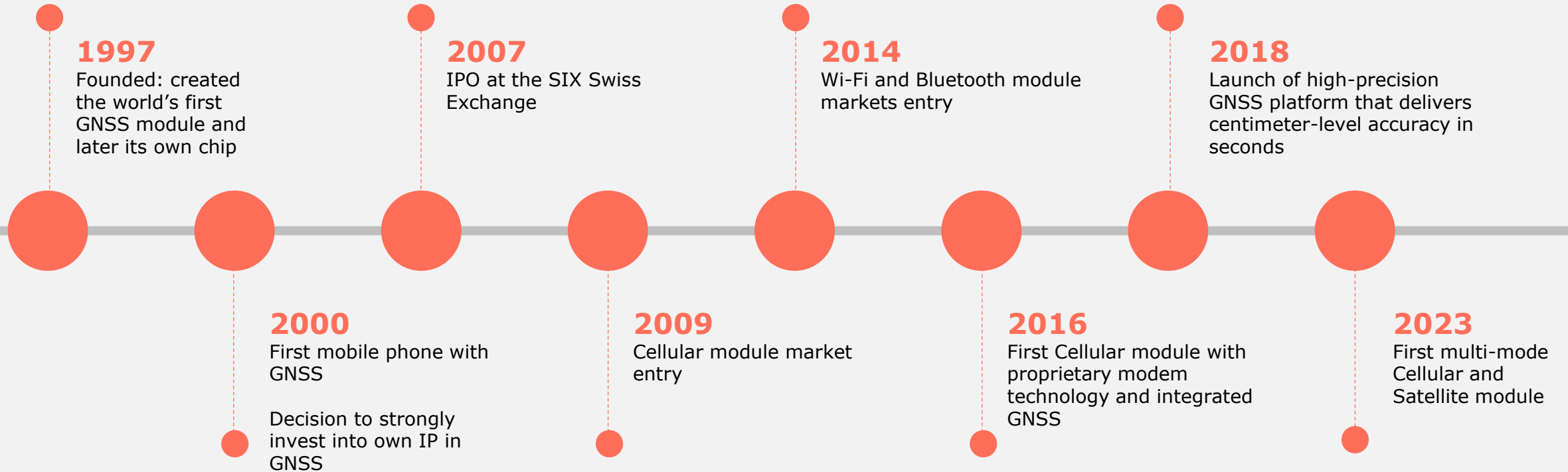
Connected factory



Connected tools



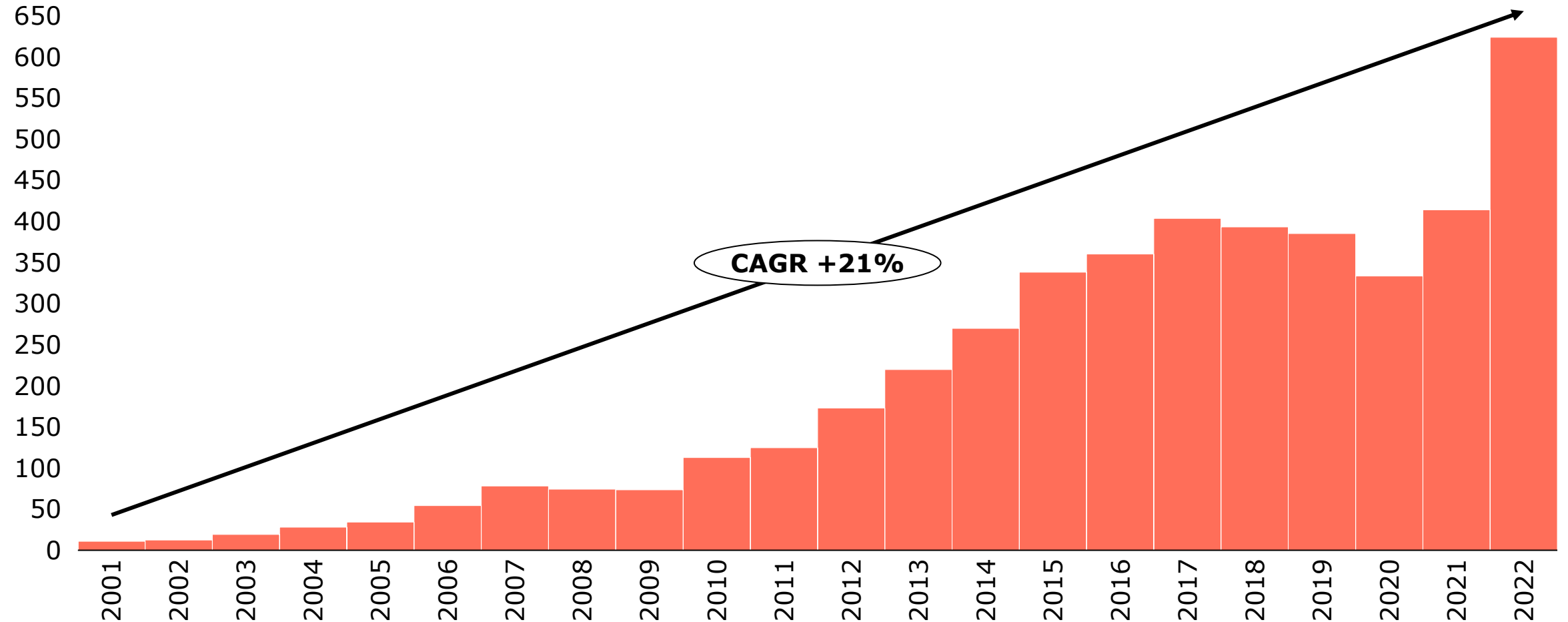
A continuous stream of innovations over 25 years showcase our future-proof core competencies



Track record of success: from start-up to today

Revenue

CHF million



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

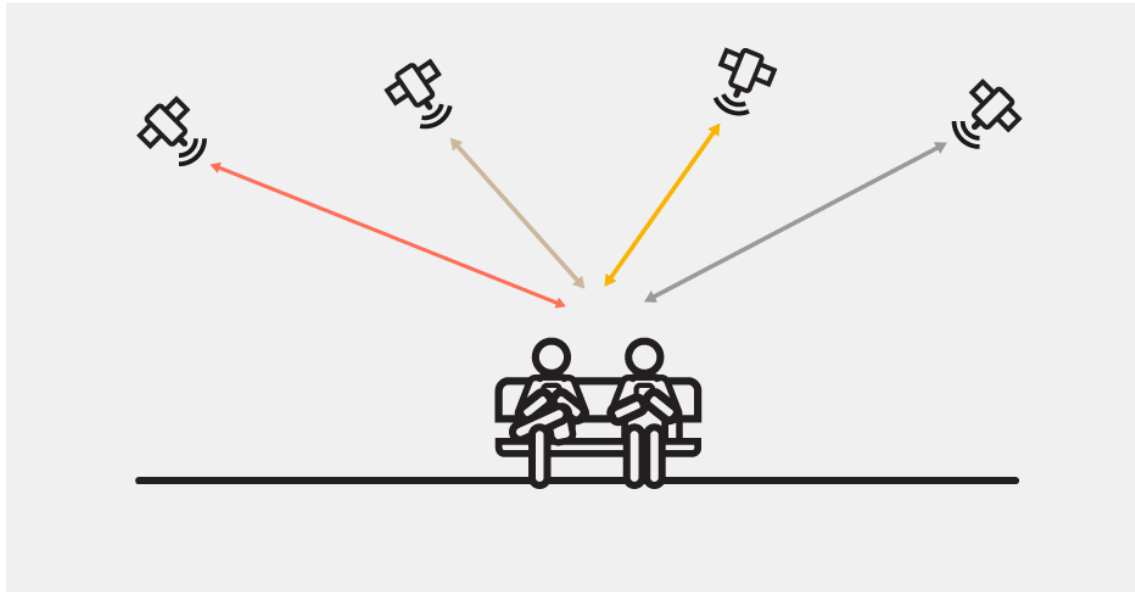
Reliability



- 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



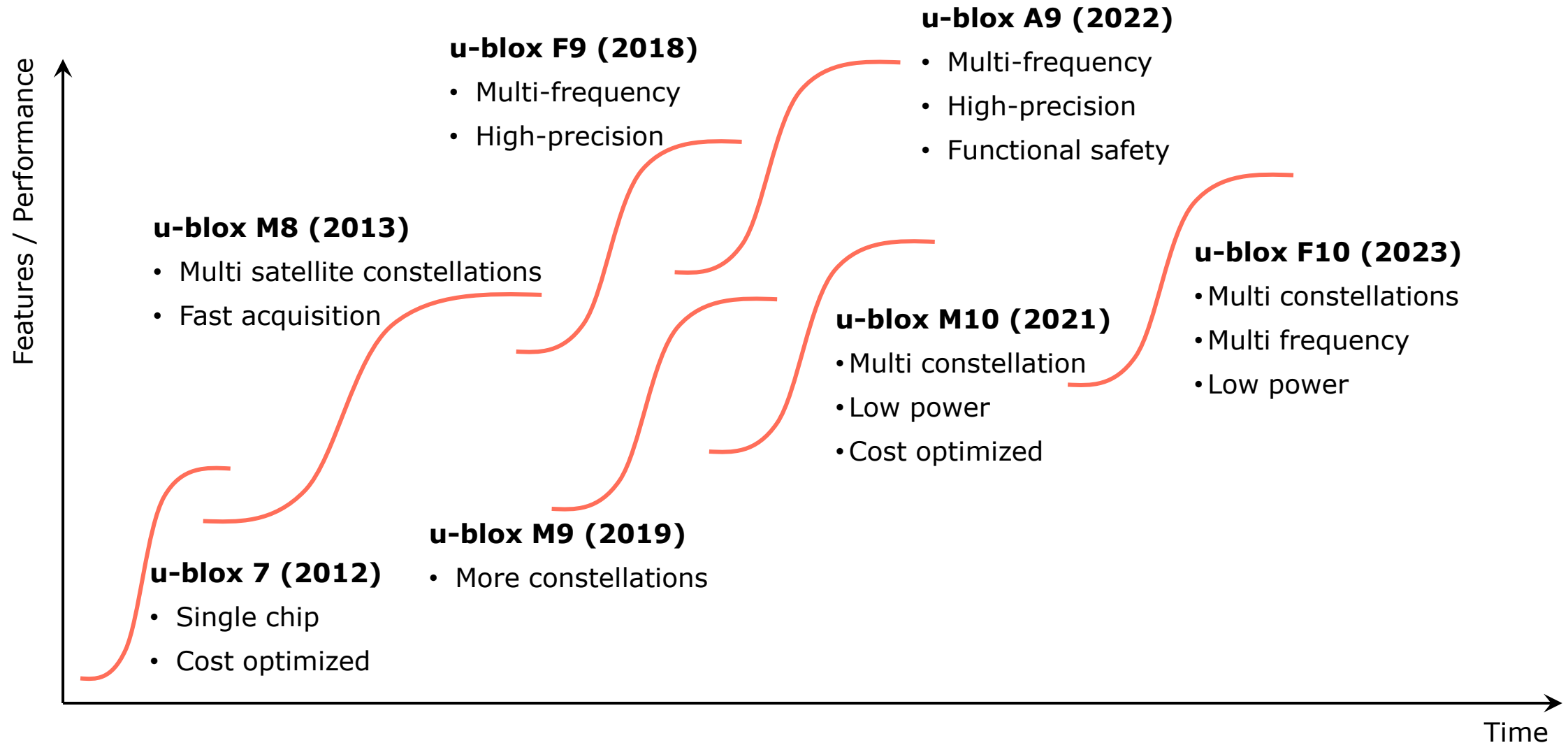
- Mathematical problem with 4 unknowns: "length, width, height, time"
- Time measurement between receiver and 4 satellites allows for the solution
- Stationary receiver and satellites, perfect environment

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

Protecting our advantage: the u-blox GNSS innovation stream with one new platform every 18 months

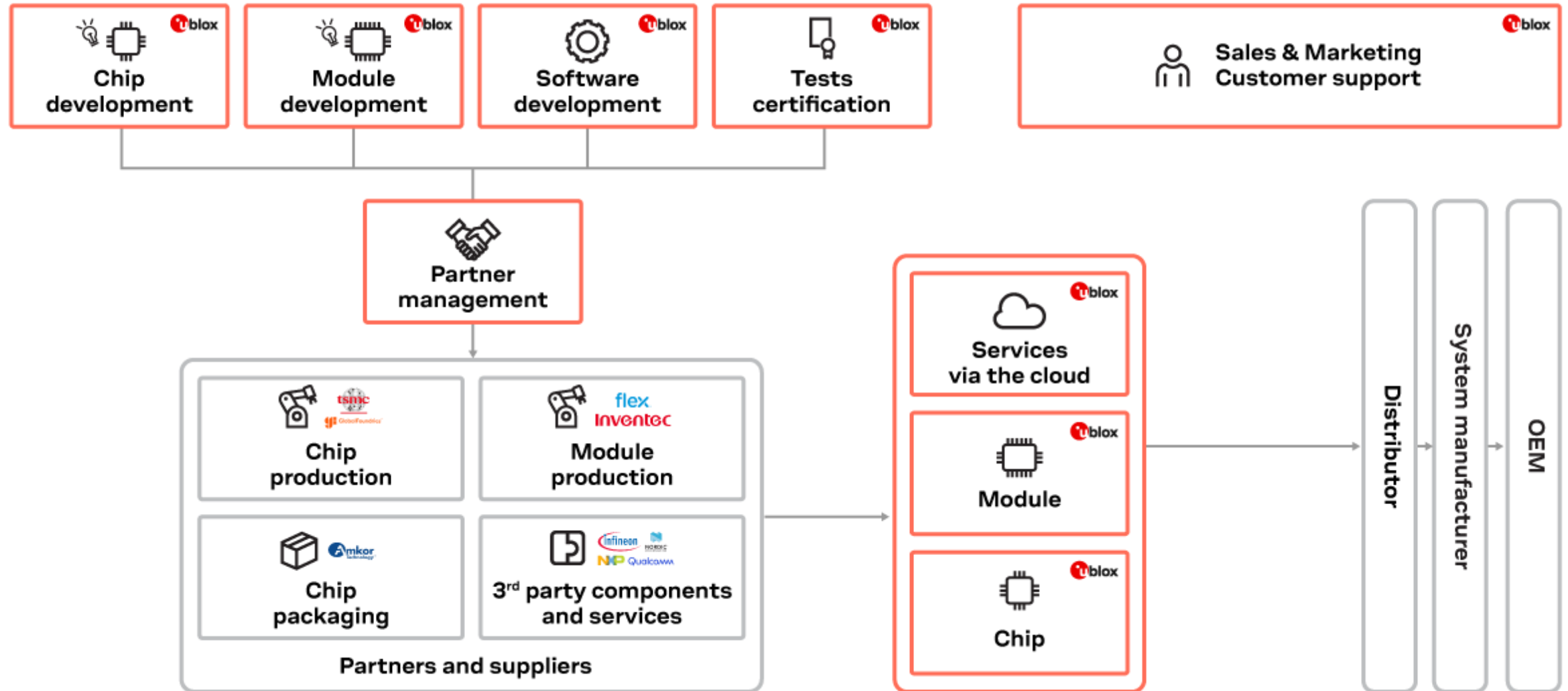


u-blox has all competencies required to provide innovative, optimized and reliable solutions

	POS			CEL			SHO		
	Chip	Module	Service	Chip	Module	Service	Chip	Module	Service
u-blox	●	●	●	●	●	●	●	●	●
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								●	

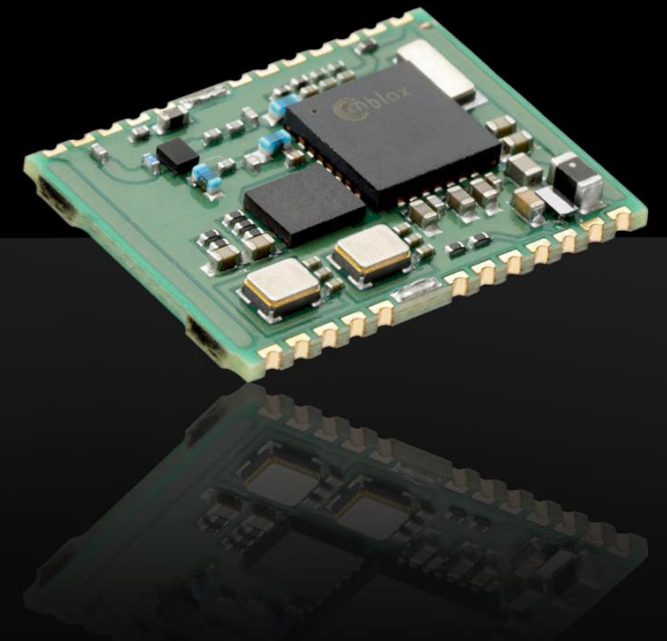
● coverage ● partial coverage ○ no coverage

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

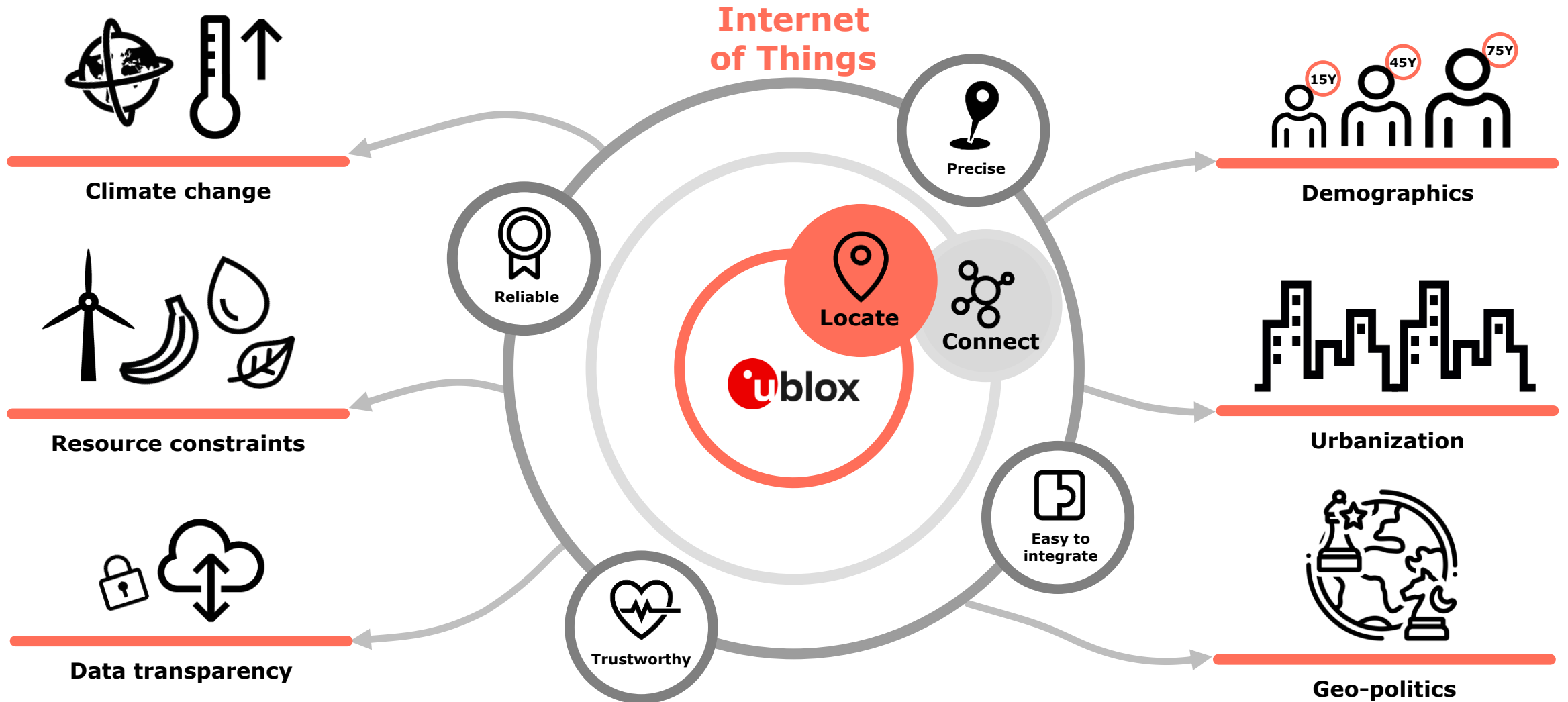


Our strategic ambitions

Stephan Zizala



u-blox addresses megatrends by locating and connecting every thing



u-blox Internet of Things solutions enable innovations to make the world more sustainable

Internet of Things and Sustainability

84% of Internet of Things deployments are currently addressing, or have the potential to address the **UN Sustainable Development Goals (SDGs)**.
(World Economic Forum, 2022)

Examples

Asset tracking and management

- Optimized freight routes reduce energy consumption

Automated driving

- Automated parking can reduce street parking

Healthcare

- Connected home medical devices enable a longer self-determined life

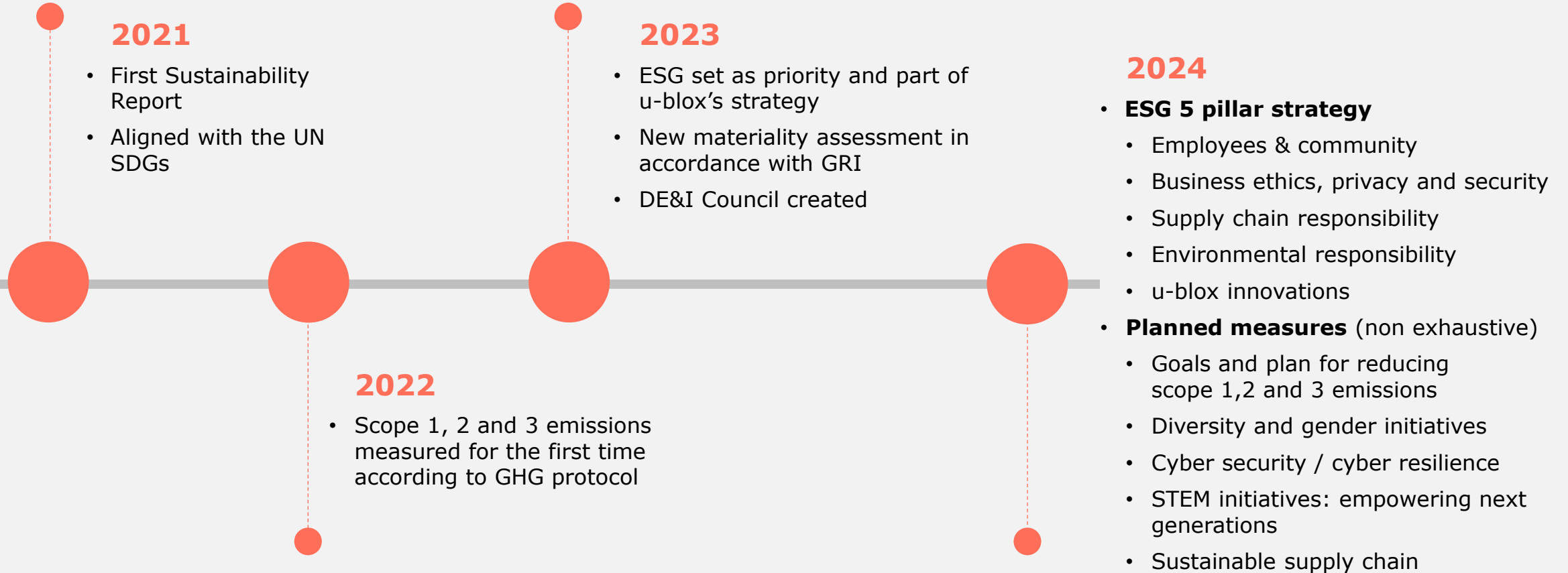
Industrial automation and monitoring

- Connected sensors can protect and monitor quality of water, air and soil

SDG

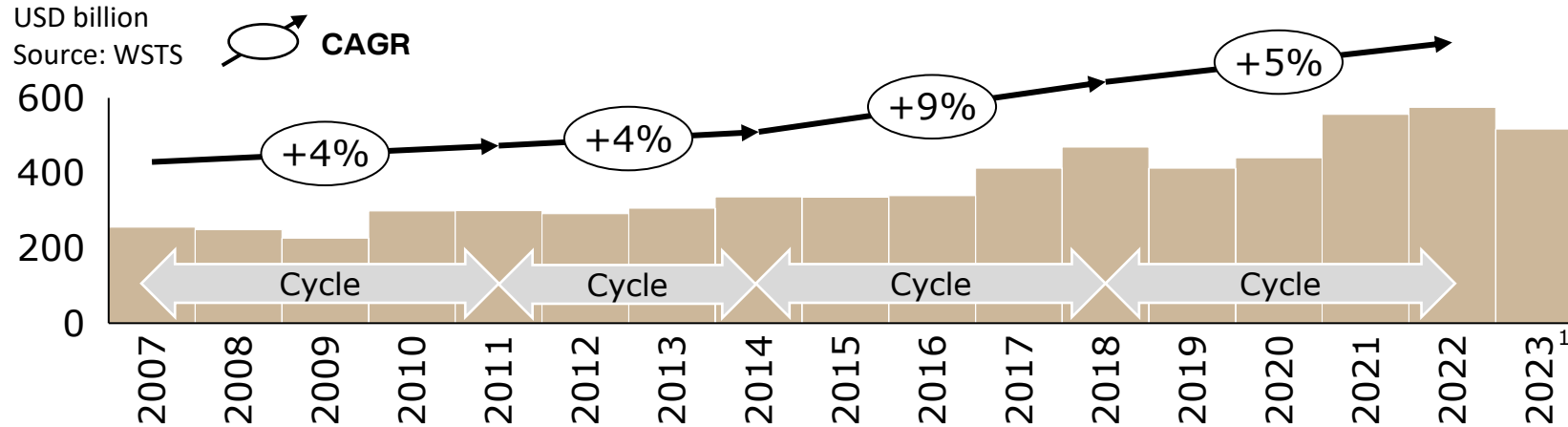


Our increased focus on sustainability will lead to even more success

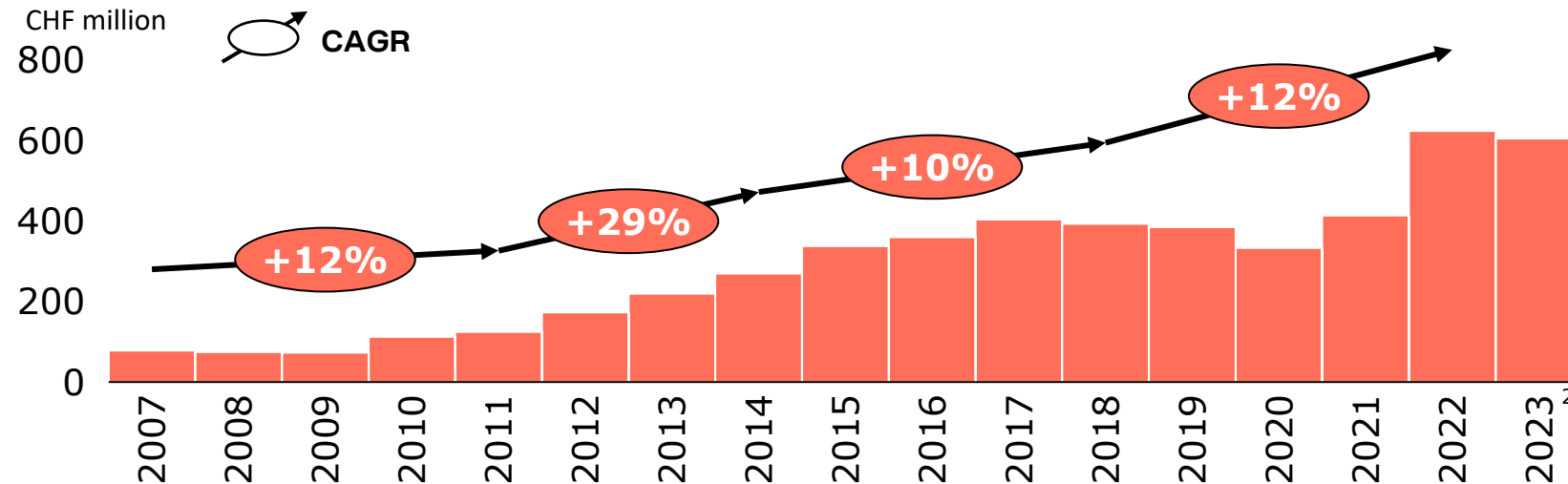


u-blox outperformed the semiconductor market growth rates consistently

Worldwide semiconductor sales



u-blox sales




- 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:

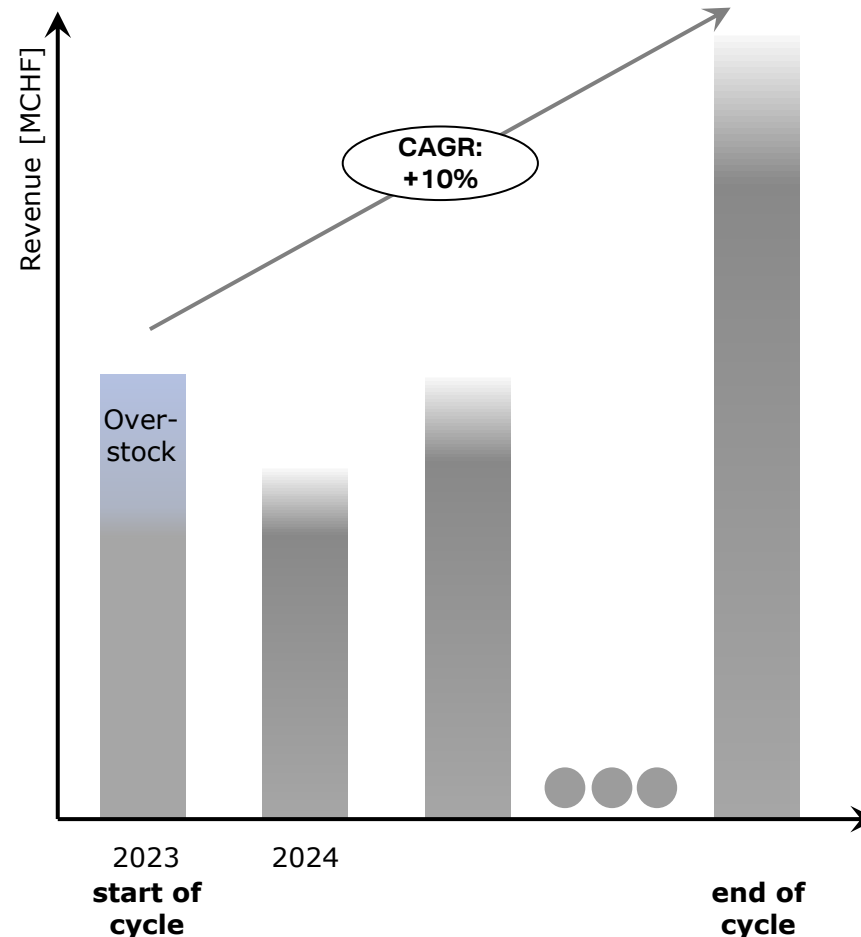
¹ Source: World semiconductor trade association

² Mid-point of guidance (CHF 585-625 million)

Target Financial Model reflects our long-term ambition 2024 to be a transition year

 u-blox over-the-cycle
Target Financial Model

	KPI Target
Revenue growth (CAGR)	>10%
EBIT margin (adj.)	~14%
Free cash flow margin	~8%



Revenue

- 2023 as base of new cycle
- 2023 includes deliveries higher than demand from customers, leading to overstocking
- 2024 to be a transition year before growth resumes

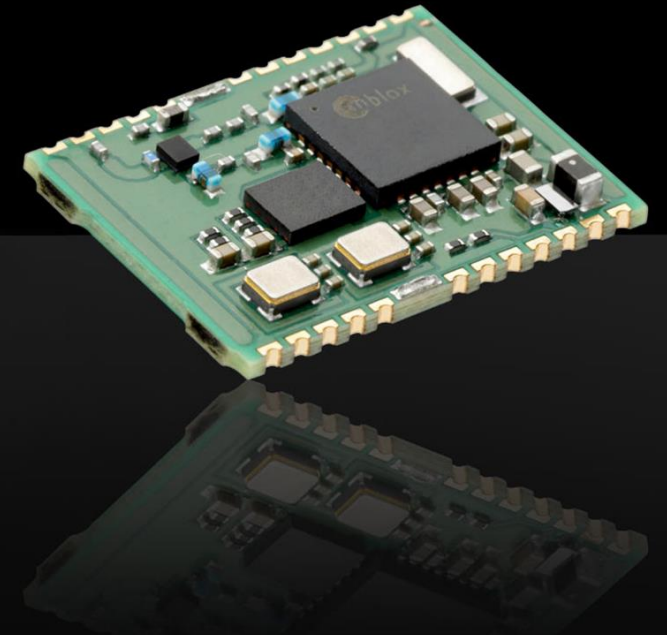
EBIT / FCF margin

- Targets as average over the cycle

Illustrative, no guidance

Where we play How we win

Stephan Zizala



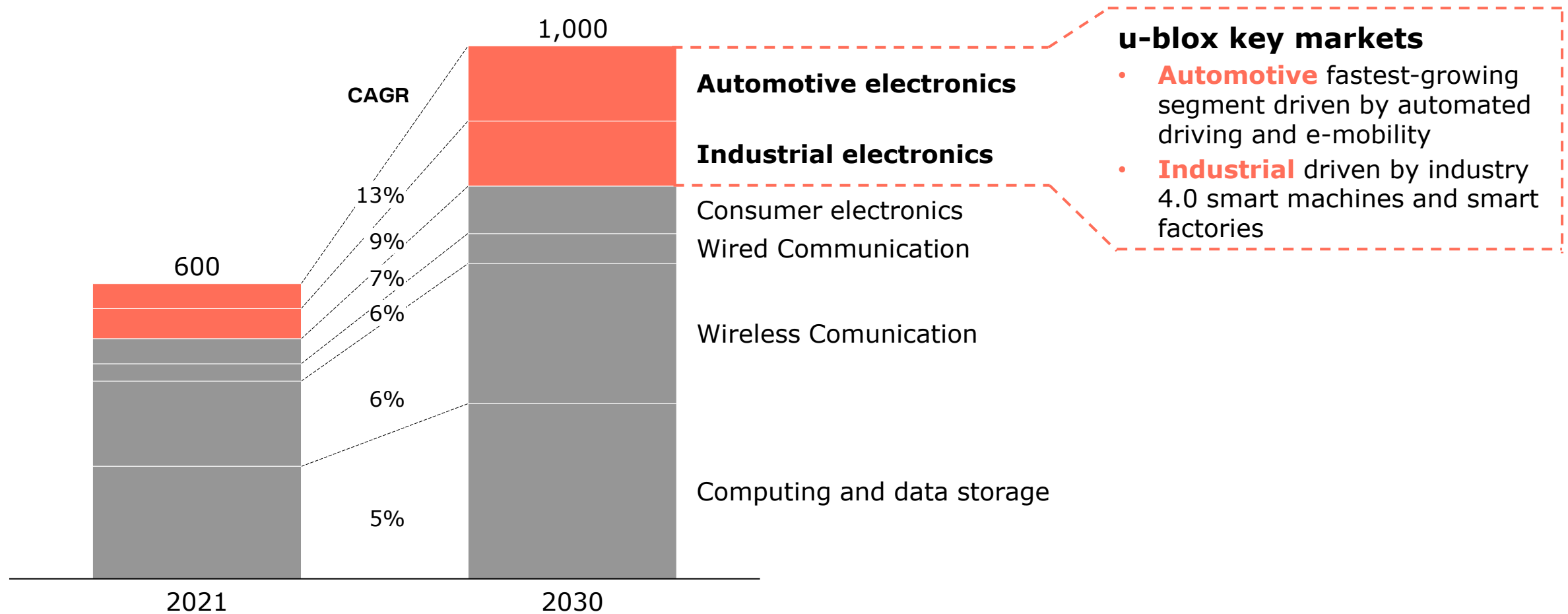
Semiconductor industry: USD 1 trillion by 2030

u-blox is active in high-growth markets

Global market value by vertical

Indicative (USD billion)

Source: McKinsey



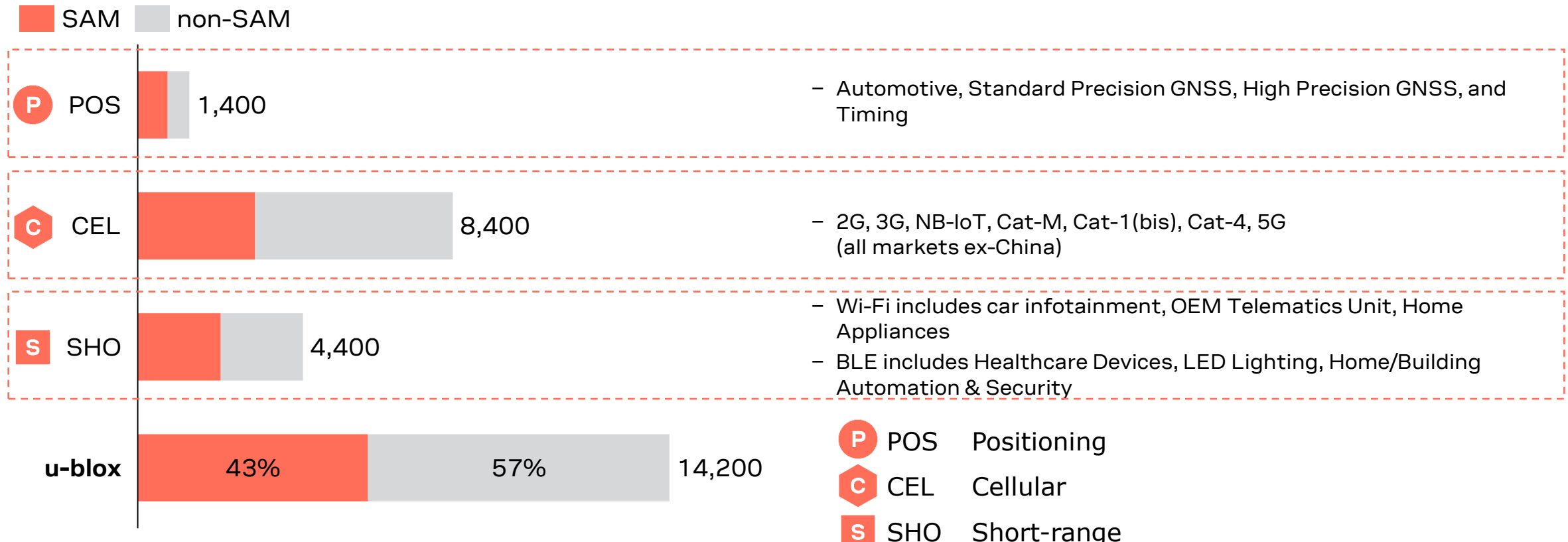
u-blox key markets

- **Automotive** fastest-growing segment driven by automated driving and e-mobility
- **Industrial** driven by industry 4.0 smart machines and smart factories

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

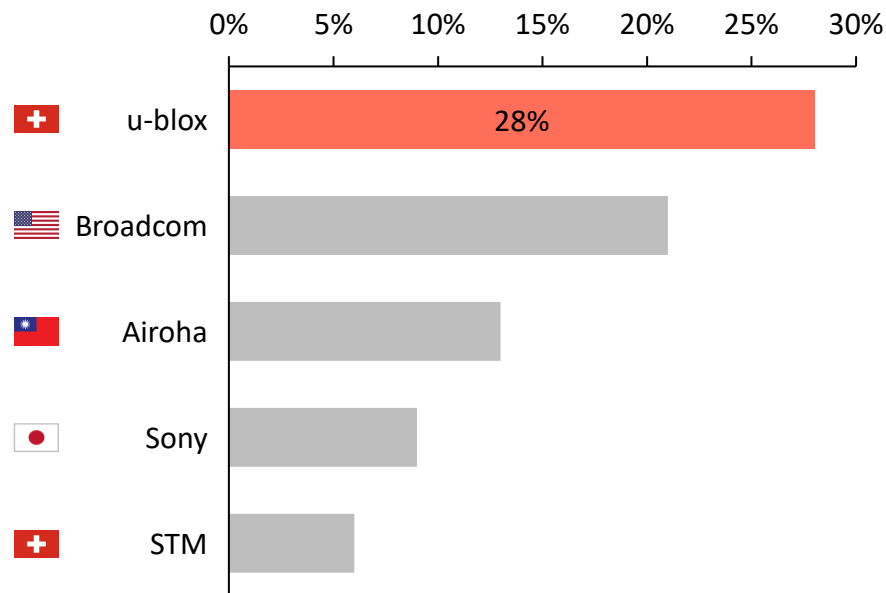


TAM = Total addressable market
 SAM = Serviceable addressable market
 Non-SAM = TAM – SAM
 Source: u-blox, TSR, ABI, OMDIA
 Note: TAM w/o mobile phones

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

POS market share

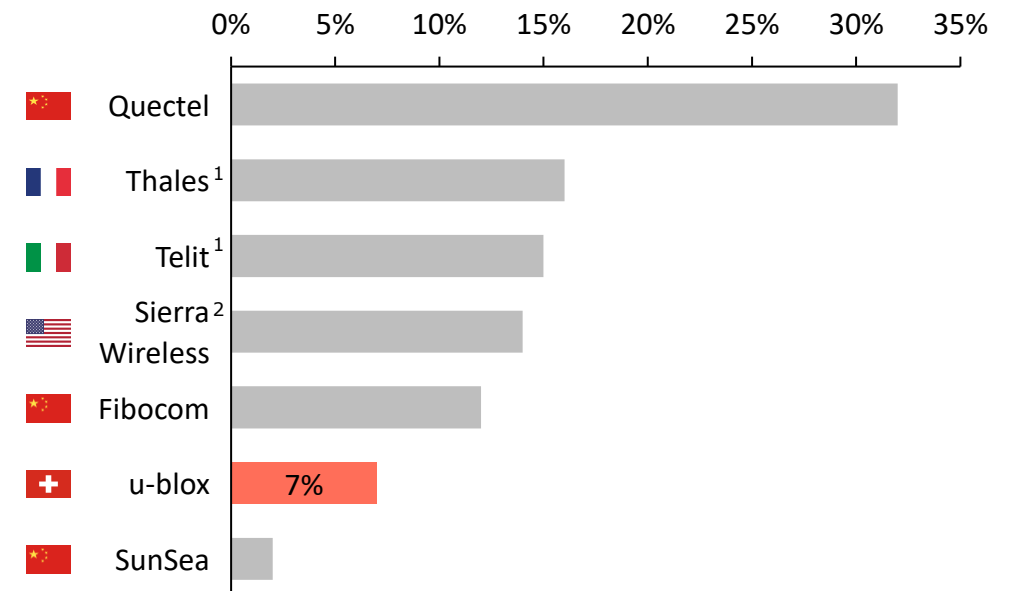
(modules + chips)



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

CEL market share

(modules)



Cellular module market outside China in 2022 (TAM³): 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

Source: u-blox

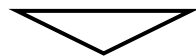
u-blox generates significant value with its core offering and will continue to improve value creation in other high growth areas



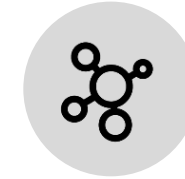
Locate

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

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



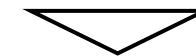
Rock solid continuous growth



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

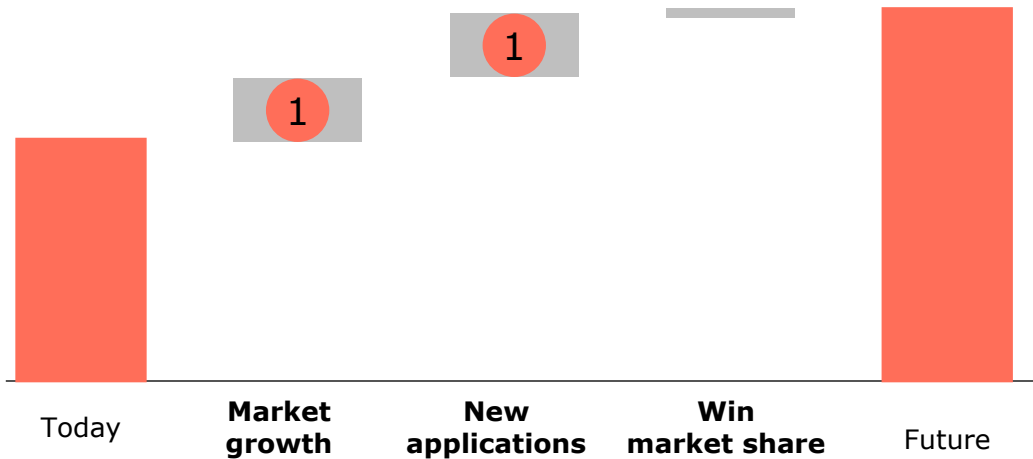


Transformation plan in place

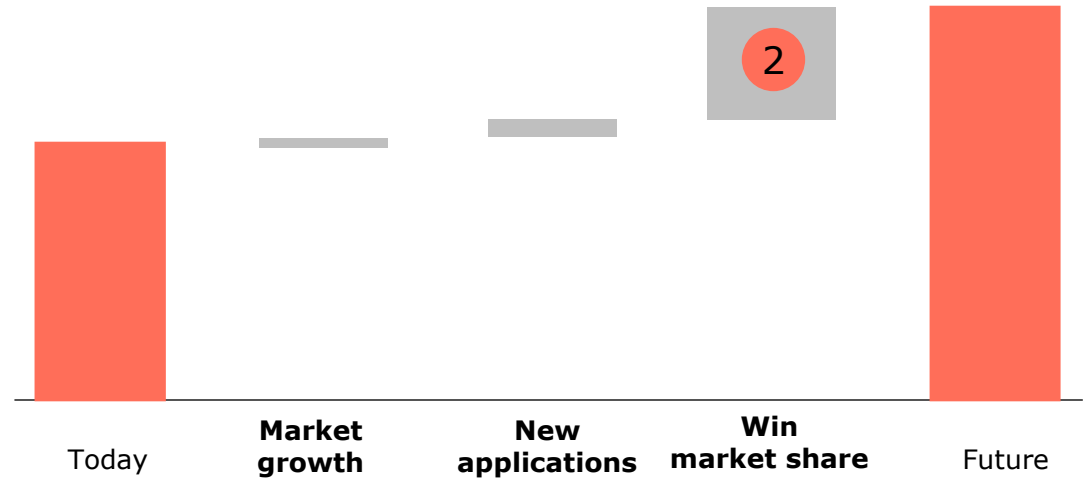
Notes:
Revenue in CHF million; EBIT margin adjusted
SER: Services

u-blox will generate even more value with Positioning and has a unique growth opportunity in Connectivity

 **Locate:**
profitable growth



 **Connect:**
grow to profitability



Strategy evolution

- 1 Expansion to new applications and customers
- 2 Win market share for better economies of scale
- 3 Shift chip development team from CEL to POS



Increased value creation

1 Locate – profitable growth

Expansion into new applications and customers

- **Targets**

- 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 for POS
 - Ongoing: further strengthening of POS
- Develop offering for new applications
- Use services as additional customer value creator



2 Connect – grow to profitability

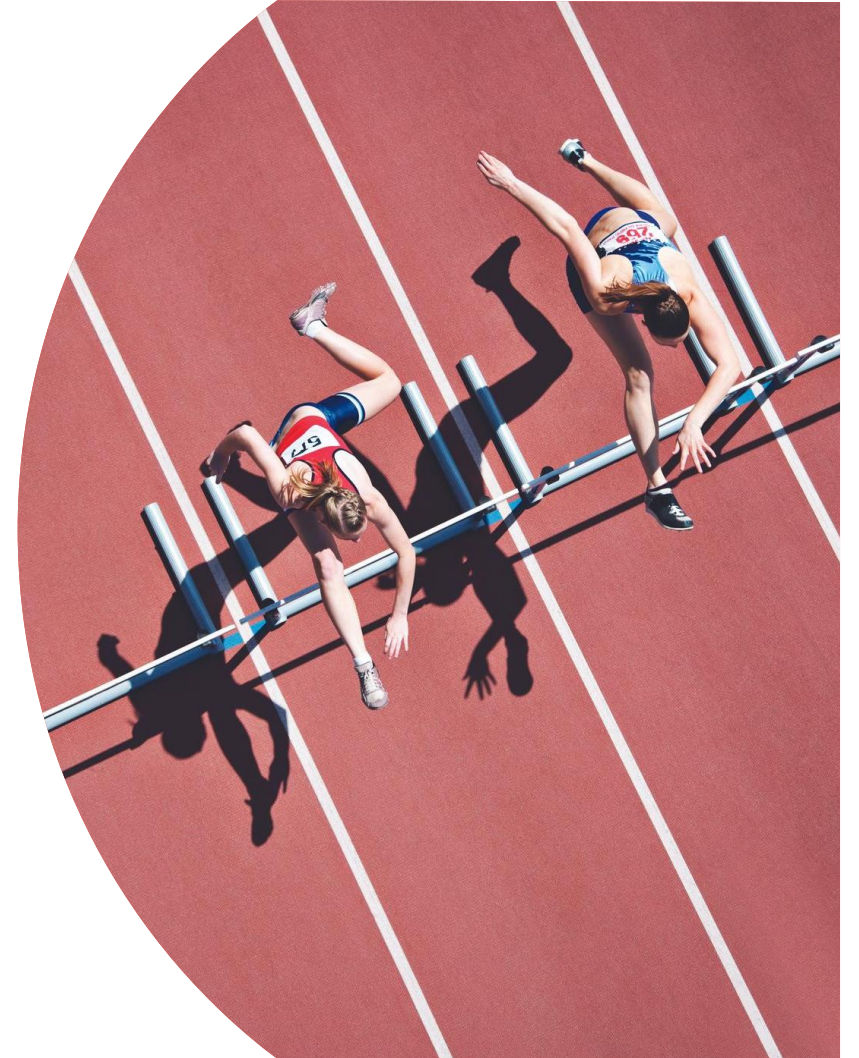
Win market share for better economies of scale

- **Target**

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

- **Key measures**

- Win market share leveraging our trustworthiness as 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 Locate / Connect

Shift teams to POS by stopping CEL chip development

Motivation

- R&D investment in own cellular Cat-M chips to close 3rd party portfolio gaps – this is not required any more today
- Today, new market requirements for Cat-1 bis and 5G would require even higher cellular chip R&D compared to past
- No significant benefit from own cellular chip development, but risks (impairment) and opportunity cost

Consequence

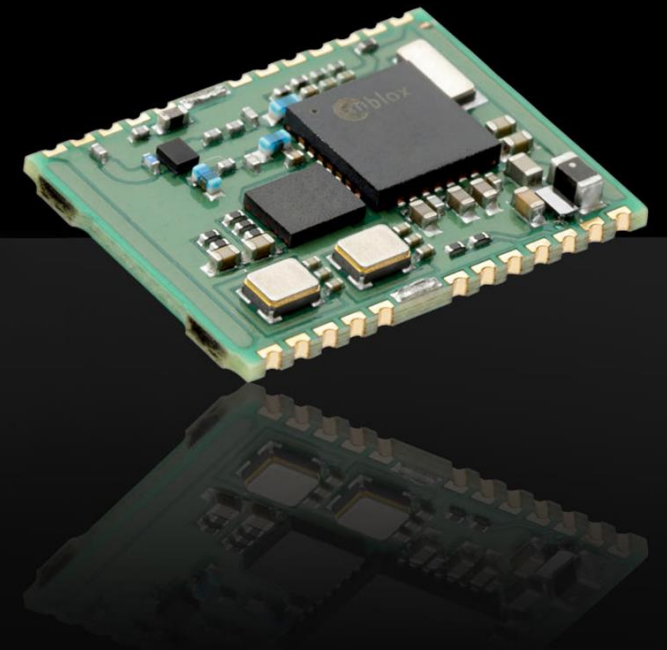
- u-blox stopped future cellular chip development
- u-blox focuses chip development on Positioning
- Reassessed business plans lead to a non-cash impairment charge



- **Reduced R&D spending for CEL**
- Immediate access to an experienced team **accelerating POS** chip development
- u-blox can deepen **relationships with cellular chips suppliers**, as there is no longer a competitive situation
- Significantly **reduced future impairment risks** as remaining capitalized R&D is mainly for rock solid Positioning business

Product Lines

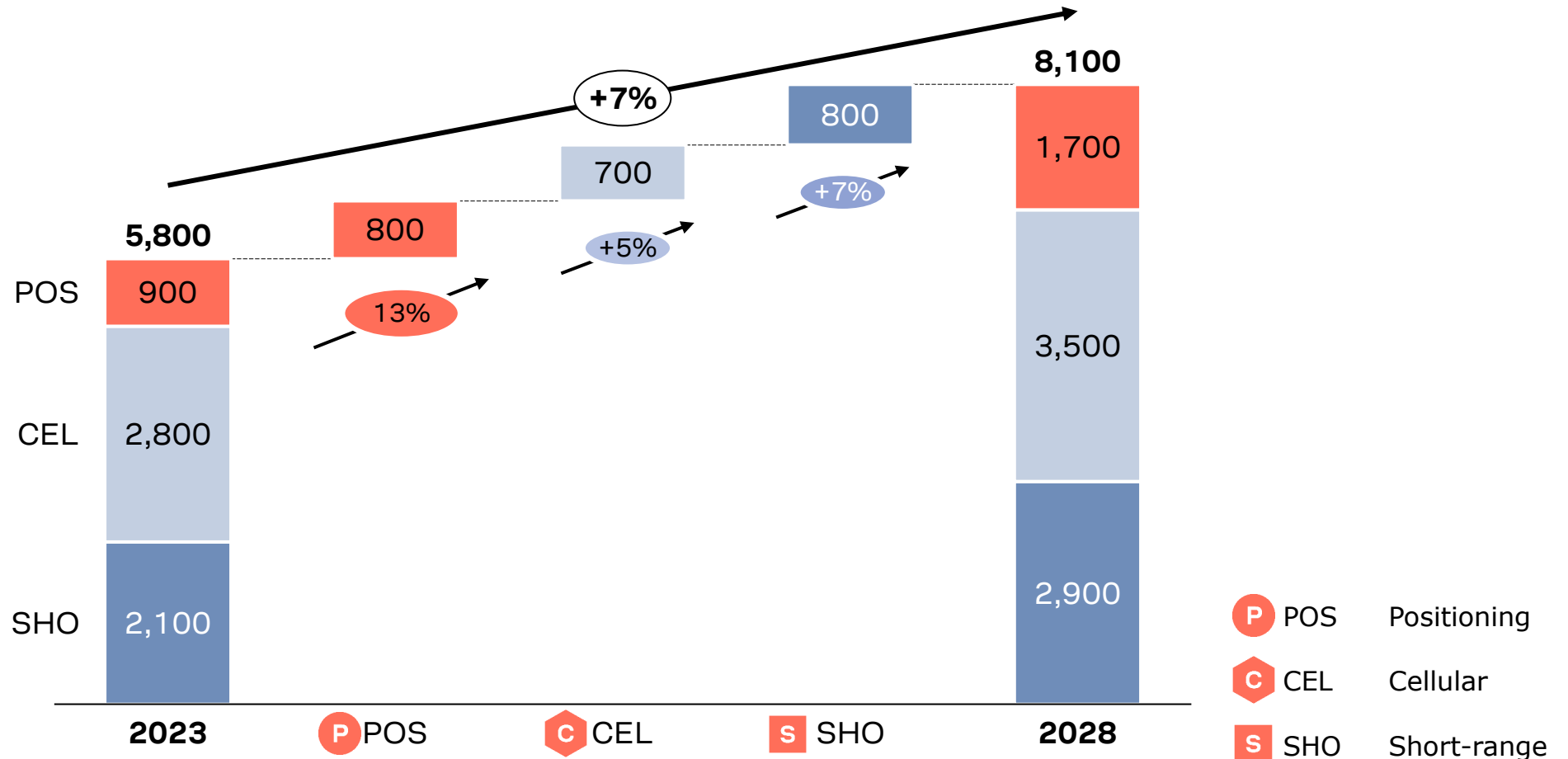
Andreas Thiel



u-blox SAM grows in line with the semiconductor market, highest market growth in POS

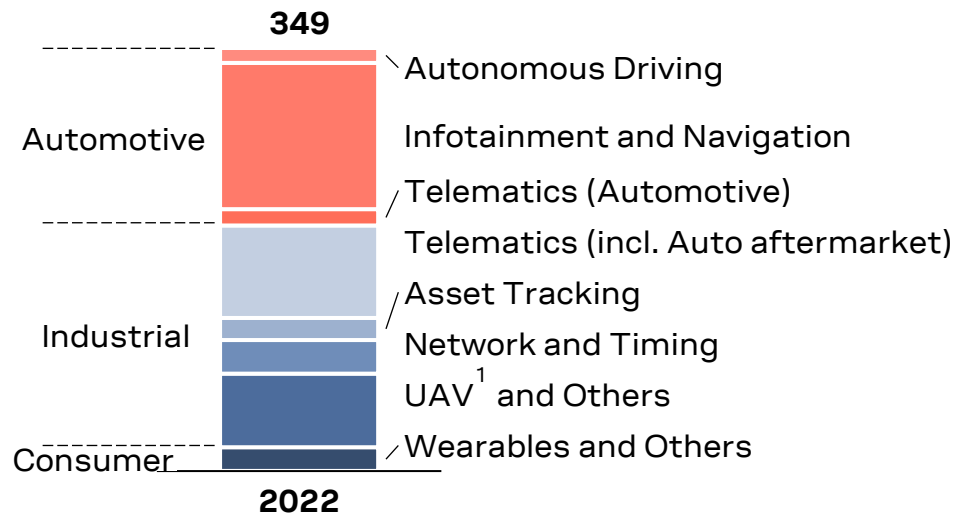
u-blox SAM development 2023-2028 (USD million)

 CAGR

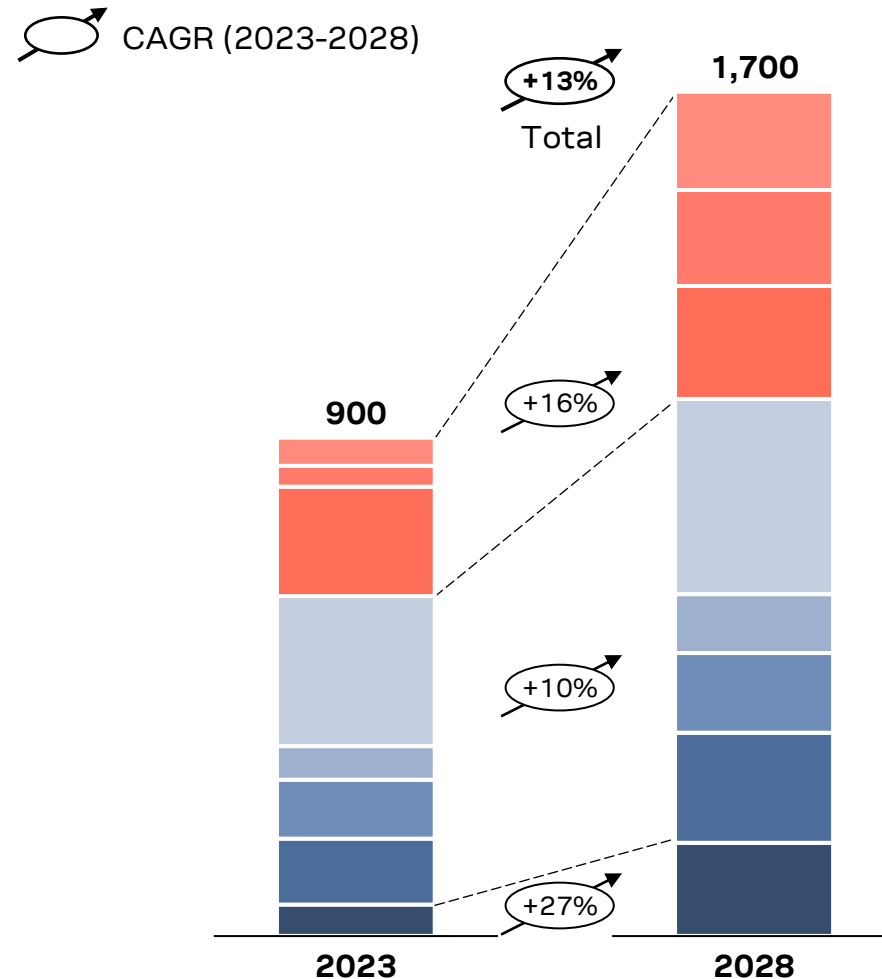


POS is very strong in automotive applications – a long-term growth market due to autonomous driving

u-blox POS revenue 2022 (CHF million)



u-blox POS SAM development 2023-2028 (USD million)



We have significant innovation in the pipeline to expand our leadership in POS

Today's success factors

- Attractive combination for the mass market
 - Accuracy
 - Time to first fix
 - Power consumption
- Sensor fusion
- Quality
- Reliability: Performance in challenging environments
- Ease of use: "It just works"



Upcoming success factors

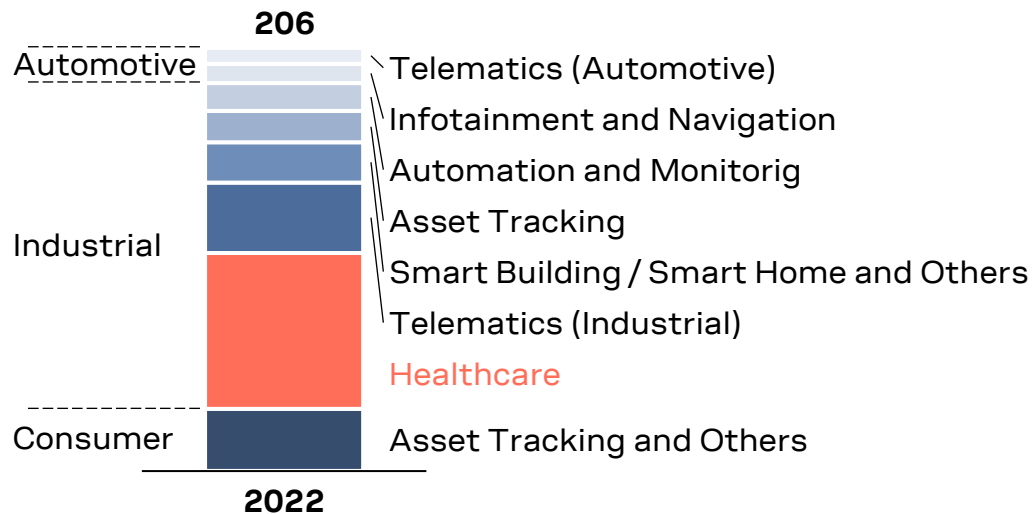
- Even higher accuracy
- Integrity: "How dependable is the position?"
- Functional safety certifications for automated driving
- New satellite systems, e.g. Low Earth Orbit (LEO)
- Advanced sensor fusion



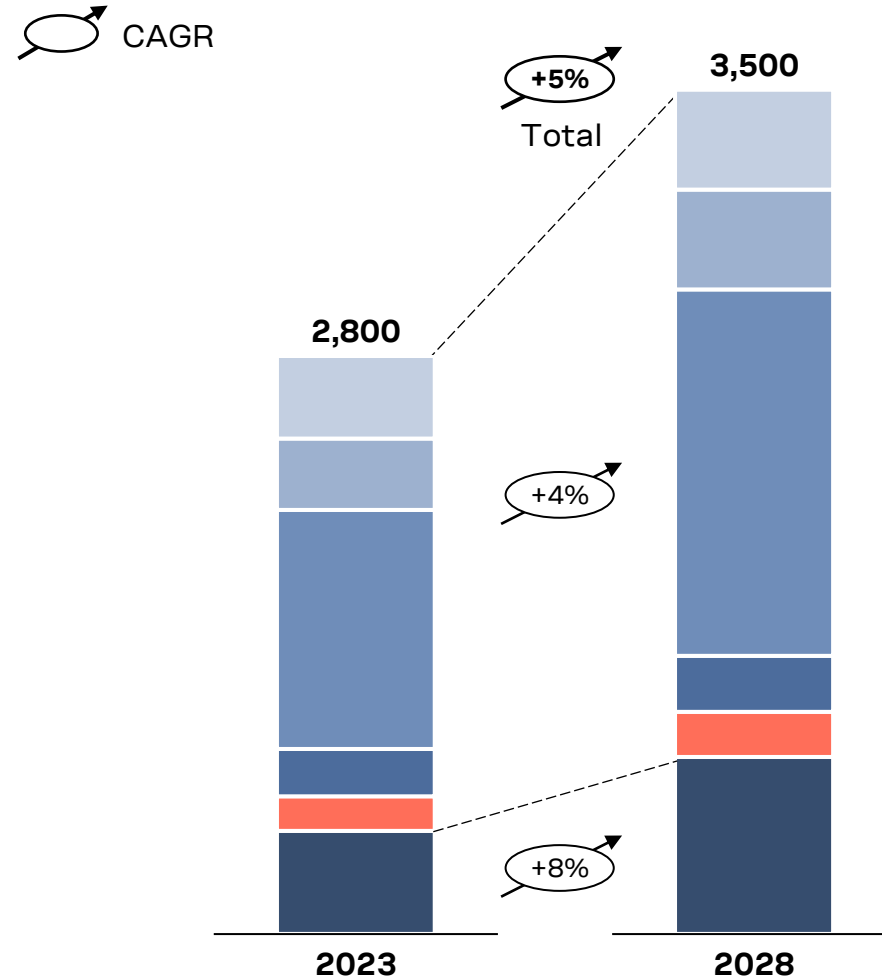
CEL's significant success in healthcare sets the base to gain share in other industrial segments



u-blox CEL revenue 2022 (CHF million)



u-blox CEL SAM development 2023-2028 (USD million)



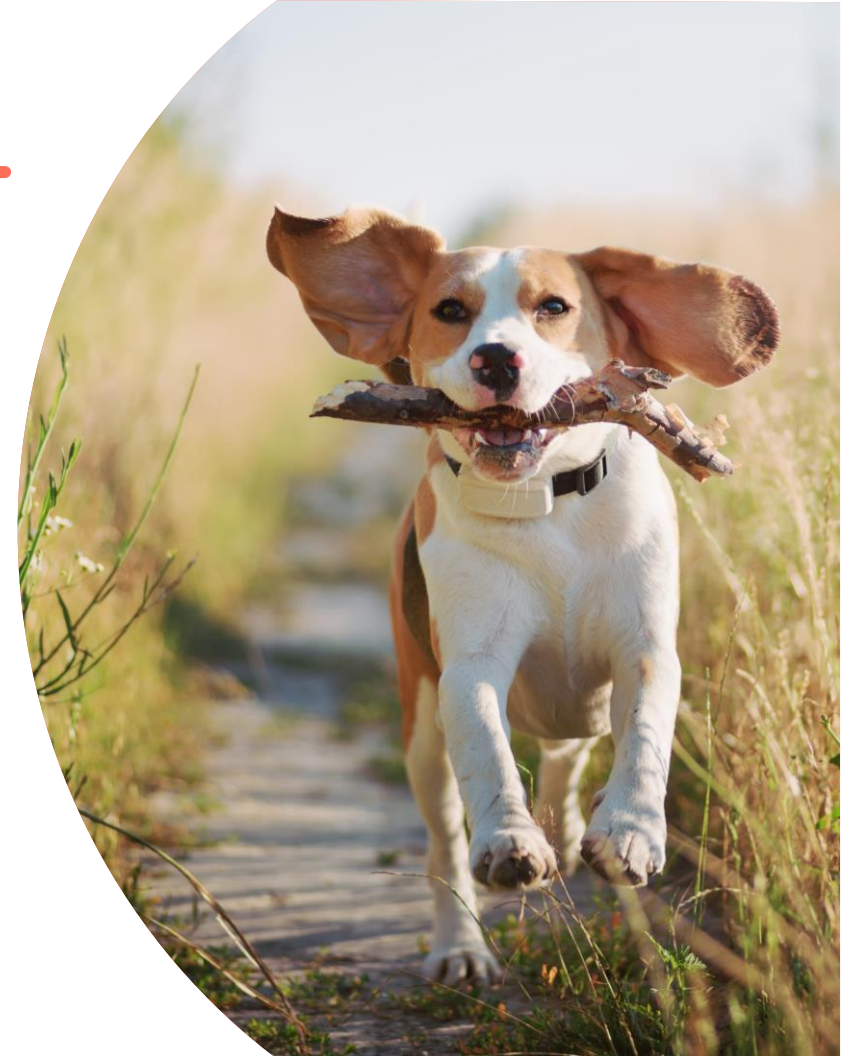
u-blox is the trustworthy cellular module provider with market shaping capabilities

Today's success factors

- 1st in the market with dedicated IoT modules
- Customer centric product definition
- Quality
- Reliable management of a complex supply chain
- Ease of use: "It just works"

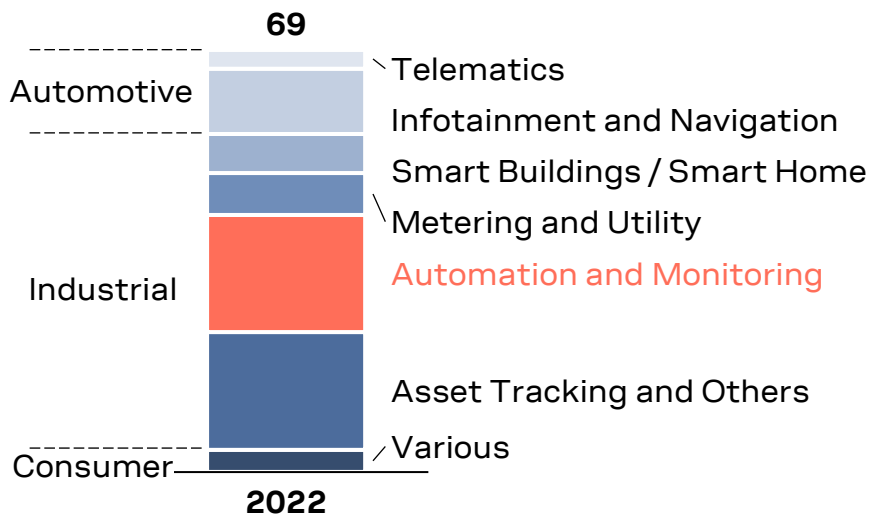
Upcoming success factors

- Trustworthy Swiss supplier in a multi-polar world
- Faster time to market supporting new cellular standards and satellite communications
- Pre-integrated with cloud services



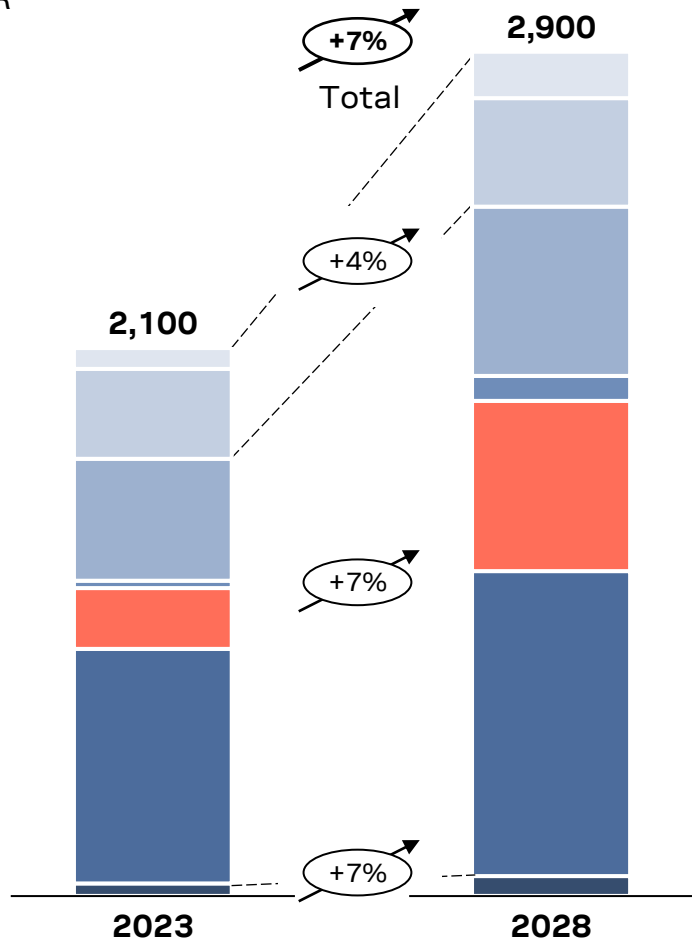
SHO's success in automation and monitoring sets the base for further market penetration

u-blox SHO revenue 2022 (CHF million)



u-blox SHO SAM development 2023-2028 (USD million)

CAGR



u-blox can shape the market with indoor positioning as trustworthy Swiss supplier

Today's success factors

- Diversified portfolio
- Relationship management to chip suppliers
- Distribution channel management
- Quality
- Ease of use: "It just works"

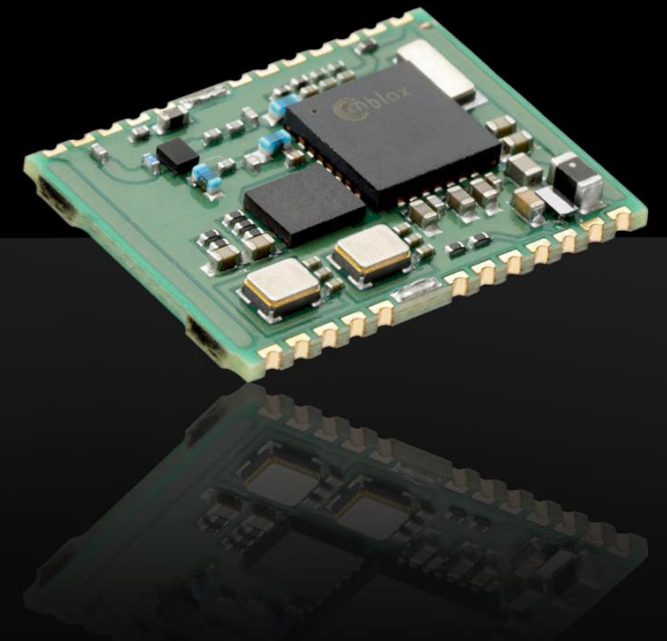
Upcoming success factors

- Trustworthy Swiss supplier in a multi-polar world
- Indoor positioning
- Hybrid solutions combining cellular, shortrange and positioning, e.g., for asset tracking in every location
- Edge computing

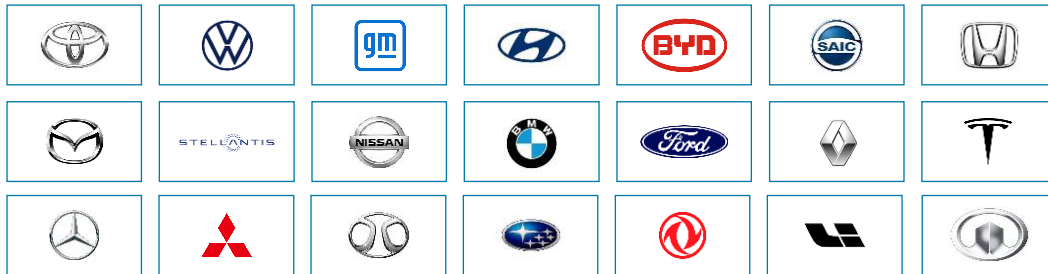


Go-to-market

Markus Schäfer



u-blox is successful at its target customers and won business with CHF 1bn lifetime value ramping in 2024+

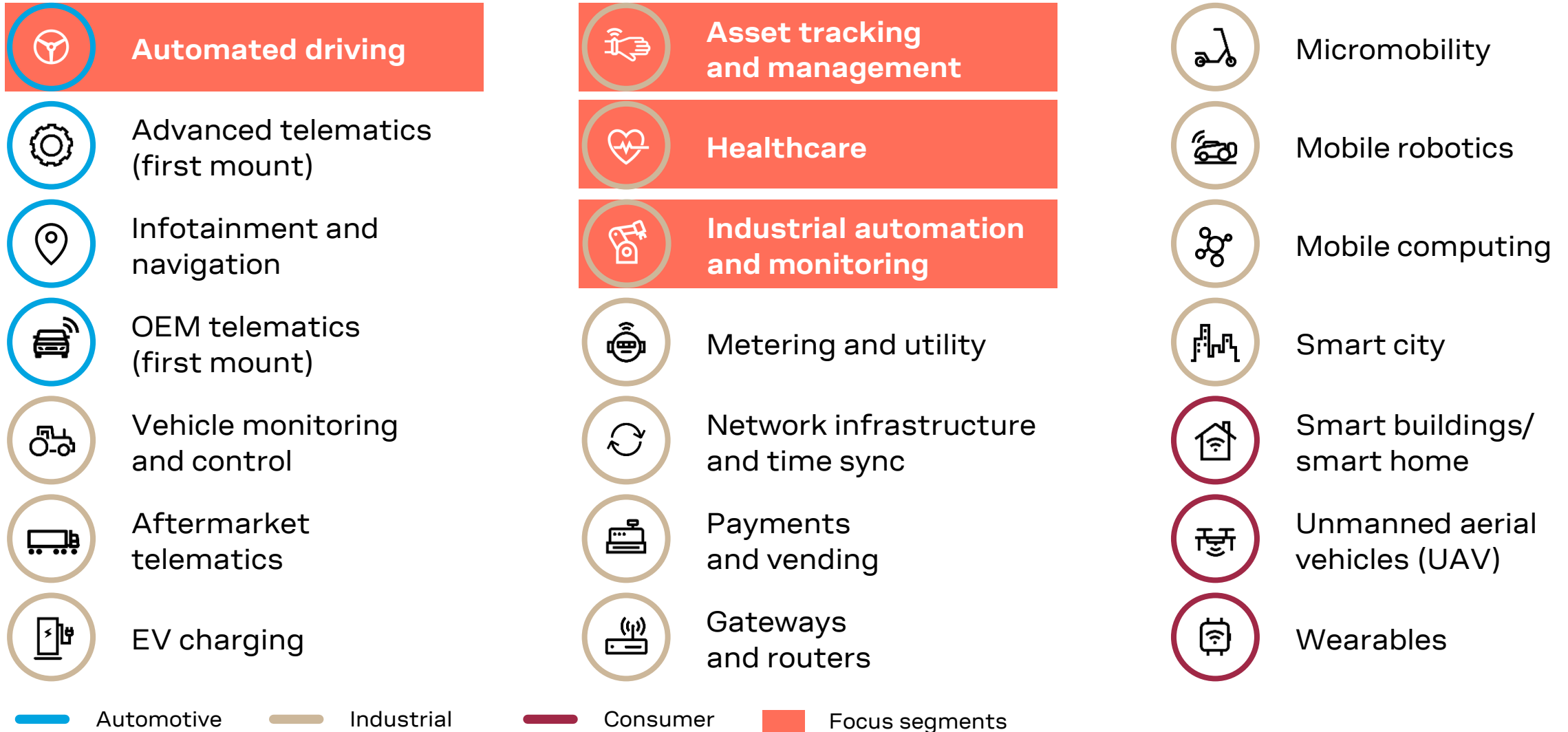


- 18 of top 20 car makers use u-blox GNSS
- Successful in automated driving in Americas, APAC, Europe
- Successful at traditional and new auto players

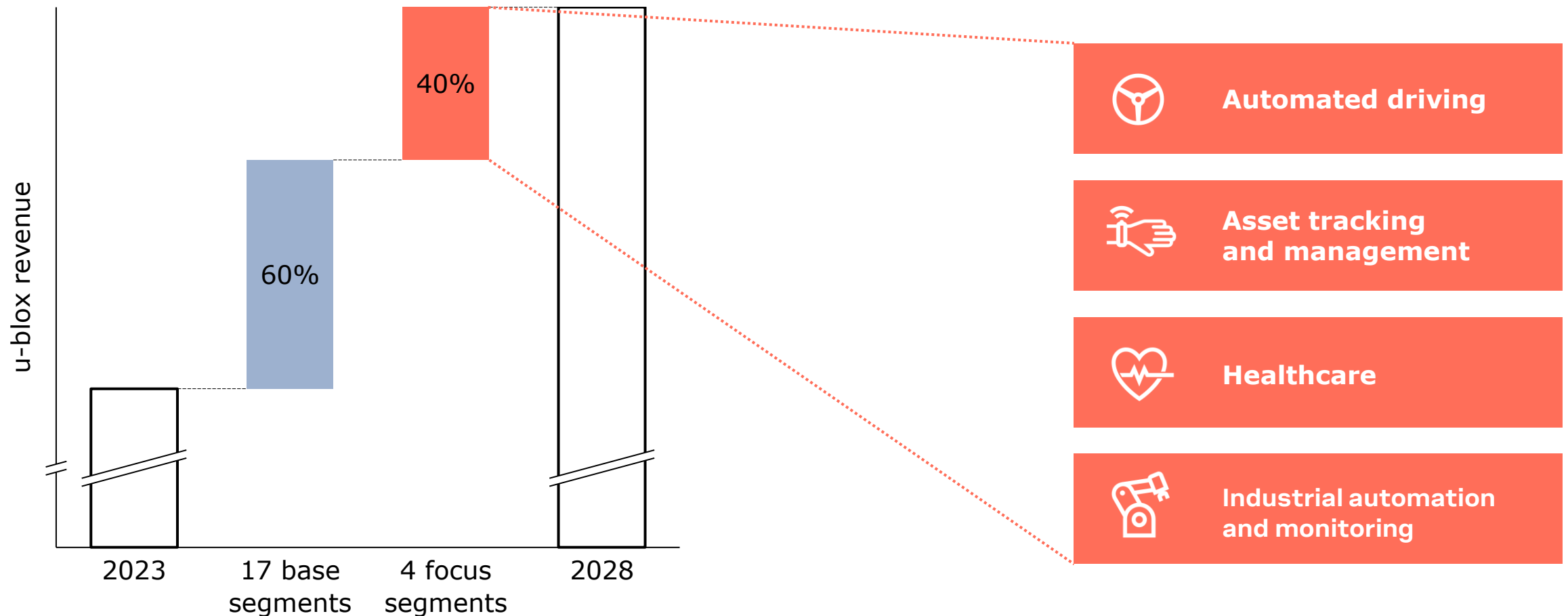


- Successful at classic industrial players and innovative startups globally
- Very successful in healthcare applications
- Encouraging long-tail demand creation via distribution

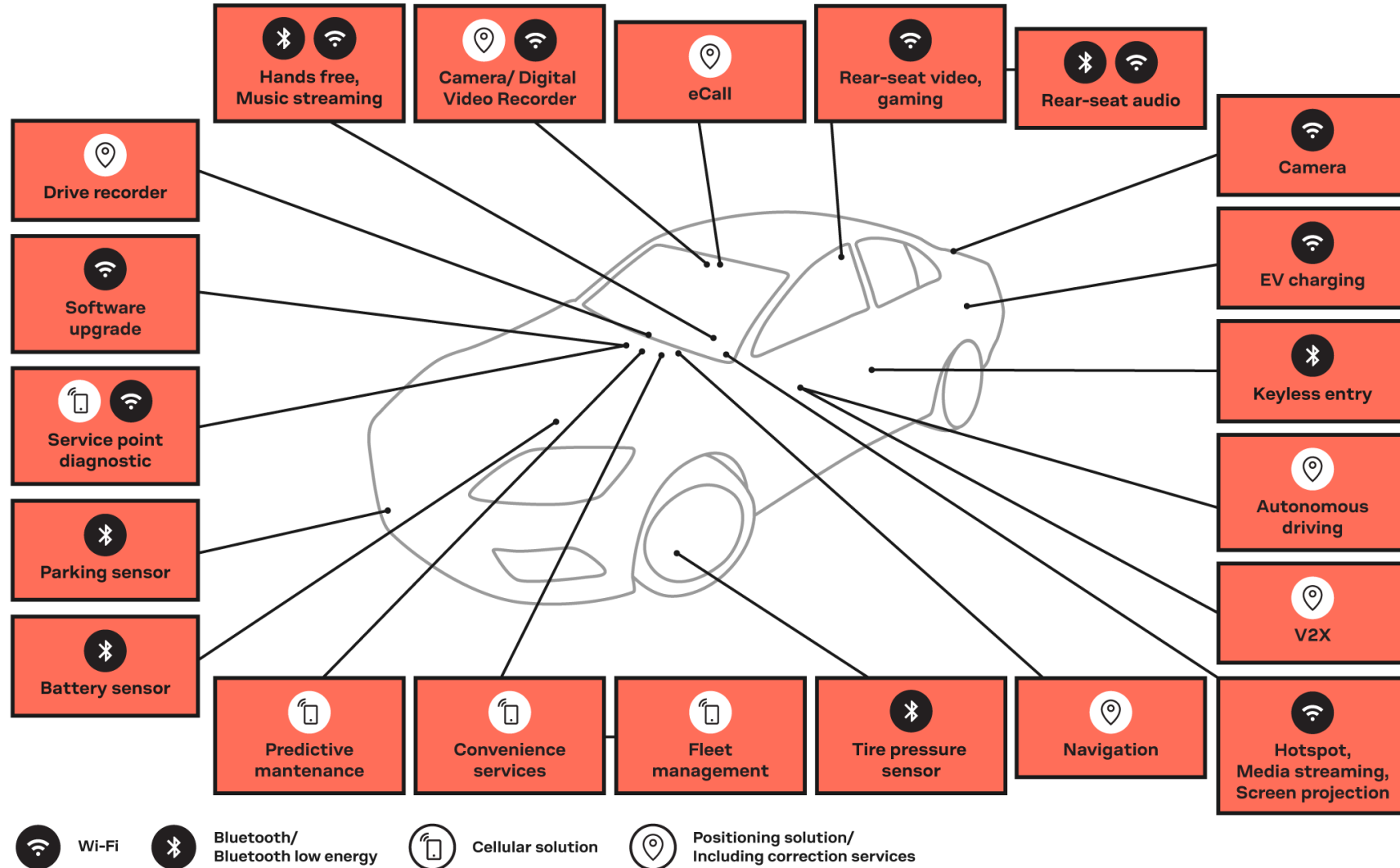
u-blox products are used in a broad range of applications – we put special focus on 4 for our future growth



Focus: 4 of 21 market segments to contribute 40% to our future growth



Our products address key innovations in the car of the future with substantial growth opportunities



Growth and value drivers

- Automated Driving
 - Increasing demand of high precision accuracy
 - Safe GNSS and Services requirements
- Advanced telematics
 - Increasing attach rate of standalone GNSS
 - Migration to multiband GNSS
- Infotainment and navigation
 - High market share today with GNSS
 - Differentiated Wi-Fi/BT offering for next generation platforms

Asset tracking, healthcare and industrial automation offer significant growth potential

Asset tracking and management



Container and Trailer Tracking



Livestock Tracking



Pet Tracking



Healthcare



Remote Patient Monitoring



Assisted Living



Industrial automation and monitoring



Predictive Maintenance



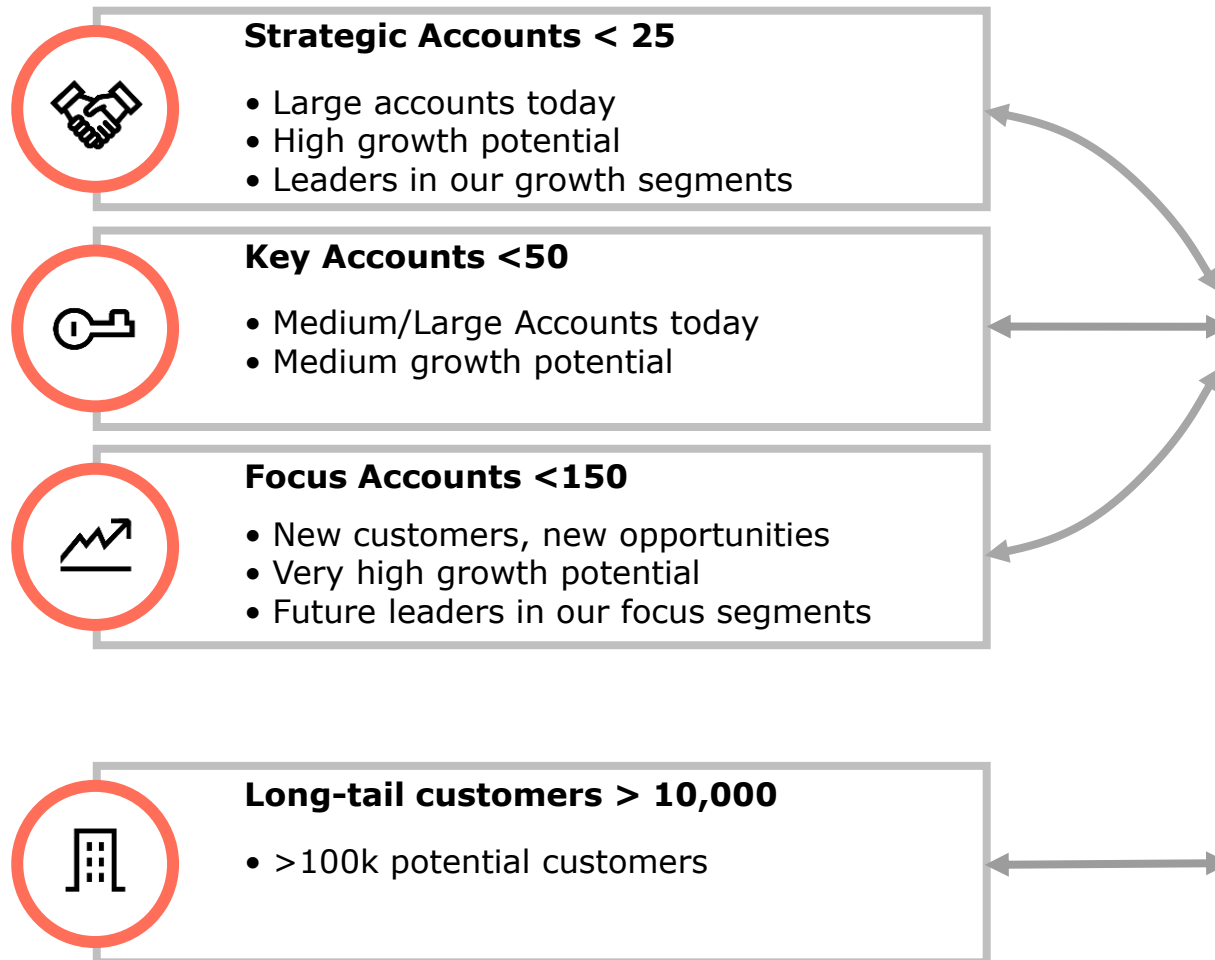
Connected Tools



Safe connected worker



We strengthen direct sales for our top 200 accounts and lever the power of partners for the mass market



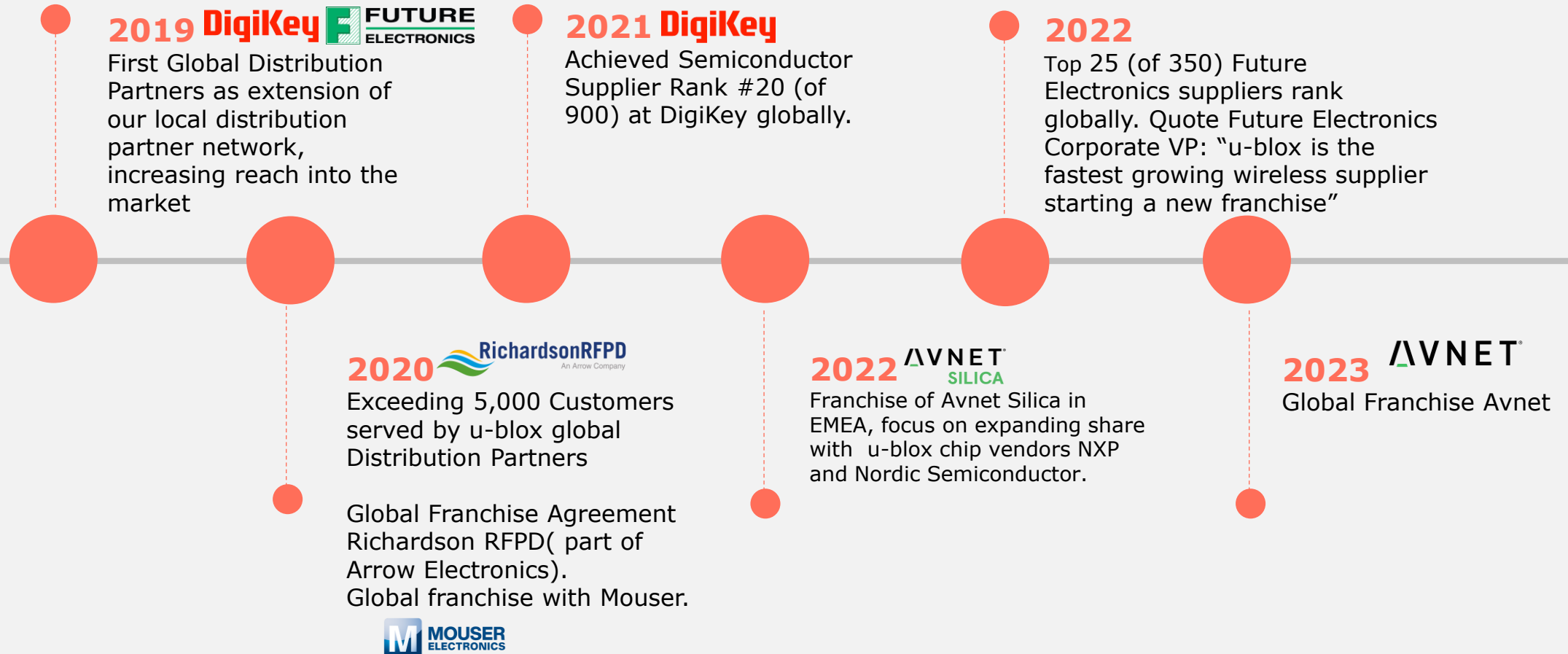
u-blox sales team



Distribution partners



Execute: u-blox successfully teamed up with leading distribution partners to accelerate future growth

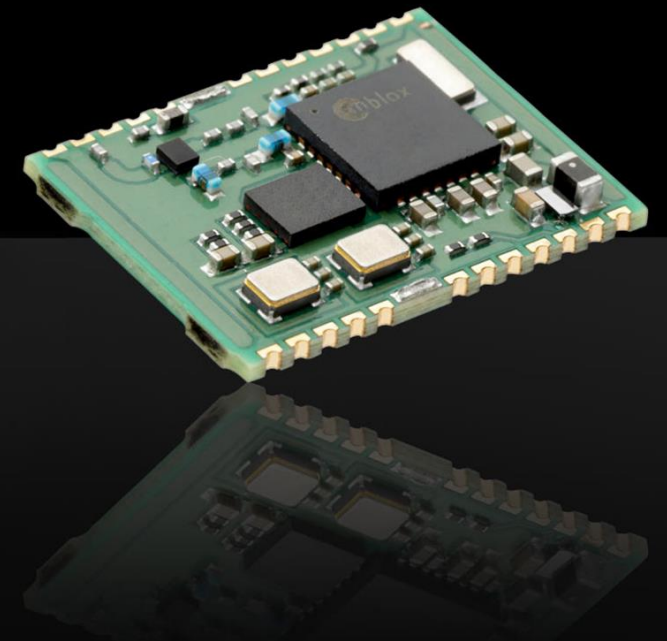


We defined four Go-to-Market initiatives for our future success

- Increase focus on our strategic customers to maximize our share of wallet and execute on the project funnel that they awarded to us
- Develop new customers and new business with customers leading in our focus markets
- Leverage the power of leading distribution partners in order to
 - Increase further our number of customers
 - Increase the service level for our long tail customers and
 - Enable our direct sales team to focus on direct accounts
- Make it easy for our customers working with us leveraging solution capabilities of our distributors and design partners

Operational excellence

Stephan Zizala



Operational excellence will elevate our competitiveness



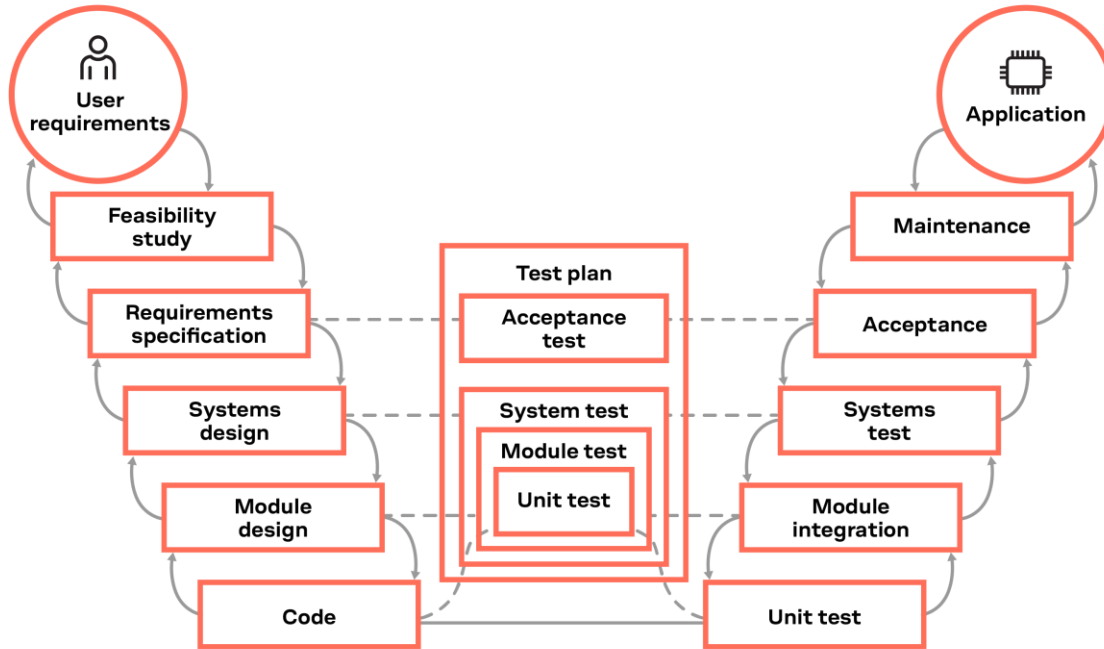
Effectiveness

- 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

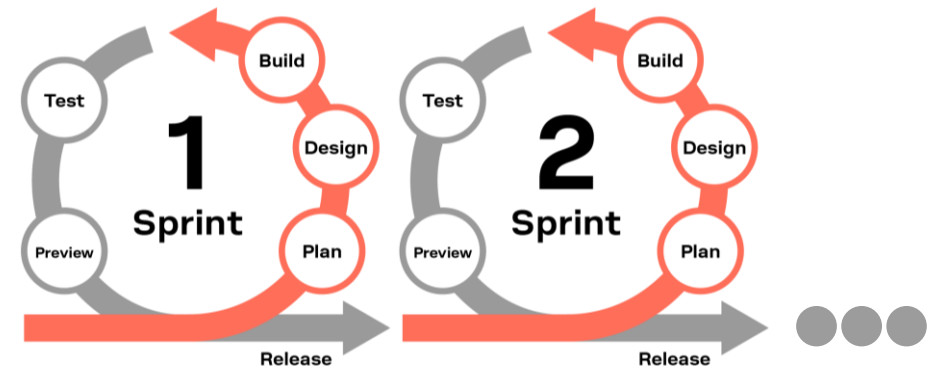
- Improve procurement performance (MCHF >300 sourcing volume in 2022) by a restructured team
- Improve product cost, especially for cellular, by establishing a design-to-cost toolset
- Improve net working capital management
- Leverage global site footprint to optimize cost

u-blox is on an agile transformation to gain speed, achieve a better market fit and reduce risk



- Sequential, rigid, documentation heavy
- Long planning phases
- Customer feedback for the final product

➔ Perfect plan execution for known tasks

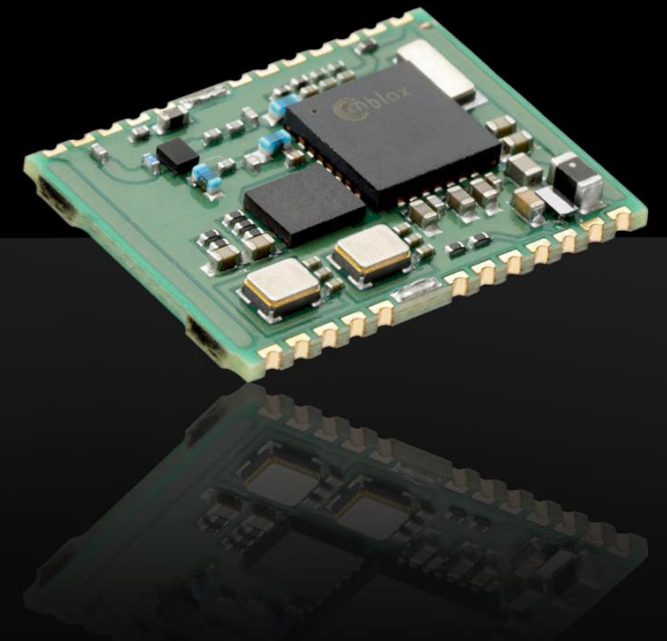


- Iterative, adaptive, collaborative
- Fast cycles
- Customer feedback after each phase

➔ Faster time-to-market and risk reduction for innovation in dynamic markets

Financials / Capital Market

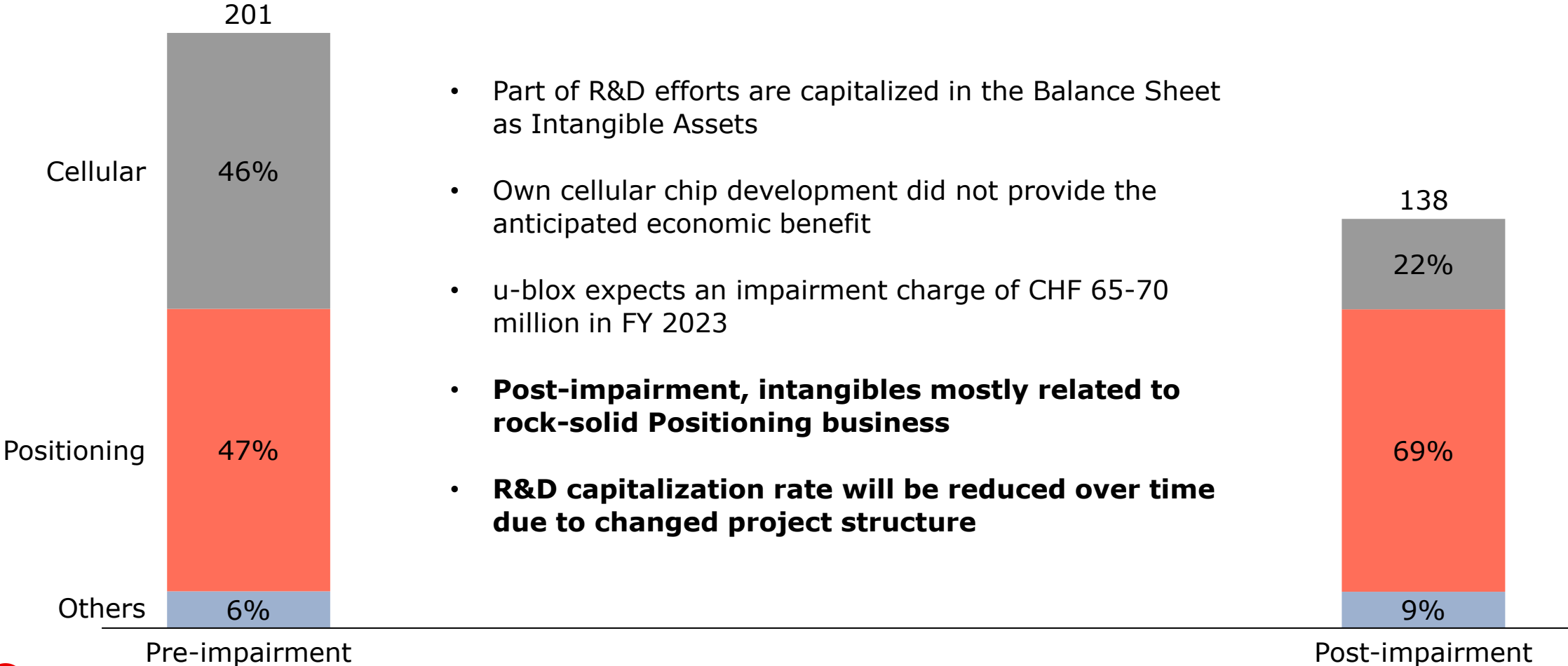
Roland Jud



Discontinuation of cellular own chip development leads to CHF 65-70 million impairment

Intangible Assets - Capitalized R&D

CHF million, as of 30.9.2023



- Part of R&D efforts are capitalized in the Balance Sheet as Intangible Assets
- Own cellular chip development did not provide the anticipated economic benefit
- u-blox expects an impairment charge of CHF 65-70 million in FY 2023
- **Post-impairment, intangibles mostly related to rock-solid Positioning business**
- **R&D capitalization rate will be reduced over time due to changed project structure**

Focus on working capital management to reduce NWC as percentage of revenue to <20% over the cycle

Situation

- From 2018 to 2021, working capital components improved gradually
- Deterioration in 2022 and 2023 to enable significant growth



Future

- Goal of reducing working capital as a percentage of revenue to <20%
- Review payment conditions
- Better inventory management through better forecasting
- Improvements expected throughout 2024

Enhanced transparency through more regular reporting, short-term guidance and long-term Target Financial Model

Reporting

FY results	<ul style="list-style-type: none"> • Full results 	6/Mar
Q1 trading update	<ul style="list-style-type: none"> • Revenue • EBIT adj 	24/Apr
HY results	<ul style="list-style-type: none"> • Full results 	7/Aug
Q3 trading update	<ul style="list-style-type: none"> • Revenue • EBIT adj 	23/Oct

Guidance / Target Financial Model

Quarterly Guidance

- Revenue
- EBIT adj

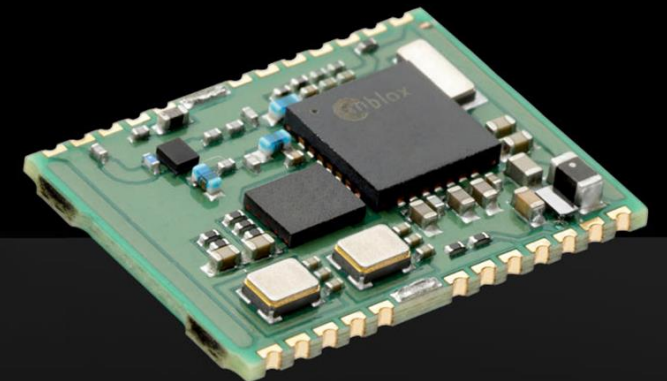
Target Financial Model

- Revenue growth
- EBIT adj
- FCF margin

Existing
New

Summary

Stephan Zizala



Summary: Focus – Innovate – Execute

Positioning innovation and Connectivity economies of scale

Key long-term growth drivers

- Strong structural growth: automated driving, asset tracking and management, industrial automation and monitoring (digitalization), remote healthcare
- Trustworthy partner with a reliable supply chain

Strategy

- 1) Increase focus on highly differentiated Positioning business and substantially shift R&D teams to Positioning innovations
- 2) Turn-around the Connectivity business by stopping cellular chip development and by gaining scale, leveraging our trustworthiness as Swiss supplier in a multi-polar world
- 3) Improve execution performance by agile development and increased bottom line focus

Target Financial Model

Over the cycle

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

Notes:

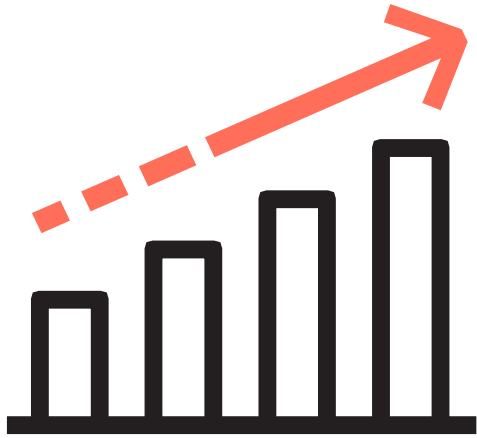
- Basis for next cycle: 2023
- Target margins as average for cycle
- Target Financial Model replaces mid-20's ambitions

Our Vision

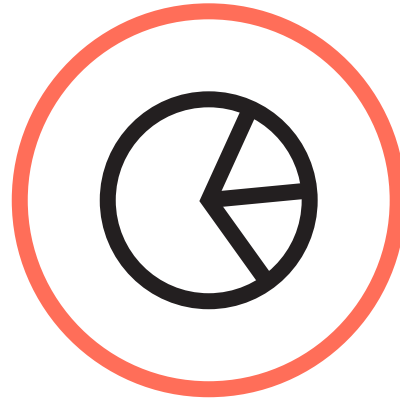
**The future with us
is precise, smart,
and sustainable.**



u-blox investment thesis



Strong in structural growth markets

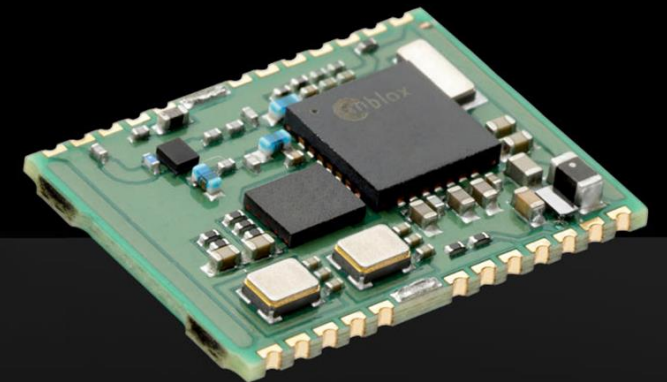


Undisputed market leader in Positioning based on unique IP



Sustainable value creation

Q&A



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Thank you for your attention