

ADVA open edge networking

Solutions for a digital future

Investor presentation, September 2022

Disclaimer

FORWARD-LOOKING STATEMENTS

This presentation contains forward-looking statements with words such as “believes”, “anticipates” and “expects” to describe expected revenues and earnings, anticipated demand for optical networking solutions, internal estimates and liquidity. These forward-looking statements involve a number of unknown risks, uncertainties and other factors that could cause actual results to differ materially. Unknown risks, uncertainties and other factors are discussed in the ‘risk report’ section of ADVA Optical Networking’s annual report 2021.

CONSOLIDATED PRO FORMA FINANCIAL RESULTS

ADVA provides consolidated pro forma financial results in this presentation solely as supplemental financial information to help investors and the financial community make meaningful comparisons of ADVA’s operating results from one financial period to another. ADVA believes that these pro forma consolidated financial results are helpful because they exclude non-cash charges related to stock compensation programs and amortization and impairment of goodwill and acquisition-related intangible assets, which are not reflective of the group’s operating results for the period presented. This pro forma information is not prepared in accordance with IFRS and should not be considered a substitute for historical information presented in accordance with IFRS.

The background of the slide is a photograph of a modern, multi-story building with a prominent cantilevered upper floor. The building features large glass windows and a series of white structural columns supporting the overhang. The sky is blue with scattered white clouds, and the foreground shows a green lawn.

Company overview

Mission, vision, customers and products

Transforming our business

Statement from the CEO

"With our investments in recent years, we have created the foundation for transforming our business model.

This transformation includes growing revenue contributions from software and services, expansion into new industries and further verticalization of our business."



Digitization is bringing the investment focus to us

ADVA fundamentals



Background

- Headquartered in Munich, Germany
- Approximately 1,900 employees
- EUR 0.6 billion turnover



Our vision

We love to work with highly innovative people to connect the world and drive change, success and value. In an increasingly digital environment, our networking technologies enable those who are solving the world's most critical challenges



Our mission

Our mission is to be an innovation leader focused on our customers' experience by building better networking solutions

- Atlanta Richardson Neuchâtel York Meiningen **Munich** Gdynia



- Haifa Shenzhen **Singapore** Melbourne

We build the technology that helps to create a connected world

The executive team



Scott St. John

CMSO

Sales
Services
Marketing



Christoph Glingener

CEO

PLM
Development
Global BD



Ulrich Dopfer

CFO

Finance, IR
Legal
IT



The ADVA brand promise



Open networking solutions

- Differentiated technology
- Network-level applications
- Market-leading scalability and efficiency

Operational excellence

- High quality
- Short lead times
- Award-winning sustainability focus

Ease of doing business

- Technology and VAR ecosystems
- Broad and deep application expertise
- Financial stability, solid balance sheet

Enabling our customers to capitalize on cloud and mobility

Serving network operators around the world

Private enterprises

- 30 of top 50 banks (revenue)

30%*

- + Premium quality
- + Customer loyalty and trust
- Limited project volume

Communication service providers

- 17 of top 25 global CSPs
- 5 of top 6 global Ethernet service leaders

65%*

- + Longevity (stickiness)
- + Volume
- Long sales cycle (RFPs)

Internet content provider

- 4 of top 5 global ICPs

5%*

- + Volume and growth potential
- Aggressive pricing
- Limited visibility and stickiness



*approximate revenue contribution FY 2021

Global diverse customer base drives growth and mitigates risk

Our partners

Technology partners



Ensemble harmony ecosystem



... and many more driven by real-world customer deployments

Partner ecosphere members

Featured ELITE partners



Featured SELECT partners



... and many more Connect+ and Connect partners

ADVA's technology tripod

Cloud interconnect



70% of revenues

Private enterprises:

Business continuity
and disaster recovery

Internet content provider:
(Hyperscale) DCI

Communication service provider:
Metro and edge upgrade for IoT, 5G
and cloud services

Cloud access



25% of revenues

Private enterprises:

Secure cloud access
and SD-WAN

Internet content provider:
Edge cloud

Communication service provider:
Zero-touch service delivery and
assurance

Network synchronization



OSCILLOQUARTZ
An ADVA Company

5% of revenues

Private enterprises:

Timing for critical infrastructure
MiFID II financial time stamping

Internet content provider:
Global database synchronization

Communication service provider:
Next-gen mobile (5G)

Overall sustainability approach and ratings

Holistic approach

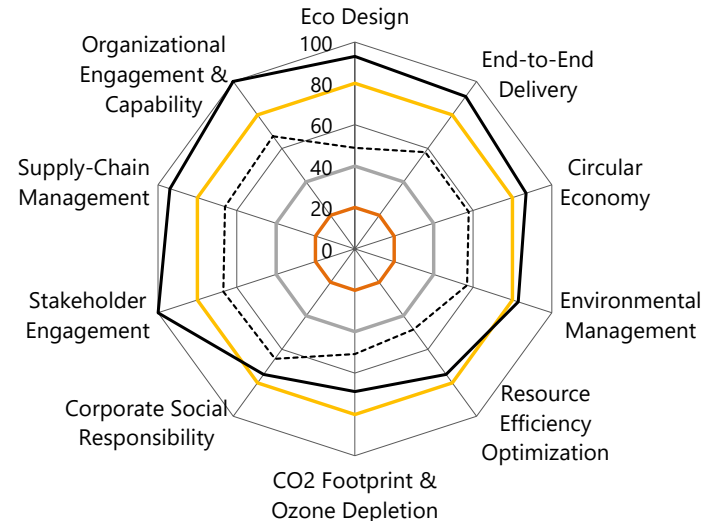
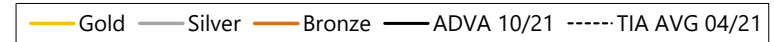
- Covering all sustainability aspects
- Science-based emissions targets (SBTi 1.5°C targets)
- Process-based product ecodesign and lifecycle assessments
- Optimization of operations, logistics and all packaging
- ISO 50001 and ISO 14001
- Supply-chain engagement
- Circular-economy processes

External ratings

*Platinum rating
from EcoVadis*



Gold rating from TIA / QuEST Forum



Top ratings for a holistic sustainability approach

Why ADVA?

Growth and profitability



Positive macro dynamics

First-class customers and partners



Strong products and technology alignment

Excellent team and patent portfolio



Accelerating cash generation

Innovative solutions for a digital future



Market dynamics

Growth drivers, competitive landscape

Market growth drivers

Enterprise transformation

- Investment in new technologies to stay relevant and lead the transformation and digitization of society
- Security is of highest importance



Moving to the cloud

- Video, video, video!
- Terascale DCI*
- Secure cloud access
- Virtualized service creation
- Edge cloud investments



*data center interconnect

5G and IoT

- New fronthaul, backhaul and timing investments
- Edge compute resources inside the network expand rapidly
- Open wholesale models prevail



Megatrends drive investment focus to the edge, where ADVA performs best

Networking industry – a consolidating ecosystem



AOI
APPLIED OPTOELECTRONICS, INC.

NeoPhotonics

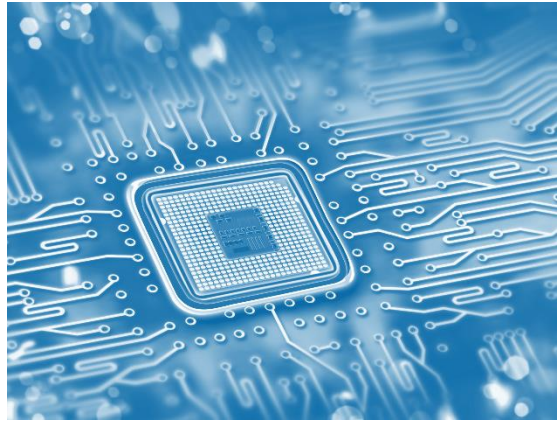
LUMENTUM

ACACIA
COMMUNICATIONS INC.

Inphi
Think fast.

MARVELL

II-VI



ciena

ADVA™

NOKIA

CISCO

infinera

JUNIPER
NETWORKS

HUAWEI



Production floor ADVA, Meiningen, Germany

Microsoft

Deutsche Telekom

NYP

BT

DE-CIX

HEP

verizon

Telecom Italia



Systems suppliers in times of deglobalization



Acquired

2014

2015

2015

2016

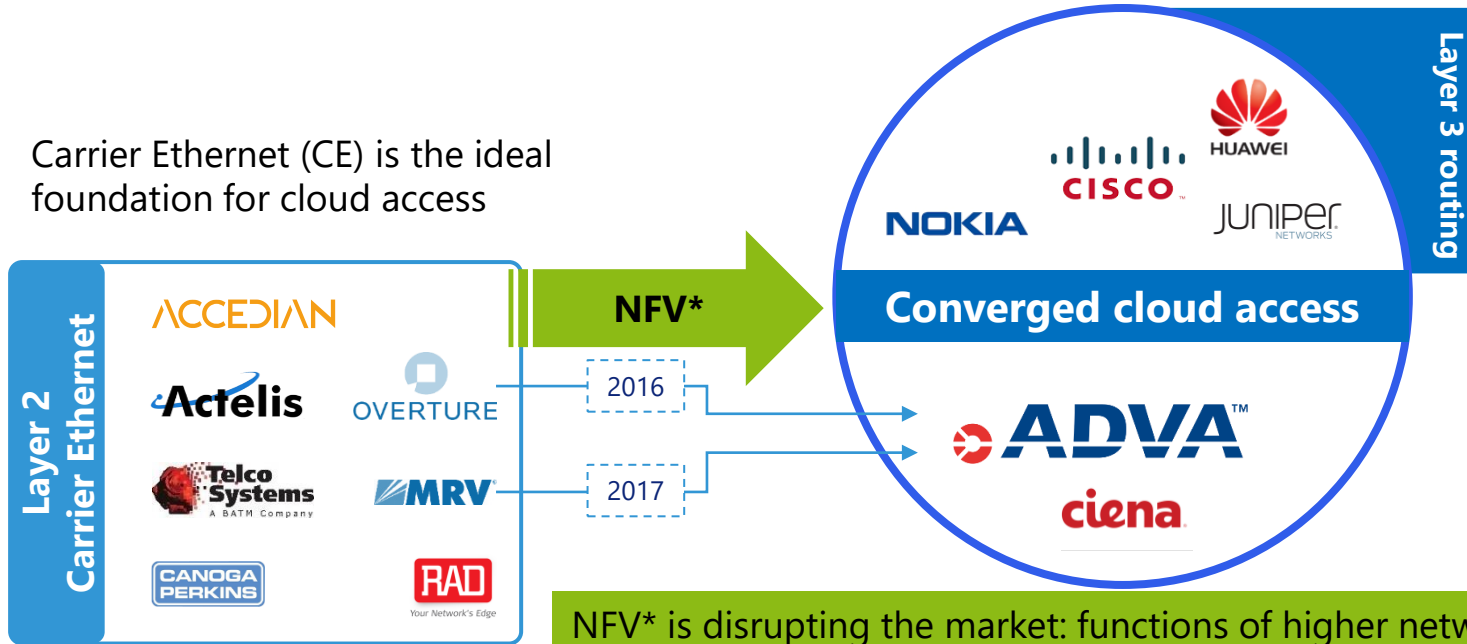
2017

2018

2019

Technology convergence at the network edge

Carrier Ethernet (CE) is the ideal foundation for cloud access



NFV* is disrupting the market: functions of higher network layers run as software installations on generic servers. NFV transition is leaving smaller CE players behind.

*network function virtualization

Network layers 2 and 3 in the access are converging leading to TAM expansion

New market dynamics and opportunity expansion

Macro dynamics ...

- Pandemic accelerates digitalization
- Deglobalization impacts vendor selection
- Industry consolidation reduces choice


... have shifted the baseline


- Network infrastructure transitions from cheap commodity to strategic asset
- Government stimulus favors trusted suppliers
- Few remaining western suppliers that are profitable and have required credentials


Macroenvironment provides positive tailwinds for ADVA

Market share data – ADVA highlights

Optical networking¹

 Access WDM,
EMEA (12%)

 Metro WDM,
EMEA (16%)


 Purpose built DCI,
EMEA (18%)

1) Omdia, Optical networking Q4 2021, April 2022

Data center interconnect²

 Enterprise,
global (36%)


 Enterprise
EMEA (56%)

 Government & R&E
EMEA (43%)

2) Omdia, Data center interconnect Q4 2021, April 2022

SP access switching and Carrier Ethernet demarcation³

 EMEA (44%)

 Global (20%)

3) Omdia, Service provider access switching and Carrier Ethernet demarcation, Q4 2021, publ. April 2022

All numbers rolling four quarters

Innovation leadership and strength in growth markets

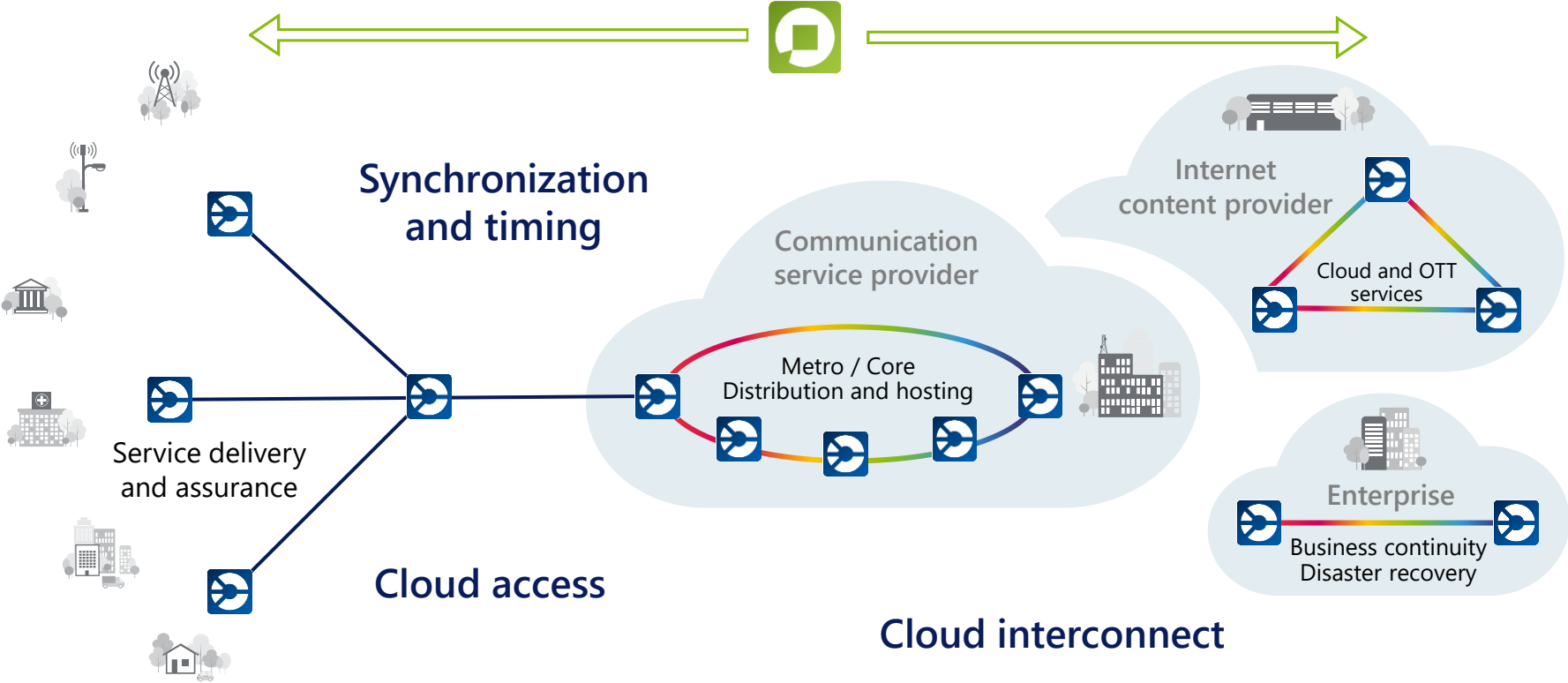


Technology

Products and solutions

ADVA solutions overview

Ensemble network management and control



Cloud interconnect overview



Objective

Industry focus

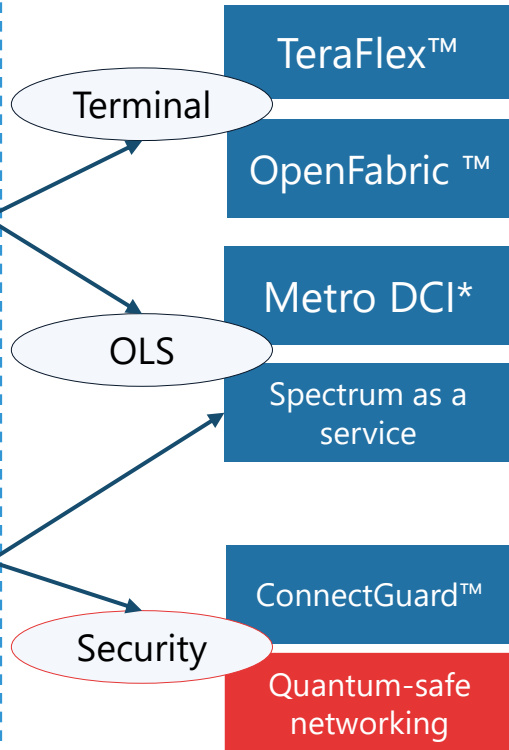
ADVA innovation

Lowering cost per Gbit/s mile

Higher bitrate adoption (400G+)

Service innovation and security

Increasing infrastructure value



Open terminal with highest data rates (1200G)

Efficient Terabit traffic grooming

Industry-leading open line system, empowering new services

Industry-leading encryption technology

*data center interconnect

Cloud interconnect dynamics

Open optical networking solutions

Foundation

- Market leadership in enterprise DCI¹
- Large installed base of OLS² in hyperscale DCI
- Proven track record with global tier 1 / tier 2 customer base

Transformation

- Higher bitrate adoption (400Gbit/s+)
- Disaggregation to eliminate vendor lock-in
- Stringent security and encryption requirements

Upside

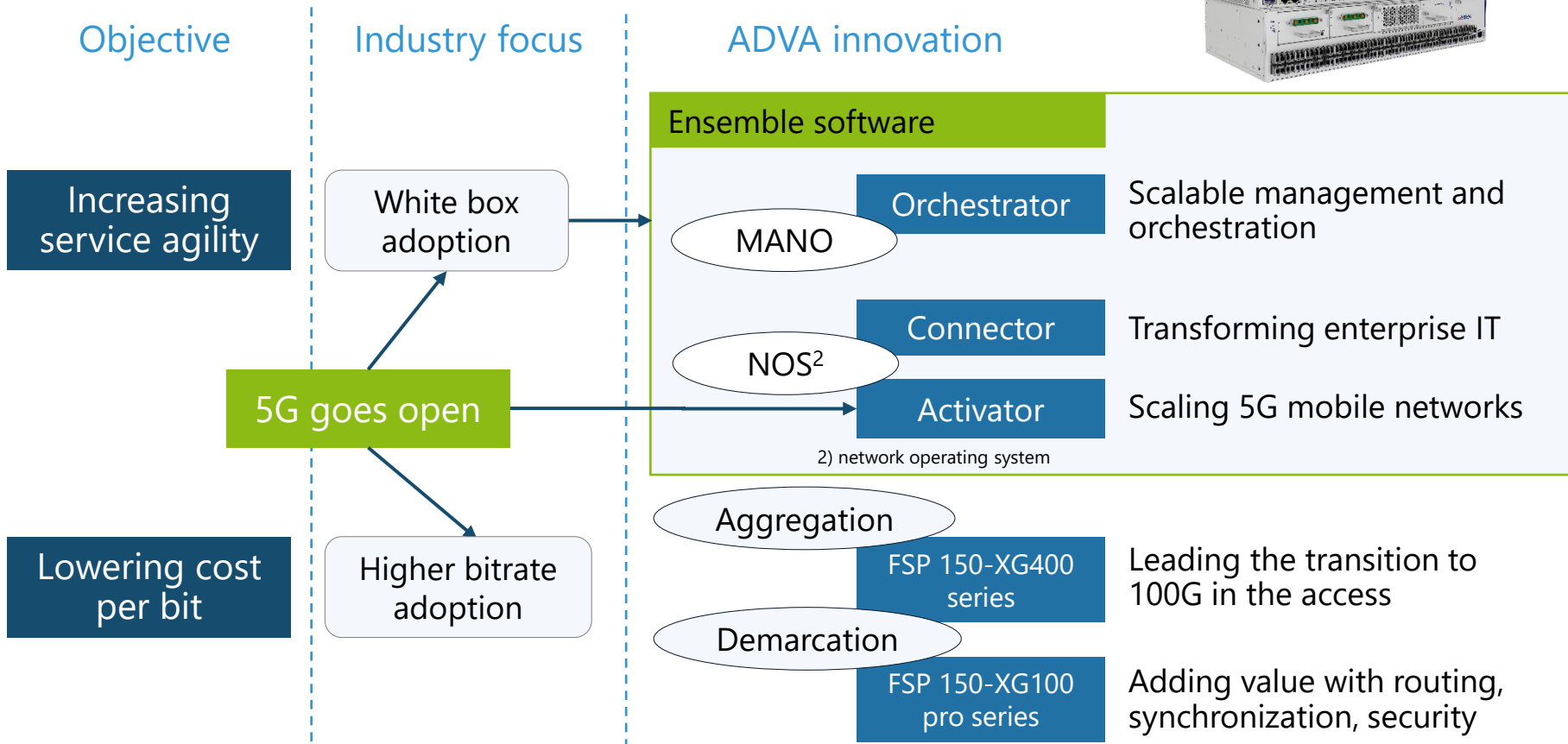
- Share gain through 400G+ optimized product portfolio
- TAM and margin expansion through verticalization
- Share gain through leadership in post quantum security

1) >30% global, >50% in EMEA; Source: Omdia, market share 4Q21 (rolling four quarters) optical networks global and data center interconnect, publ. April 2022

2) open line system

Delivering scalable bandwidth for a digital future

Cloud access overview



Cloud access dynamics

Empowering the network edge

Foundation

- Market leadership in Carrier Ethernet (CE) access¹
- Differentiated portfolio for 100G aggregation
- Technology leadership in NFVi²



Transformation

- Transition to 10/100G in access and backhaul
- Collapsing multiple hardware appliances through NFV
- White box adoption in mobile networks and edge cloud



Upside

- Share gain in consolidated CE vendor landscape
- Growing from switching into higher-value routing layer
- TAM expansion and software revenues through NOS³-leadership

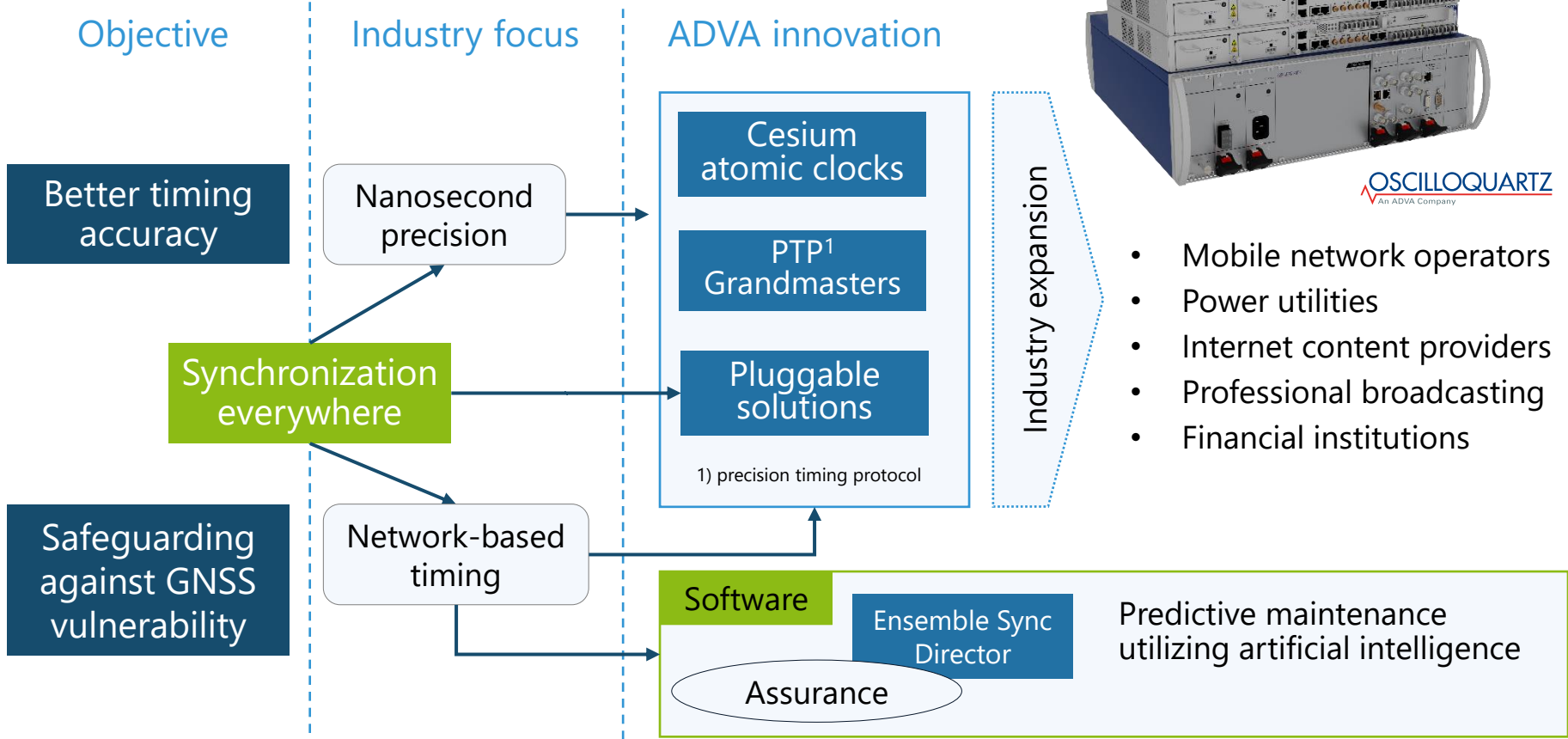
1) 20% global, 44% in EMEA; Omdia, market share 4Q21, SP access switching & Ethernet demarcation, publ. April 2022

2) Network function virtualization infrastructure; Harmony ecosystem with >50 VNFs and a wide range of hardware choices

3) network operating system

Programmable edge cloud solutions for mobile networks, business access and IoT

Network synchronization



Network synchronization dynamics

Foundation

- Technology leadership in network-based timing
- Consistently high win rates leading to impressive list of MNO¹ customers
- Three-year CAGR >25%

1) Mobile network operators

Transformation

- Ever more stringent timing requirements with sub-microsecond accuracy
- Weakening competitors
- Security concerns²

2) Vulnerability of satellite-based timing increasingly problematic

Upside

- Accelerating 5G rollouts
- New market verticals including energy, finance, broadcasting
- PNT³ alternatives

3) Position navigation timing

The world needs better timing – network-based and assured

Product portfolio overview

Cloud access

Solutions that enable communication service providers to deliver software-defined, differentiated and performance-assured wholesale, mobile backhaul and business services;

Estimated 2021 market size and CAGR (2020-'25) for access switching & Ethernet demarcation;
Source: Omdia, "Service provider switching and routing forecast 3Q 21", published January 2022

TAM (billion USD) 0.6

CAGR (5 year) 4.2%

Network synchronization*

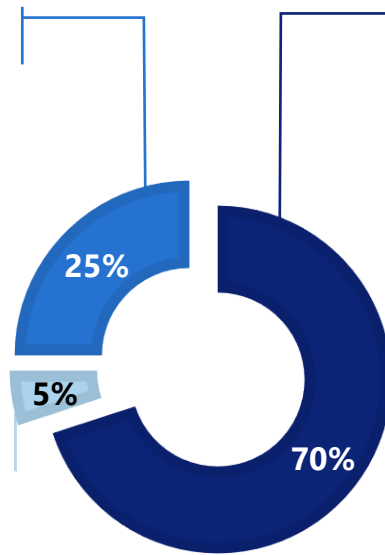
Solutions to deliver accurate and scalable time and frequency synchronization for mobile network infrastructure, utilities, media distribution networks, financial services, distributed data bases and meteorology;

Estimated 2021 market size and 5yr CAGR – ADVA internal estimates

TAM (billion USD) 0.3

CAGR (5 year) 5%

*2021 revenue contribution >6%
ADVA revenue CAGR >25%



Cloud interconnect

Solutions that deliver scalable bandwidth for access, metro and long-haul networks; high levels of open interworking, programmability and ease-of-use;

	Metro	Long Haul
TAM (billion USD)	5.8	4.0
CAGR (5 year)	3.9%	1.5%

Estimated 2021 market size and CAGR (2020-'2025) for metro and long haul WDM excl. China;
Source: Omdia "Optical networks forecast 2021-2026" published June 2021

Approximate revenue contribution rolling four quarters

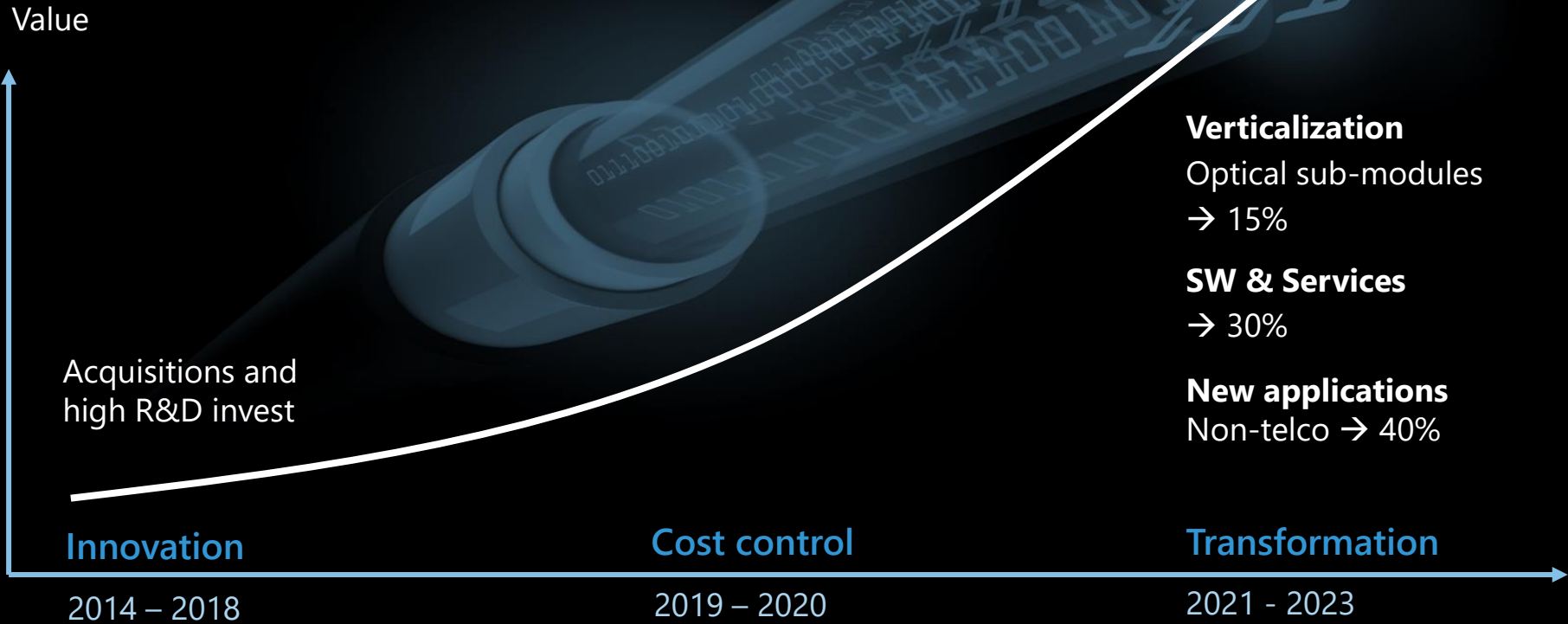
Growth rates are highest in segments where ADVA performs best



Transformation

... to higher margin business

Business transformation



Leveraging our investments of the last years to a higher margin model

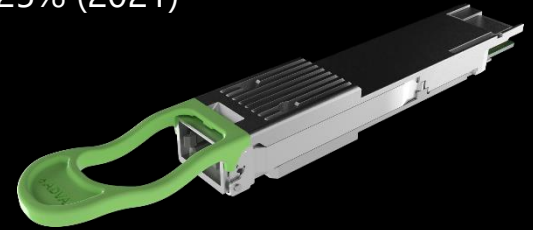
Transformation has started

to support our financials

New applications
Oscilloquartz CAGR >25%
Government wins
Enterprise IT

SW & Services
Accelerating growth
23% → 25% (2021)

Verticalization
MicroMux™ family
expansion



Driving operating results to new levels

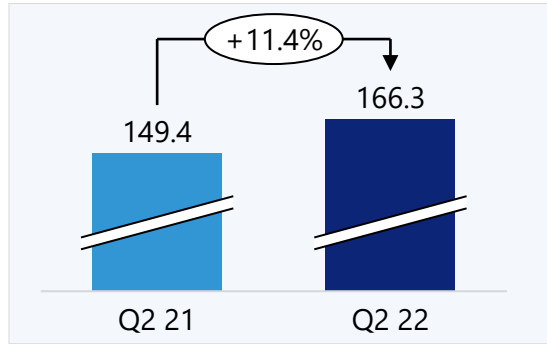


Financials

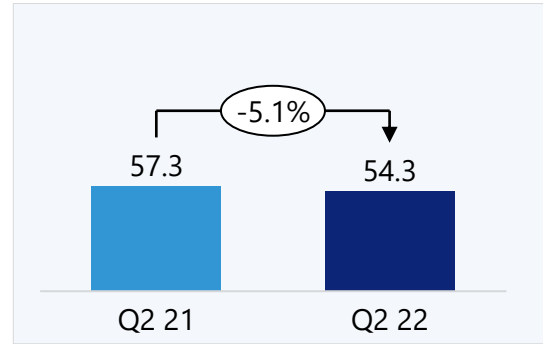
Overview

Q2 2022 key financials

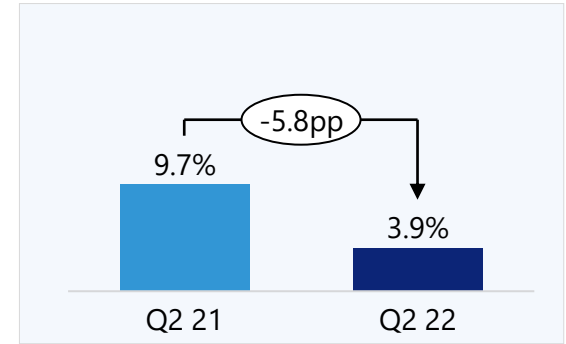
Revenues (m€)



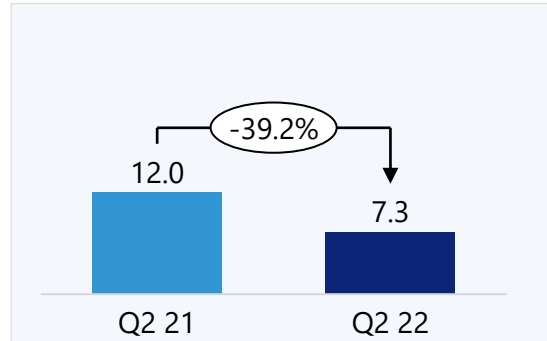
Pro forma gross profit (m€)



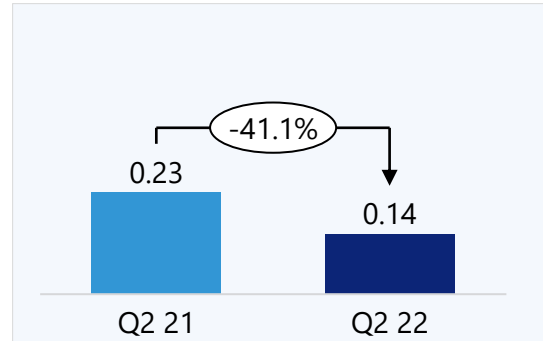
Pro forma EBIT (%)



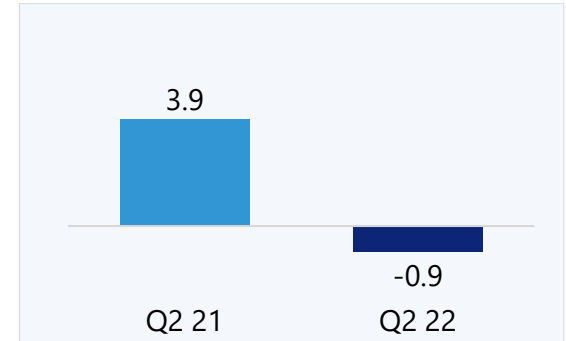
Net income (m€)



Diluted EPS (€)



Net cash (+) / debt (-) (m€)*

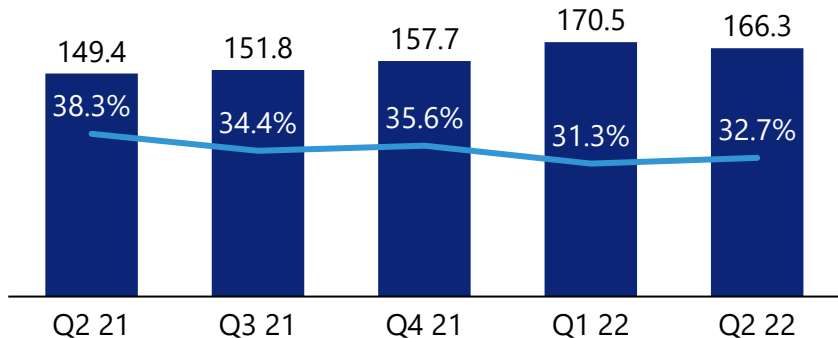


*Note: Net cash Q2 2022 includes EUR 23.8 million lease liabilities due to IFRS 16 (Q2 2021: EUR 25.9 million)

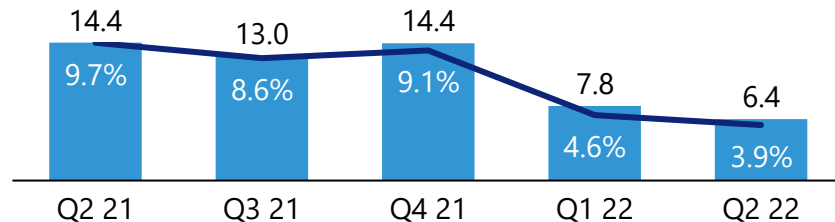
IFRS vs US GAAP comparison (pro forma)

(in millions of EUR, in % of revenues)

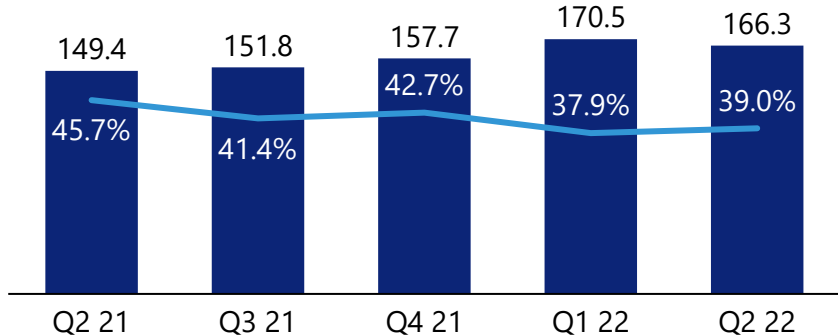
Revenue & pro forma gross margin (IFRS)



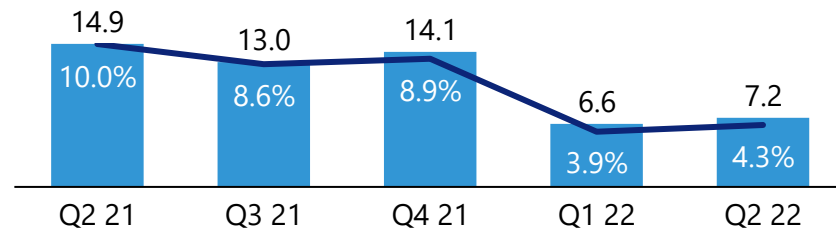
Pro forma EBIT & margin (IFRS)



Revenue & pro forma gross margin (US GAAP)

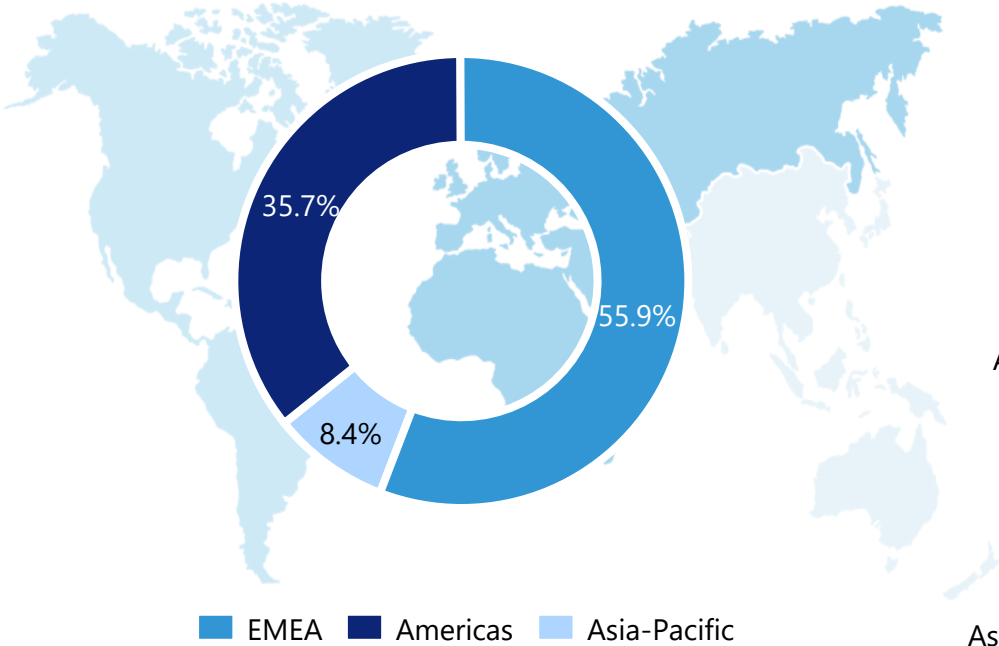


Pro forma EBIT & margin (US GAAP)

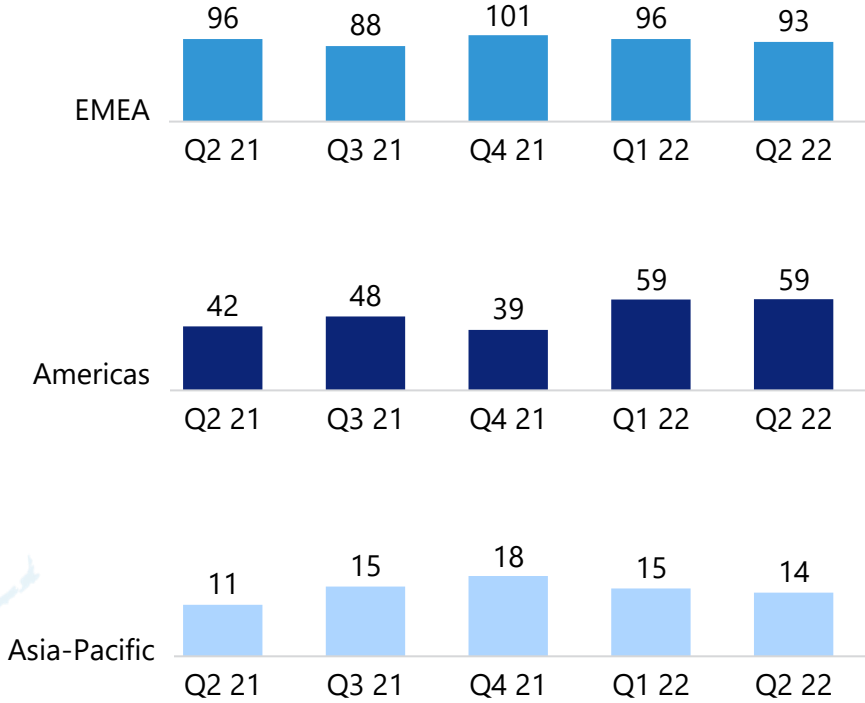


Regional revenue development Q2 2022

Revenue split Q2 2022 (%)



Revenue development per region Q2 21 – Q2 22 (m€)

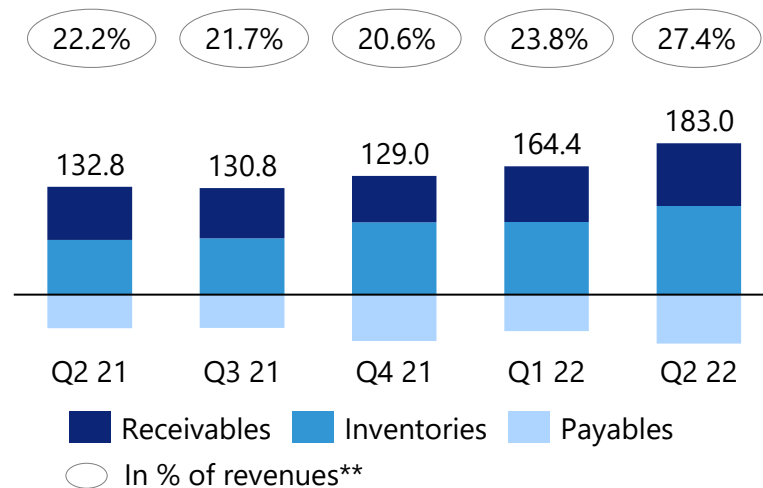


Cash flow and balance sheet

Cash flow breakdown (m€)*

	Q2	
	2021	2022
Earnings before taxes	12.4	7.4
Depreciation & Amortization	17.7	17.4
Increase (-) / decrease (+) in working capital	-6.7	-18.6
Increase (-) / decrease (+) in other items	8.3	0.3
Operating cash flow	31.7	6.5
R&D	-10.4	-9.8
Other investing cash flow	-6.7	-2.8
Investing cash flow	-17.1	-12.6
Free cash flow	14.6	-6.1
Gross cash end of period	85.0	63.2
Net cash end of period	3.9	-0.9

Working capital development (m€; %)



Equity ratio

58.0%

Leverage LTM***

0.4x

ROCE LTM

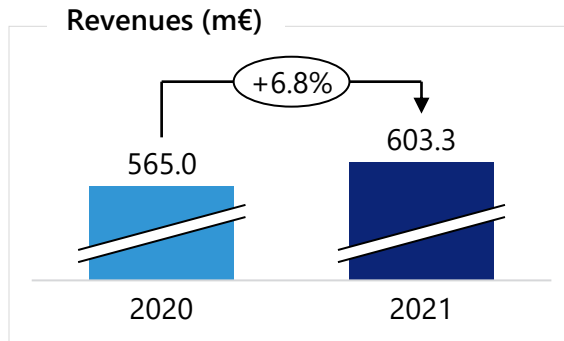
7.7%

* Potential differences due to rounding

** Calculated on a quarterly basis

*** Leverage is calculated as total bank debt divided by EBITDA. EBITDA is calculated as operating income plus depreciation and amortization of non-current assets. Impacts from IFRS 16 are excluded from leverage calculation.

Financial year 2021 at a glance



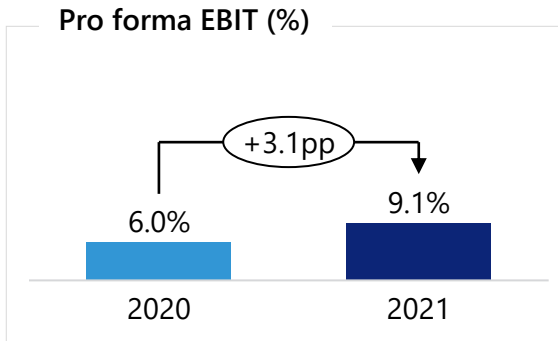
Revenues increased +6.8% y-o-y ...

- Strong demand with record order-backlogs
- Sequential growth of revenues despite supply chain challenges
- Growth driven by CSP's and enterprise customers

Target 2021

EUR 580m – 610m

603.3



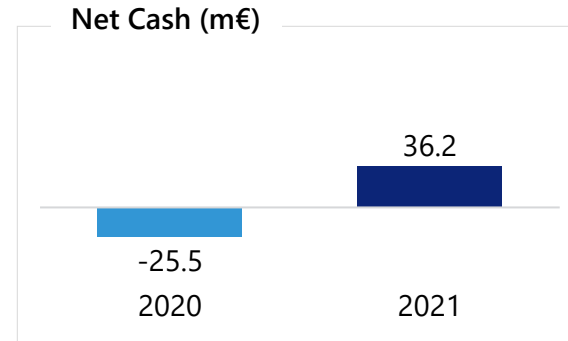
... with a margin at the upper end of guidance range

- Favourable customer and product mix with strict cost control helped to compensate for higher purchasing costs
- Pandemic driven less travel and marketing expenses

Target 2021

7.0% – 10.0%

9.1%



Net Cash significantly increased by EUR 61.7m y-o-y

- Free cash flow generation of EUR 59m (2020: EUR 38.8 m)
- Scheduled repayments of EUR 15m
- Very flexible balance sheet with a cash position EUR 109.0m

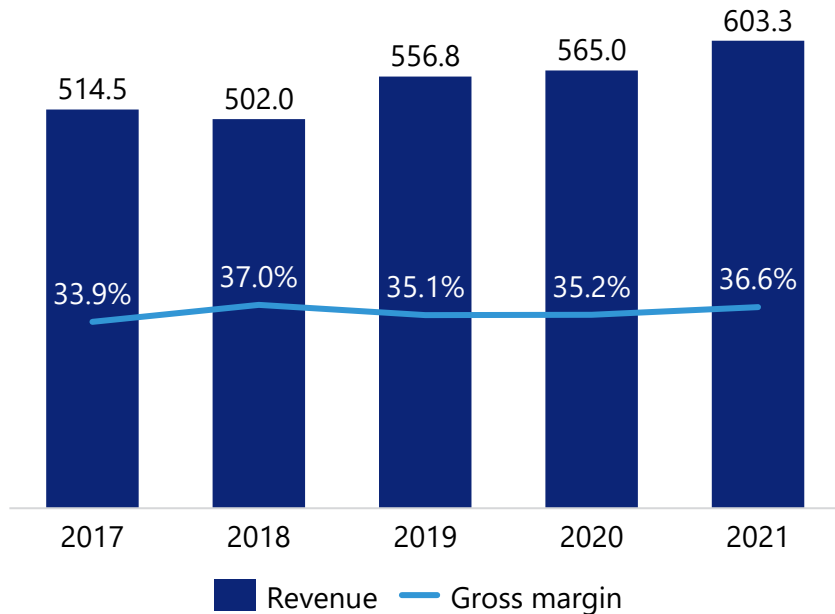
Target 2021

Net Debt to be in the single-digit million range

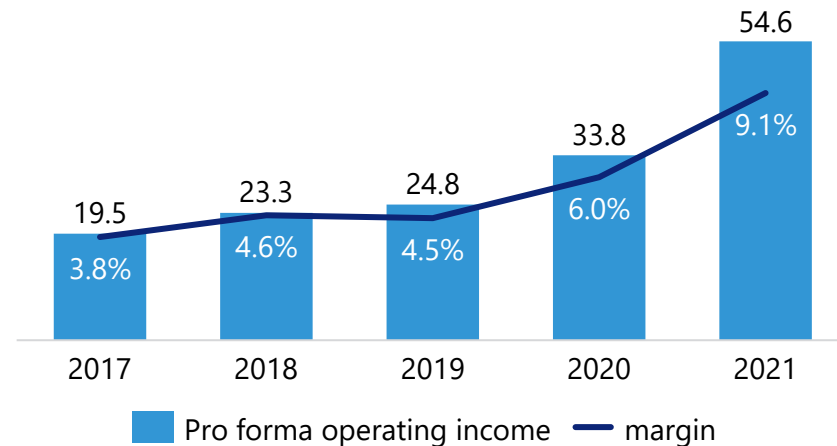
Net Cash
EUR 36.2m

Annual revenue and pro forma profitability

Revenue & pro forma gross margin (m€; %)



Pro forma EBIT & margin (m€; %)



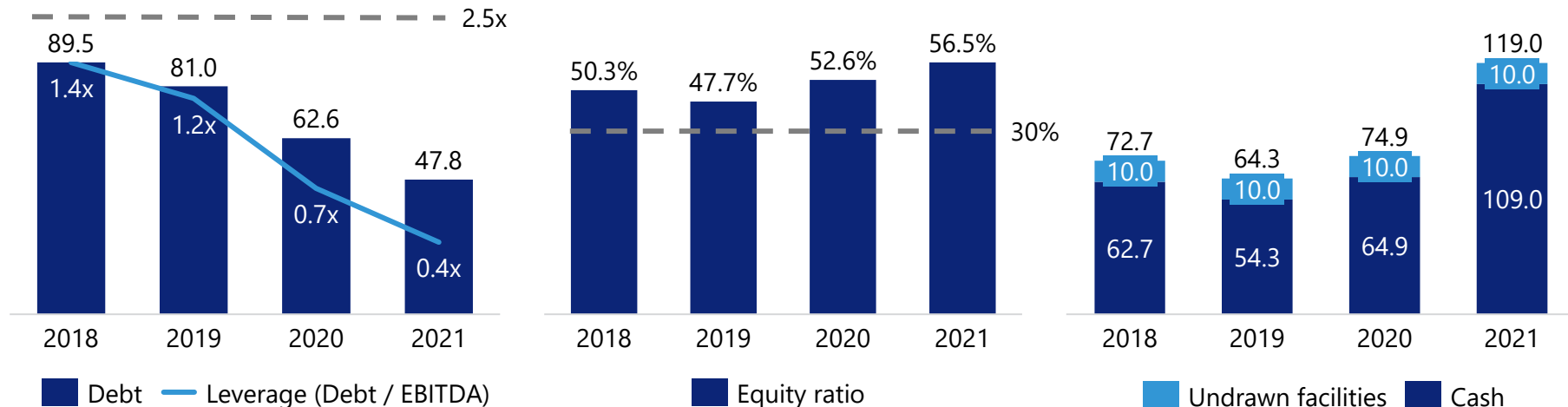
* Pro forma EBIT is calculated prior to non-cash charges related to the stock compensation programs and amortization and impairment of goodwill and acquisition-related intangible assets. Additionally, non-recurring expenses related to M&A and restructuring measures are not included.

Financial policy – investment grade rating

Leverage (Debt / EBITDA)

Equity ratio

Available liquidity



Comments

- Conservative financial policy targets a Debt / EBITDA leverage ratio of max. 2.5x
- Low current leverage level of 0.4x
- Balanced repayment profile and future profit generation will lead to a strengthened balance sheet
- High equity ratio of 56.5% significant above target of 30%

Outlook FY 2022

Revenues (m€)

680m – 730m

Pro forma EBIT (%)

5% – 9%

Supported by:



Business transformation strategy successfully implemented

Non-telco expansion – software & services – verticalization



A unique investment cycle for communications networks

Digitalization – government stimulus – network security

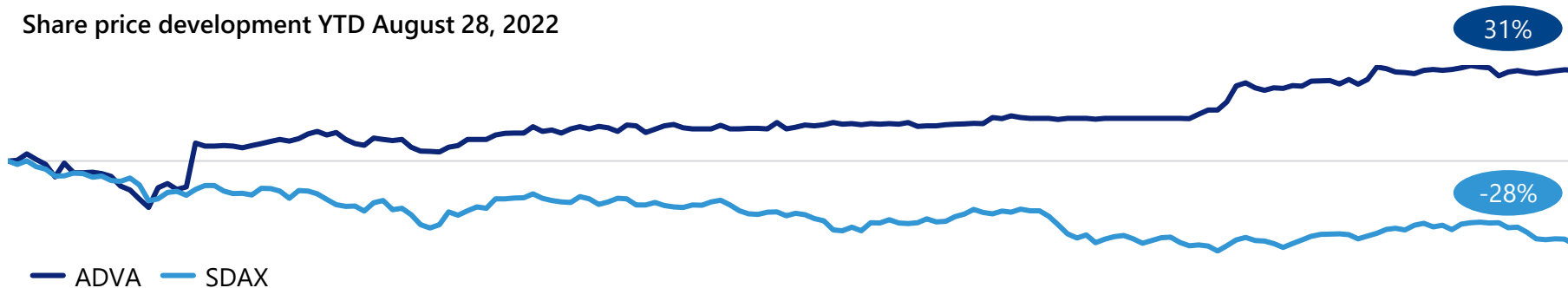


Technologies well aligned

Cloud, mobility, 5G, Automatisierung and security for mission critical infrastructure

Investor relations overview

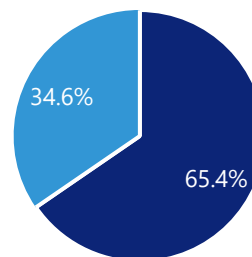
Share price development YTD August 28, 2022



Analyst recommendations and consensus 2022 as of August 28, 2022

Institution	Revenues	EBIT PF	EBIT PF in %	Target Price	Rec.	Date
Oddo	693.815	45.360	6,5%	18,50	Neutral	27.07.2022
First Berlin	702.818	43.168	6,1%	21,00	Buy	03.05.2022
Kepler Cheuvreux	700.000	48.788	7,0%	14,98	Hold	07.07.2022
Northland	700.000	56.600	8,1%	20,00	Outperform	29.04.2022
Warburg	694.418	49.154	7,1%	17,93	Hold	28.07.2022
Average	699.309	48.614	7,0%	18,48		

Shareholder Structure as of August 28, 2022



Top 5 investors

Samson Rock Capital LLP	5.02%
UBS Group	4.88%
JP Morgan	3.06%
Morgan Stanley	2.86%
Janus Henderson	1.61%

■ ADTRAN ■ Free float



Thank you

ir@adva.com

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