



ADVA open edge networking

Solutions for a digital future

Investor presentation, April 2021

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 2020.

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. A semi-transparent white banner is overlaid at the bottom of the image, containing the text.

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
- More than 1,850 employees
- Over EUR 0.5 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

CTO

PLM
Development
Global BD



Brian Protiva

CEO

HR
Compliance
Quality analytics



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)

22%*

- + 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

70%*

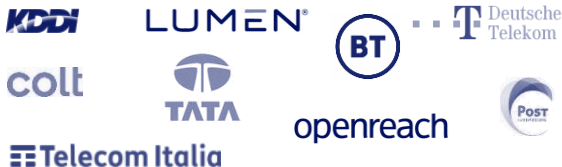
- + Longevity (stickiness)
- + Volume
- Long sales cycle (RFPs)

Internet content provider

- 4 of top 5 global ICPs

8%*

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



*approximate revenue contribution FY 2020

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:

MiFID II financial time stamping

Internet content provider:

Global database synchronization

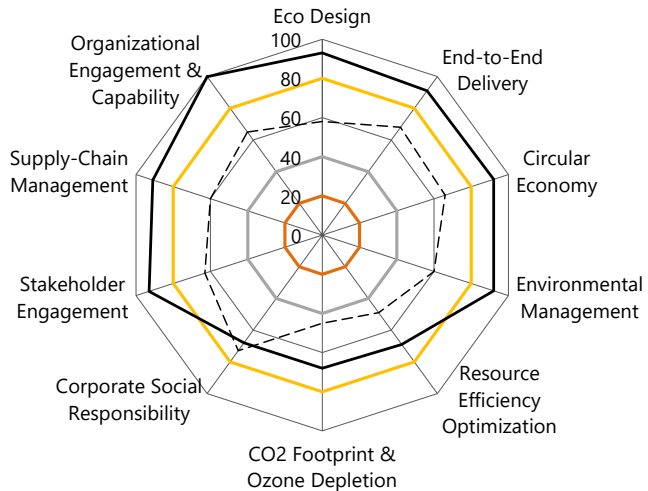
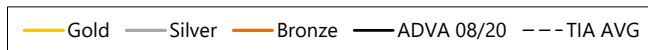
Communication service provider:

Next-gen mobile (5G)

Overall sustainability approach and ratings

Holistic approach

Adopted from Telecommunications Industry Association (TIA)



Strong commitment

- Science based emissions targets (SBTi 1.5°C targets)
- Process-based product ecodesign and lifecycle assessments
- Optimization of operations, packaging and logistics
- ISO 50001 and ISO 14001 certifications



CONGRATULATIONS ADVA OPTICAL NETWORKING
YOUR SCIENCE-BASED TARGET
HAS BEEN APPROVED



Top-1% segment on EcoVadis – our commitment to sustainability and quality

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



Components

AOI
APPLIED OPTOELECTRONICS, INC.

NeoPhotonics

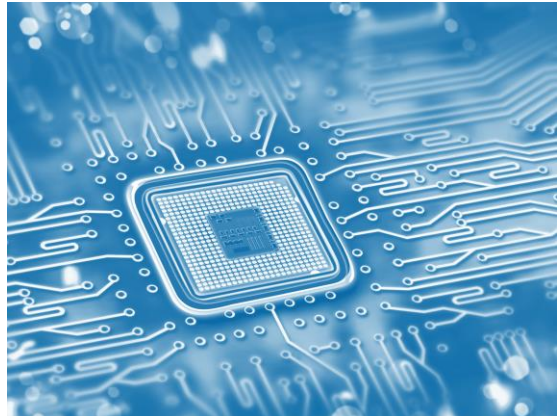
LUMENTUM

ACACIA
COMMUNICATIONS, INC.

Inphi
Think fast.

MARVELL

II-VI



Systems

ciena.

ADVA™

NOKIA

CISCO

infinera

JUNIPER
NETWORKS

HUAWEI



Production floor ADVA, Meiningen, Germany

Networks

Microsoft

Deutsche Telekom

NYP

verizon

BT

DE-CIX

HEP

Telecom Italia



Systems suppliers in times of deglobalization



Acquired



2014



2015



2015



2016



2017



2018

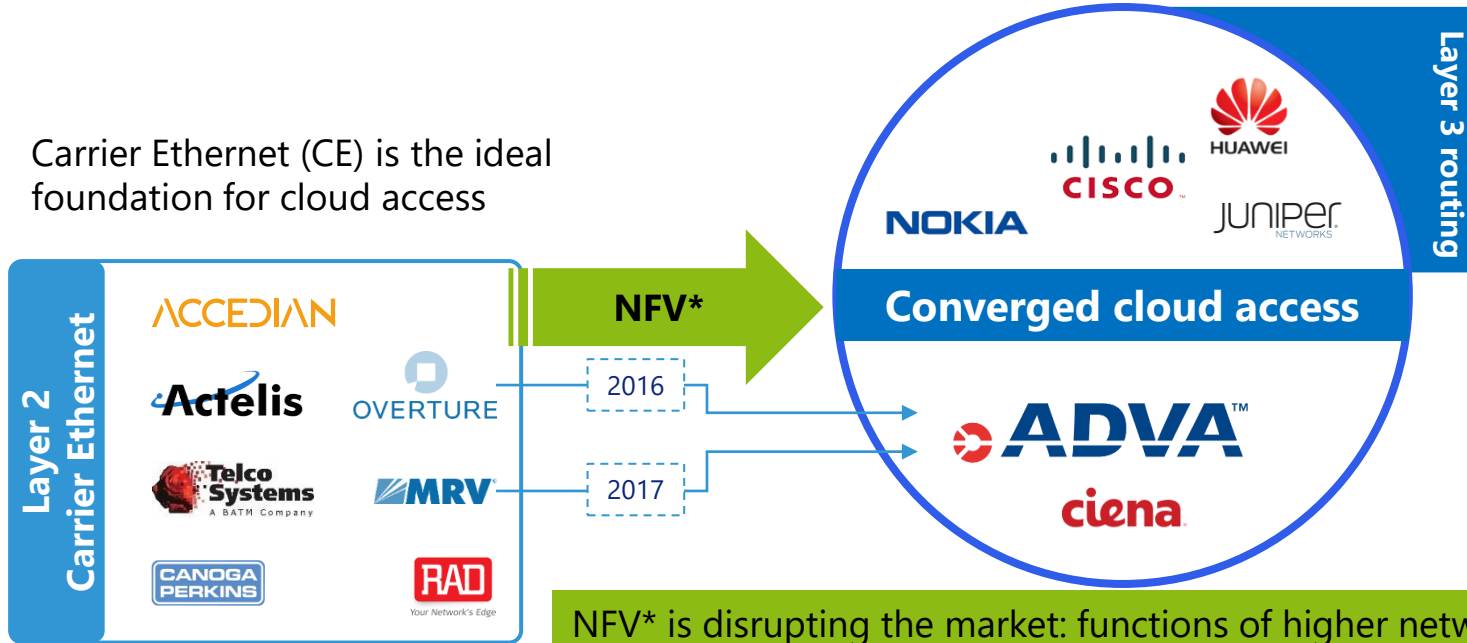


2019

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

Optical networking

 Purpose built DCI,
EMEA (26%)

 Access WDM,
EMEA (13%)

 Metro WDM,
EMEA (13%)

Omdia, Optical networking Q4 2020, March 2021


Data center interconnect

 Enterprise,
global (30%)

 Enterprise
EMEA (52%)

Omdia, Data center interconnect Q4 2020, March 2021

SP access switching and Carrier Ethernet demarcation

 Q4*, global (21%)

 EMEA (50%)

 Global (22%)

Omdia, Service provider access switching Q4 2020,
March 2021

*quarterly market share; all other numbers rolling four quarters

Innovation leadership and strength in growth markets

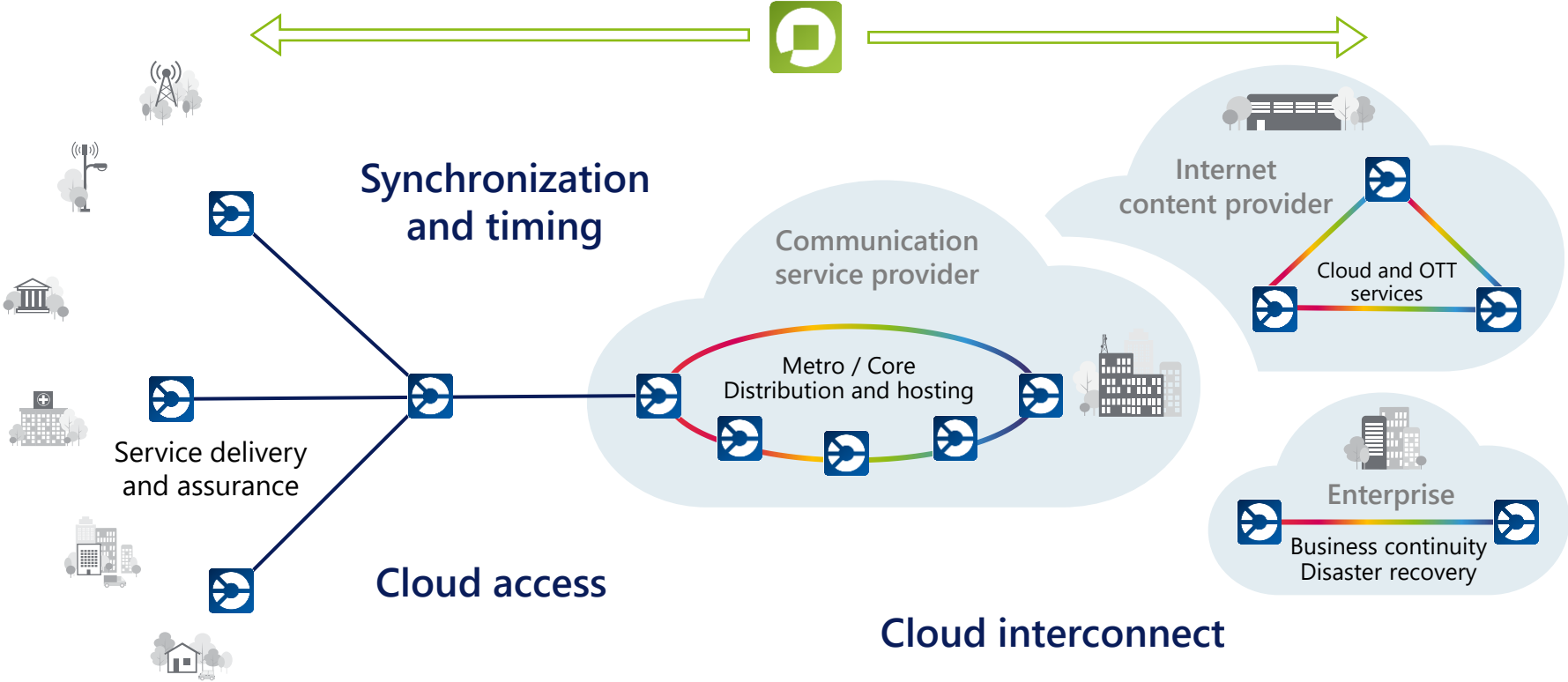


Technology

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+)

Increasing infrastructure value

Service innovation and security

Terminal

TeraFlex™

OpenFabric™

OLS

Metro DCI*

Spectrum as a service

Security

ConnectGuard™

Quantum-safe networking

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

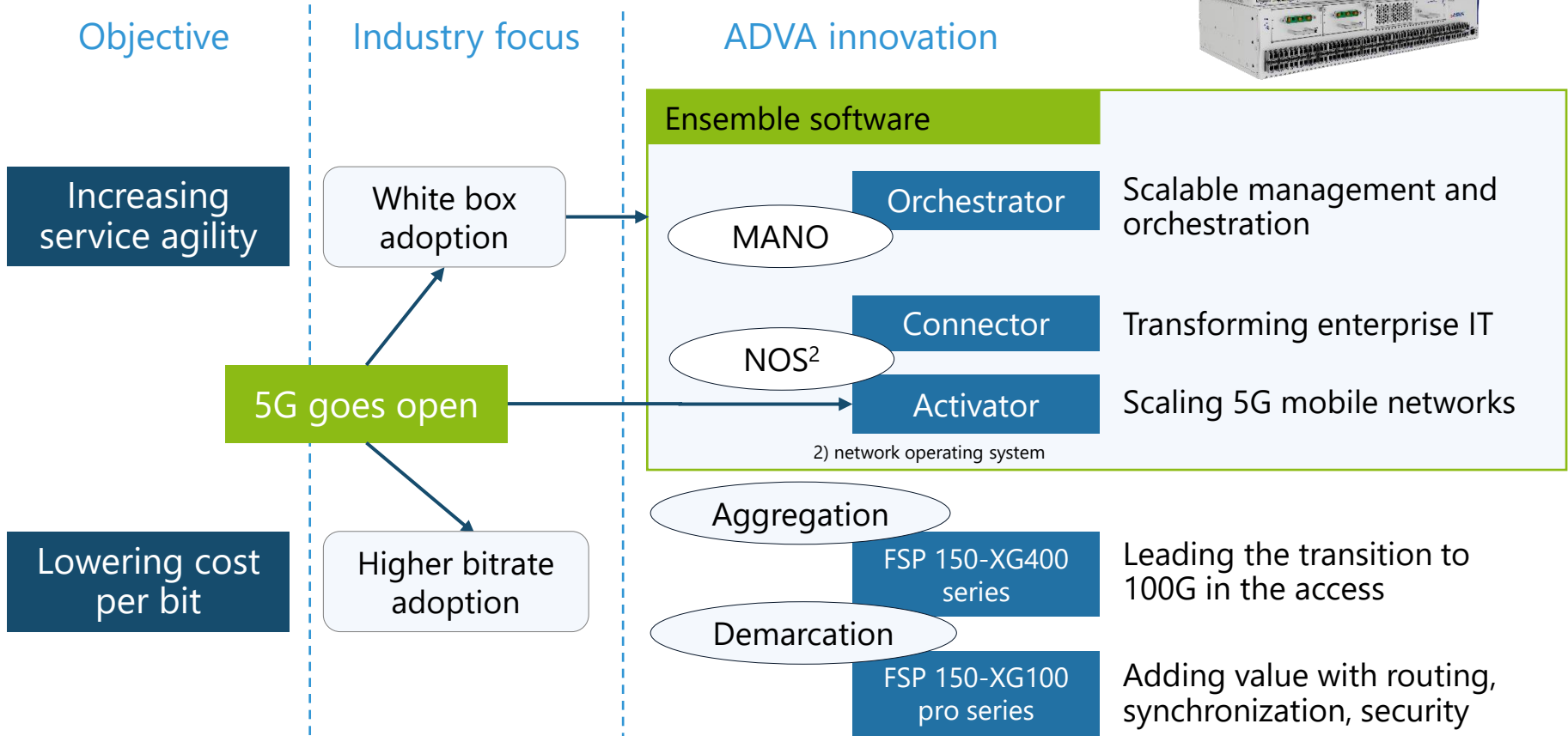
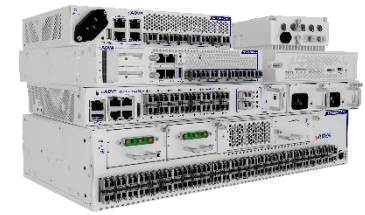
- Share gain through 400G+ optimized product portfolio
- TAM and margin expansion through verticalization
- Share gain through leadership in post quantum security

1) 30% global, >50% in EMEA; Source: Omdia, market share 4Q20 (rolling four quarters) optical networks global and data center interconnect, publ. March 2021

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

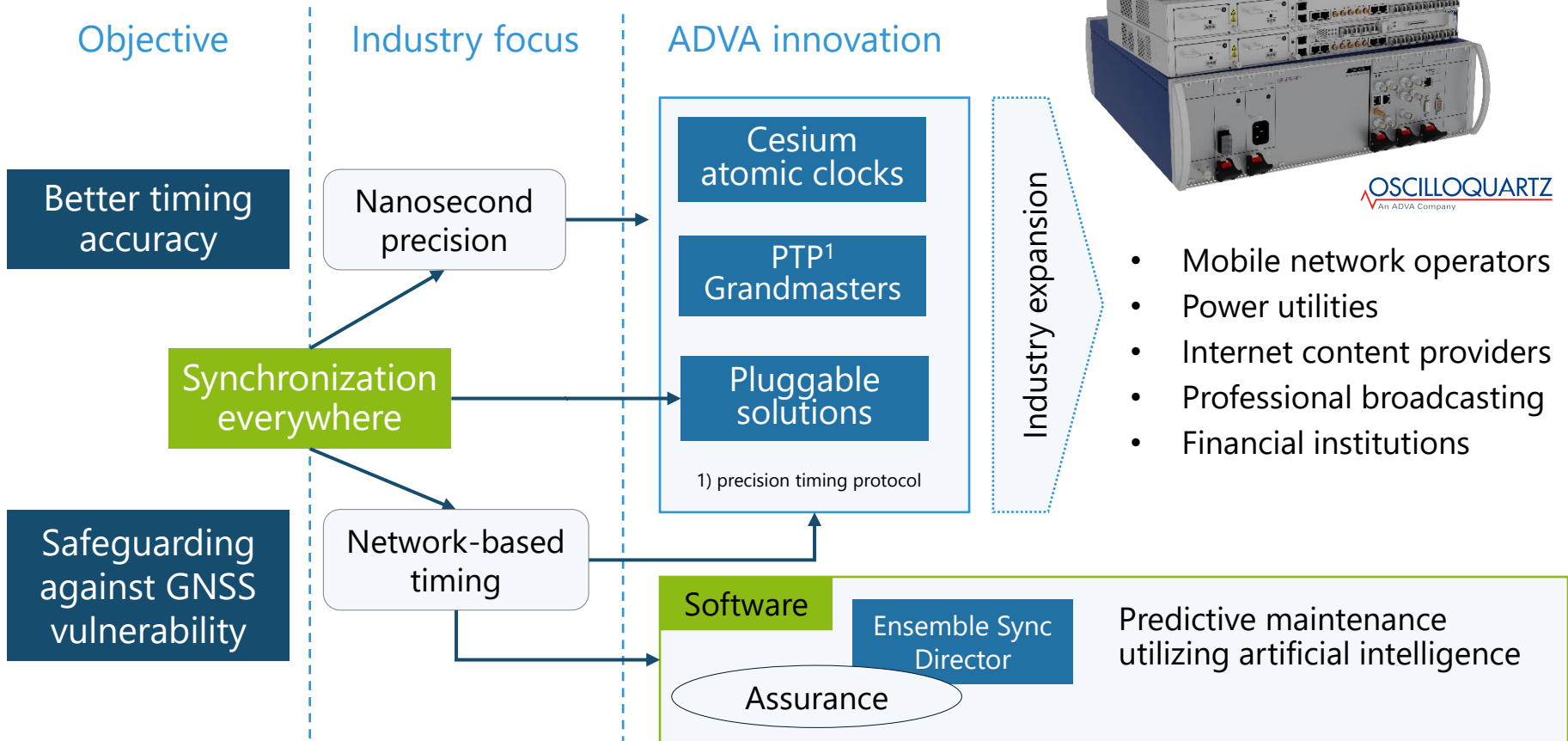
1) 22% global, 50% in EMEA; Omdia, market share 4Q20, SP access switching & Ethernet demarcation, publ. March 2021

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



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- Mobile network operators
- Power utilities
- Internet content providers
- Professional broadcasting
- Financial institutions

Predictive maintenance utilizing artificial intelligence

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 2020 market size and CAGR (2020-'25) for access switching & routing;
Source: Omdia, "service provider switching and routing forecast 2019-2025", published August 2020

TAM (billion USD) 0.6

CAGR (5 year) 3%

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 2020 market size and 5yr CAGR – ADVA internal estimates

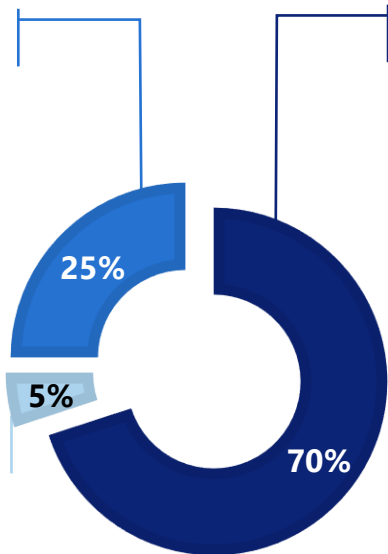
TAM (billion USD) 0.3

CAGR (5 year) 5%

*2020 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;



Approximate revenue contribution rolling four quarters

	Access	Metro	Long Haul
TAM (billion USD)	1.0	7.2	6.4
CAGR (5 year)	7%	2%	0%

Estimated 2020 market size and CAGR (2020-'25) for access, metro and long haul WDM;
Source: Omdia "optical networks forecast 2020-2025" published July 2020

Growth rates are highest in segments where ADVA performs best

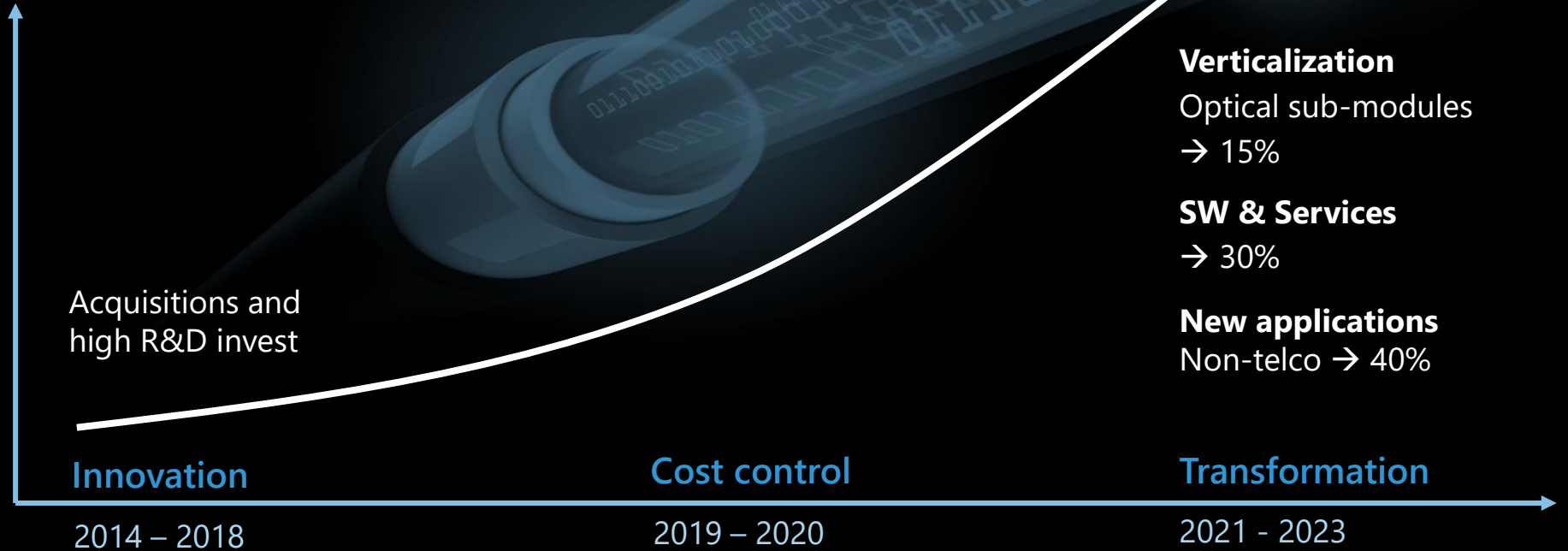


Transformation

... to higher margin business

Business transformation

Value



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

Transformation has started

to support our financials

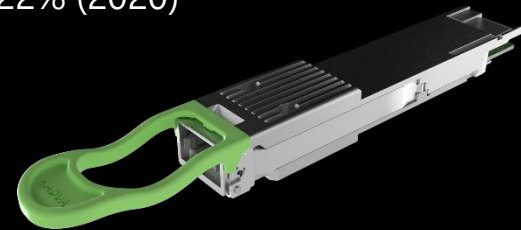
New applications
Oscilloquartz CAGR >25%
Government wins
Enterprise IT

SW & Services

Accelerating growth
20% → 22% (2020)

Verticalization

MicroMux™ family
expansion



Driving operating results to new levels

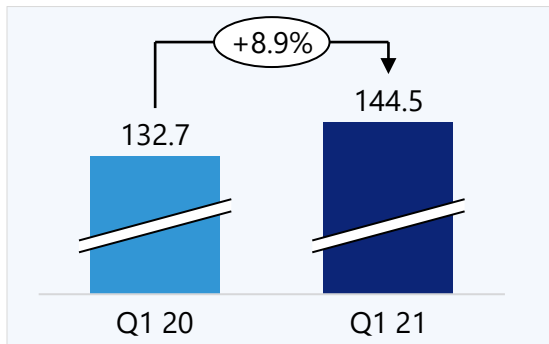


Financials

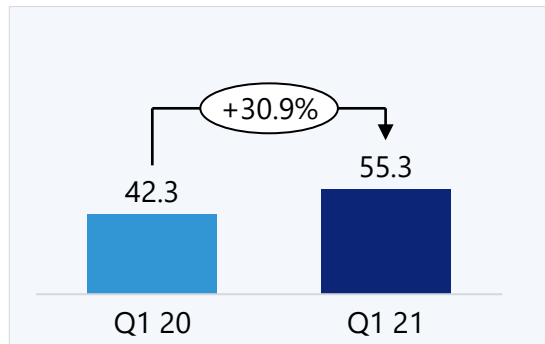
Overview

Q1 2021 key financials

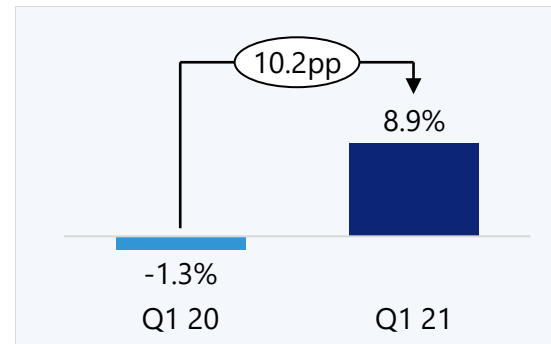
Revenues (m€)



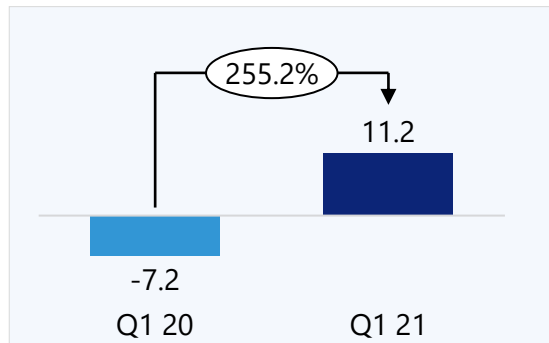
Pro forma gross profit (m€)



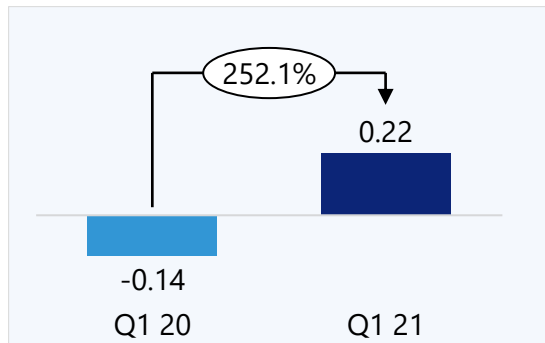
Pro forma operating income (%)



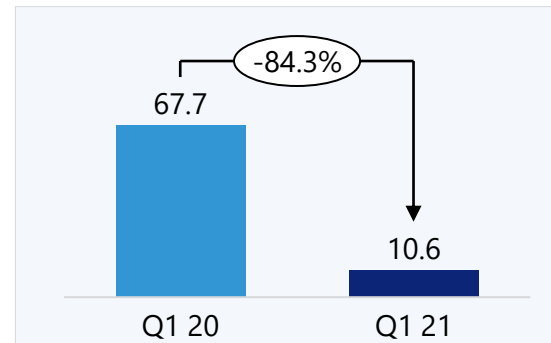
Net income (m€)



Diluted EPS (€)



Net debt (m€)*

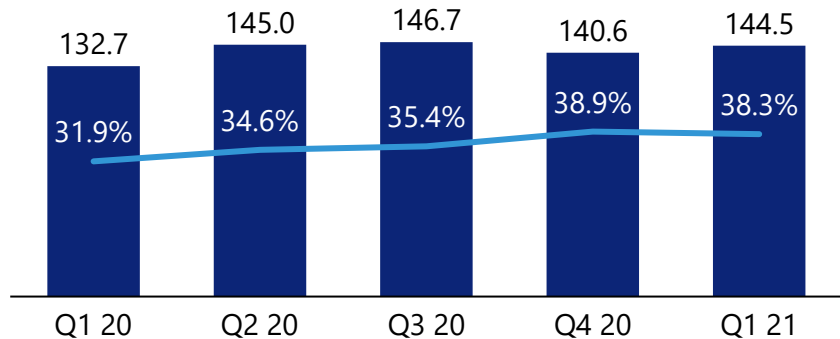


*Note: Net debt Q1 2021 includes EUR 27.0 million lease liabilities due to IFRS 16

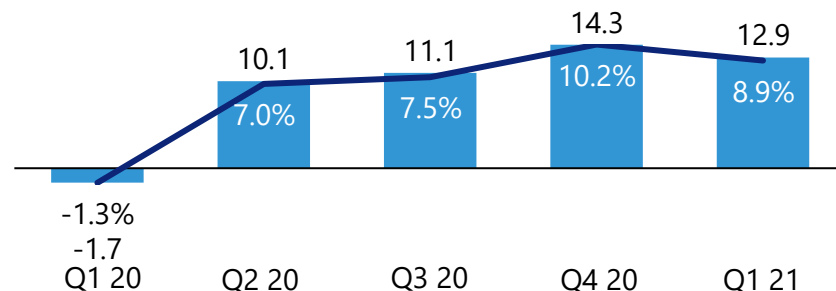
IFRS vs US GAAP comparison (pro forma)

(in millions of EUR, in % of revenues)

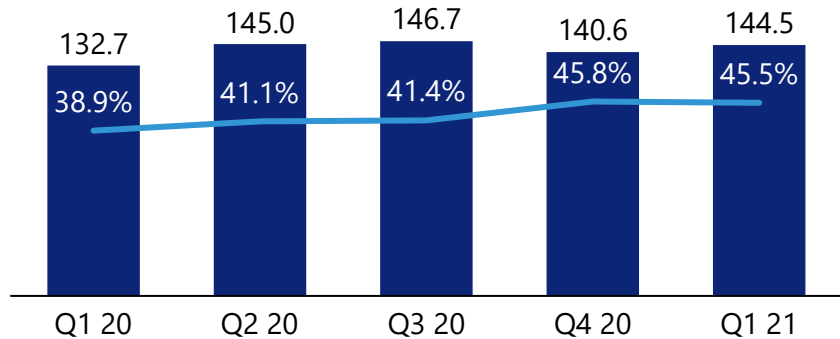
Revenue & pro forma gross margin (IFRS)



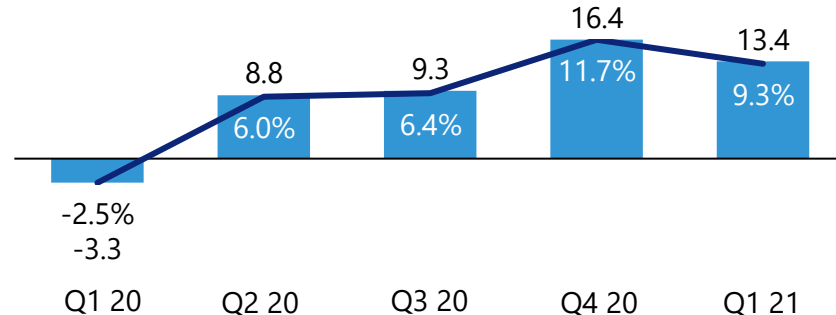
Pro forma operating income & margin (IFRS)



Revenue & pro forma gross margin (US GAAP)



Pro forma operating income & margin (US GAAP)

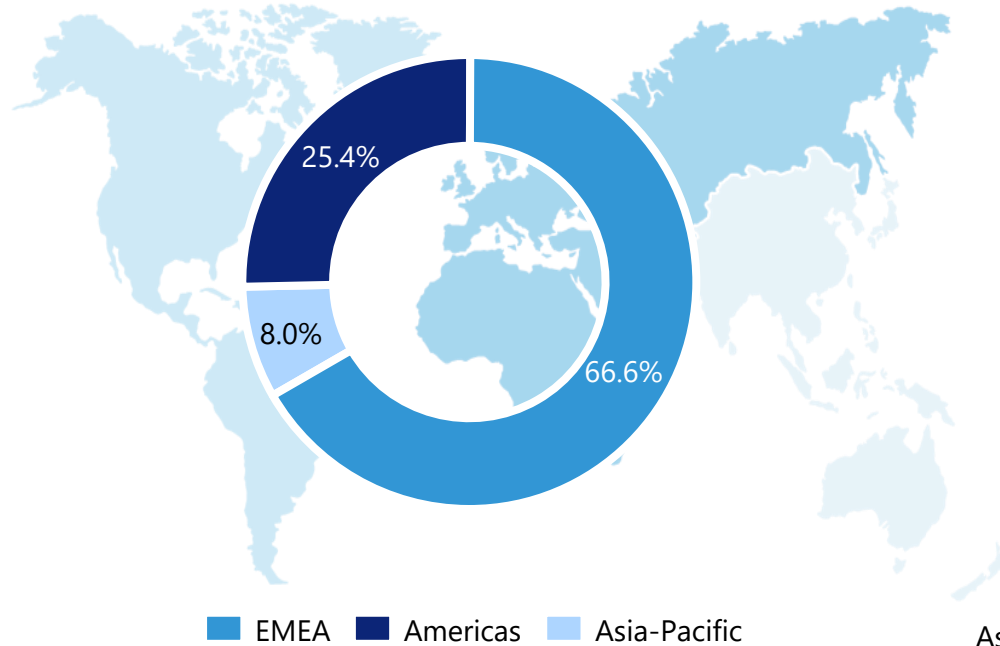


■ Revenue — Pro forma gross margin

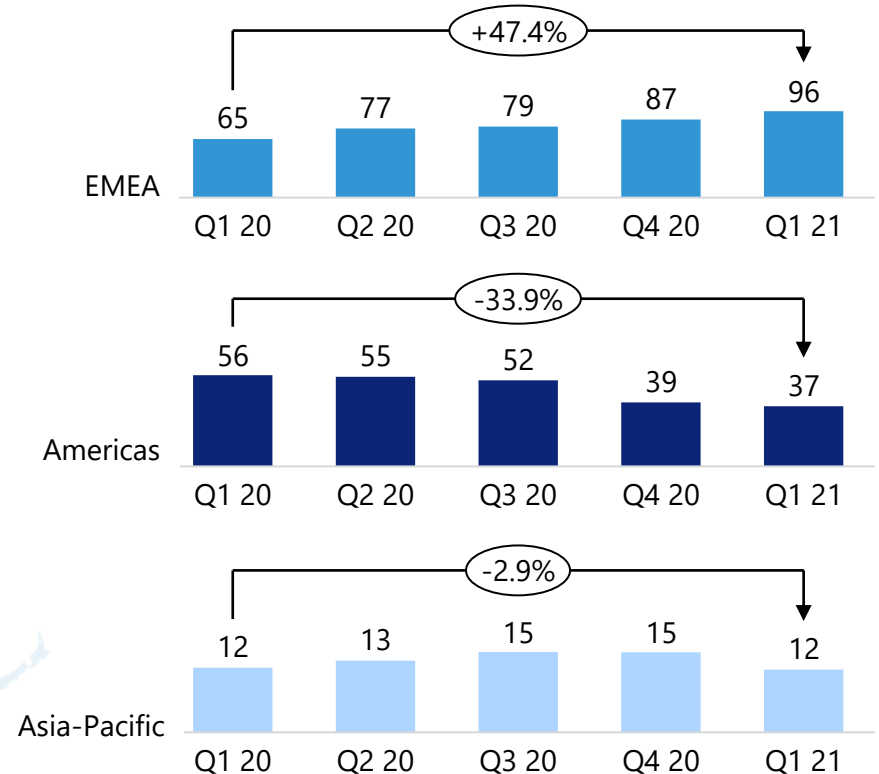
■ Pro forma operating income — margin

Regional revenue development Q1 2021

Revenue Split Q1 2021 (%)



Revenue development per region Q1 20 – Q1 21 (m€)

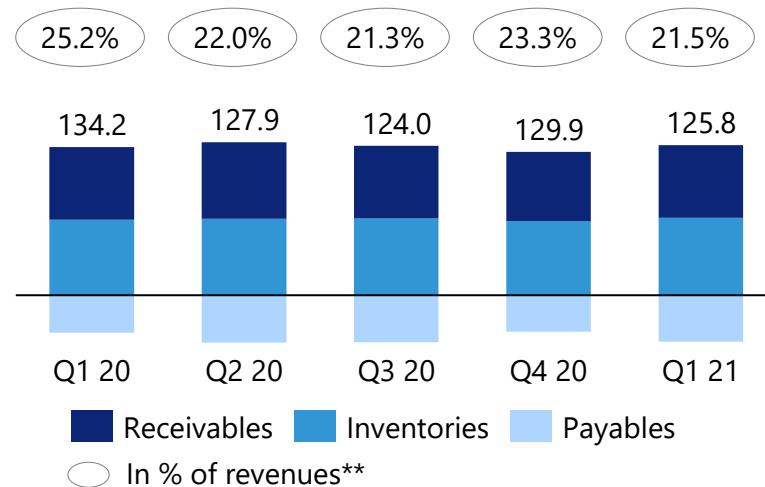


Cash flow and balance sheet

Cash flow breakdown (m€)

	Q1	
	2020	2021
Earnings before taxes	-5.8	11.9
Depreciation & Amortization	16.4	17.0
Change in working capital	-6.1	4.0
Other changes	6.8	-5.5
Operating Cash Flow	11.3	27.4
R&D	-11.0	-9.9
Other investing cash flow	-6.5	-2.4
Investing Cash Flow	-17.5	-12.3
Free Cash Flow	-6.2	15.1
Gross cash end of period	52.8	79.1
Net debt end of period	67.7	10.6

Working capital development (m€; %)



Equity ratio

53.3%

Leverage LTM***

0.6x

ROCE YTD

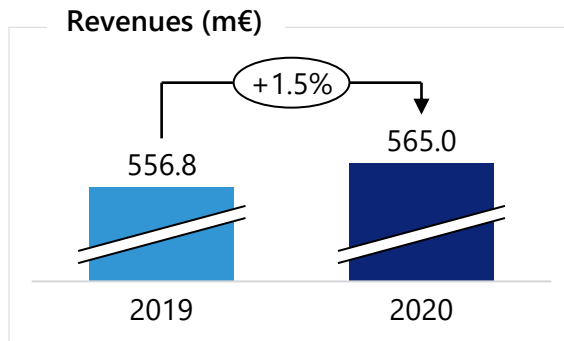
12.4%

* 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 2020 at a glance



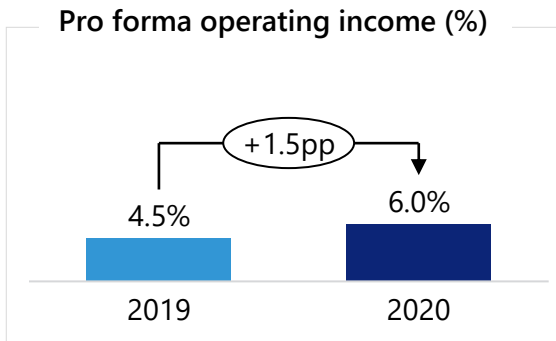
Revenues increased +1.5% y-o-y ...

- Despite pandemic, demand pleasingly robust
- Negative FX effect
- Again tightening lockdown measures in Q4 led to revenue shifts to Q1 2021

Target 2020

EUR 565m – 580m

565.0



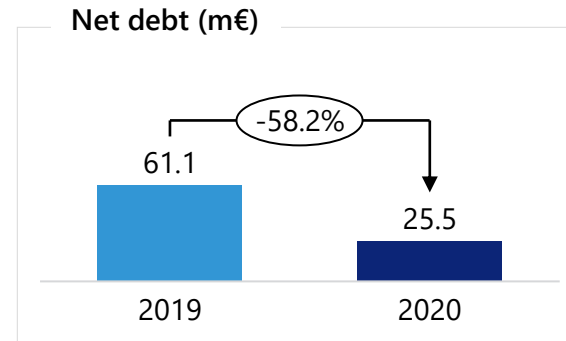
... with a margin at the top end of guidance

- Cost improvement measures
- Higher margin revenue expansion
- Pandemic driven less travel and marketing expenses
- Positive FX effect

Target 2020

5.0% – 6.0%

6.0%



Net debt significantly reduced by 58.2%

- Free cash flow generation of EUR 38.8m (2019: EUR 6.6m)
- Scheduled repayments of EUR 18.5m
- Early termination of covid-19 related governmental back-up line

Target 2020

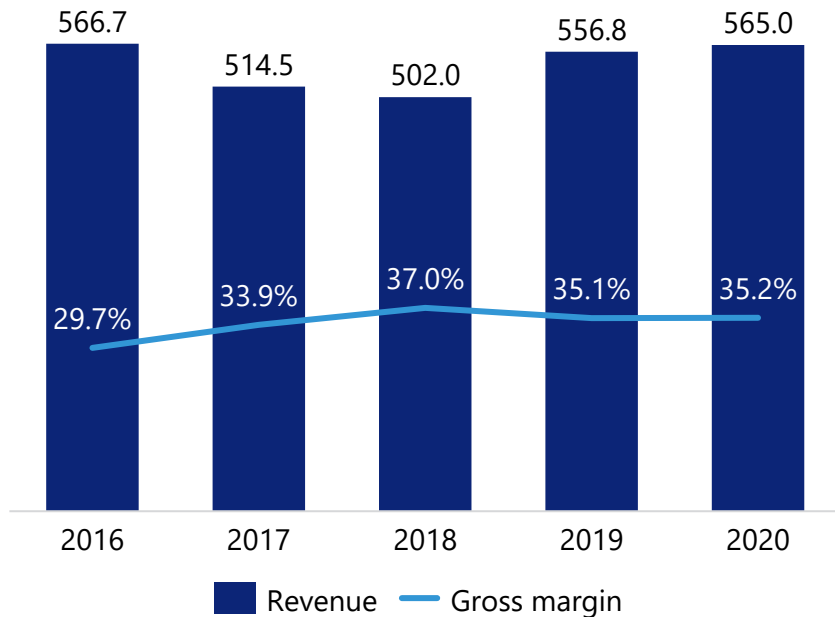
Reduction in the single-digit percentage range

-58.2%

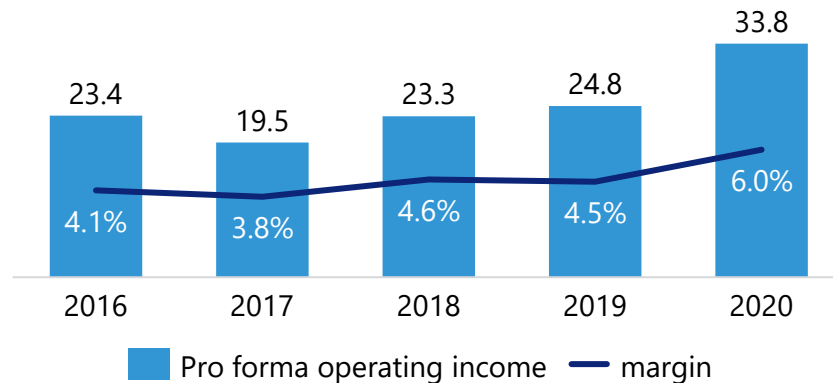
Annual revenue and pro forma profitability



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

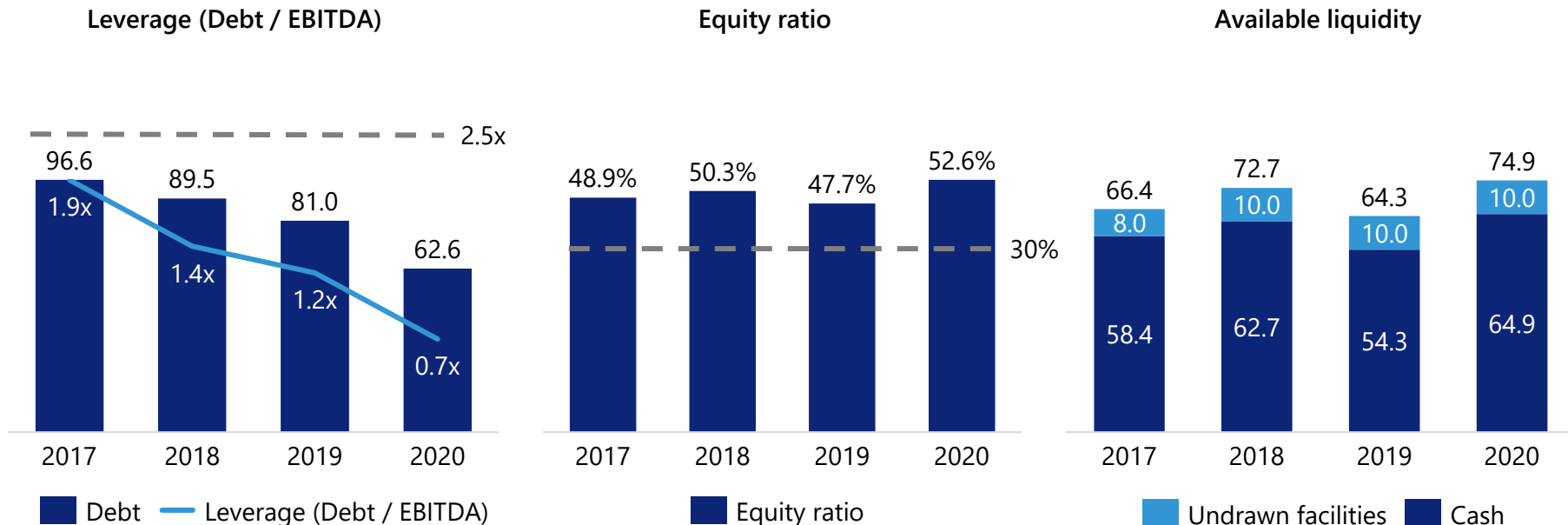


Pro forma operating income & margin (m€; %)



* Pro forma operating income 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 restructuring measures are not included.

Financial policy – investment grade rating



Comments

- Conservative financial policy targets a Debt / EBITDA leverage ratio of max. 2.5x
- Low current leverage level of 0.7x
- Balanced repayment profile and future profit generation will lead to a strengthened balance sheet
- High equity ratio of circa 48% significant above target of 30%

Outlook



FY 2021

Revenues (m€)	580m – 610m
Pro forma operating income (%)	6.0% – 10.0%

Supported by:



Market opportunity is expanding

Digitalization – deglobalization – data security



Technologies are perfectly aligned

Open optical networks – programmable edge cloud – synchronization

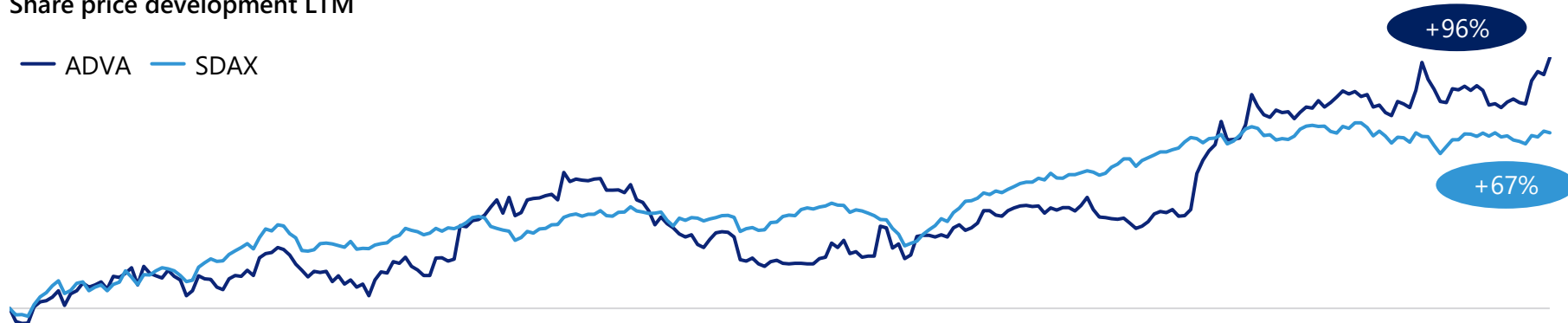


Business transformation progressing

Software & services – non-telco expansion – verticalization

Share price development

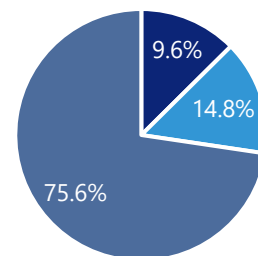
Share price development LTM



Analyst consensus as of 29.03.2021

Institution	Recommendation/ Price Target	Update	Previous Target
Commerzbank	Buy (€12.00)	Mar 03, 21	€11.00
First Berlin	Buy (€12.50)	Mar 02, 21	€11.00
FMR Research	Buy (€11.00)	Mar 09, 21	€10.00
Kepler Cheuvreux	Buy (€10.50)	Feb 24, 21	€10.50
LBBW	Buy (€11.25)	Feb 25, 21	€8.75
Northland Capital Markets	Outperform (€13.50)	Mar 24, 21	€10.00
Ø	€12.04		€10.21

Shareholder structure as of 29.03.2021



Top investors

Janus Henderson	3.29%
Dimensional Fund Advisors	3.15%
Highclere International Advisors	2.99%

■ Teleios Capital Partners ■ Egora Group ■ Free float

Note: 50,496,692 shares outstanding

Financial Calendar 2021



Apr 22, 2021
Publication Q1
2021 results

May 17-19, 2021
Needham
Conference

May 19, 2021
AGM 2021,
Virtual

Jun 1-3, 2021
Cowen TMT
Conference,
Virtual

Jun 17, 2021
Family Office Day,
Vienna



Thank you

ir@adva.com

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