



ADVA Optical Networking Investor Presentation

Q4 2016

Disclaimer



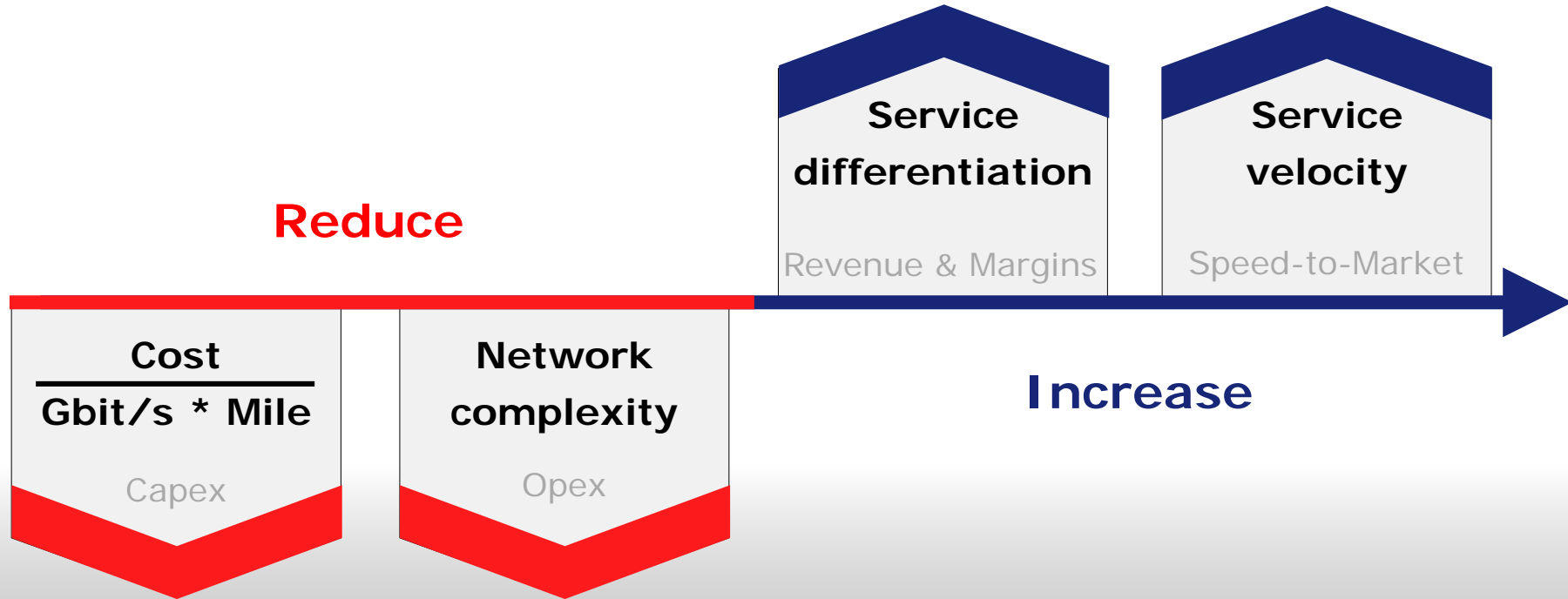
FORWARD-LOOKING STATEMENTS

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 2016.

CONSOLIDATED PRO FORMA FINANCIAL RESULTS

ADVA Optical Networking 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 Optical Networking’s operating results from one financial period to another. ADVA Optical Networking 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.

What Is Our Industry About?



Satisfying the bandwidth demand of the digital society

Our History

Foundation of the company



1994



First product

- Metro-WDM for enterprise DCI

Going public

- FSE: ADV



1999

2000



Adding Ethernet

- First fiber-based Ethernet services

Going global

- Expansion in North America
- Revenue >USD 250 million



2006

2010



Portfolio expansion

- Optical+Ethernet
- Network automation

Scaling the business

- >1500 employees
- Revenue >USD 500 million
- Award winning supply chain



2013

2016

2020



Strategic acquisitions

- Synchronisation
- Software and virtualization

Open connectivity solutions for a connected world

ADVA Optical Networking Today

Our NUMBERS

€566.7 million revenue¹

1,764 employees²

Our CUSTOMERS

Hundreds of carriers

Thousands of enterprises

Our LEADERSHIP

#1 DCI³ enterprise

#1 DCI³ metro ICP/CNP*

#2 Network synchronization⁴

* Internet Content Provider and Carrier Neutral Provider



Network innovator – Speed for customers – Trusted partner

1) Annual 2016 IFRS; 2) Dec 31, 2016; 3) Data Center Interconnect – Source: Ovum;

4) ADVA Optical Networking internal estimates

Our Broad Customer Base

Service Providers



Enterprises



Internet & Cloud



Government & Education



Global success with open connectivity solutions

The Nature of Connectivity Has Changed

Cloud

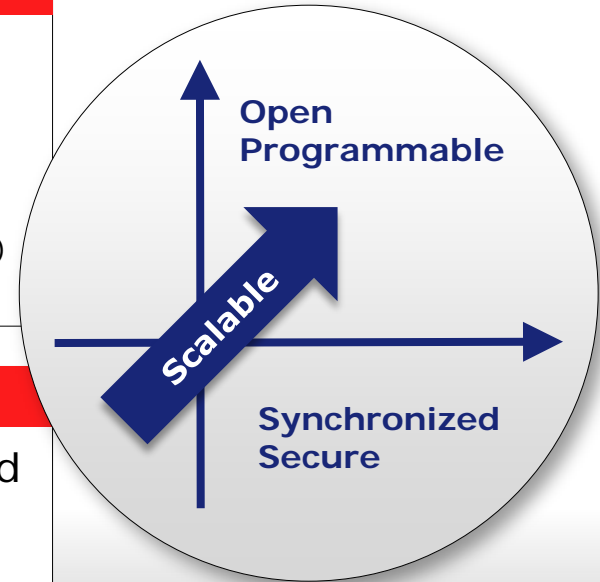
Data centers (DCs) define networking demand

- Distributed DC architectures emerge → Hyper-scale, macro and micro DCs
- Demand becomes unpredictable → Networks must be more agile
- Over-the-Top (OTT) services challenge existing network services
- New operational models → Closer integration with compute & storage (SDN)
- Faster service creation and delivery → Programmable services (NFV)

Mobility

Cloud service adoption drives mobile broadband demand

- Better spectrum utilization → Radio head densification (small cells, C-RAN)
- RAN virtualization → Edge DC with low-latency optical connectivity + NFV
- LTE-A and 5G → Network-based frequency and phase synchronization



Cloud and mobility are transforming the network, driving new business models

Our Strategy

Innovation leadership

Speed for customers

Trusted partner

Open connectivity solutions

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

Operational excellence

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

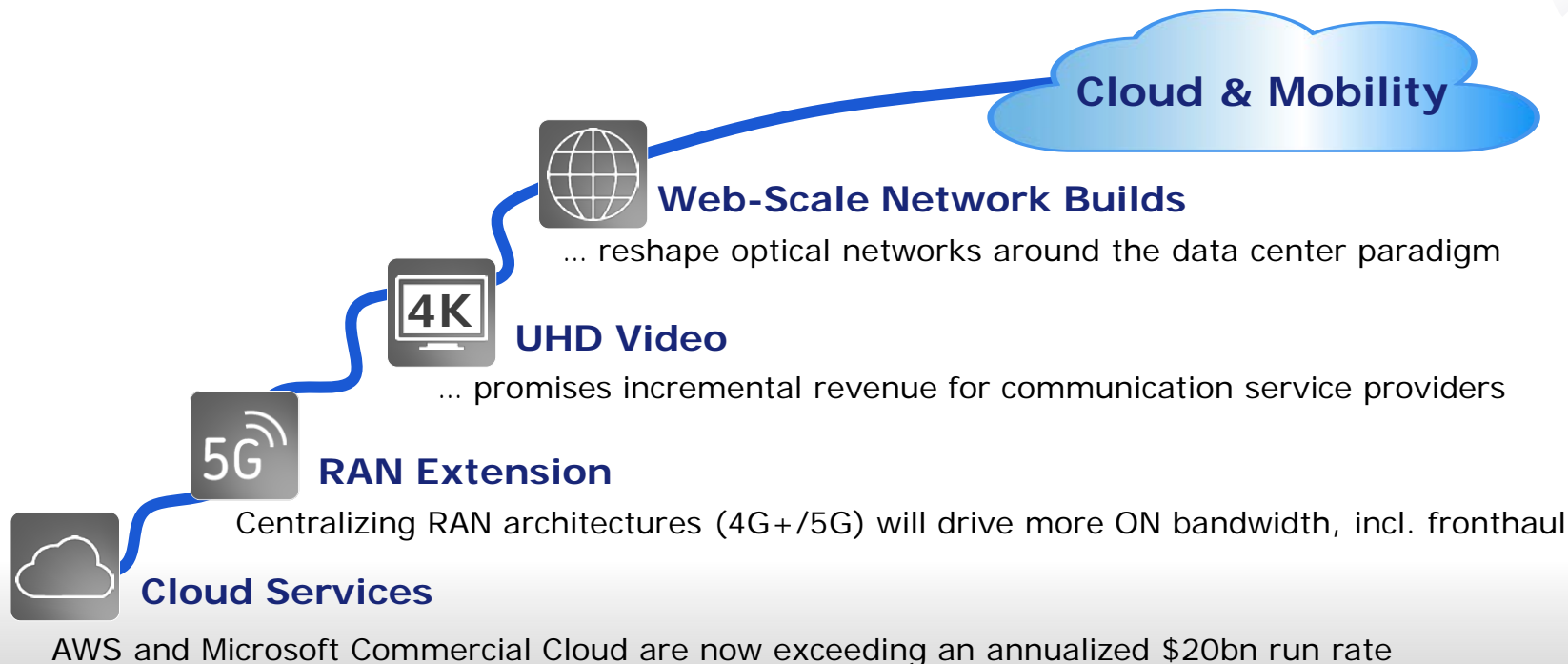
Ease of doing business

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

Award-winning factory in Meiningen, Germany

Enabling our customers to deliver differentiated cloud-based services

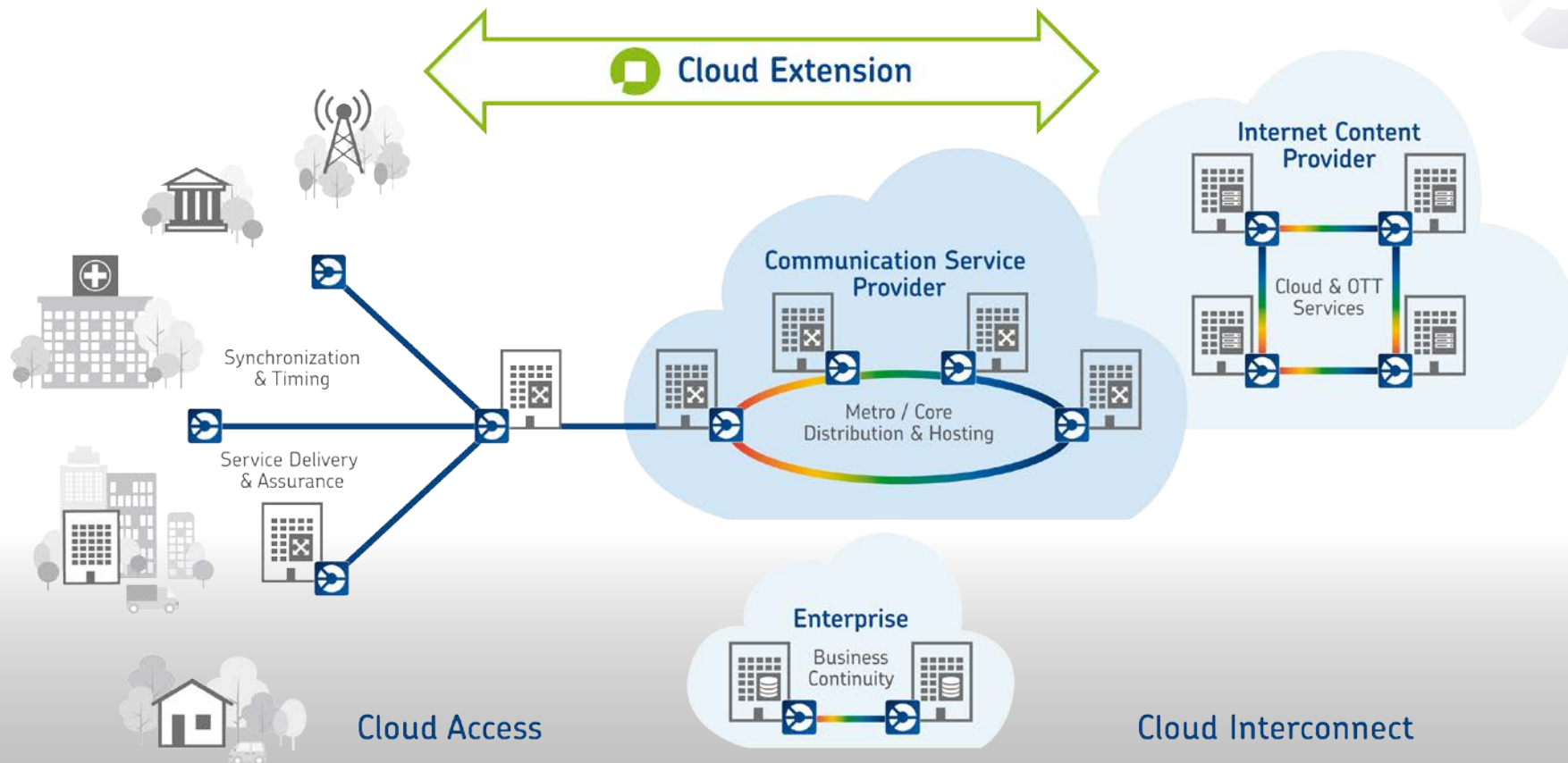
Networking Growth Drivers



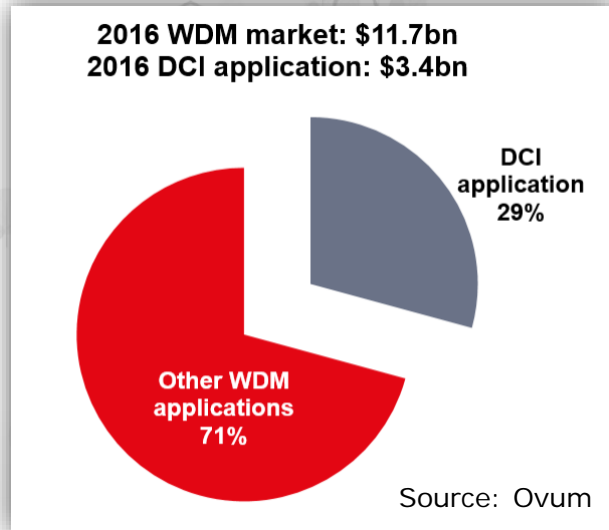
The optical networking (ON) market is on track to reach \$18bn by 2020*

* Ovum Market Share Report 3Q16, published Jan 2017

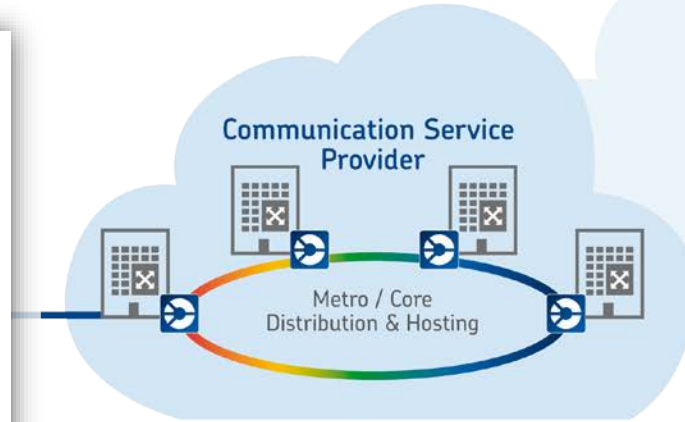
Our Hardware, Software and Services



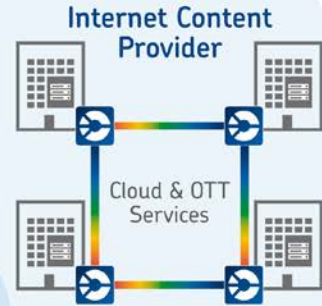
Market Opportunity: WDM



Cloud Access



Cloud Interconnect



Internet Content Providers (ICPs)



ICP – DCI

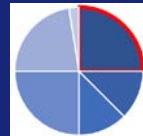
TAM

CAGR

ADVA
success
factors

USD 1.2 billion¹
19%

Creation, storage and dissemination
of digital information

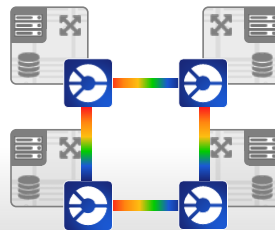


*Approx. revenue contribution,
rolling last four quarters*

- Fastest growing supplier in **metro** space, leading with >20% market share²
- Best ICP-tailored product, leading in cost, space, power and spectral efficiency
- New operational models, favoring smaller, innovative and specialized suppliers



Cloud & OTT
Services



FSP 3000 CloudConnect™

Public cloud: content and X-as-a-service for the digital age

1) Estimated 2016 market size and 5yr CAGR; Source: Ovum, 2016-21 Global Data Center Interconnect Forecast, published January 2017

2) 3Q 2016 market share (4Q rolling); Source: Ovum Market Share Report DCI published Dec 2016

Private Enterprise Networks



Enterprise DCI

USD 0.25 billion¹
3%

Large-scale needs for data storage,
replication and backup



*Approx. revenue contribution,
rolling last four quarters*

TAM

CAGR

ADVA
success
factors

- >20 years experience
- Highly differentiated feature set
- Excellent partner landscape
- Encryption creates additional differentiation and stickiness
- Market leader² (global >25%)



FSP 3000

Private cloud infrastructure – security for mission critical data and applications

1) Estimated 2016 market size and 5yr CAGR; Source: Ovum, 2016-21 Global Data Center Interconnect Forecast, published January 2017

2) 3Q 2016 market share (4Q rolling); Source: Ovum Market Share Report DCI published Dec 2016

Communication Service Providers (CSP)

TAM

CAGR

ADVA
success
factors

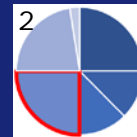
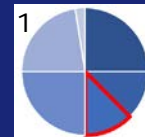


DCI¹ and Infrastructure²

USD 1.5¹ bn
13%¹

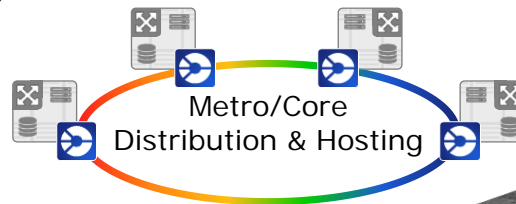
8.7 bn²
5%²

Own fiber plant;
experience in design, building and
operation of optical networks;



*Approx. revenue contribution,
rolling last four quarters*

- Trusted metro supplier for many Tier 1, 2, 3 operators
- Compelling and proven metro core offering
- Preferred choice for many end users



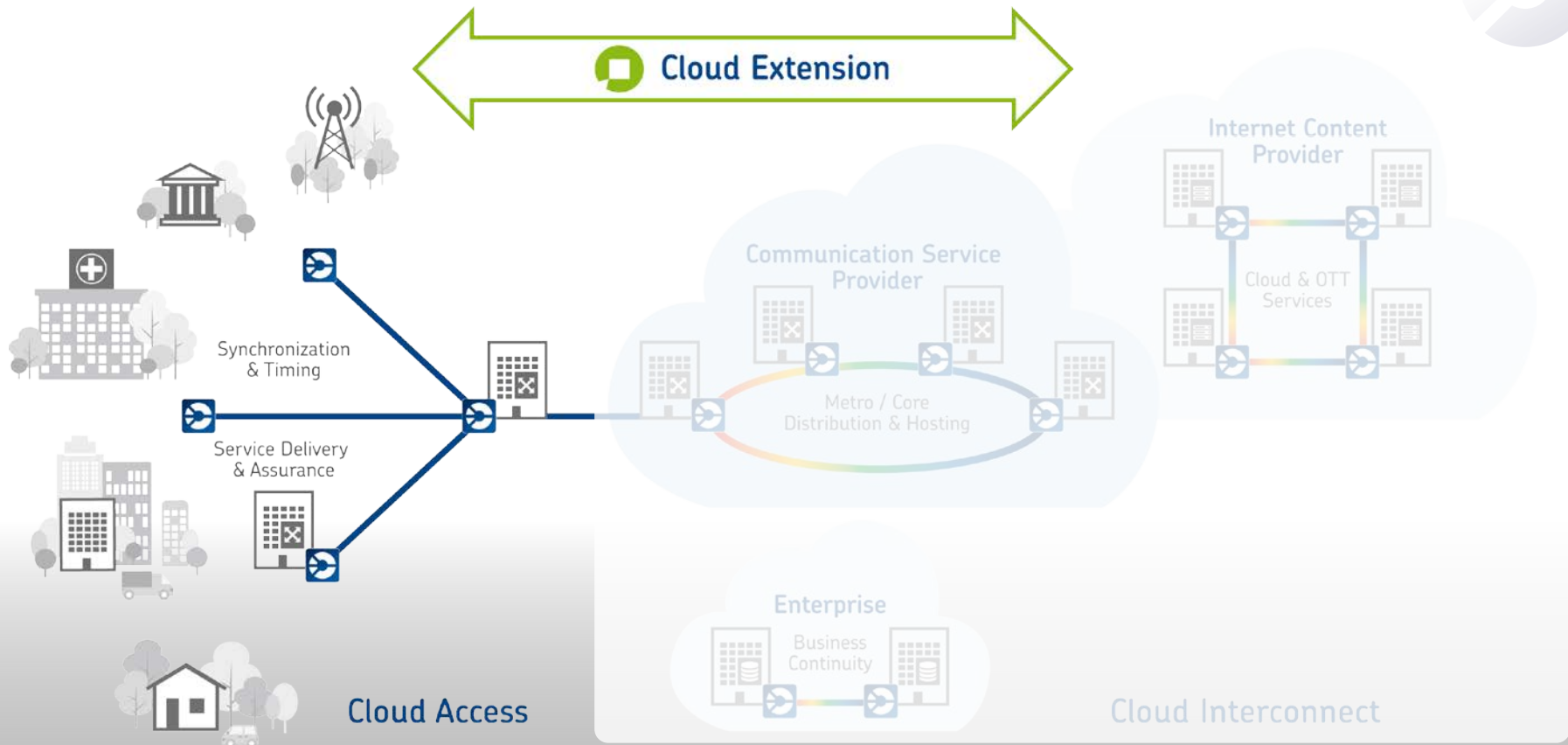
FSP 3000

Investment cycle coming to the metro core

1) Estimated 2016 market size and 5yr CAGR; Source: Ovum, 2016-21 Global Data Center Interconnect Forecast, published January 2017

2) Estimated 2016 market size and 5yr CAGR; Source: Ovum, 2016-21 Optical Networks Forecast, published January 2017

Access, Virtualization and Synchronization



CSP Access



Communication Service Providers – (Ethernet) Access



TAM

CAGR

ADVA
success
factors

USD ~ 0.9 billion¹
11%

Business Ethernet, wholesale
and mobile backhaul services

- Most comprehensive portfolio in the market
- Security suite
- Future-proof (NFV-optimized)
- 15 years experience

*Approx. revenue contribution,
rolling last four quarters*



FSP 150

Upgrade cycle at the network edge to simplify and future-proof cloud access

¹) Estimated 2016 market size and 5yr CAGR for access switching & routing;
Source: Ovum, Service Provider Switching & Routing Forecast, published January 2017

CSP – Network Function Virtualization



Communication Service Providers – NFV

Delivering differentiated services

TAM

CAGR

ADVA
success
factors

- Shift towards software-driven service creation and delivery (VNF)¹
- Tapping into layer 3 access and edge routing market
- Most comprehensive NFV architecture providing choice of hardware, software and location
- New strategic division with experience and market credibility

1) virtual network function

2) virtual customer premise equipment

"Service providers globally will spend over \$1.5B in 2020 to deploy vCPE² use case services"

NFV Report, IHS Markit, 2016

 **Ensemble**
A Division of ADVA Optical Networking

Turning enterprise IT-spend into service provider revenue

What Is Ensemble Virtualization?

Ensemble enables users to realize the benefits of the cloud by **replacing closed appliances** with their **choice of software** that can be **hosted anywhere** in the network on their **choice of open hardware**.



Appliances (IT-spend)

Network Functions
Virtualization

 **Ensemble**
A Division of ADVA Optical Networking



CSP managed services

More than 20 active customer engagements with carriers around the globe

Network Synchronization



Synchronization

USD 0.3 billion¹



*Approx. revenue contribution,
rolling last four quarters*

TAM

CAGR

ADVA
success
factors

- Focus and higher speed of innovation gives us a more comprehensive and competitive portfolio
- Strategically important technology and expertise could allow further expansion into mobile infrastructure



1) Estimated 2016 market size – ADVA internal estimates



OSA 5405



OSA 5420



Precise timing for 4G+ and 5G mobile networks

Our Innovation Overview

One Network Edge

Streamline high-value service delivery



Network Virtualization Simplified

Deploy, operationalize and monetize NFV at scale



Delivering Assured Precision Timing

Accurate and scalable time and frequency synchronization



Connecting the Cloud

Open and secure Terascale connectivity



Scaling the Cloud

Flexible metro core infrastructure

Connecting, extending and assuring the cloud

Our Partners

Technology Partners



Research Alliances Security & Encryption Data Center & Storage Ethernet & IP NMS & Assurance

Ensemble Harmony Ecosystem



Value-Added Resellers



Featured Elite Partners

Featured Select Partners

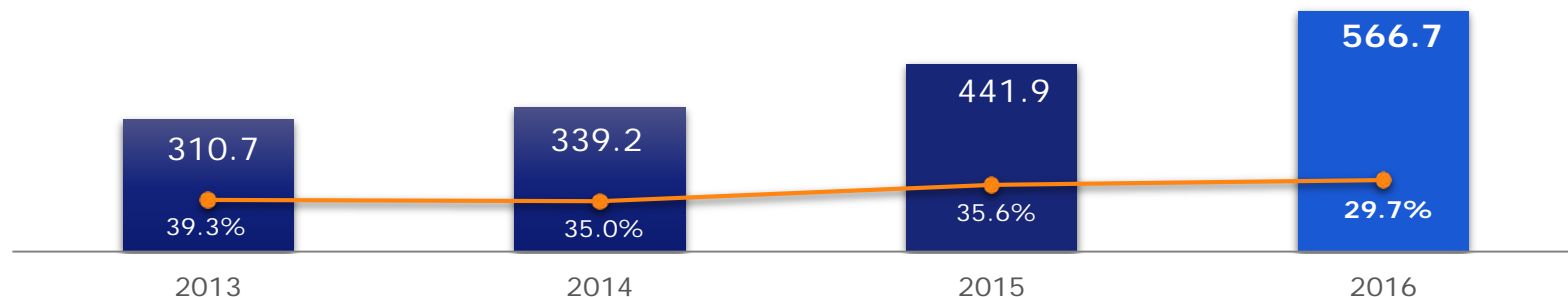
Financial Performance



Annual IFRS Revenues and Pro Forma Profitability

(in millions of EUR, in % of revenues)

Revenues and Pro Forma Gross Profit



Pro Forma Operating Income*

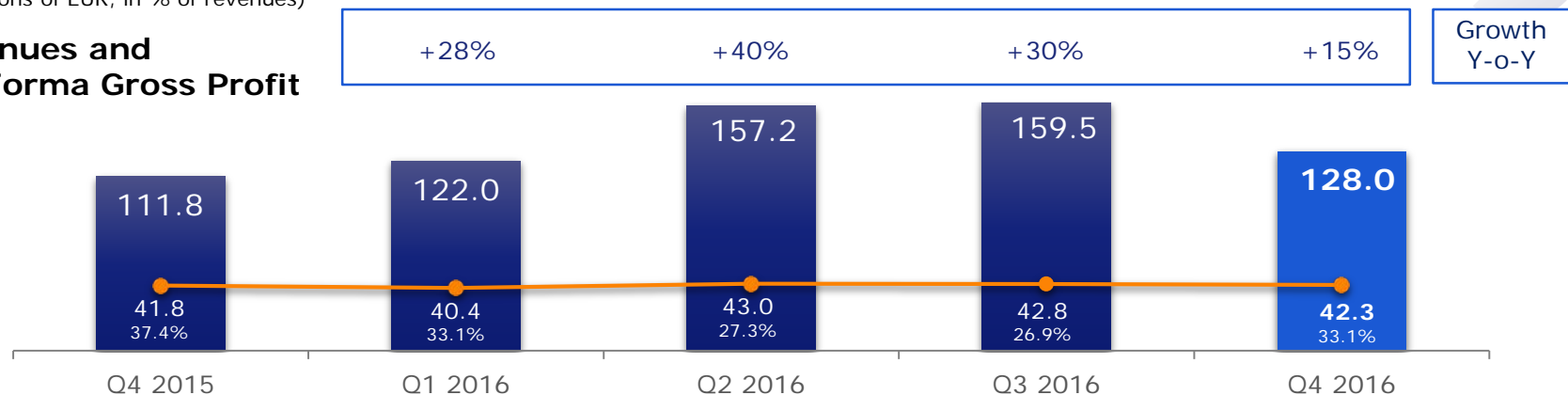


* Pro forma operating income is calculated prior to non-cash charges related to the stock option programs and amortization and impairment of goodwill and acquisition-related intangible assets.

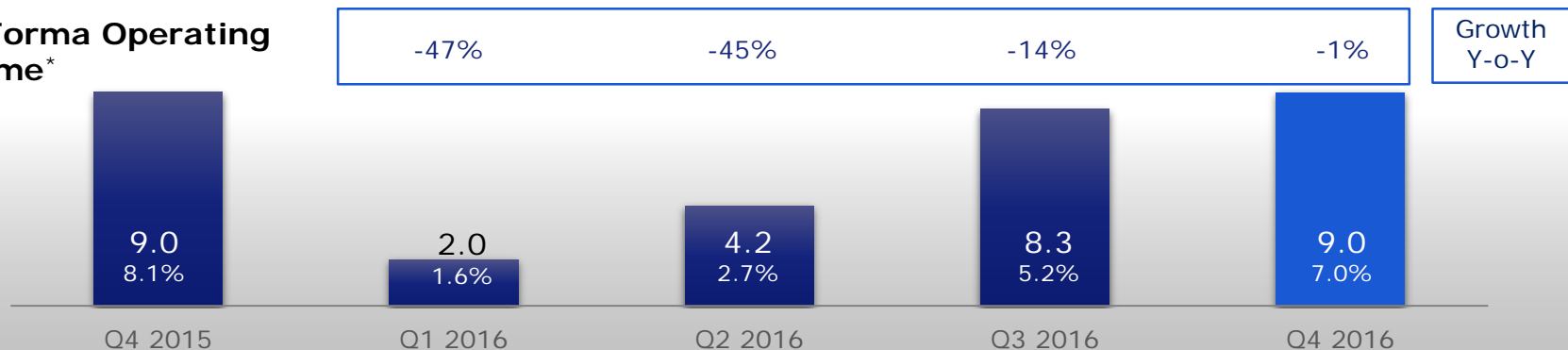
Quarterly IFRS Revenues and Pro Forma Profitability

(in millions of EUR, in % of revenues)

Revenues and Pro Forma Gross Profit



Pro Forma Operating Income*



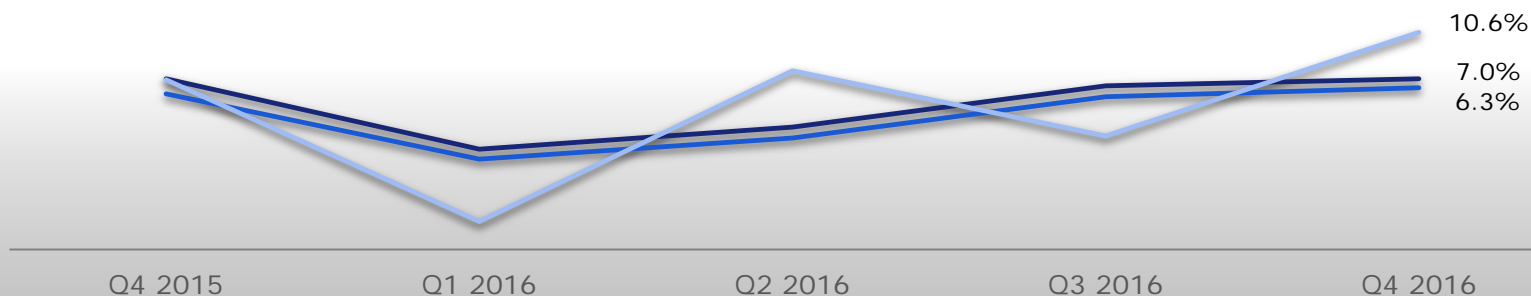
* Pro forma operating income is calculated prior to non-cash charges related to the stock option programs and amortization and impairment of goodwill and acquisition-related intangible assets.

IFRS Profitability



EUR Million	2015	2016			
	Q4	Q1	Q2	Q3	Q4
<u>Pro Forma Operating Income</u>	9.0 (8.1%)	2.0 (1.6%)	4.2 (2.7%)	8.3 (5.2%)	9.0 (7.0%)
<u>Operating Income</u>	7.5 (6.7%)	1.0 (0.8%)	3.1 (2.0%)	7.2 (4.5%)	8.1 (6.3%)
<u>Net Income</u>	8.9 (7.9%)	-5.2 (-4.2%)	9.8 (6.2%)	3.3 (2.0%)	13.6 (10.6%)
Diluted EPS in EUR	0.18	-0.10	0.20	0.07	0.27

Margins, in % of Revenues

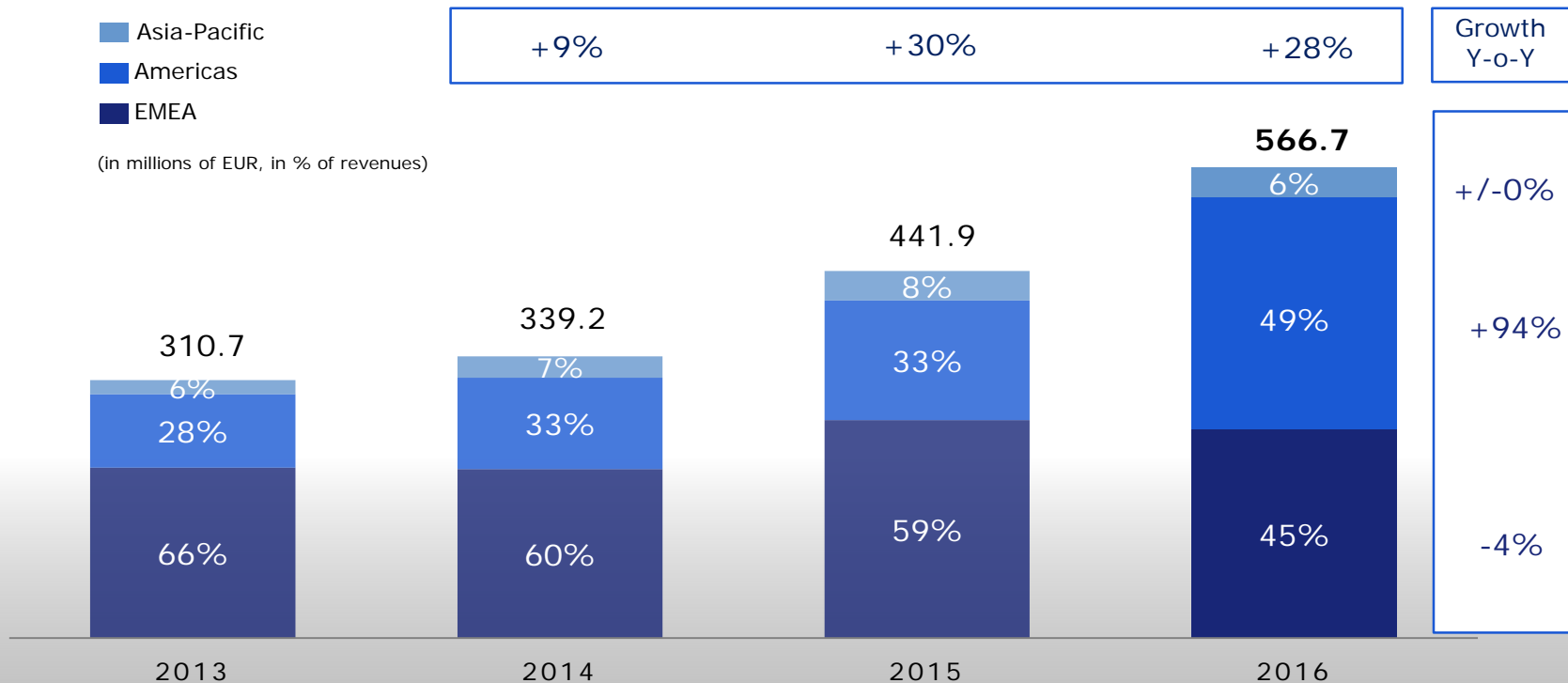


Annual Revenues Per Region

(in millions of EUR, in % of revenues)

- Asia-Pacific
- Americas
- EMEA

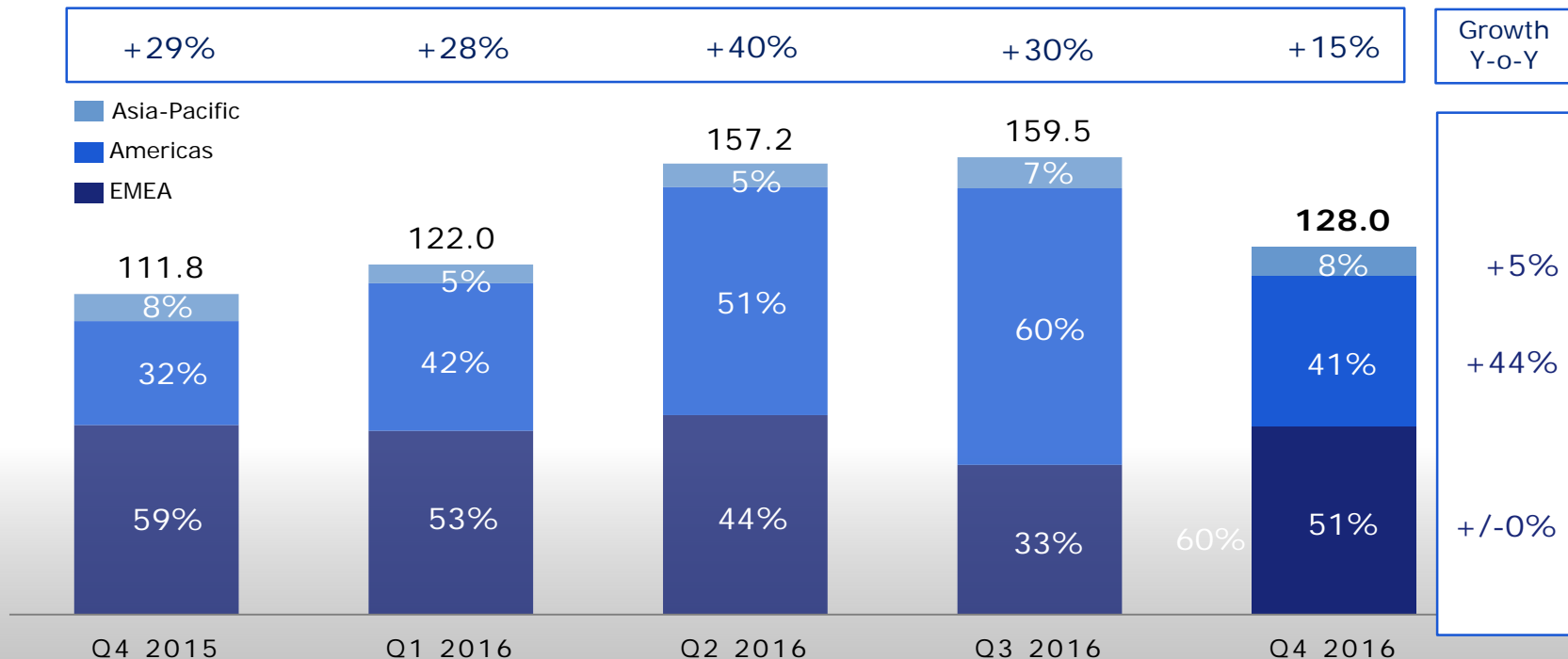
(in millions of EUR, in % of revenues)



Note: Potential differences due to rounding

Quarterly Revenues Per Region

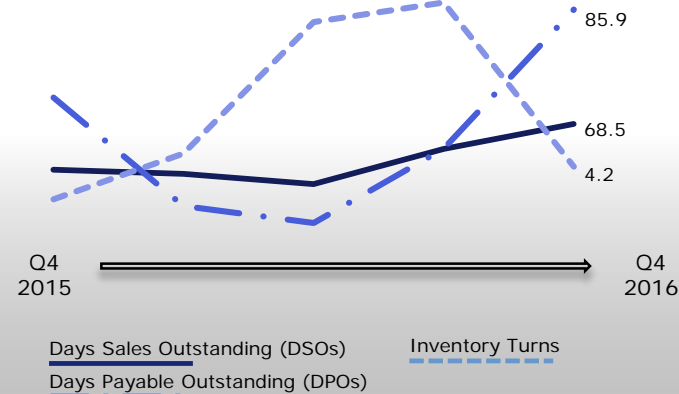
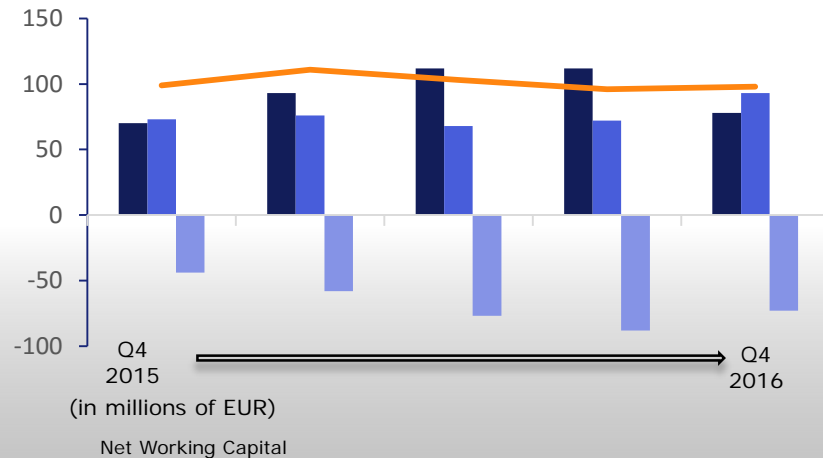
(in millions of EUR, in % of revenues)



Note: Potential differences due to rounding

IFRS Balance Sheet

Assets	Sep. 30 2016	Dec. 31 2016	Equity & liabilities	Sep. 30 2016	Dec. 31 2016
Cash & cash equivalents	81.2	84.9	Accounts payable	87.7	73.3
Accounts receivable	112.1	78.5	Financial liabilities	60.9	59.4
Inventories	72.2	92.8	Other liabilities	96.6	96.3
Other assets	200.3	211.7	Equity	220.6	238.9
Total	465.8	467.9	Total	465.8	467.9
Net Liquidity	20.3	25.5			



IFRS Consolidated Cash Flow Statement



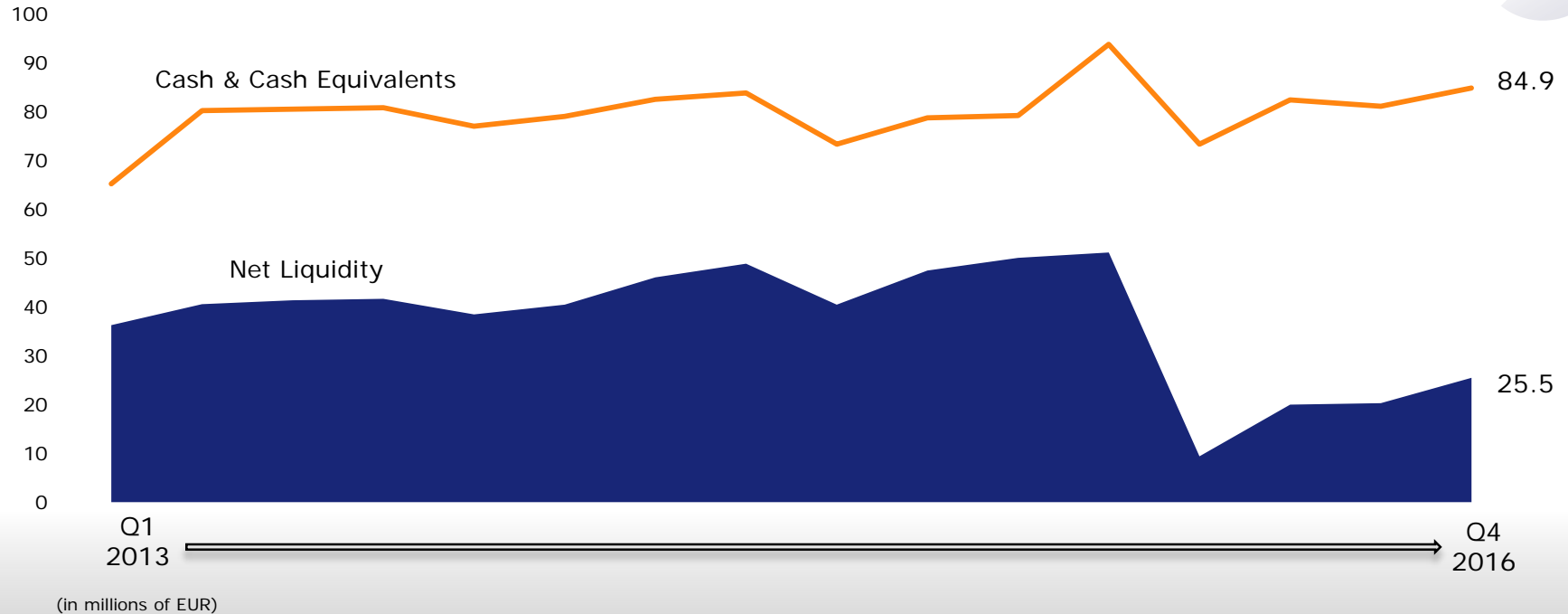
EUR million	2015	2016			
	Q4	Q1	Q2	Q3	Q4
Net cash provided by operating activities	10.7	2.0	22.4	15.7	21.2
Net cash used for investing activities	-10.8	-42.9	-11.4	-15.5	-16.6
Net cash provided by (used for) financing activities	14.5	21.0	-1.9	-1.7	-1.7
Net effect of foreign currency translation	0.2	-0.6	0	0.2	0.7
Net change in cash and cash equivalents	14.6	-20.5	9.1	-1.3	3.6
Cash and cash equivalents					
at beginning of period	79.3	93.9	73.4	82.5	81.2
at end of period	93.9	73.4	82.5	81.2	84.9
Free cash flow*	8.1	-0.6	19.0	11.8	16.4

* Free cash flow = Net cash provided by operating activities

./. capital expenditures for property, plant and equipment, finance leases and intangible assets not related to development activities.

Note: Potential differences due to rounding

Cash and Net Liquidity



Steady increase of net liquidity after Q1 reduction due to the Overture acquisition

Investor Relations Overview (I/II)



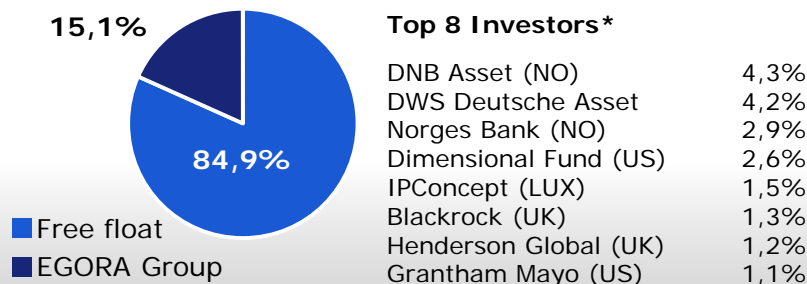
Recent Investor Activities

Conferences: Needham Conference New York in November

Roadshows: Paris and Boston in November

Stockholder Structure

Status: January 31, 2017: 49,498,934 shares outstanding



*Sources: Insight Nasdaq; Hauck&Aufhäuser; ADVA

Planned Investor Activities

Investor Meetings: MWC, Barcelona in February
OFC, Los Angeles in March

Roadshows: Helsinki and Copenhagen in March
London and Zurich in March

Financial Analyst Coverage

As of Feb 22, 2017			
Institution	Recommendation/ price target	Last update	Last change
Oddo Seydler Bank	Buy (€12.50)	Feb 7, 17	(€12.50)
Hauck & Aufhäuser	Buy (€10.50)	Feb 22, 17	(€10.50)
LBBW	Buy (€ 9.75)	Nov 29, 16	(€10.75)
Northland Capital Markets	Buy (€13.00)	Oct 28, 16	(€15.00)
Deutsche Bank	Hold (€ 7.60)	Nov 07, 16	(€10.00)
Ø	€ 10.67		

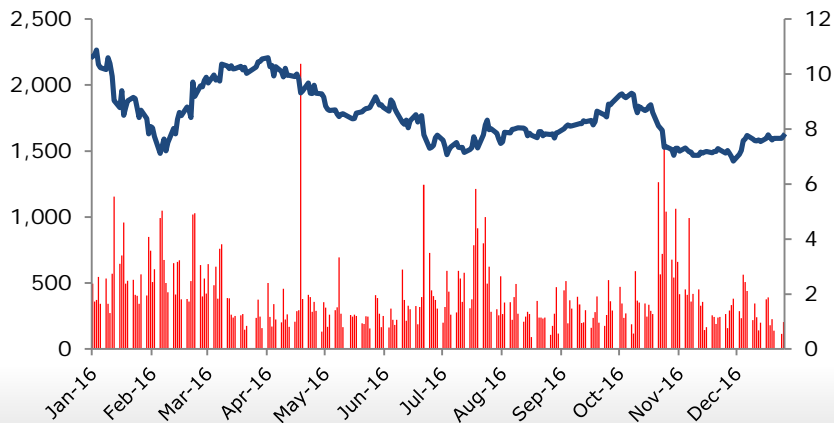
Investor Relations Overview (II/II)

Share Price and Trading Volume

Trading volume
in thousand

Jan 1, 2016 – Dec 31, 2016
FWB Xetra data

Share price
in €



Share price in EUR

- 52 week high
- 52 week low

10.87
6.84



Financial Analyst IFRS Estimates

As of Feb 22, 2017

Only includes estimates since Oct 27, 2016

	FY 2016	FY 2017	Q1 2016	Q4 2016	Q1 2017	Q1 2017
	Actual	Analyst consensus	Actual	Actual	Analyst consensus	ADVA guidance
EUR m						
Revenues	572.8	640.1	122.0	128.0	138.3	135-145
Growth YoY	+30%	+11.8%	+28%	+15%	+13.4%	
Pro forma operating income	25.7	43.7	2.0	9.0	4.4	
% of revenues	4.5%	6.8%	1.6%	7.0%	3.2%	3%-5%
Net Income	21.6	36.6	-5.2	13.6	3.2	
% of revenues	3.8%	5.7%	-4.2%	10.6%	2.3%	

Guidance Q1 2017



- Revenues between EUR 135 million and EUR 145 million
- Pro forma operating margin between 3% and 5% of revenues*
- ADVA Optical Networking will continue to perform detailed quarterly reviews of the expected business development in respect of all intangible assets, including capitalized research and development expenses; in case of highly adverse business prospects, these reviews may result in non-cash impairment charges.

* Excluding any potential impairment charges.



Thank You

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