



# ADVA Optical Networking Investor Presentation

Q3 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 2015.

## 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.

# Our History



Foundation  
of the company



Going public

- FSE: ADV



Going global

- Expansion in North America
- Revenue >USD 250 million



Scaling the business

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



1994

1999

2000

2006

2010

2013

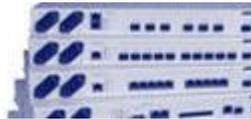
2016

2020



First product

- Metro-WDM for enterprise DCI



Adding Ethernet

- First fiber-based Ethernet services



Portfolio expansion

- Optical+Ethernet
- Network automation



Strategic acquisitions

- Synchronisation
- Software and virtualization

Open connectivity solutions for a connected world

# ADVA Optical Networking Today



## Our NUMBERS

>€500 million revenue<sup>1</sup>  
1,731 employees<sup>2</sup>

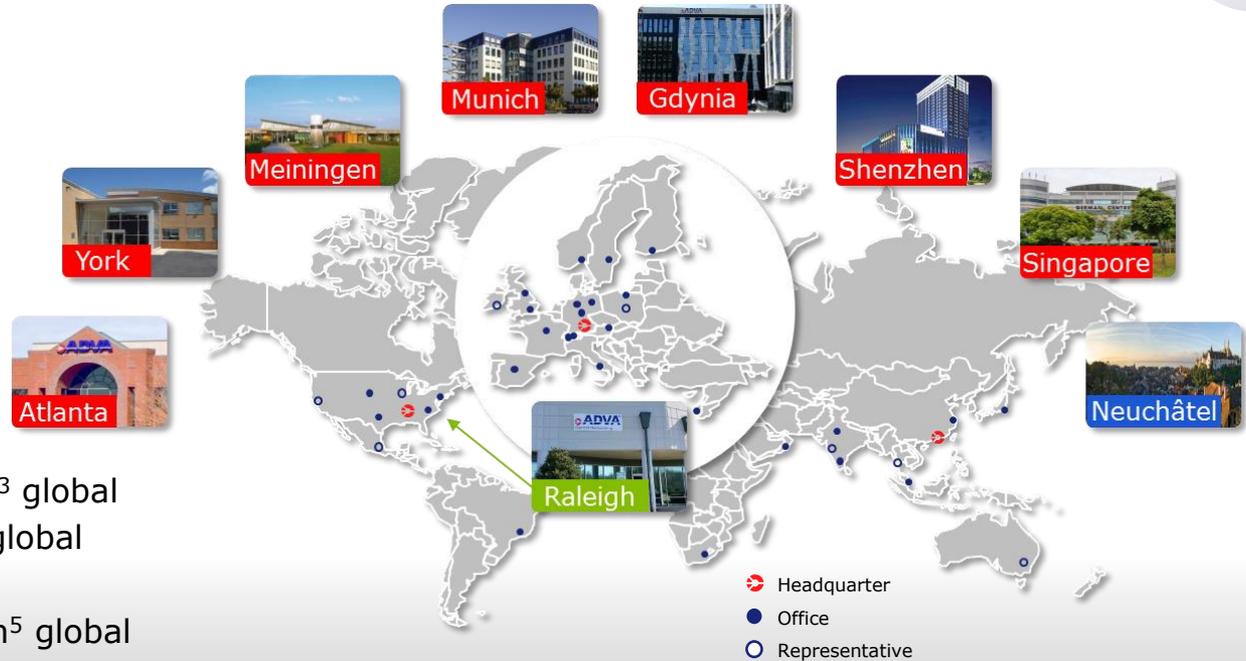
## Our CUSTOMERS

Hundreds of carriers  
Thousands of enterprises

## Our LEADERSHIP

- #1 Ethernet access devices<sup>3</sup> global
- #1 Metro DCI<sup>4</sup> (ICP/CNP)\* global
- #1 Enterprise DCI<sup>4</sup> global
- #2 Network synchronization<sup>5</sup> global

\* Internet Content Provider and Carrier Neutral Provider



Network innovator – Speed for customers – Trusted partner

1) Analyst consensus for 2016; 2) Status Sept. 30, 2016; 3) IHS Infonetics Research; 4) Data Center Interconnect – Source: Ovum;  
5) ADVA Optical Networking internal estimates

# Our Broad Customer Base

## Service Providers

Cable Operators & MSOs      Wireline Carriers      Mobile Operators

## Enterprises

Healthcare      Finance      Media      Utilities

## Internet & Cloud

## Government & Education

State & Local Government      Research & Education

Global success with open connectivity solutions

# 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

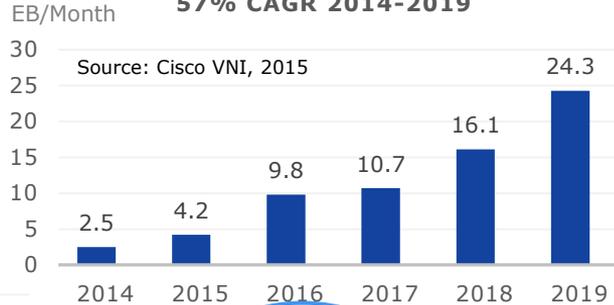
*Award-winning factory in Meiningen, Germany*

Enabling our customers to deliver differentiated cloud-based services

# Growth Drivers for Networks



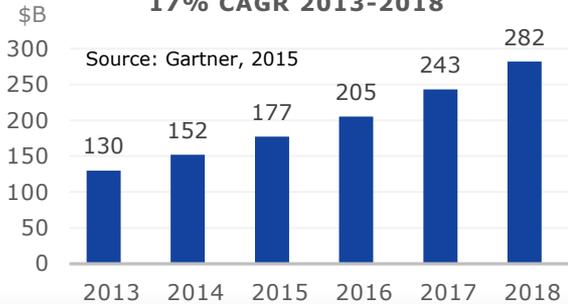
Global Mobile Bandwidth (1)  
57% CAGR 2014-2019



Internet Video Traffic (1)  
33% CAGR 2014-2019



Cloud Services  
17% CAGR 2013-2018



Cloud & Mobility

~ \$200 billion global annual infrastructure investment  
\$18 billion\* in optical networking by 2020

More users – More devices that connect to networks – More data-heavy services

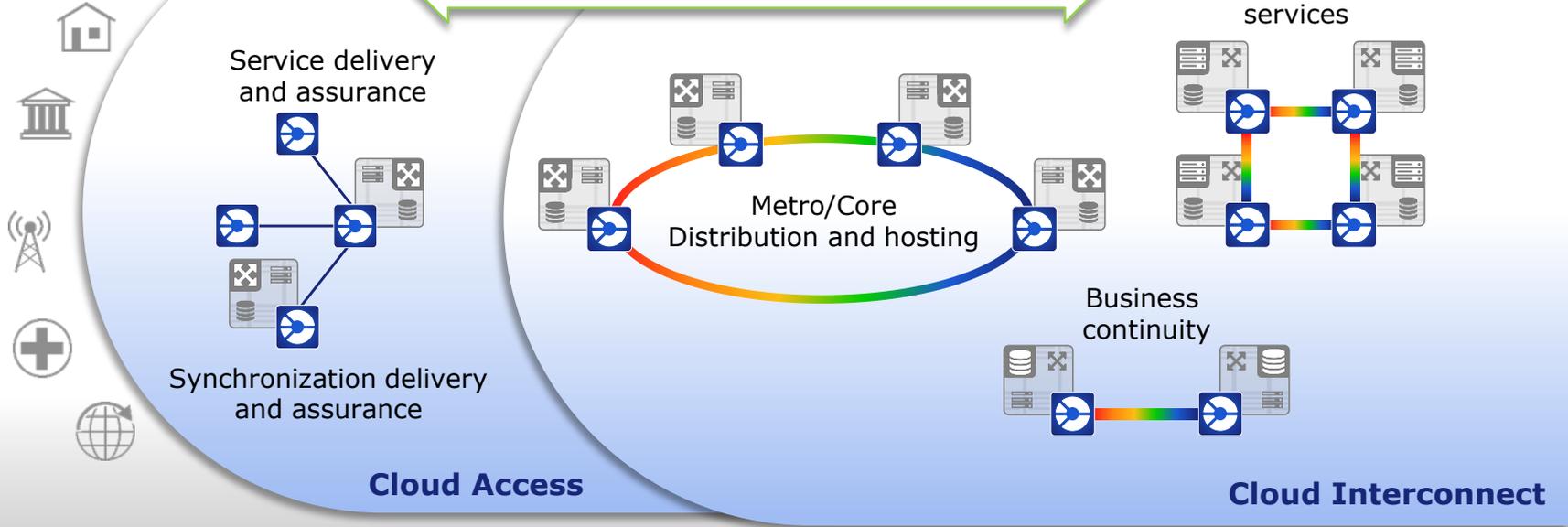
\*Source: Ovum Market Share Report, 1Q16 Optical Networking Global, June 2016: "The ON market continues on track to \$18bn by 2020, driven by network and data center operator demand"

# Our Hardware, Software and Services



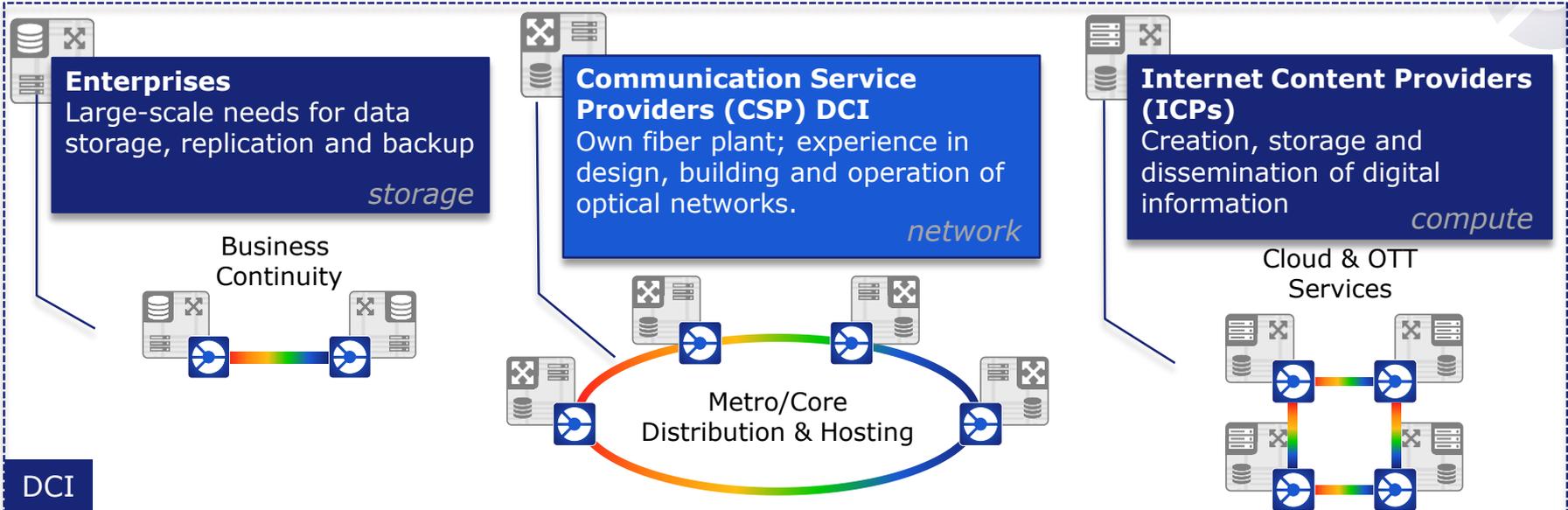
**Ensemble**  
A Division of ADVA Optical Networking

**Cloud Extension**



Connecting, extending and assuring the cloud

# The Metro WDM Opportunity



**CSP Infrastructure**

TAM: USD 5 billion<sup>1</sup>  
 CAGR: >6%  
 Revenue contribution\*

CSP investment cycle coming to the metro

1) Estimated 2016 market size and 3yr CAGR, Metro WDM excluding DCI; Source: Ovum, 2015-20 Optical Networks Forecast Report, published Feb 2016;  
 \* Last four quarters

# The Metro DCI Opportunity



TAM

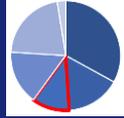
CAGR

Our success factors



## Enterprise

USD 0.2 billion<sup>1</sup>  
8%  
Revenue contribution\*

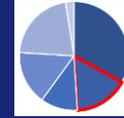


- 20 years experience
- Differentiated feature set
- Excellent partner landscape
- Encryption creates additional differentiation and stickiness
- Market leader<sup>2</sup> (global >25%)



## CSP\*

USD 0.8 billion<sup>1</sup>  
>13%  
Revenue contribution\*



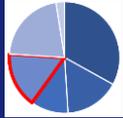
<sup>\*)</sup>DCI only

- Trusted metro supplier for many Tier 1, 2, 3 operators
- Compelling and proven 100G metro offering
- Preferred choice for many end users



## ICP

USD 0.6 billion<sup>1</sup>  
16%  
Revenue contribution



- Leveraging enterprise DCI
- Best ICP-tailored product, leading in cost, space, power and spectral efficiency
- New operational models, favoring smaller, innovative and specialized suppliers



1) Estimated 2016 market size and 3yr CAGR; Source: Ovum, 2015-20 Data Center Interconnect Forecast, published February 2016

2) 2Q 2016 market share (4Q rolling); Source: Ovum Market Share Report: 2Q16 Optical Networking Global

Expanding ecosystem driving demand – investment focus in the metro

\* Last four quarters

# What is Hot in Cloud Access?



## 1 Wireline

- Faster service creation
- Lower operational complexity
- Higher security

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Business Ethernet



## 2 Wireless

- Better use of spectrum\*
- Precise synchronization & timing

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Mobile Backhaul

Data Center Interconnect  
& Carrier Infrastructure

\*More macro cells, small cells, C-RAN, improving spectral efficiency

Secure access and backhaul solutions for fixed and mobile users

# Cloud Access Opportunity and Sync



TAM

CAGR

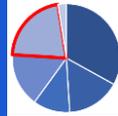
Our success factors

1

## Ethernet Access Devices

USD 1 billion<sup>1</sup>  
7%

Revenue contribution\*



- Performance assurance
- Ubiquitous Ethernet
- Encryption
- NFV-optimized
  
- Market leader (>20% share)
- 15 years experience

1) Infonetics Research: Ethernet Access Devices Biannual Market Share, Size and Forecasts, 2nd Edition, September 2015.

2

## Synchronization & Timing

USD ~ 300 million<sup>2</sup>  
5%

Revenue contribution\*



- 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

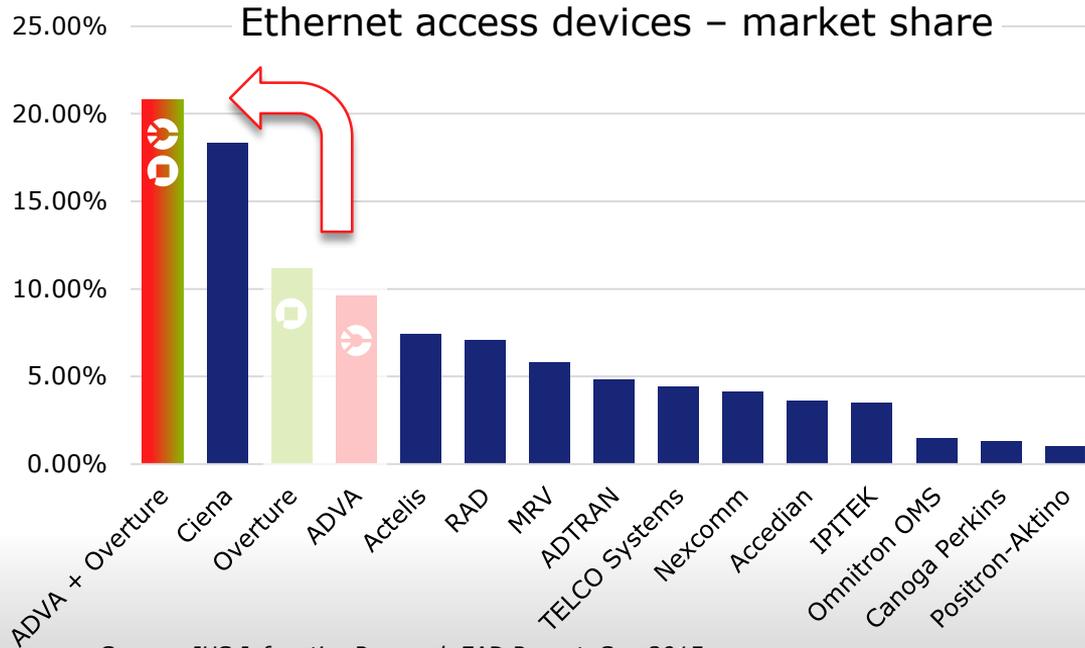
2) ADVA Optical Networking internal estimates

**OSCILLOQUARTZ**  
An ADVA Optical Networking Company

1)L3 and L2 access networks converging, quadrupling addressable EAD market

\* Last four quarters

# Cloud Access – Overture Acquisition



Source: IHS Infonetics Research EAD Report, Sep 2015

## + Extending the cloud

- Shift towards software-driven service creation and delivery (VNF)\*
- 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

 **Ensemble**  
A Division of ADVA Optical Networking

Market leadership EAD – cross selling and NFV disruption will accelerate growth

# 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**.



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A Division of ADVA Optical Networking

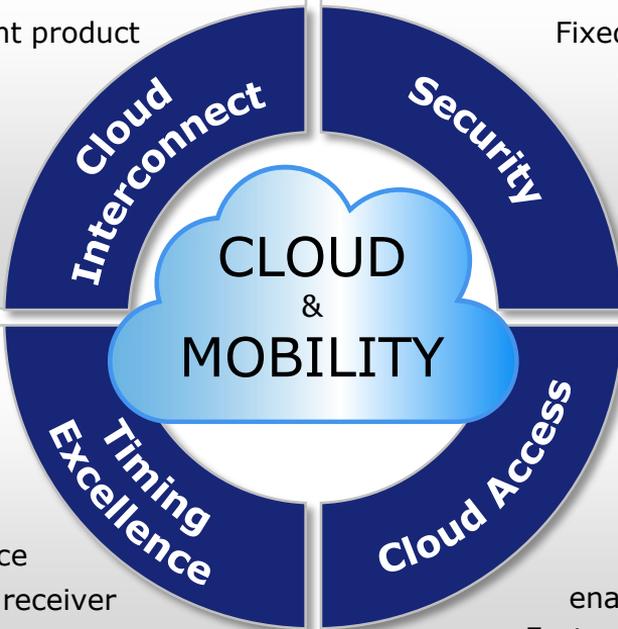
More than 20 active customer engagements with carriers around the globe

# Our Technology Differentiation



## Open Optical Transport

Most cost-, space- and power-efficient product  
Multi-Tbit/s flexibility and scalability  
Open optical line system



## Network Encryption

Fixed and mobile user secure cloud access  
Secure business Ethernet connectivity  
Lowest latency inflight encryption



## Network Synchronization

Cesium primary reference clock source  
Modular PTP grandmaster and GNSS receiver  
PTP grandmaster on SFP



## Virtualized Cloud Services

NFV infrastructure and orchestration  
enabling choice, performance and agility;  
Fast service creation – operational simplicity

Open, programmable and secure connectivity solutions

# Our Partners



## Technology Partners

Wir sind dabei!  
PHOTONIK CAMPUS  
WIR SIND LICHT

ATM edia

infoGuard  
and information becomes secure

IBM

BROCADE

EMC<sup>2</sup>  
where information lives

ARISTA

Tivoli software

hp invent

InfoVista<sup>®</sup>  
Orchestrating network performance

JUNIPER NETWORKS

VI.AVI

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

## Value-Added Resellers

axians

arcadiz telecom

dacoso  
data communication solutions

infoGuard  
and information becomes secure

UNIVERSAL CARD SYSTEMS

JASCO  
INSPIRE. INNOVATE.

PSS

XON

zayo GROUP

Featured Elite Partners

## Ensemble Harmony Ecosystem

VI.AVI

silver peak

transcyrus  
FOR THE CLOUD AND HYBRID

redhat

QOSMOS  
The Network is Information

SPIRENT

riverbed  
The Application Performance Company™

WIND

intel

SUPERMIC

AEROFLEX

FORTINET

ixia

Sonus NETWORKS

EnterpriseWeb.com™

Check Point  
SOFTWARE TECHNOLOGIES LTD.

CERTES NETWORKS

InfoVista<sup>®</sup>  
Orchestrating network performance

kapsch >>>

BROCADE

H-Log  
QOS TELECOM

Metaswitch  
Networks

DELL

ITERATIO

ISKRATEL

MATICMIND

NETWELL

sia

telindus  
teligcom ICT

TrueCom  
Building a connected world...

Featured Select Partners

# Financial Performance



# Annual IFRS Revenues and Pro Forma Profitability

## Revenues and Pro Forma Gross Profit\*



## Pro Forma Operating Income\*\*



(in millions of EUR, in % of revenues)

\* From 2012, amortization for capitalized development projects is presented as cost of goods sold. Prior period information has been adjusted accordingly.

\*\* 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

## 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

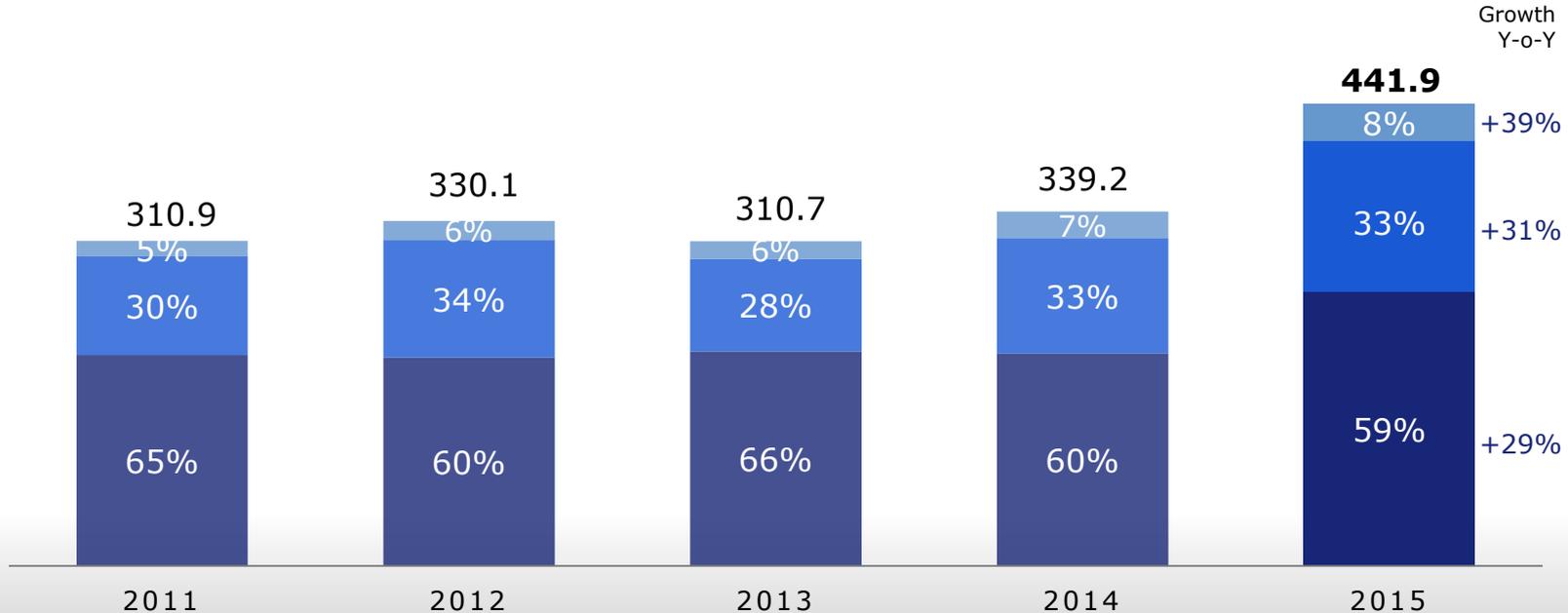


EUR Million	2015		2016		
	Q3	Q4	Q1	Q2	Q3
<u>Pro Forma Operating Income</u>	9.6 (7.8%)	9.0 (8.1%)	2.0 (1.6%)	4.2 (2.7%)	8.3 (5.2%)
<u>Operating Income</u>	8.5 (6.9%)	7.5 (6.7%)	1.0 (0.8%)	3.1 (2.0%)	7.2 (4.5%)
<u>Net Income</u>	8.6 (7.0%)	8.9 (7.9%)	-5.2 (-4.2%)	9.8 (6.2%)	3.3 (2.0%)
Diluted EPS in EUR	0.17	0.18	-0.10	0.20	0.07

Margins, in % of Revenues



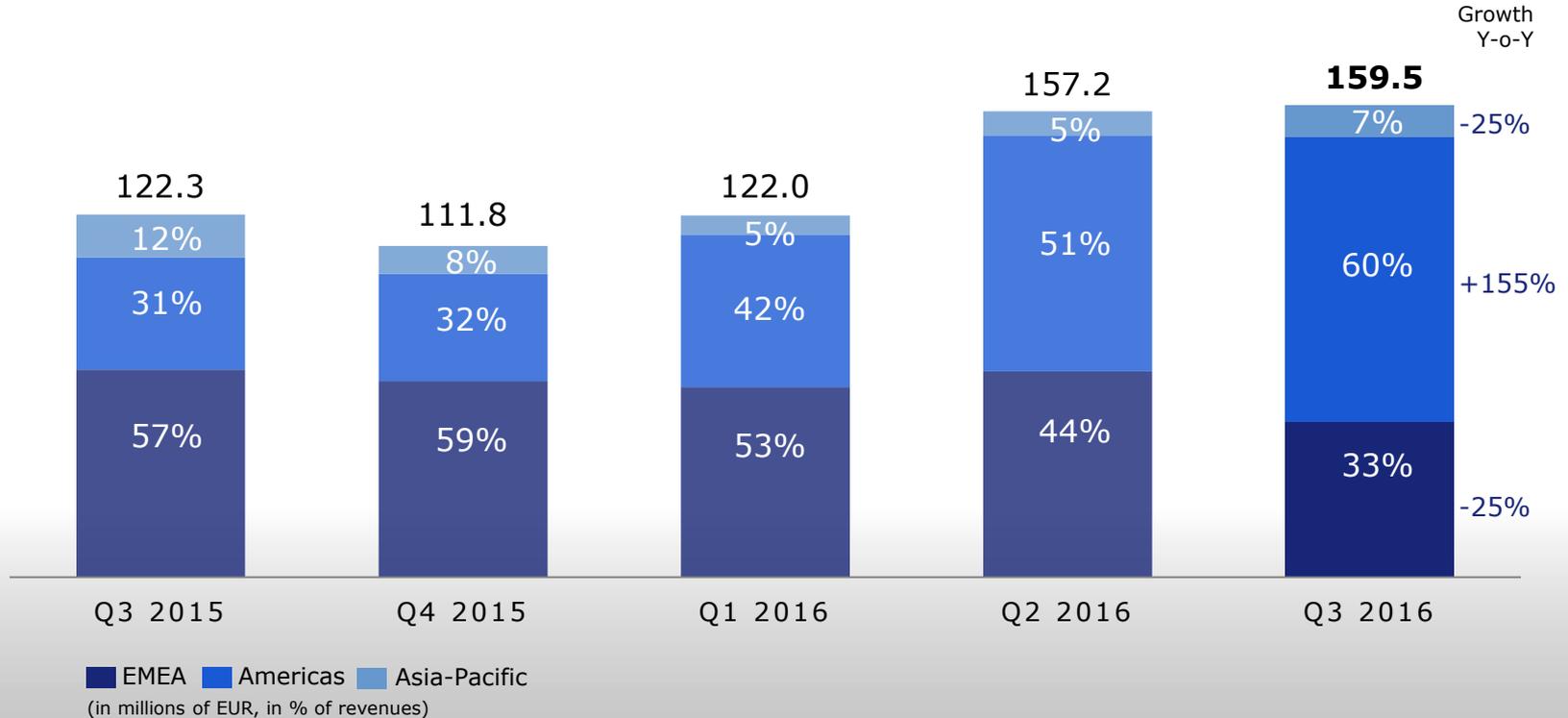
# Annual Revenues Per Region



■ EMEA ■ Americas ■ Asia-Pacific  
(in millions of EUR, in % of revenues)

Note: Potential differences due to rounding

# Quarterly Revenues Per Region

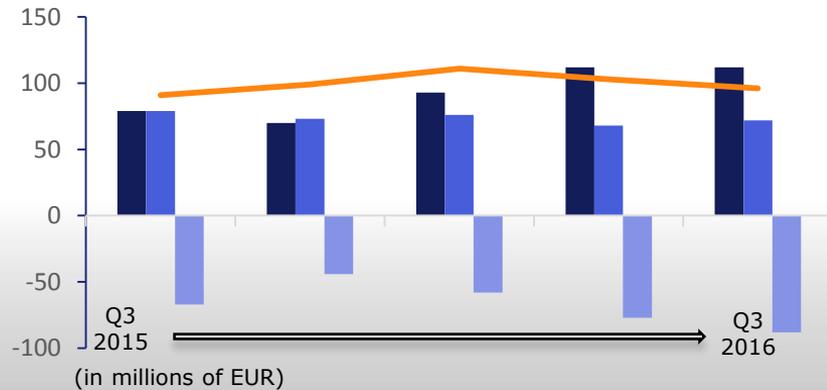


Note: Potential differences due to rounding

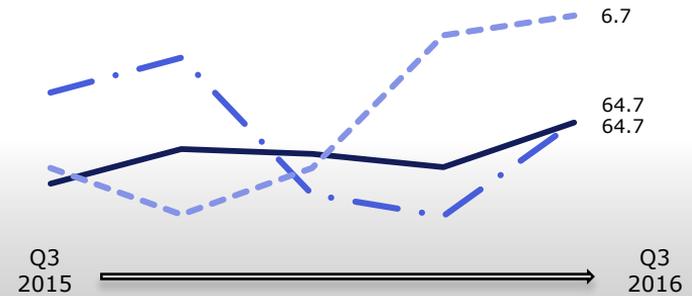
# IFRS Balance Sheet



Assets	Jun. 30 2016	Sep. 30 2016	Equity & liabilities	Jun. 30 2016	Sep. 30 2016
Cash & cash equivalents	82.5	81.2	Accounts payable	77.1	87.7
Accounts receivable	112.0	112.1	Financial liabilities	62.5	60.9
Inventories	67.7	72.2	Other liabilities	97.1	96.6
Other assets	192.6	200.3	Equity	218.1	220.6
<b>Total</b>	<b>454.8</b>	<b>465.8</b>	<b>Total</b>	<b>454.8</b>	<b>465.8</b>
Net Liquidity	20.0	20.3			



Net Working Capital



Days Sales Outstanding (DSOs)  
Days Payable Outstanding (DPOs)

Inventory Turns

# IFRS Consolidated Cash Flow Statement



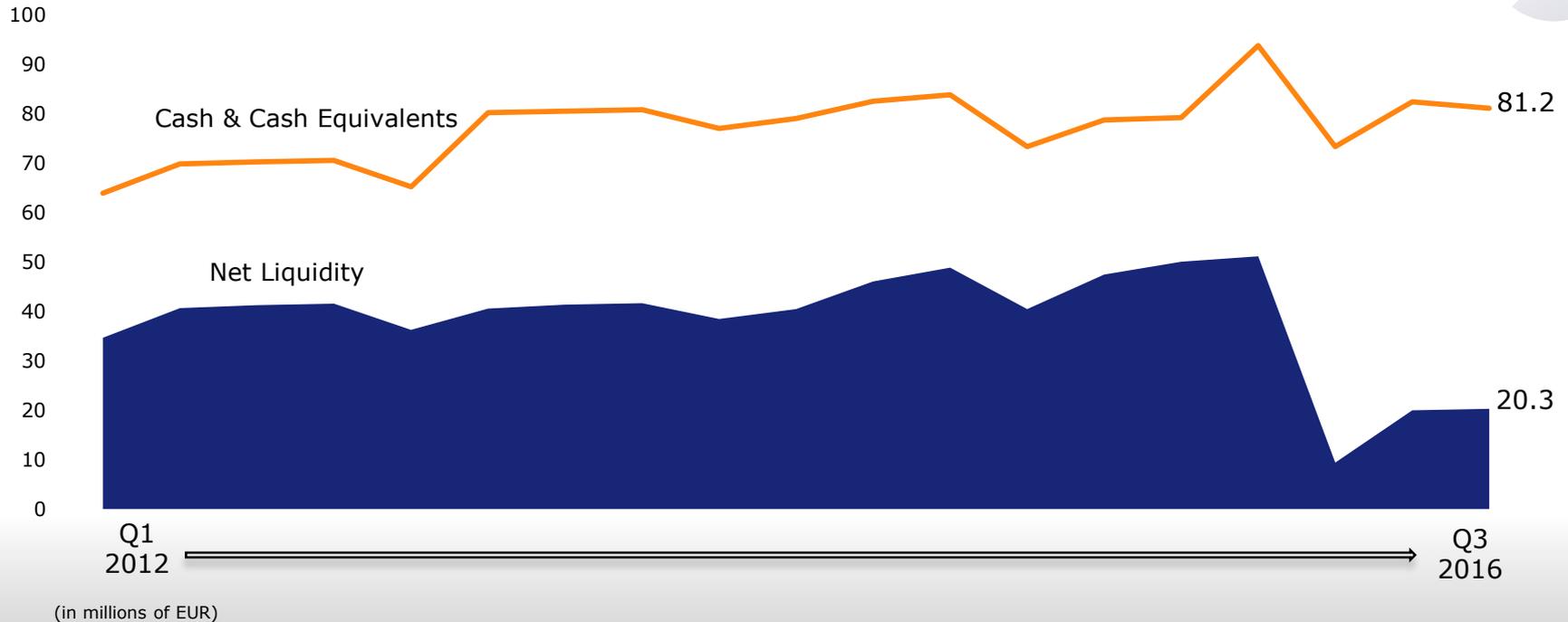
EUR million	2015		2016		
	Q3	Q4	Q1	Q2	Q3
Net cash provided by operating activities	12.0	10.7	2.0	22.4	15.7
Net cash used for investing activities	-10.1	-10.8	-42.9	-11.4	-15.5
Net cash provided by (used for) financing activities	-1.3	14.5	21.0	-1.9	-1.7
Net effect of foreign currency translation	-0.2	0.2	-0.6	0	0.2
Net change in cash and cash equivalents	0.5	14.6	-20.5	9.1	-1.3
<b>Cash and cash equivalents</b>					
at beginning of period	78.8	79.3	93.9	73.4	82.5
<b>at end of period</b>	<b>79.3</b>	<b>93.9</b>	<b>73.4</b>	<b>82.5</b>	<b>81.2</b>
<b>Free cash flow*</b>	<b>10.4</b>	<b>8.1</b>	<b>-0.6</b>	<b>19.0</b>	<b>11.8</b>

\* 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



Net liquidity on stable level after Q1 reduction due to the Overture acquisition

# Investor Relations Overview (I/II)

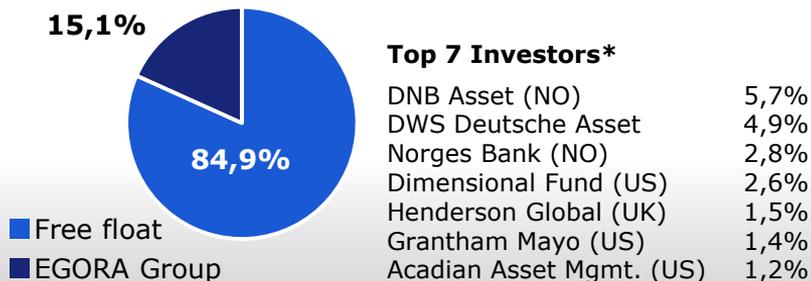


## Recent Investor Activities

Roadshows: Zurich, Frankfurt, Paris  
Conferences: dbAccess European TMT Conference 2016, London in September  
Berenberg/GS Fifth German Corporate Conference, Munich in September

## Stockholder Structure

Status: September 30, 2016: 49,444,834 shares outstanding



\*Sources: ThomsonOne, Deutsche Bank, ADVA, September 2016

## Planned Investor Activities

Roadshows: Paris and Boston in November  
New York in December  
Conferences: Needham Conference New York in November

## Financial Analyst Coverage

As of Oct 26, 2016 Institution	Recommendation/ target price	Last update	Last change
Oddo Seydler Bank	Buy (€12.50)	Oct 21, 16	(€12.50)
Hauck & Aufhäuser	Buy (€10.50)	Oct 25, 16	(€11.10)
LBBW	Buy (€10.75)	Jul 21, 16	(€10.75)
Northland Capital Markets	Buy (€15.00)	Sep 23, 16	(€15.00)
Deutsche Bank	Hold (€ 10.00)	Apr 26, 16	
Ø	<b>€ 11.75</b>		

# Investor Relations Overview (II/II)

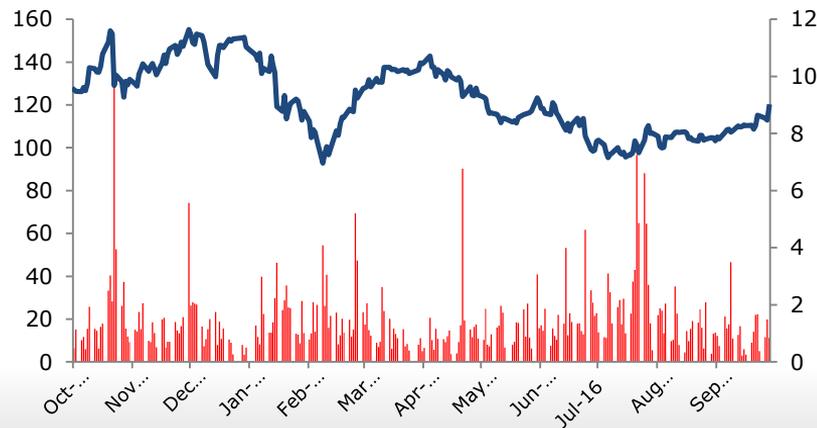


## Share Price and Trading Volume

Trading volume  
in thousand

Oct 1, 2015 – Sep 30, 2016  
FWB Xetra data

Share price  
in €



### Share price in EUR

- Current (September 30) 8.96
- 52 week high 11.80
- 52 week low 7.07



## Financial Analyst IFRS Estimates

As of Oct 21, 2016

Only includes estimates since July 21, 2016

	FY 2015	Q1 2016	Q2 2016	Q3 2016	Q4 2016	FY 2016 Ø
	Actual	Actual	Actual	Actual	ADVA guidance	Analyst estimate
<b>EUR m</b>						
Revenues	441.9	122.0	157.2	159.5	125-140	572.8
Growth YoY	+30%	+28%	+40%	+30%		+30%
Pro forma operating income	30.0	2.0	4.2	8.3		25.7
% of revenues	6.8%	1.6%	2.7%	5.2%	4%-7%	4.5%
Net Income	26.9	-5.2	9.8	3.3		21.6
% of revenues	6.1%	-4.2%	6.2%	2.0%		3.8%

# Guidance Q4 2016



- Revenues between EUR 125 million and EUR 140 million
- Pro forma operating margin between 4% and 7% 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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