

# Rudolph Technologies Corporate Overview

December 2017



# Corporate Overview

## BUSINESS



High-tech capital equipment company specializing in inspection, metrology, lithography, and process control solutions serving the semiconductor industry.



COMPANY

**NYSE (RTEC)**



REVENUE

**\$232.8M (2016)**



EMPLOYEES

**572**



HEADQUARTERS

**Wilmington, MA**



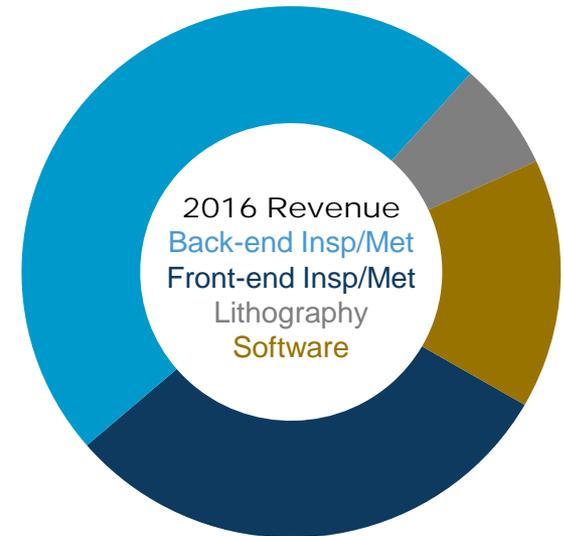
MANUFACTURING

**Minnesota &  
Massachusetts**

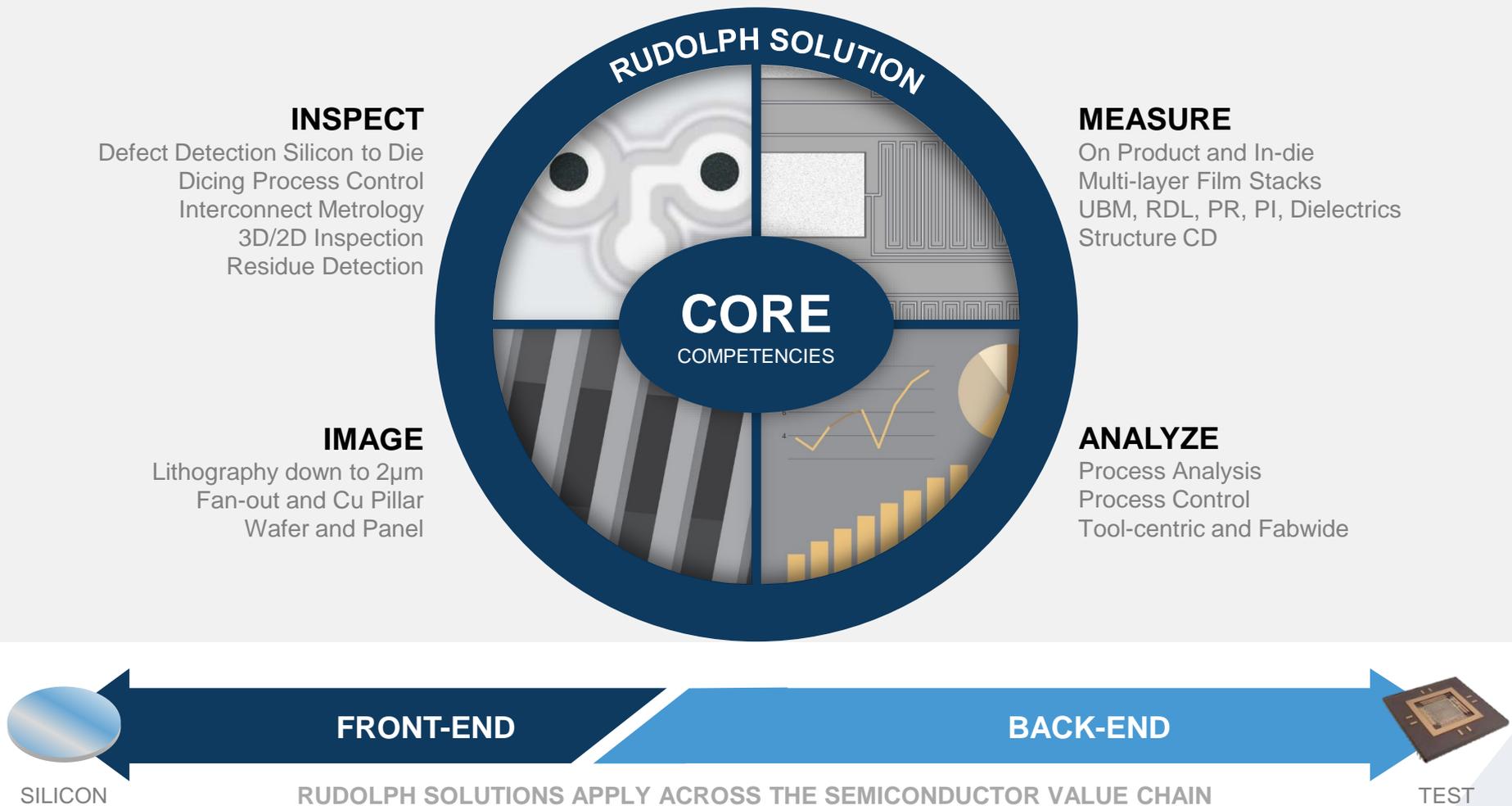
R&D CENTERS IN USA  
AND CHINA

SALES AND  
CUSTOMER SUPPORT

**Direct in all  
regions**

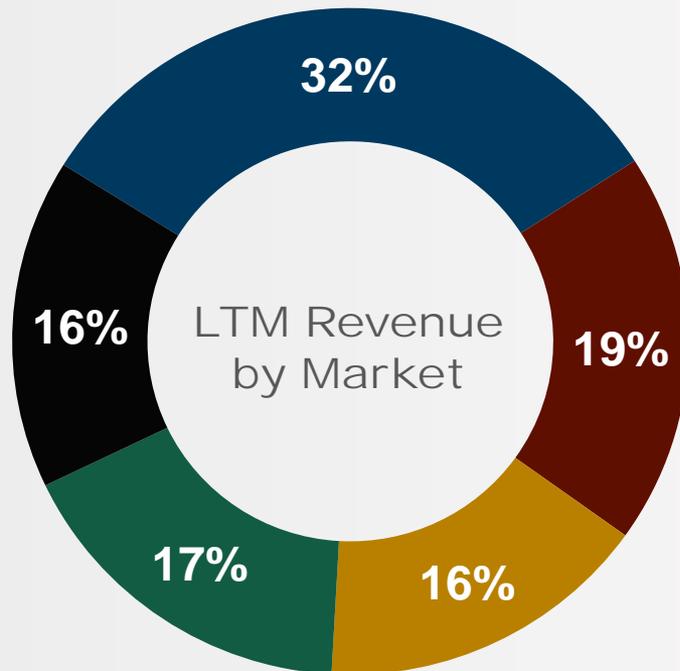


# Process Solutions Across the Semiconductor Industry



# Targeted Market Opportunities

Focused on High Growth Markets



## ADVANCED PACKAGING

2.5D AND 3D  
Fan Out Wafer Level Packaging  
Package on Package

## FRONT END MEMORY

3D NAND, DRAM

## SPECIALTY

RF & MEMS

## FOUNDRY

Front-end Advanced Wafers  
Advanced Packaging

## OTHER

# Key Products in 2017

## Firefly™ Series

Sub-micron inspection with Clearfind™ technology for wafers and panels

## MetaPULSE® G System

Metal film metrology for 2x and 1x nodes for FEOL, BEOL and BE WLP applications

## Dragonfly™ System

2D & 3D inspection & metrology, CD, overlay and RDL metrology

## NSX® Series

2D inspection, CD, RDL/TSV, 2D/3D metrology

## JetStep® Lithography Series

Advanced packaging stepper for wafer and panels  
FPD Panel lithography for OLED applications

## Yield Management Software

Actionable Data Now™—inline and offline  
all surface defect analysis and  
data management

## Process Control Software

Automated, intelligent fault detection  
and classification (FDC) and run-to-run  
software solution

INSPECTION AND METROLOGY

LITHOGRAPHY

SOFTWARE

# World Class Operations

## Process Control

Manufacturing  
operations  
BLOOMINGTON,  
MINNESOTA



## Software

Development and  
implementation  
WORLDWIDE



## Lithography

Manufacturing  
operations  
WILMINGTON,  
MASSACHUSETTS



# Worldwide Footprint



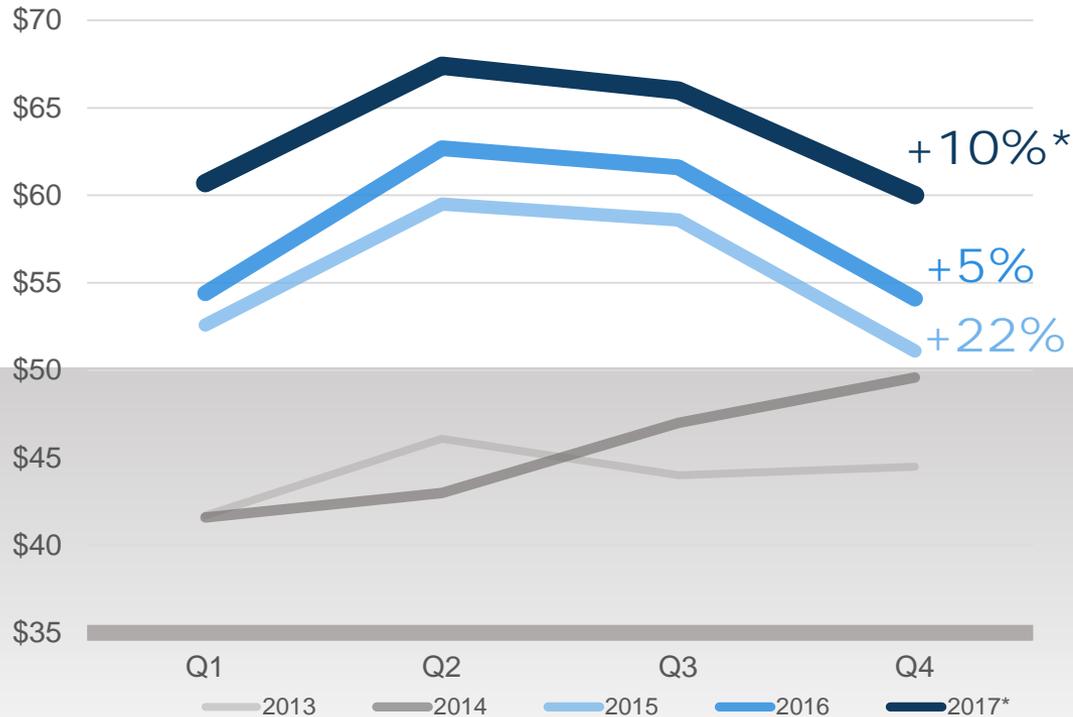
Global Presence with Local Support



# Rudolph Growth Tied to Chip Volume

13 straight quarters of year over year growth!

## Year over Year Revenue by Quarter



# Volume

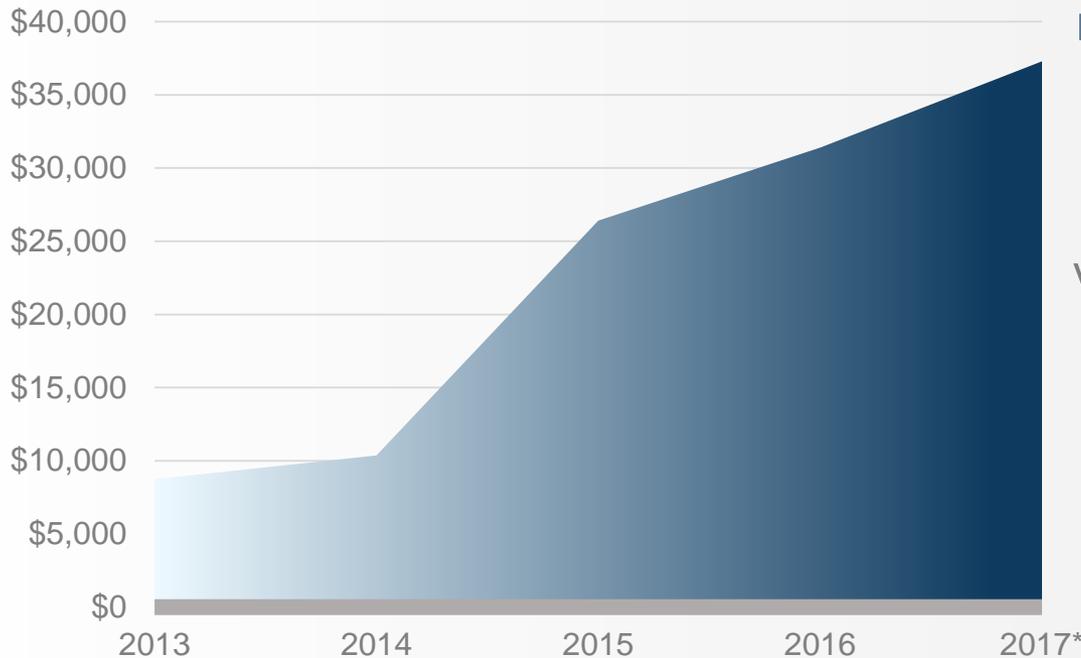
Technology

\*Q4 Company Guidance (Midpoint)

# Sustainable Results

Driving profitability to fuel growth!

## Net Income (Non-GAAP)



NET INCOME

43.7% CAGR

with 12% Revenue CAGR

More Improvements Ahead!

\* Based on Analyst Estimates

# Driving Margin Expansion

## Consistent Industry Leading Margins

GM

**New products**

Firefly and Dragonfly

**Product outsourcing**

Core competencies

**Cost reductions**

>\$6 million

Today  
21%  
TTM

R&D

**New products cadence**

Releases 12-18 months

**Operating efficiencies**

Leverage programs

Operating  
Margin

SG&A

**Facilities consolidation**

4 in year last 3 years

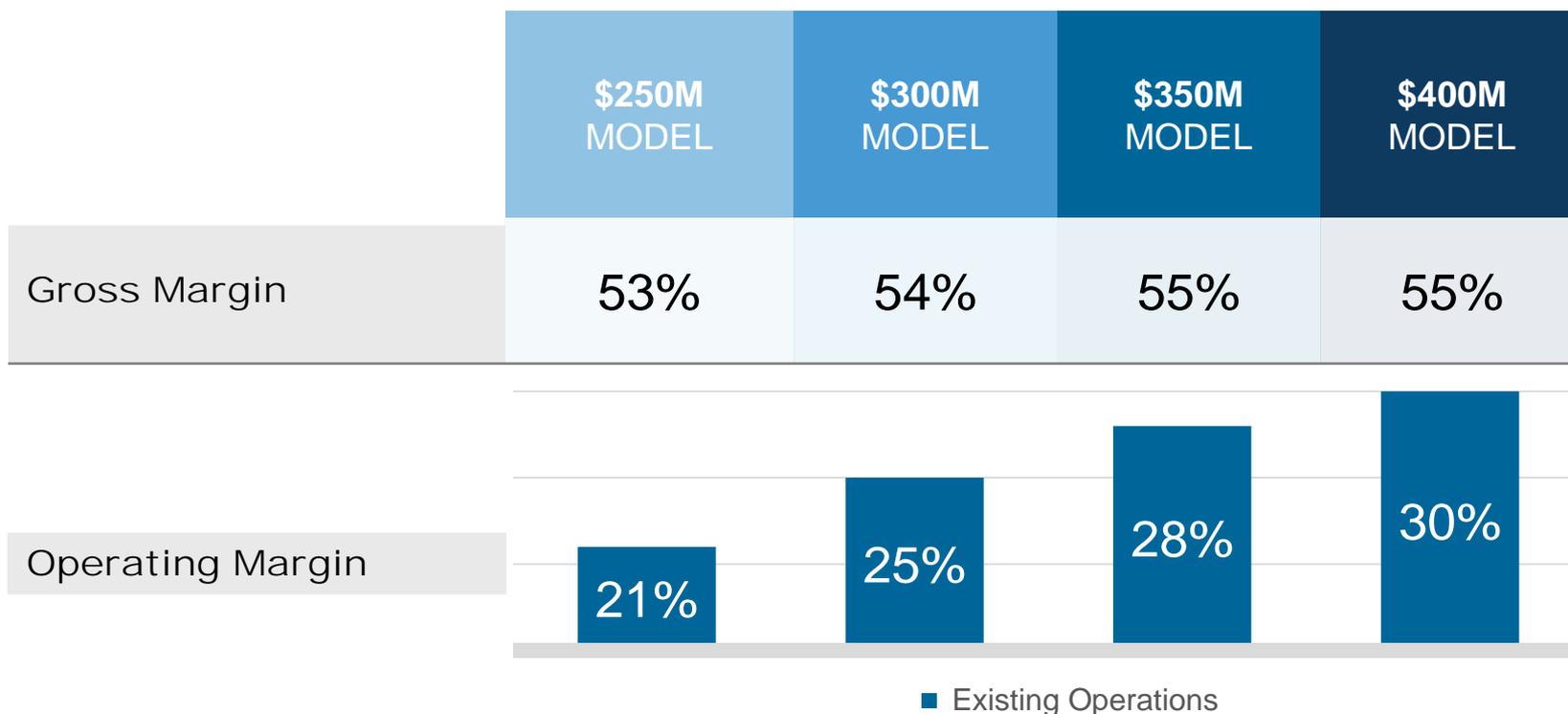
**ERP implementation**

2018 initiatives

Opportunity  
30%

Source: Management estimates

# Operating Financial Model



*Model excludes the impact of OLED Initiative which is expected to be accretive to operating margins.*

Source: Management estimates based on a Non-GAAP model

# Key Takeaways



**Expanding footprint in MULTIPLE High Growth Markets**  
Outpace the Industry



**Differentiated Solutions leveraging core competencies**  
Strong gross margins, more critical solutions provider.



**Strong Financial Model**  
Profitable growth, fueling R&D & cash for strategic M&A

谢谢 | 謝謝

danke

ありがとう

Thank You!

감사합니다

merci

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**RUDOLPH**  
TECHNOLOGIES

