



The Global Specialty Foundry Leader

NASDAQ/ TASE: TSEM

Performance and Strategy

IR Presentation | September 2014

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About TowerJazz

Tower Semiconductor Ltd. (NASDAQ: TSEM, TASE: TSEM) and its fully owned U.S. subsidiary Jazz Semiconductor, Inc. operate collectively under the brand name TowerJazz, the global specialty foundry leader. TowerJazz manufactures integrated circuits, offering a broad range of customizable process technologies including: SiGe, BiCMOS, mixed-signal/CMOS, RF CMOS, CMOS image sensor, integrated power management (BCD & 700V), and MEMS. TowerJazz also provides a world-class design enablement platform for a quick and accurate design cycle as well as Transfer Optimization and development Process Services (TOPS) to IDMs and fabless companies that need to expand capacity.

To provide multi-fab sourcing and extended capacity for its customers, TowerJazz operates two manufacturing facilities in Israel (150mm & 200mm), one in the U.S. (200mm) and three additional facilities in Japan (two 200mm and one 300mm) through TowerJazz Panasonic Semiconductor Co. (TPSCo), established with Panasonic Corporation of which TowerJazz has the majority holding. Through TPSCo, TowerJazz provides leading edge 45nm CMOS, 65nm RF CMOS and 65nm 1.12um pixel technologies. For more information, please visit www.towerjazz.com.

Financial Highlights

Q2 2014 Financial Highlights

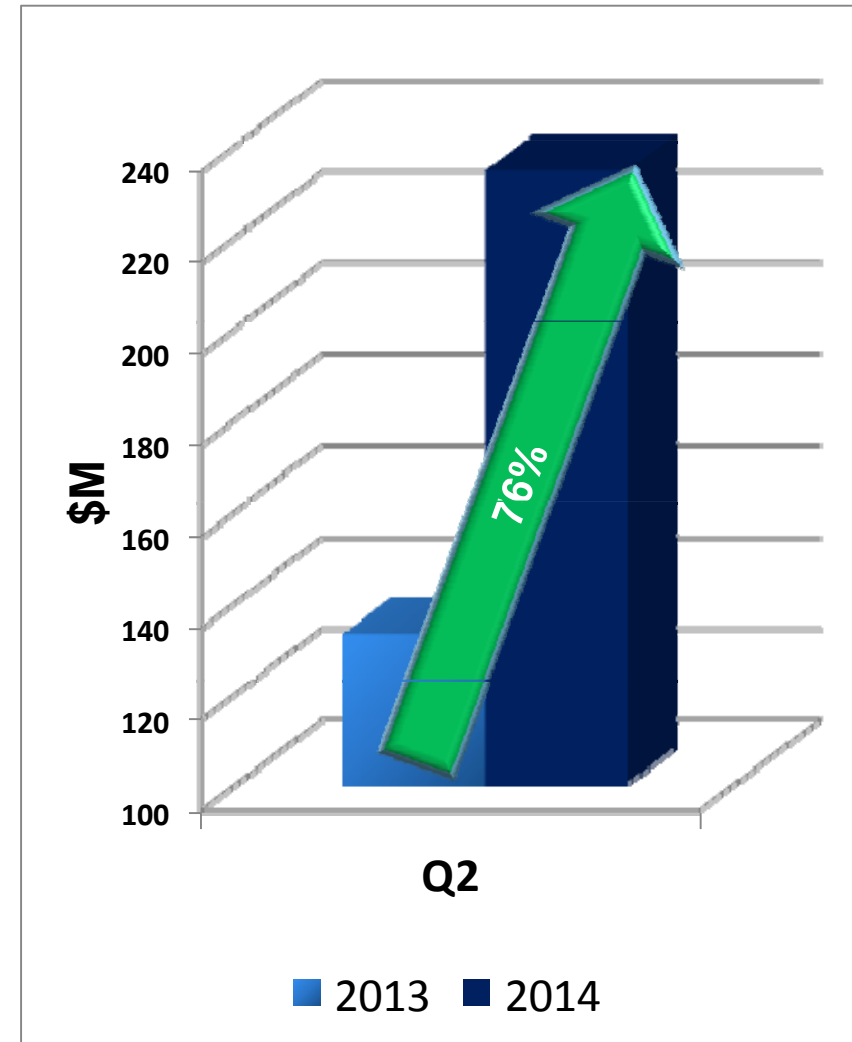
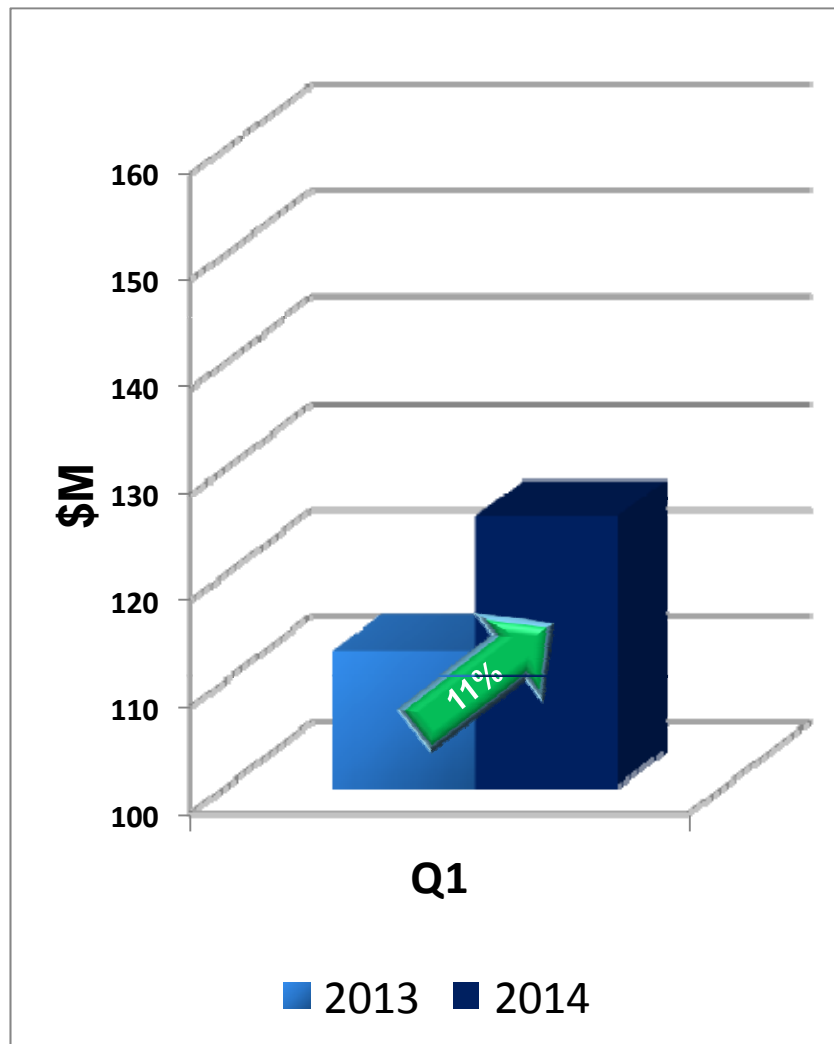
■ Q2 2014 Revenues of \$234.1 million

- 87% increase as compared with \$125.2 million in the second quarter of 2013
- 76% increase as compared with \$132.7 million in the first quarter of 2014
- Organic (non Micron & Panasonic) growth of 20% YoY and 11% QoQ
- Top 10 customers 40% YoY growth and top 5 customer YoY 50% growth
 - Excluding Micron & Panasonic
- Record number of mask sets (representing new products entering the fabs)
 - Up 80% from 130 in the second quarter of 2013

■ Q3 2014 guidance

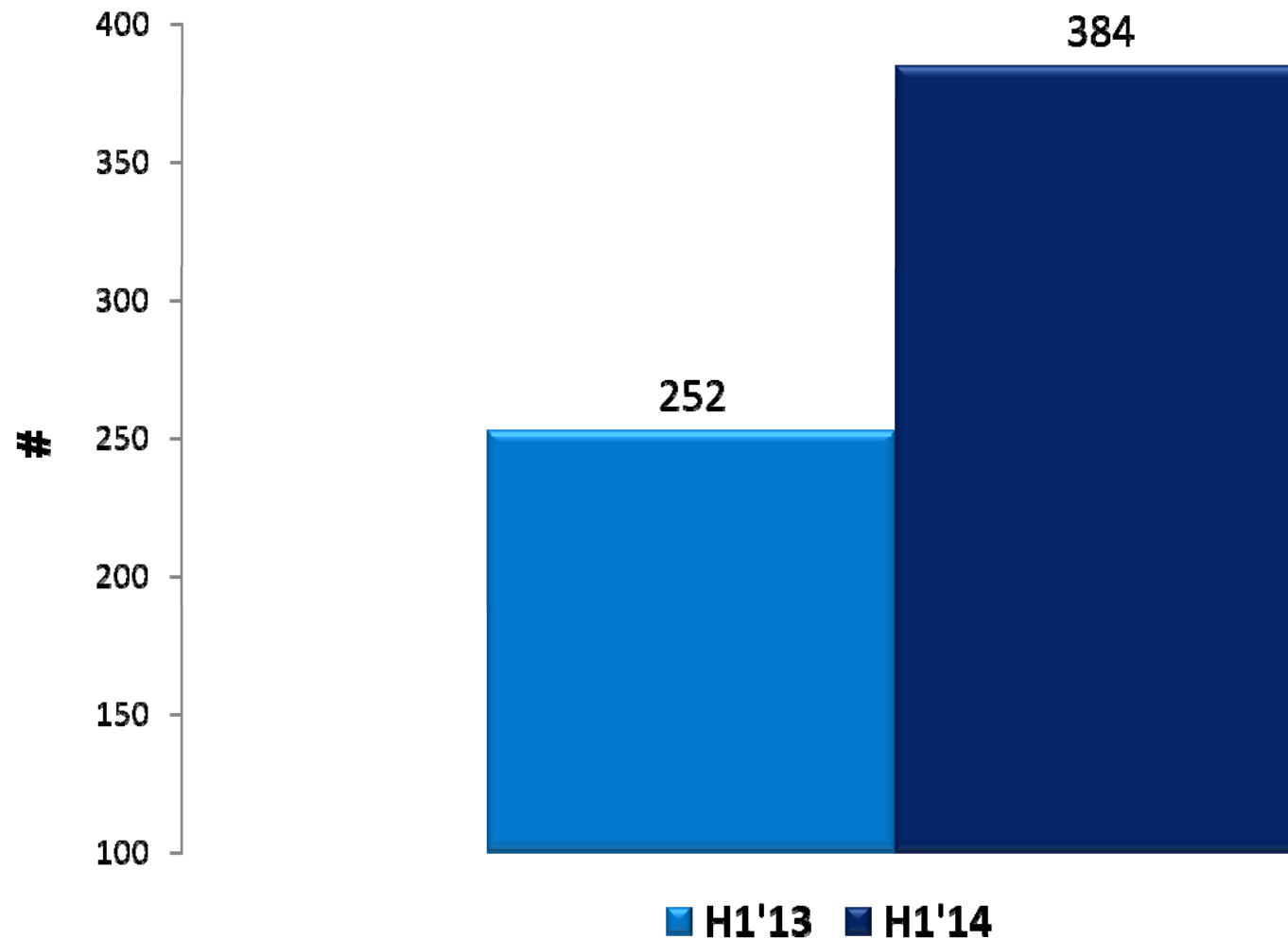
- Mid range guidance of \$225 million
 - 70% YoY growth
 - First quarter to realize no revenues from Micron, as compared to ~\$30M/quarter recently
- Reflect 20% YoY and 13% QoQ core revenue growth (excluding Micron & Panasonic)

Revenue Growth – Year-over-Year



Customer Mask Sets Entering Our Foundries

(= representing new products entering the fabs)



Q2 2014 Financial Highlights – Cont.

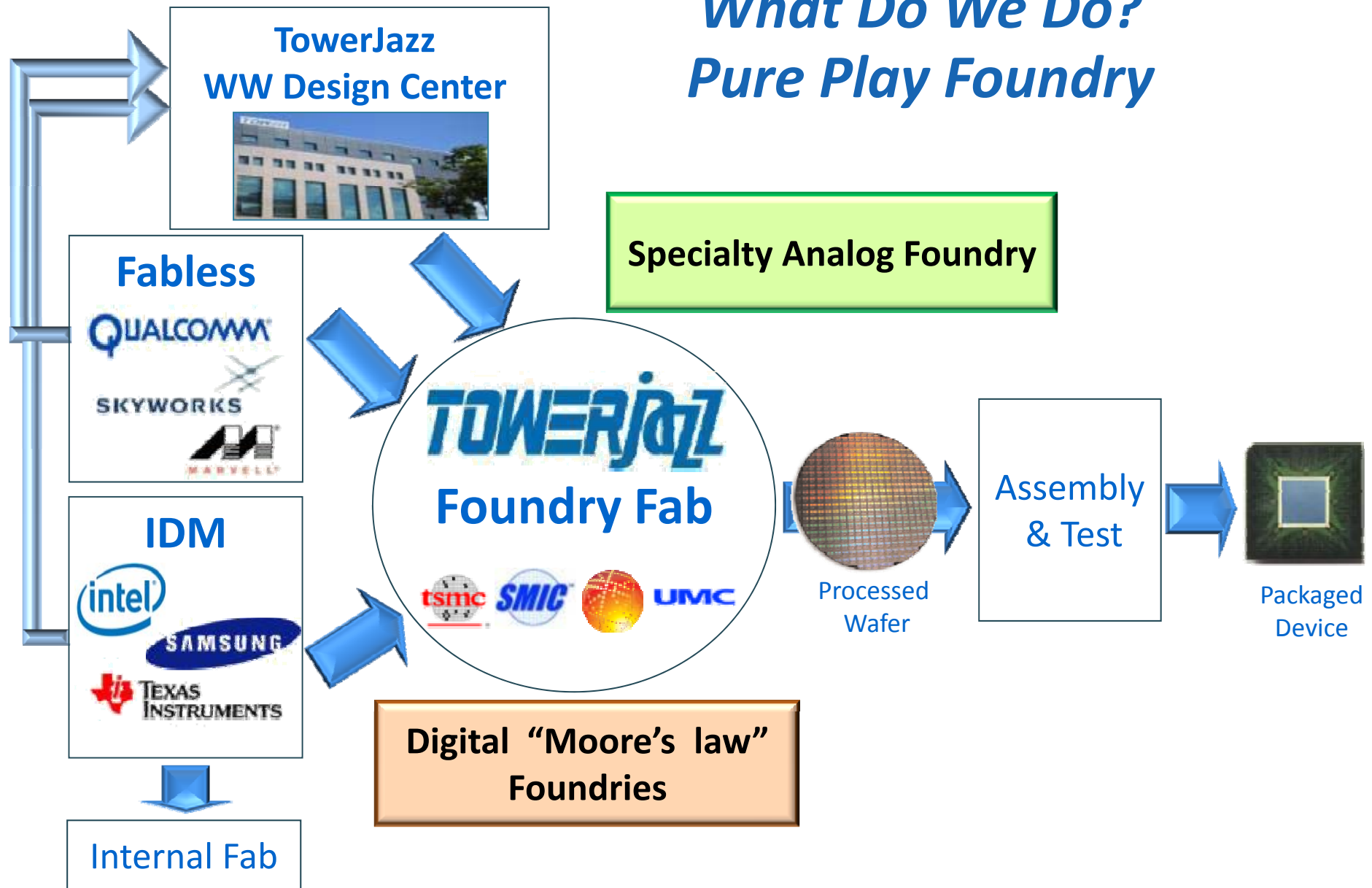
- **EBITDA** of \$33 million in Q2'14, compared to \$26 million in Q2'13
- Non-GAAP net profit of \$31 million
 - 70% YoY increase as compared to \$18 million
 - 59% QoQ increase as compared to \$19 million
- Strong **balance sheet** ratios, including **cash** as of June 30, 2014 at \$192M, as compared with \$123M as of December 31, 2013 and
 - \$41M positive cash from operations (excluding interest payments) generated in Q2'14

Diversified Customer Base



What do we do?

What Do We Do? Pure Play Foundry



Two Types of Foundries

Specialty Foundry Enjoys Several Advantages



SMIC

UMC



	<i>Digital Moore's Law Foundries</i>	<i>Specialty Analog Foundries</i>
Capacity Capex	High	Low
Technology Capex	High	Low
Product Lifetime	Short	Long
Customer Engagement	Typically multi-source	Sole or limited source
Technology Differentiation	At leading edge only	Across process technologies
Segment Sizes	Large	Many niches through mid-size
Process Technologies	CMOS	SiGe, BiCMOS, MEMS, CIS
Technology Nodes	65nm-16nm	350nm-65nm

Global Footprint



All major flows are multi region qualified



A REVOLUTIONARY FOUNDRY CONCEPT



TowerJazz Announces Completion and Kick-off of its Joint Venture with Panasonic Corporation

Joint Venture to include three Semiconductor Factories in Japan, Manufacturing of Panasonic and Additional Products

Will Enable Greater than \$900 Million Revenue Annual Run Rate Commencing Q2 2014, and Japanese Operations Consolidation which will Reduce Approximately \$130 Million of Present Annualized Fixed Cost

(April 1, 2014)

Enabling at least \$1B of annual run rate revenues in 2015



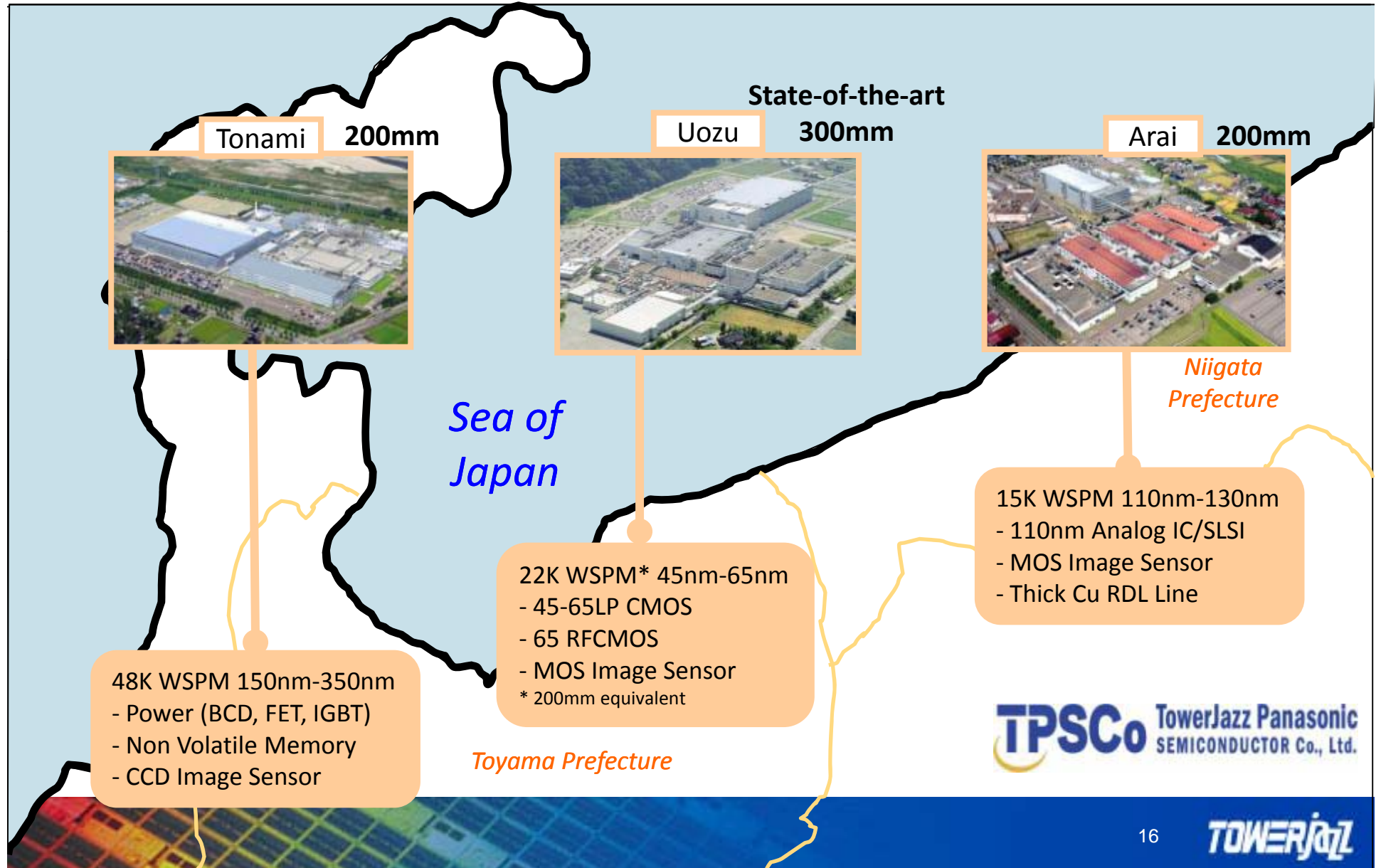
Panasonic

Highlights of the Deal

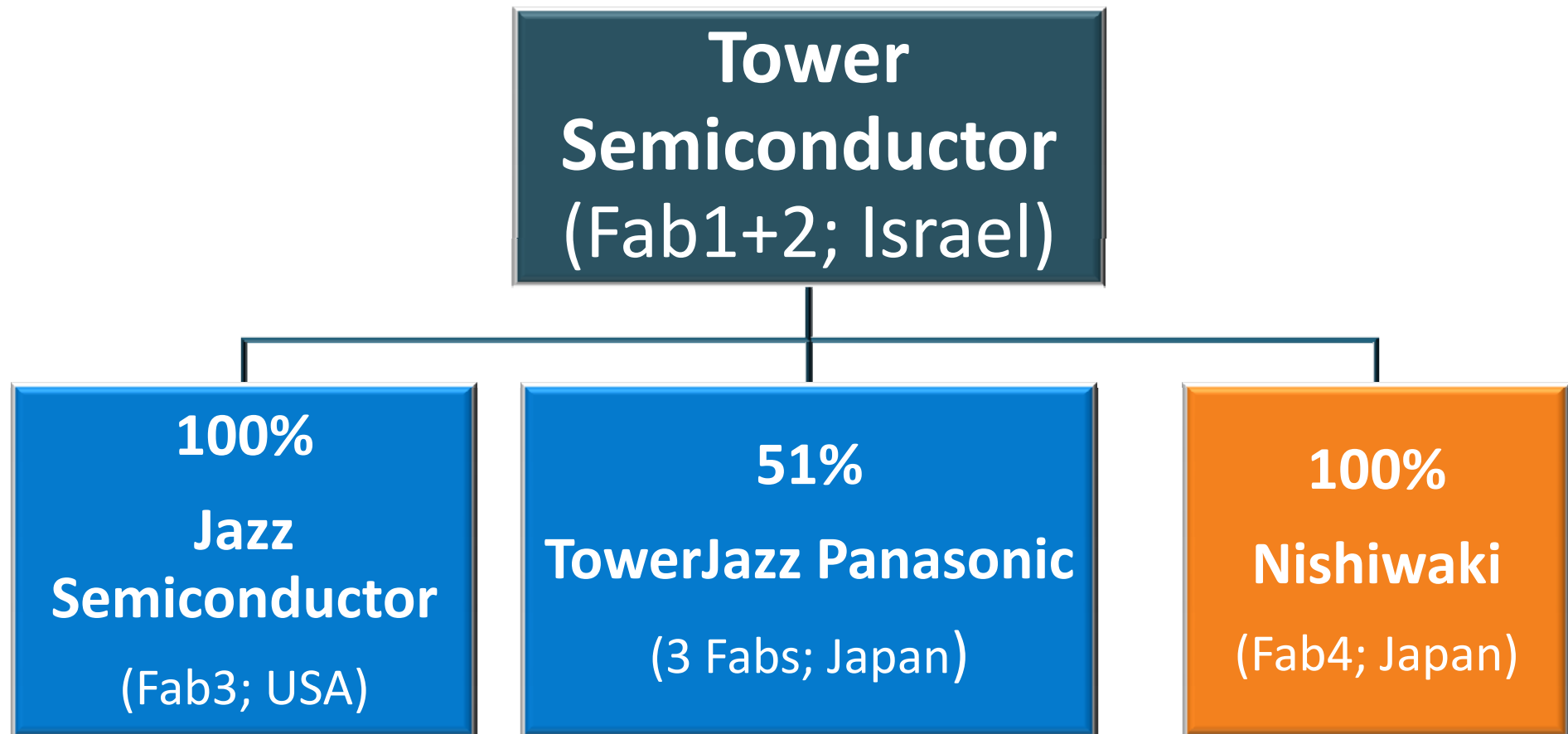
- TowerJazz to hold 51% of the TowerJazz Panasonic Semiconductor Company (“TPSC”)
- Provides TowerJazz with incremental annual revenues of approximately \$400 million, can vary quarterly from approximately \$90-105 million
- Added available capacity of about 1 million wafers per year (8 inch equivalent) in three manufacturing facilities in Japan
- Panasonic committed to acquire its products from TPSC for a period of at least 5 years of volume production
- **Complimentary capabilities creating excellent synergy** : expanding TowerJazz leadership to include a state of the art 300 mm analog technology fab including best of class 65nm CMOS image sensor dark current and quantum efficiency performance and additional 45 nm digital technology

All for \$7.5 million purchase price

TowerJazz Panasonic Plants Overview



Corporate Ownership Structure



*Ceasing by the
end of 2014*

Ceasing Nishiwaki Operations

- TPSCo provides more available CMOS capacity than the Nishiwaki factory
- TPSCo comes with strong and long term supply agreement with Panasonic
- Ceasing Nishiwaki operations will reduce ~\$130 million of annualized fixed costs
- All continuing business deals are being transferred to TowerJazz or TPSCo (except the Micron legacy business)

Core TowerJazz Analog Specialty Offering

RF HPA



IC Manufacturing for a Smart World

TowerJazz Core Business Units

Flexibility. Experience. Commitment.

Our superior technology and design enablement capabilities (models, PDKs, IP and design services) allow our customers to bring high performance products to the market quickly.

CMOS IMAGER



TOPS

Transfer, Optimization
and development Process
Services



SPACE DEFENSE



POWER



MIXED-SIGNAL/ CMOS



RF/HPA Growth Driver: Our Solutions

Wireless Infrastructure

SiGe BiCMOS and RF CMOS

- Mature technologies for high reliability
- Wide range of options for integration
- Design Enablement fast time-to-market

Smartphones and Tablets

RF Front-End Technology: SOI / SiGe PA

- SOI for Antenna Switch
- SiGe Power Amplifier
- SOI/MEMS Antenna Tuning



High Speed Data Distribution

High Performance SiGe

- Strong market presence
- Best SiGe performance
- Strong roadmap for SiGe and Photonics



Internet-of-things

Sensor, WiFi, and Analog Technology

- WiFi Front-End Module
- C-BiCMOS for Analog
- MEMS for Sensors



Best-in-class SiGe, RF CMOS, RF models and Design Enablement

Power Markets: Our Solutions

Flat Panel TV / Display / Audio

Driving the need for power components

- 0.35um modular BCD
- Low Rdson for small die
- Design enablement fast time-to-market



Automotive and Communication

Driving the need for more integrated PMICs

- Feature-rich 0.18um modular BCD
- Embedded NVM (no mask adder)
- High digital density



LED Lighting

Replacing commercial lighting

- 700V Production Technology
- Low mask count for cost-sensitive market
- Extensions to 900V to cover all standards



Industrial and Infrastructure

Growing the motor-driver market

- High-side 700V platform
- Gate driver for IGBT
- Will mirror growth of IGBT / Motor Drivers



Modular power management platform with best-in class performance and design enablement (scalable models, PDK, IP and Design Services)

Specialty CIS Growth Markets

Professional Photography

- Best in class pixels
- Low dark current
- Accurate stitching



X-Ray

- Excellent flexible pixels
- Stitching for 1 DPW
- Very high yields



Industrial

- Special fast pixels
- Unique features: Bathtub
- Network of leading customers



Automotive and 3D

- Unique near IR sensitive pixels
- High QE
- Very fast pixels
- High DR

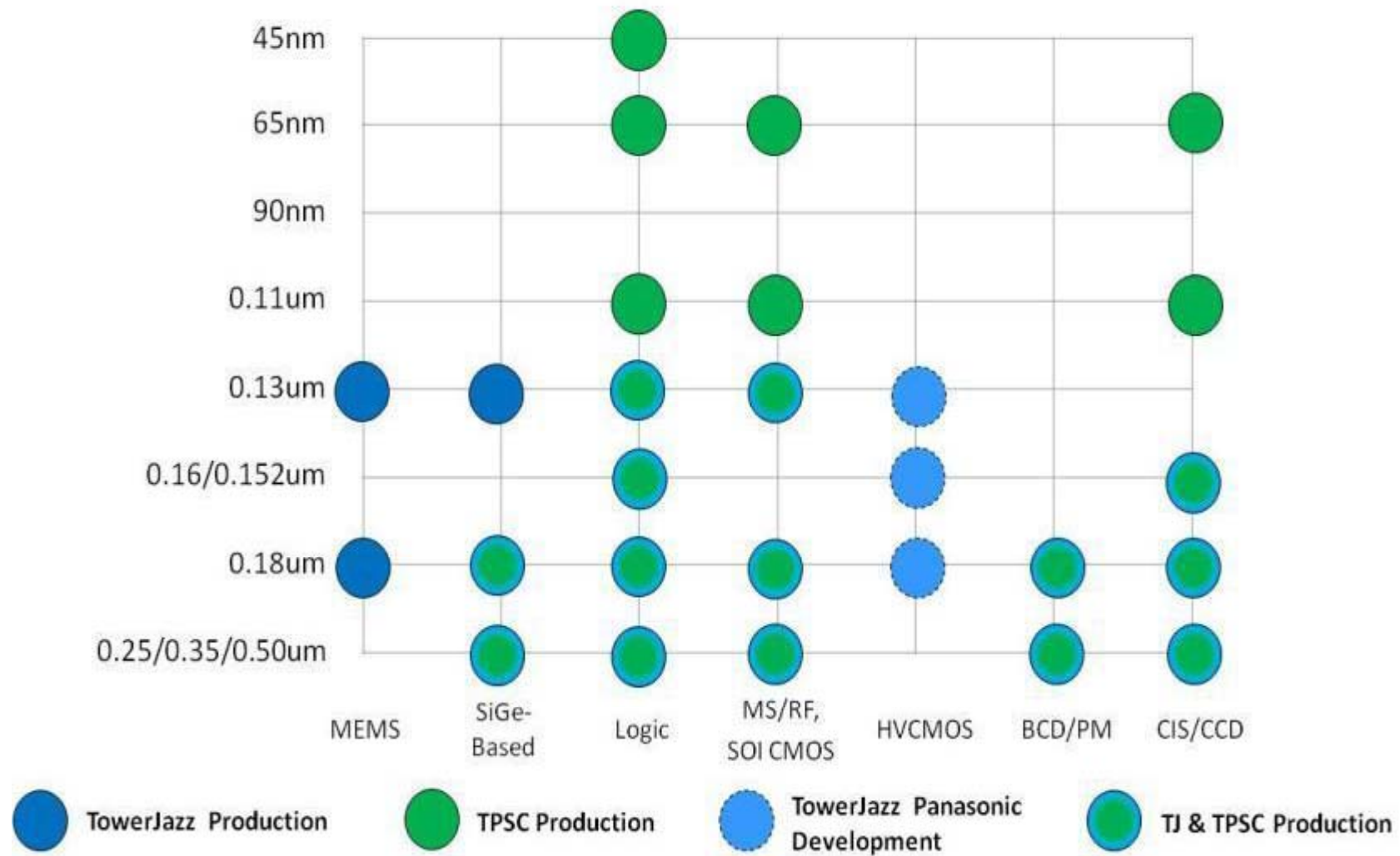


Technology, Flexibility, Experience and Commitment allows our customers to bring to the market the best in class products

Prevailing over cyclicity

- **Specialty business units**
 - Strong future growth
 - High exit barrier
 - Typically sole external source model
 - Better margins
 - Less ASP pressure
- **TOPS (Process Transfer) business unit**
 - Mainly take-or-pay and/ or long term agreements
 - Special business models
- **Enabling the company to prevail over the seasonality and cyclic nature of the semiconductor industry.**

TowerJazz Panasonic Combined Portfolio



Analog Market Growth Rate Outpaces Digital

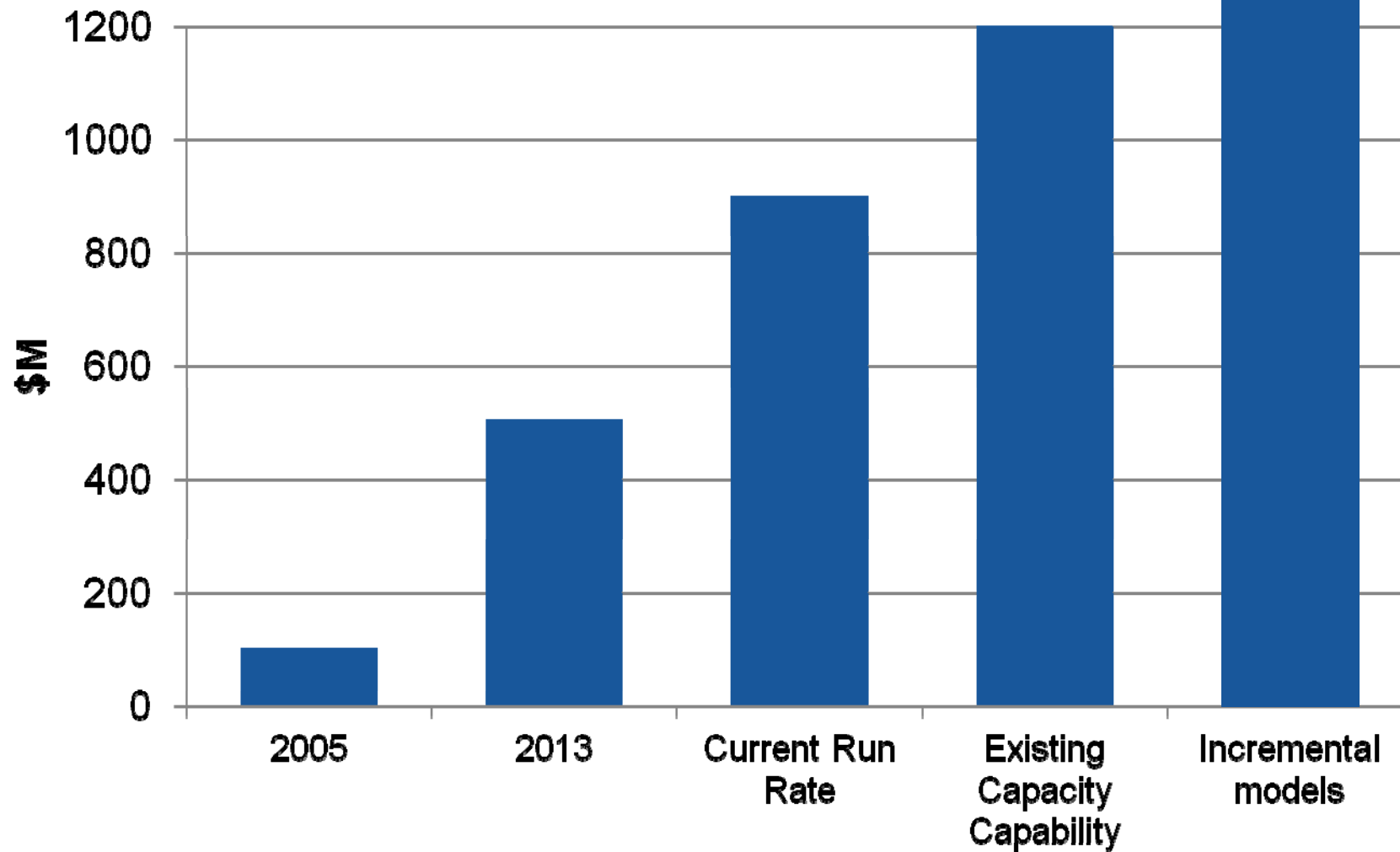
	Segment	2009 (\$ Mil) (TowerJazz Born)	2015 (\$Mil)	Y-to-Y Growth Rate
	Total Semiconductor	230,194	400,806	74%
<i>Above average growth</i> ↑	Sensors/Actuators	3,970	9,832	148%
	Optical	17,463	35,988	106%
	Discretes	15,454	31,253	102%
	Analog	36,073	72,113	100%
<i>Below average growth</i> ↓	Microcomponents	48,463	80,243	66%
	Memory	44,189	73,068	65%
	Logic	64,582	98,309	52%

Sources: Nikkei, iSuppli, PwC

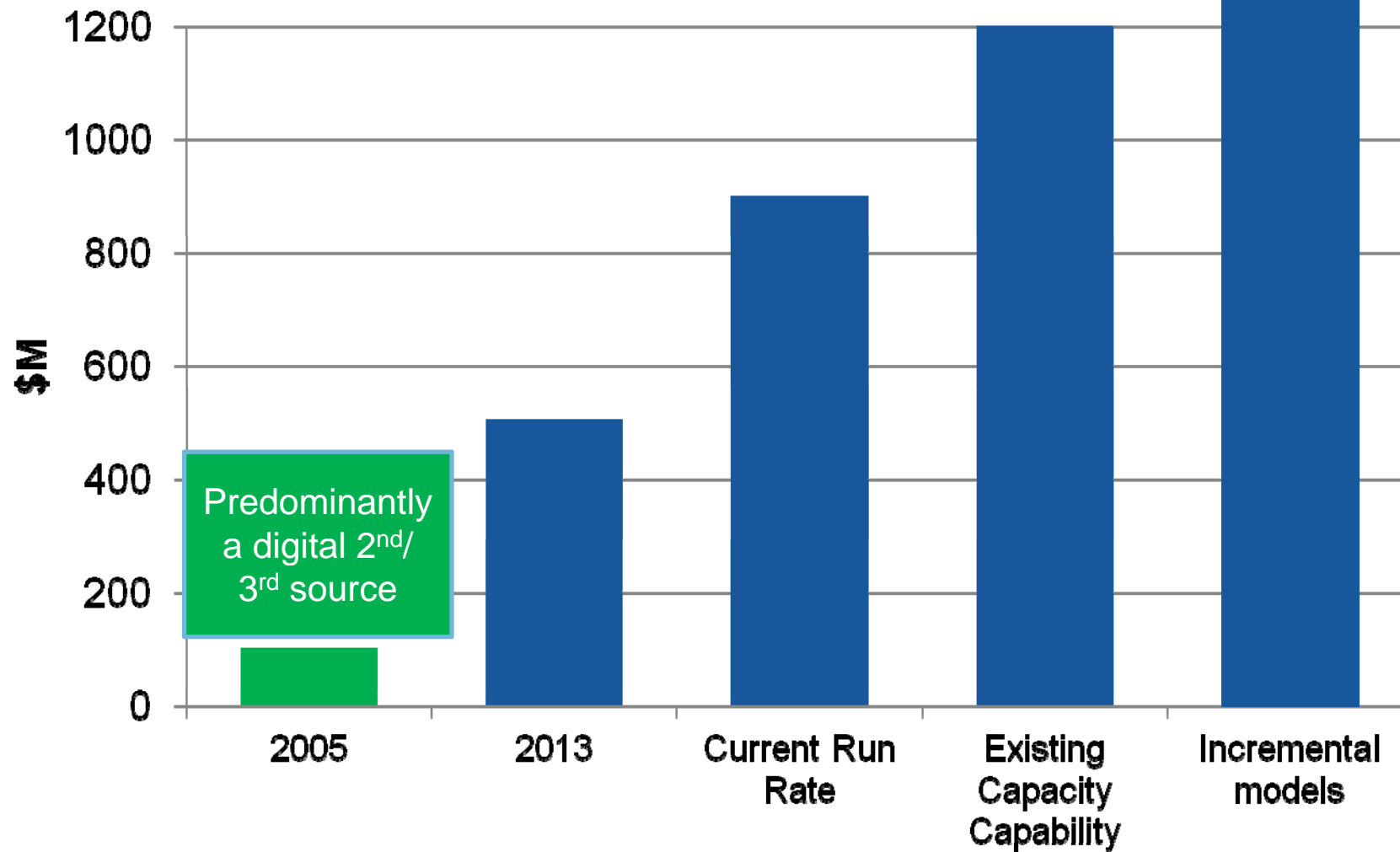
TowerJazz end market TAM, SAM is large and fast growing

History and Horizon

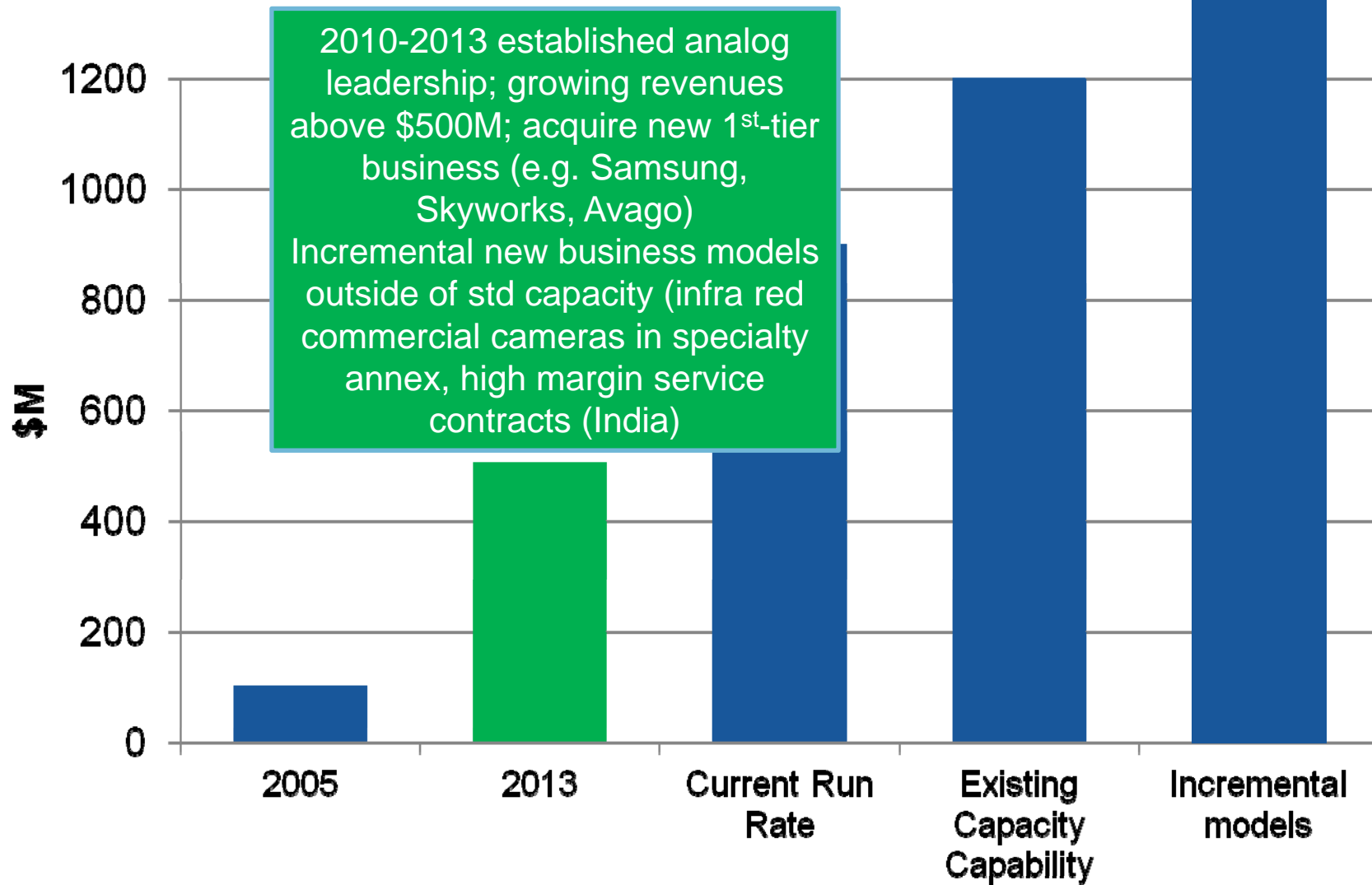
History and Horizon



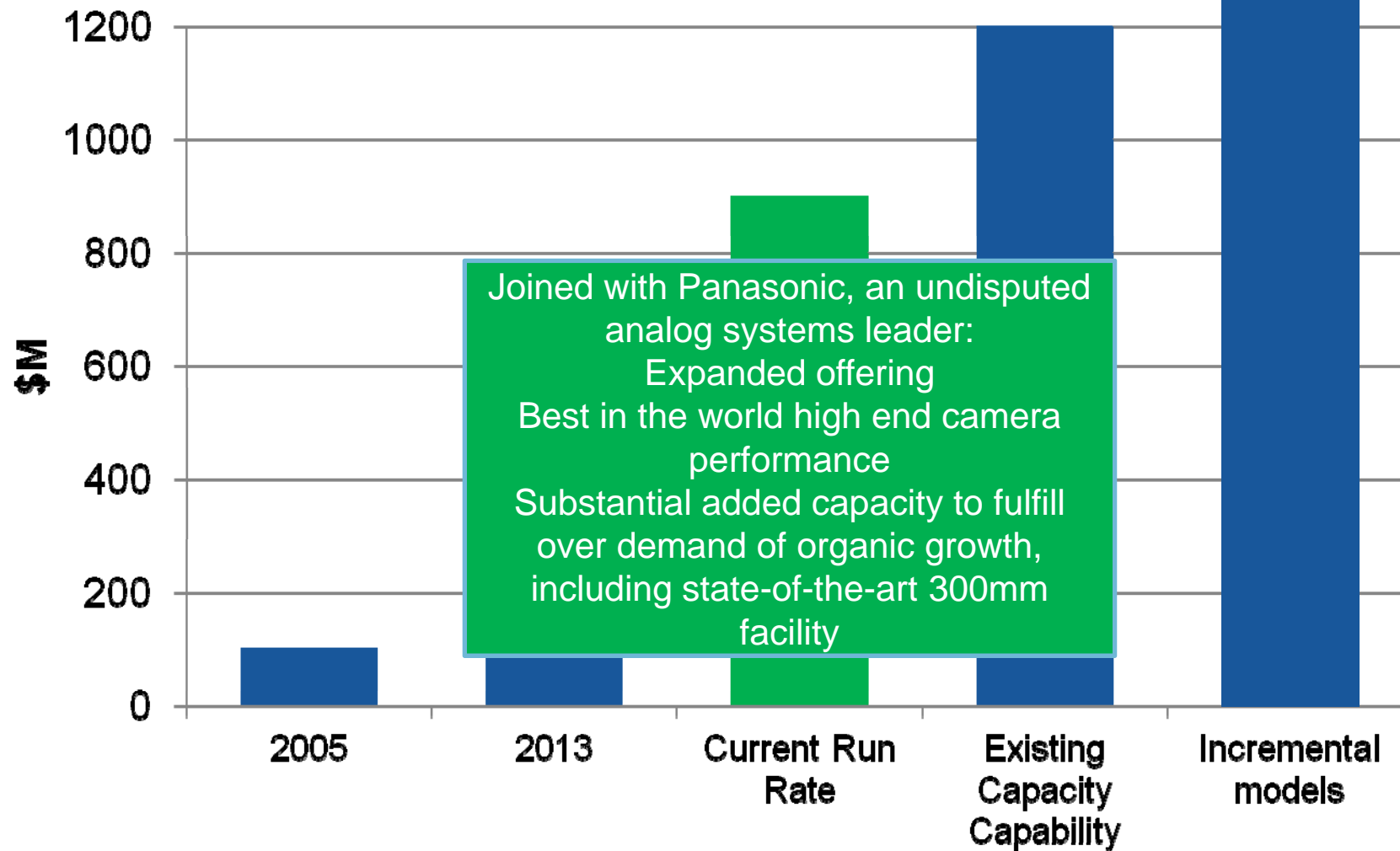
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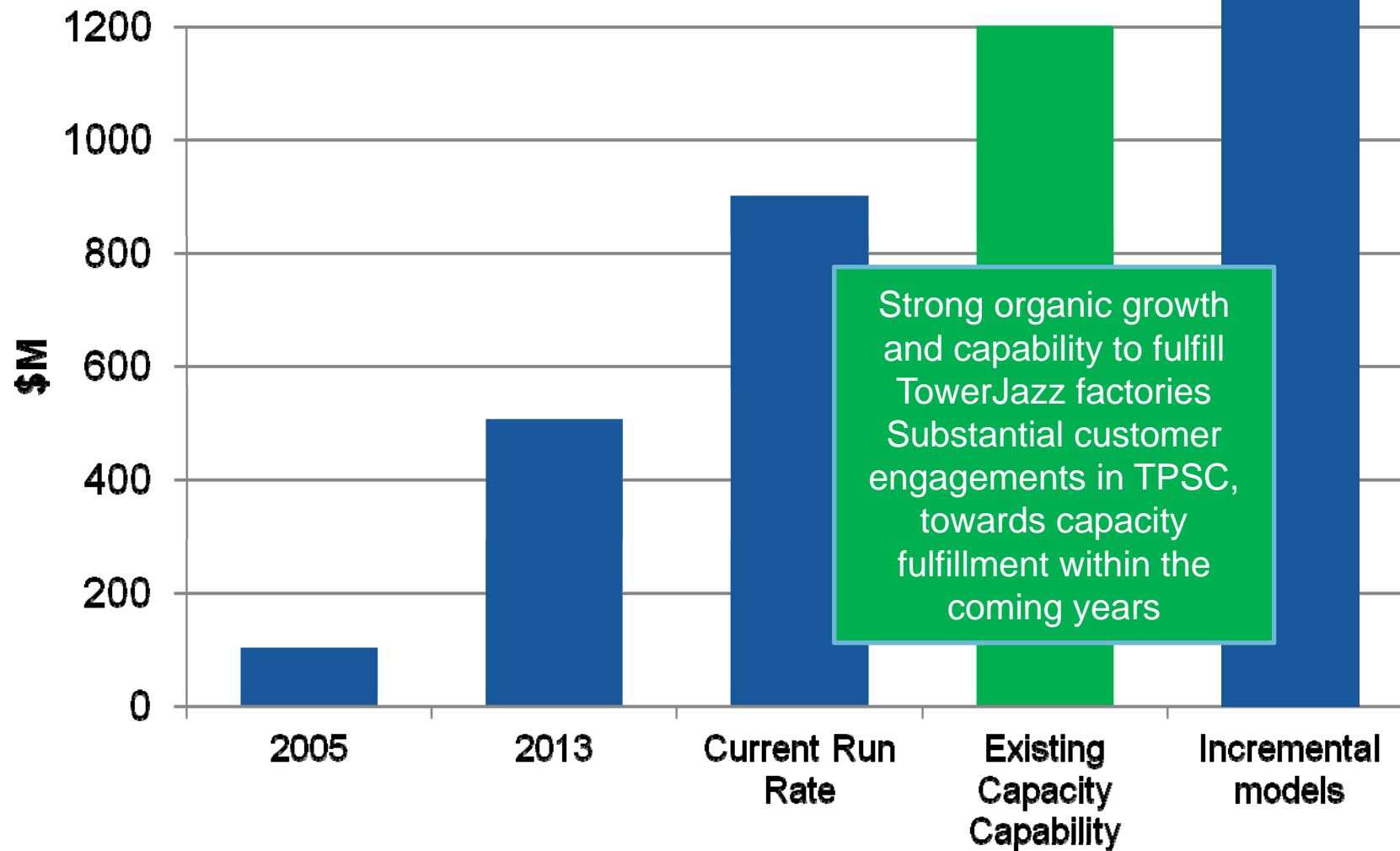
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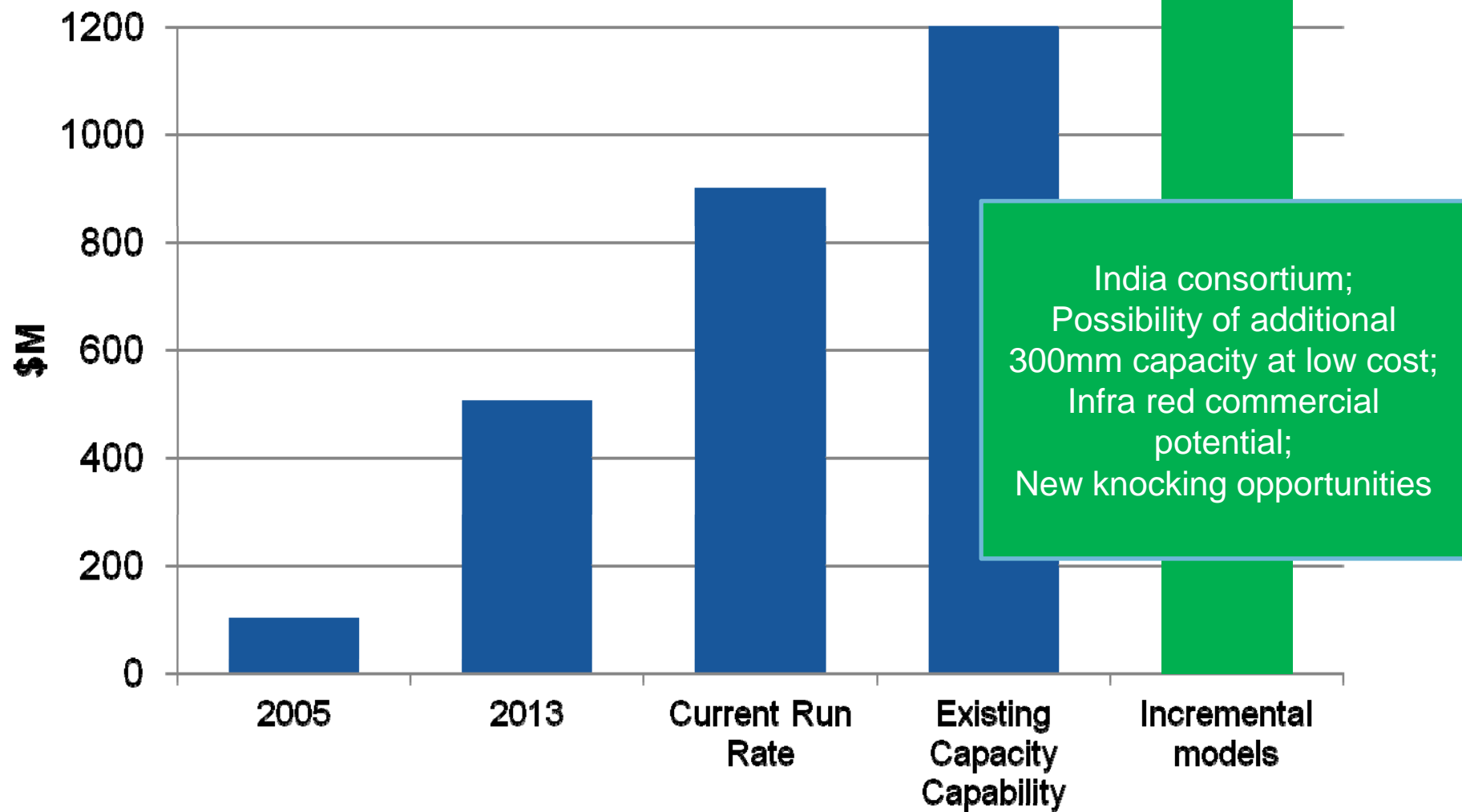
History and Horizon



History and Horizon



History and Horizon





www.towerjazz.com

Thank you!

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