

Investor Day 2016

Plasma Control Technologies



Reaching for the next level

Participating in the new semiconductor cycle,
enabling the huge technology inflections

Michael Kammerer, President PCT

COMET

Technology with Passion

The Electronic Revolution Goes On



What people want

smarter faster
more affordable
more powerful

electronic devices to be able to use the power of the digital age



Effects

Explosive growth of data
4k video, IoT, Big data

Display as a key differentiator

New categories
VR/AR, AI, Smart Vehicles

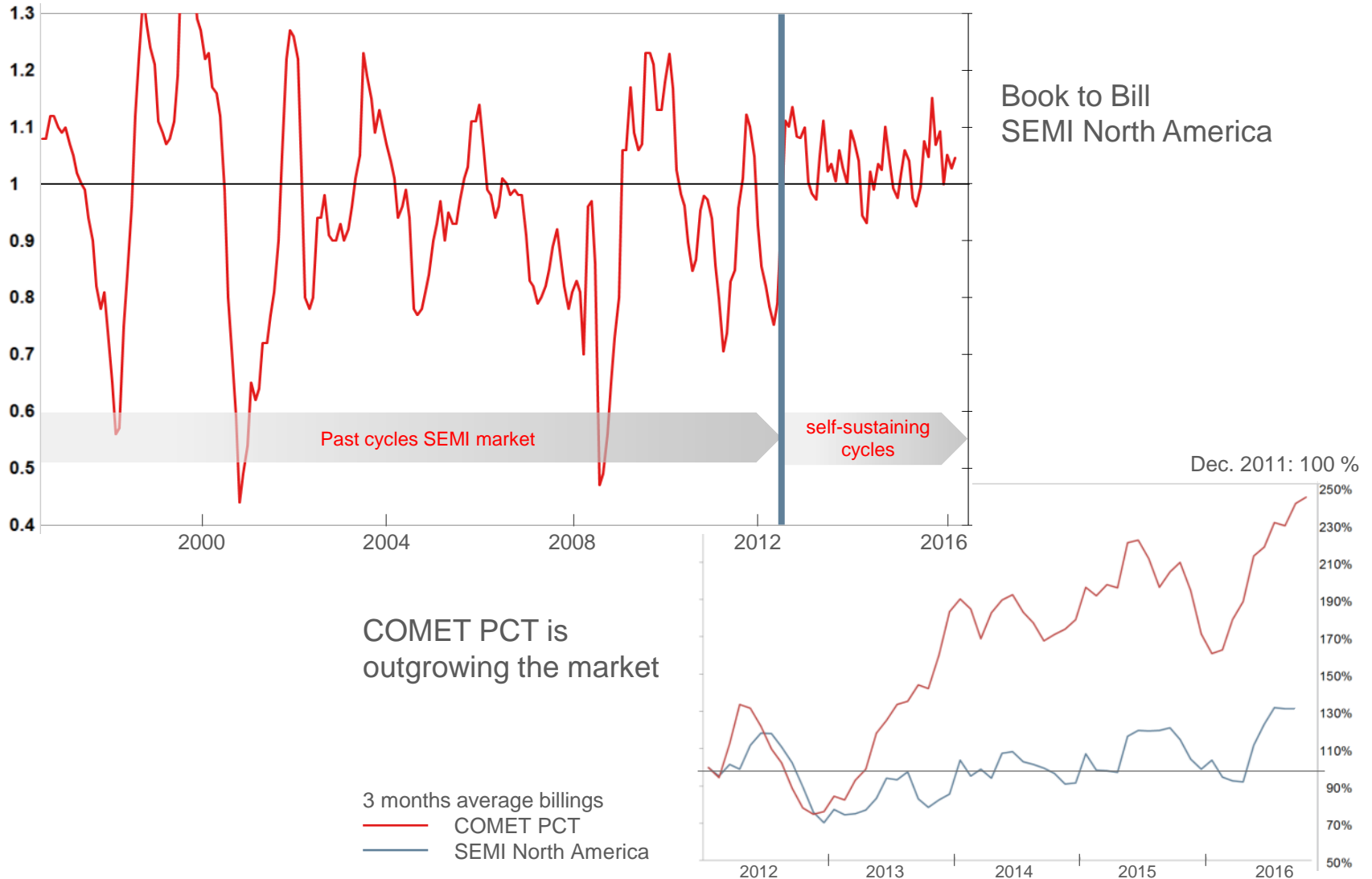


Technology Inflections

10 / 7 nm structures
3D NAND
Multi patterning
Advanced Displays

 **long-term, multi-year inflections**

The New Semiconductor Cycles



Industry Outlook

Consumers and Memory Requirements Drive our Market

- Solid demand for silicon, driven by smart devices and move to the cloud
- 3D NAND technology: driven by enterprise and consumer demands (cloud storage, smartphone content)
- Strong DRAM demand for enterprise and smartphone
- Transistor Inflections (smaller nodes require increased number of plasma tools)
- Investments in ≥ 28 nm continue, growing IoT driven demand and low-end smartphones
- Chinese market: large investments



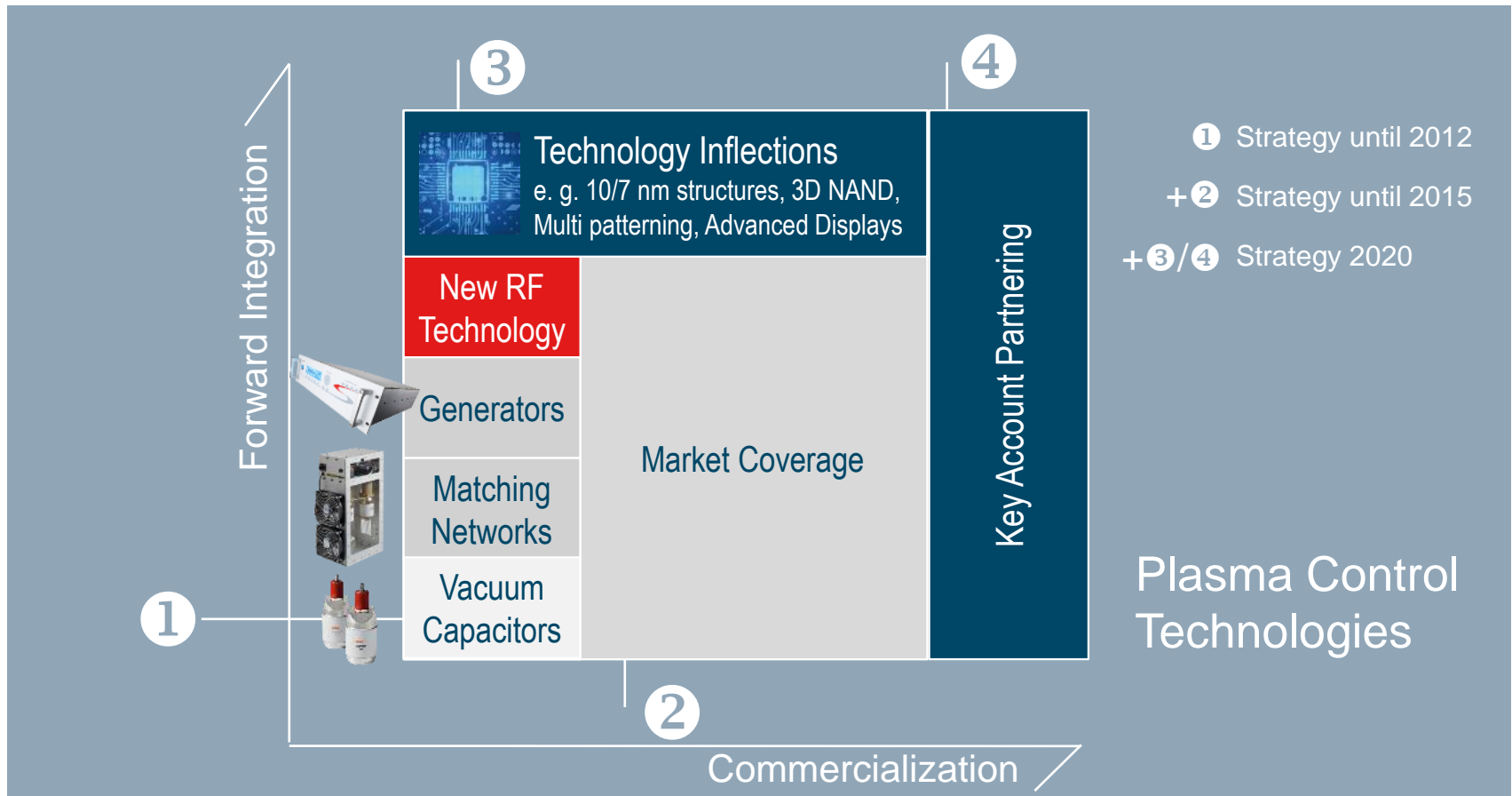
Key Drivers for COMET PCT

- The SEMI industry is one of the fastest growing markets
- Demand for RF Power increases linearly due to more plasma process steps
- The cycles in the SEMI industry have become more self sustaining
- Shorter development cycles (< 12 months), reduced time to market
- Strong and close collaboration with Key Accounts is decisive for success

COMET PCT is very well positioned to continue to grow faster than the market.



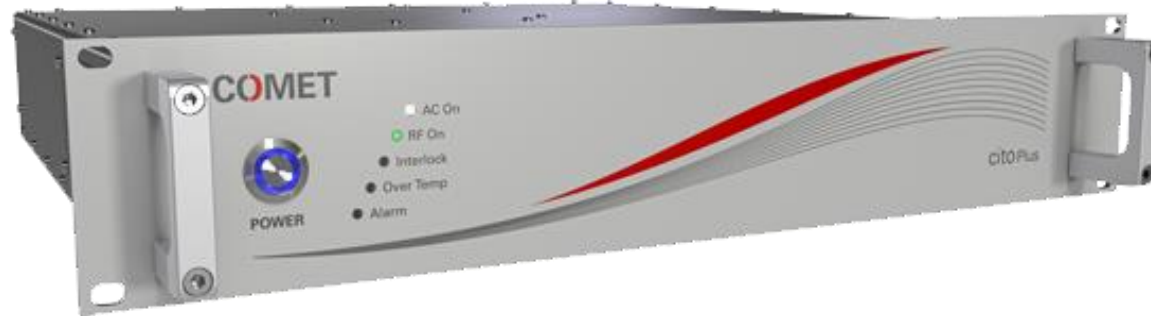
COMET PCT Strategy 2020



Reaching for the next level

The New One - cito Plus RF Generator

Designed for highest stability into dynamic load



- Possible application areas
 - Deposition processes
 - ALD processes
 - 200 mm systems
- Extremely well feedback from test users
- Volume manufacturing starts 2017

Future RF Technology (coming soon)

New RF Control System – data exchange in real time

Today unknown functionalities will enable future SEMI nodes

- Higher measurement accuracy by digital signal processing
- Real time statistics and data analysis
- Build in measurement instruments implemented by software
- Fingerprinting & preventive maintenance

Strong Differentiator: Close Collaboration with Key Customers

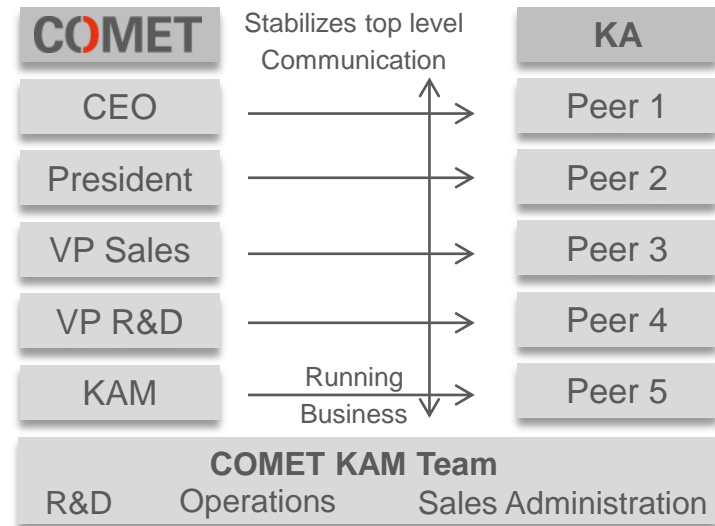
- Invest in capacities ahead of customer's needs
- Be the fastest – SPEED
- Design-to-cost
- Share information, partner in innovation
- Globally provide highly sophisticated technology, infrastructure and inventory
- Operational Excellence



Dedicated Sales Teams

➔ Developing and penetrating Key Accounts means continuous investments

Comprehensive Key Account Collaboration



Reaching for the next level

Vision 2020

