



Cadence Design Systems and Product Creation

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Allegro, OrCAD and Sigrity Product Group
Graser User Group Meeting
31 October 2014

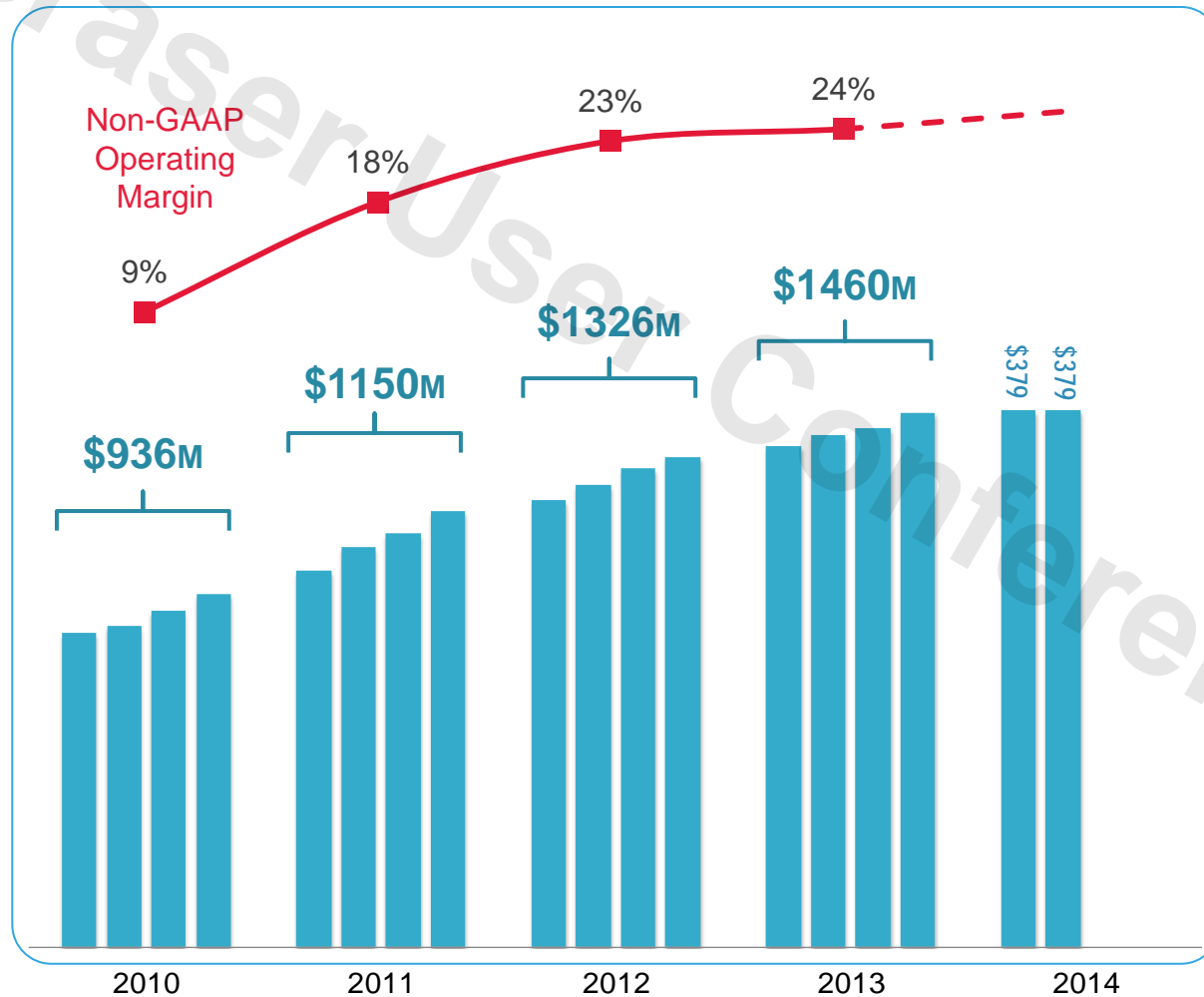
 cadence®

Cadence



- A leader in electronic design automation
- Software, hardware, IP, and services are used to design electronic products including semiconductors, consumer and mobile devices, industrial equipment and network infrastructure equipment
- Trailing four quarters revenue is over \$1.4B
- Headquarters in San Jose, California, USA with 5,700 employees worldwide

Strong financial performance



Last four quarters

Revenue
\$1.401B

Cash flow
\$314M

R&D
investment
\$503M

Trusted partner for 25 years

THOUSANDS

OF CUSTOMERS GLOBALLY



THOUSANDS

OF GLOBAL SYSTEMS COMPANIES

ALL OF THE TOP

SEMICONDUCTOR COMPANIES

Commitment to innovation and customer support

22

CADENCE CHANNEL PARTNERS

3,300

R&D ENGINEERS

1300

FIELD APPLICATION ENGINEERS



16 GLOBAL DEVELOPMENT CENTERS

R&D INVESTMENT IN 2013

\$534M

PATENTS WORLDWIDE

1500+

Opportunities driving growth in electronics

Mobility



\$141B
in 2018

10.6%
CAGR

\$77B
in 2012

Source:
Databeans, Cadence

Cloud



\$21.0B in
2018

54.7%
CAGR

\$1.5B
in 2012

Source:
McKinsey, Cadence

Internet of Things



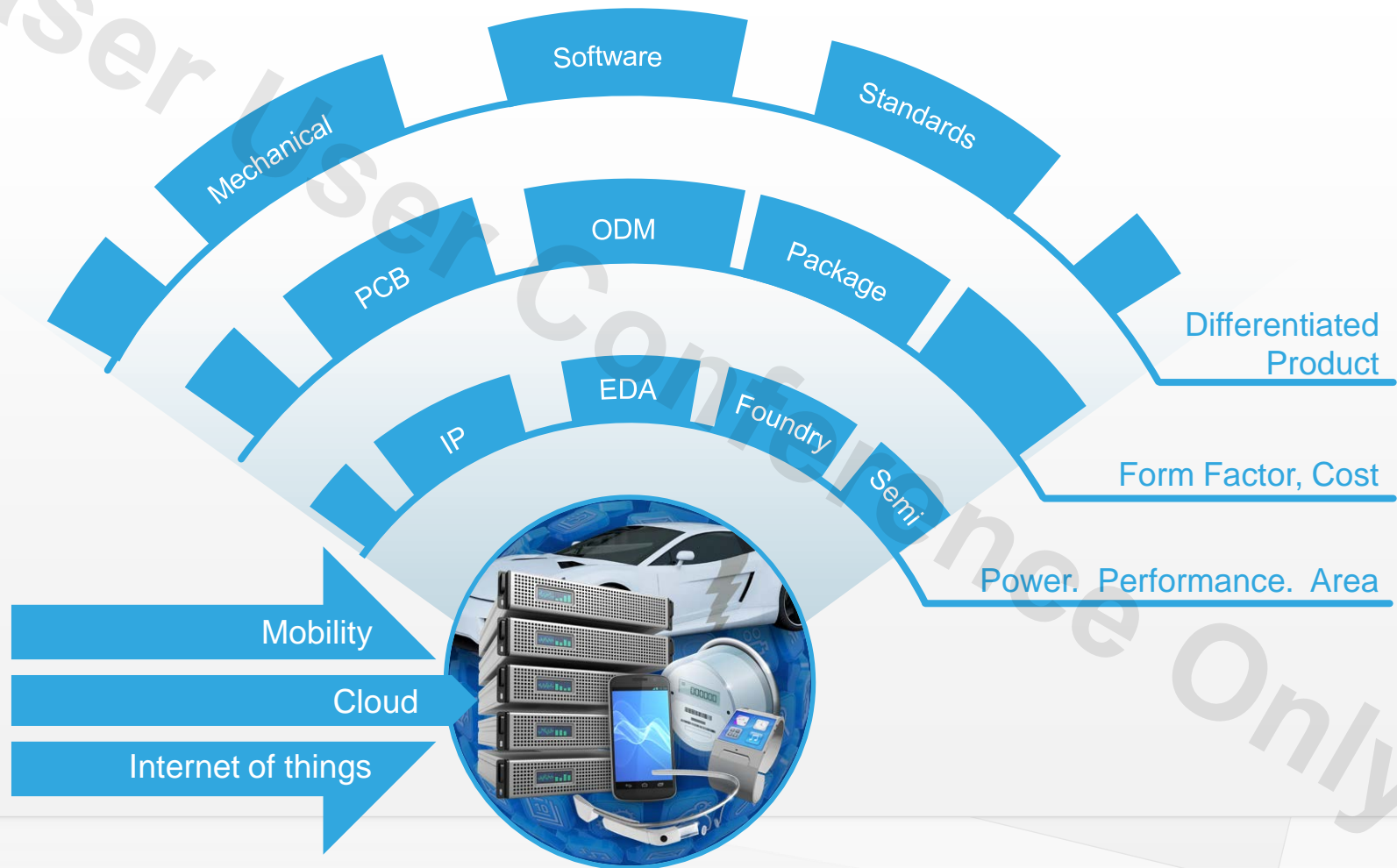
\$8.9B in
2018

35.4%
CAGR

\$1.4B
in 2012

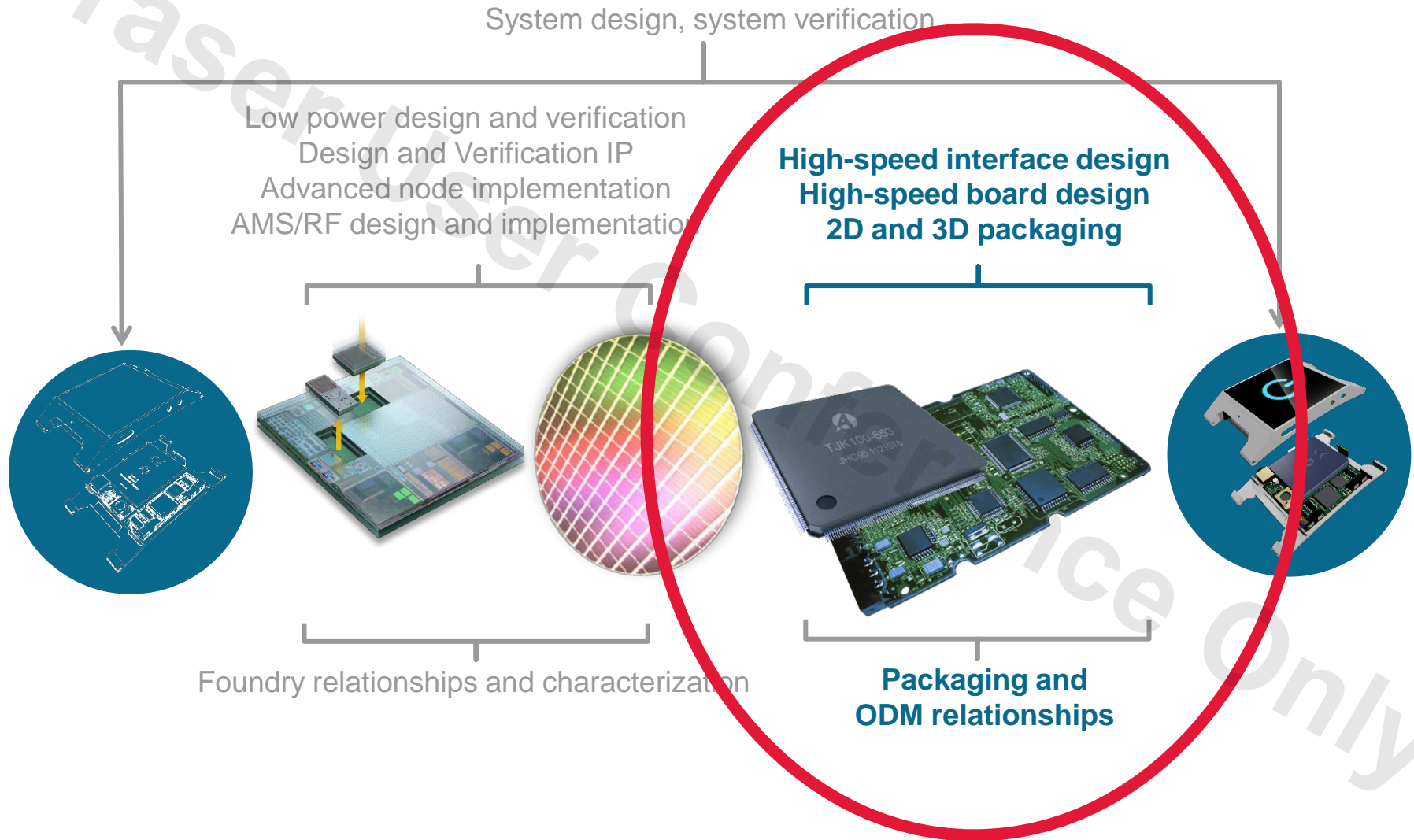
Source: Gartner,
IC Insights, Cadence

Electronic product design requires an ecosystem



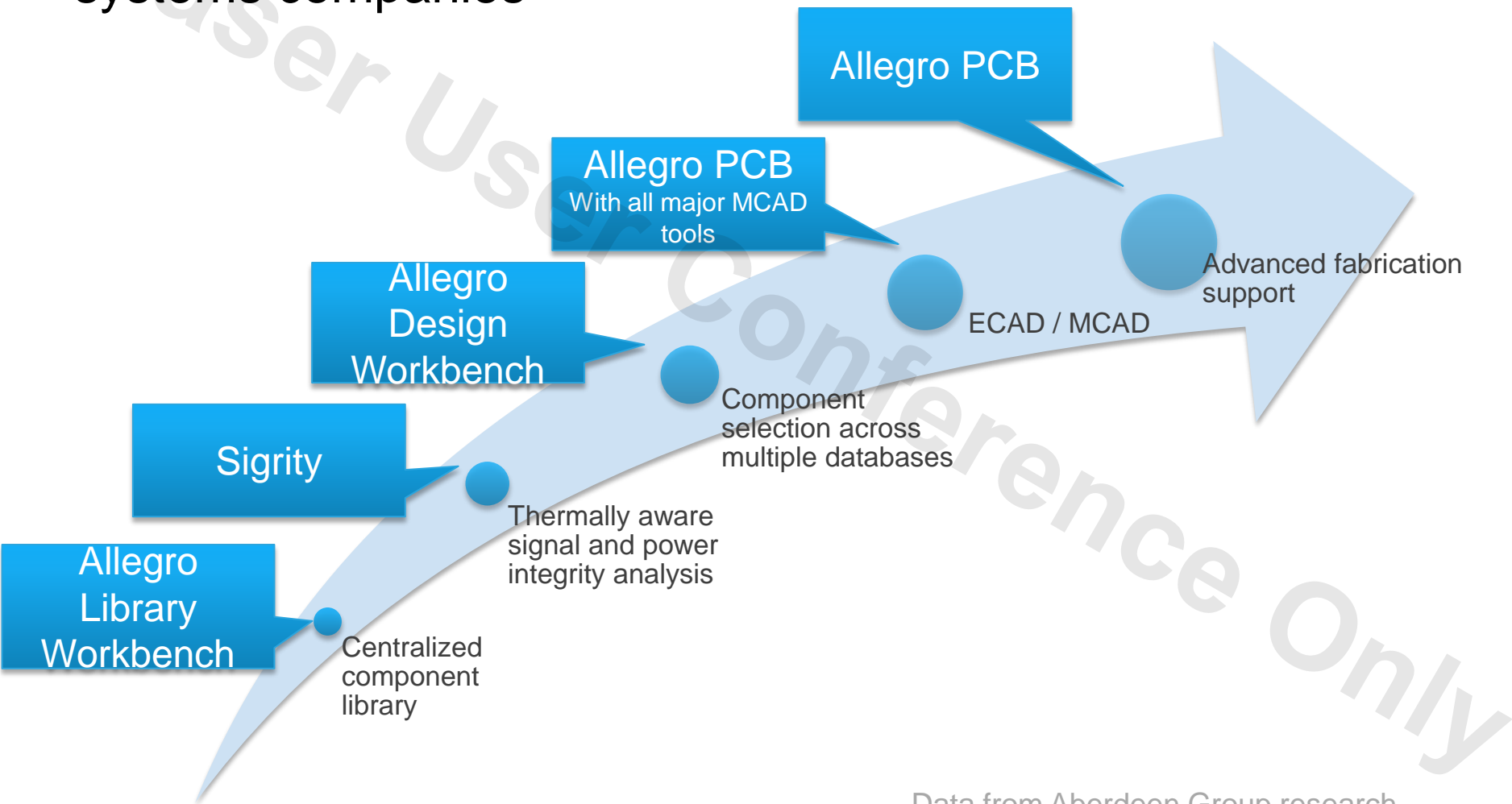
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delivering value to our customers



Roadmap to best-in-class product creation

Attributes and practices from a survey of 500+ leading systems companies

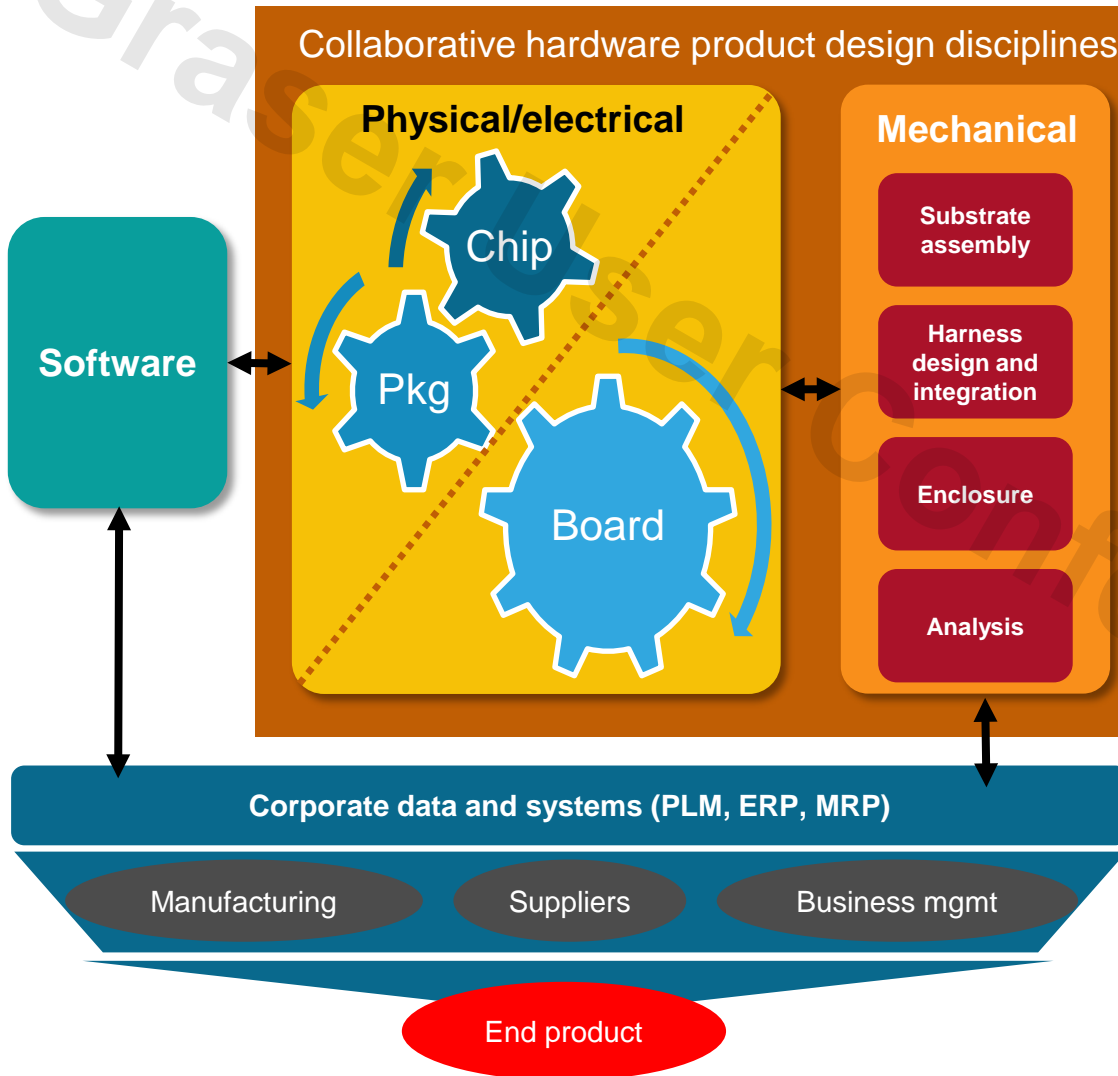


Data from Aberdeen Group research

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Cadence PCB and Sigrity strategy

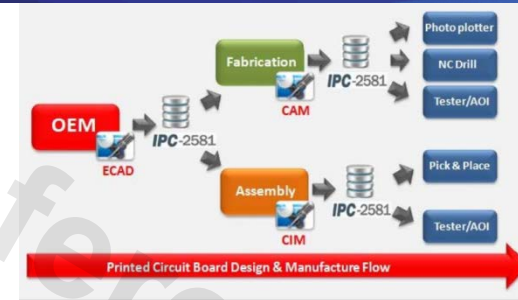
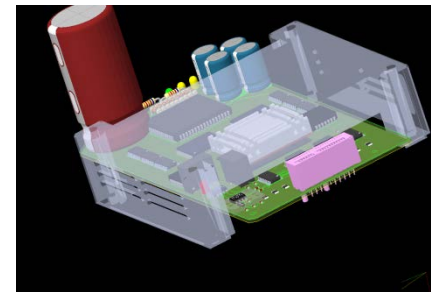
fast, efficient product creation



- Successful products require a predictable design process
- Products are more than PCB and require collaboration with mechanical and in many cases with IC-package design
- Designs require power-aware signal and power integrity analysis to ensure compliance and performance
- Designing with integrated corporate supply chain and business support systems
- On-time product creation requires efficient collaboration with manufacturing

Focused on key market dynamics and drivers

- Miniaturization, multi-fabric systems, ECAD/MCAD co-design
- Efficient path to manufacturing
- Standards-based design for open collaboration between design disciplines
- Interface connected systems
- Achieving thermally aware system-level power and signal quality management and compliance

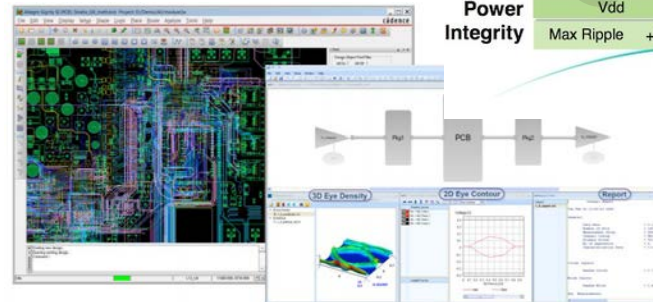


PCI EXPRESS

	DDR3	DDR4
Signal Integrity	Speed	2133 Mb/s
	3rd Harmonic	3.2 GHz
	Unit Interval	938 pS
Power Integrity	Vdd	1.5 V
	Max Ripple	+/- 75 mV
		+/- 60 mV

Timing Window
Reduced by
34%!

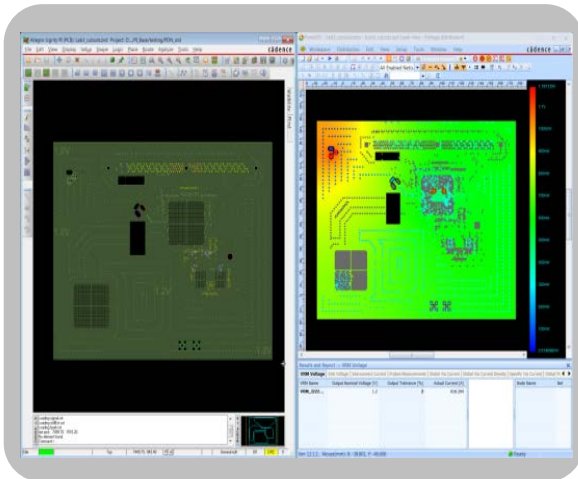
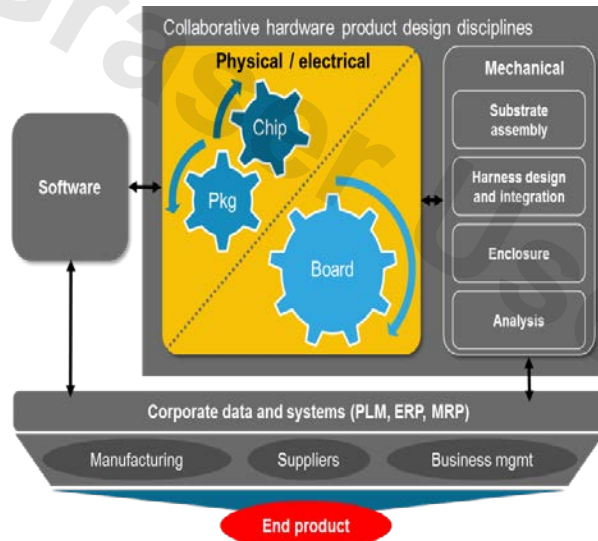
Requires 20% better
Voltage Control
And a drop in PDN target Z



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Allegro - Sigrity integrated solution

better together – makes product creation predictable



Integrated design and power analysis

- Allegro® constraint-driven PCB design flow endorsed by customers since 2001
 - Predictable design cycles
 - Accelerate time-to-volume production
 - Early prototyping with Sigrity™ from Allegro creates robust reusable PCB constraint IP
- Sigrity tool's unique power-aware SI/PI analysis and signoff ensures designs work right the first time
 - Accelerate time-to-volume production
 - Validate multi-gigabit interfaces are compliant
 - Eliminate prototype iterations
 - Reduce end-product cost by optimizing decoupling capacitors

Driving the future of innovation

help you build great products

Vision and leadership

Financial strength

Broad portfolio

Commitment to innovation

Customer success



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