

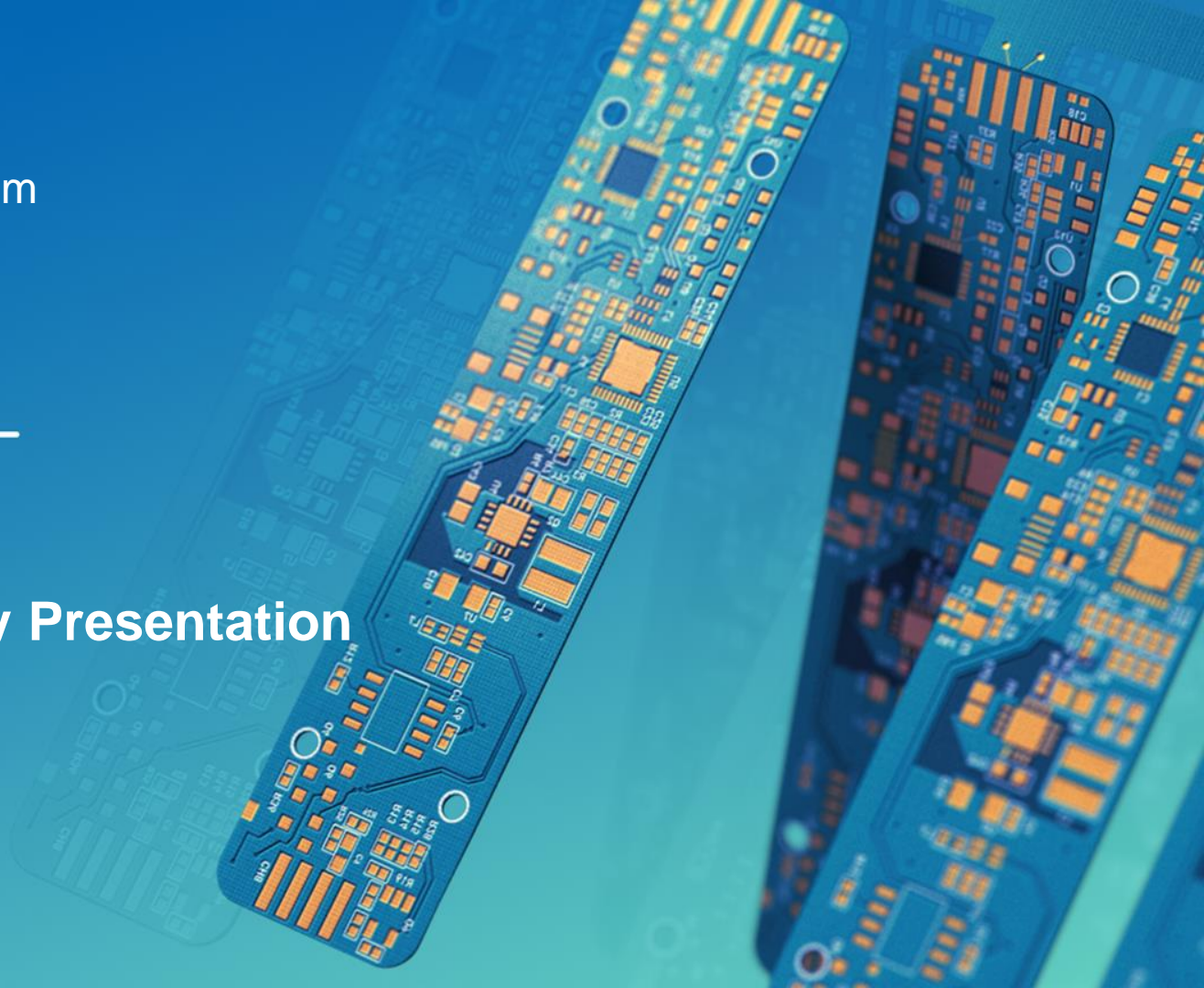
**Altium**®

Building EDA Eco-System  
构建统一EDA生态系统

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# Altium Technology Presentation

March 2017  
Shanghai



# Agenda

**Altium**®

1

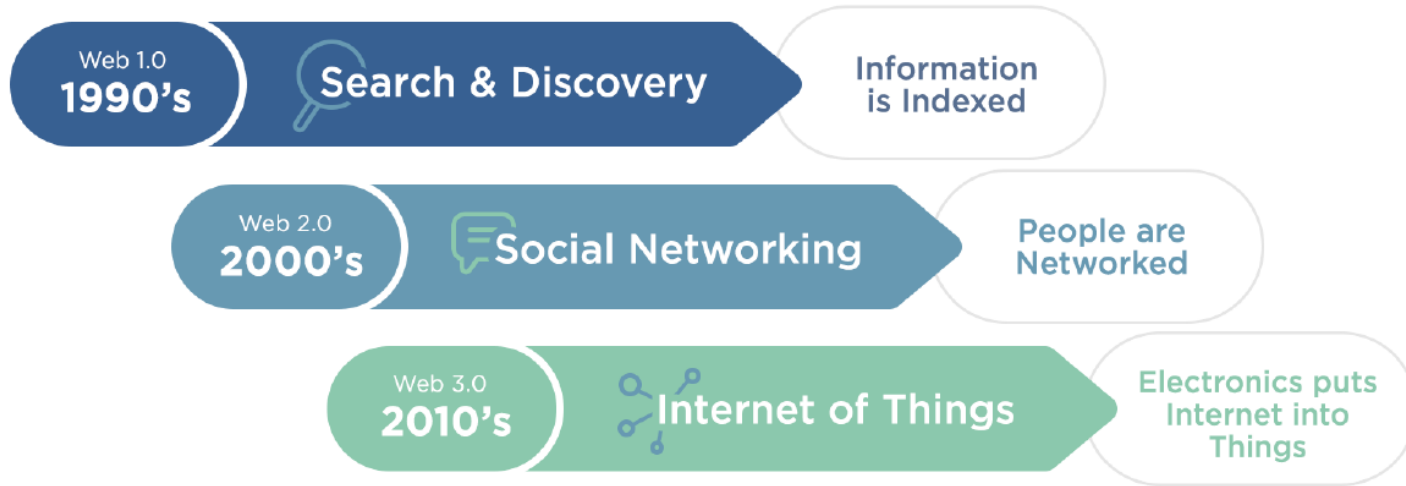
Innovation in the age of IoT

2

Altium Vision – Building EDA Eco-System

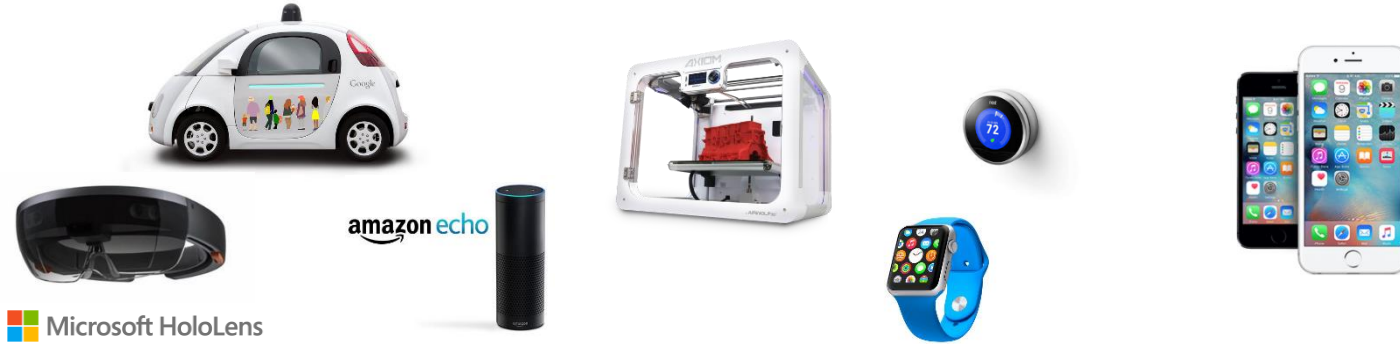
# The Web and the Waves of Innovation...

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The three waves form the three axes of innovation around which all future products will pivot

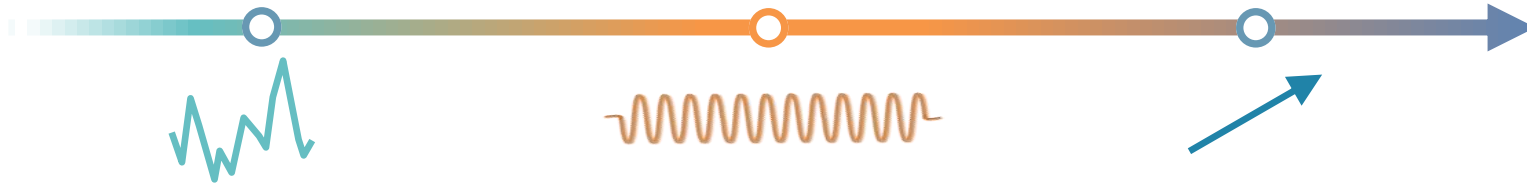
# Innovation in the Age of Internet of Things



Exploration  
(Discovery & Invention)

Innovation  
(Pioneering & Development)

Adoption  
(Accessibility & Refinement)



Modelling, digitalizing and integrating all objects and processes associated with the creation, adoption & evolution of smart products is critical for **increasing the speed of innovation**

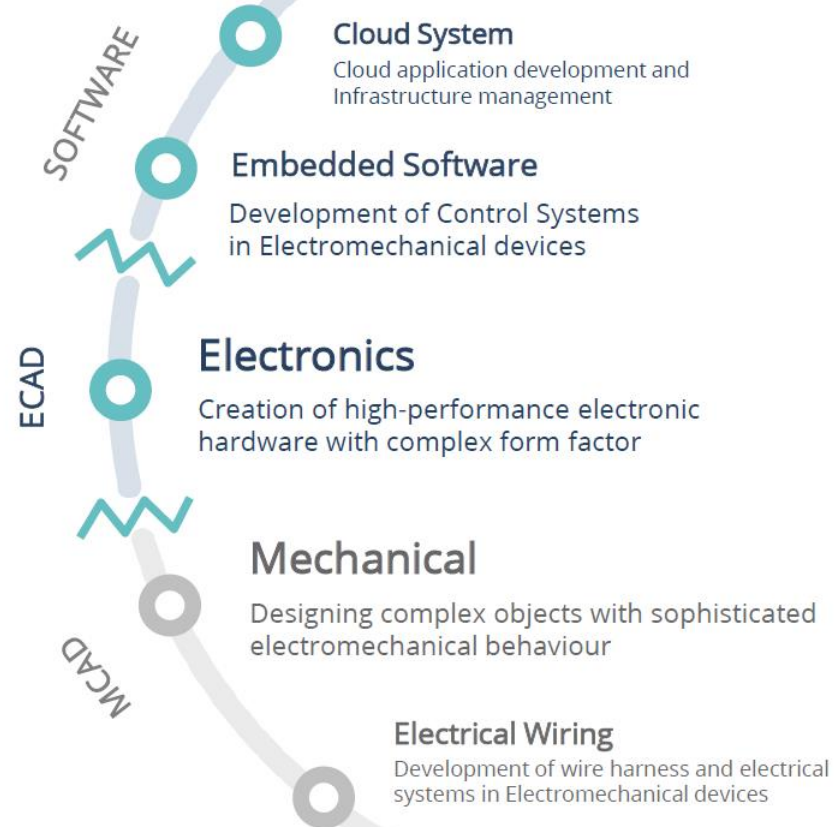


# The Multi-Disciplinary Challenges of Innovation

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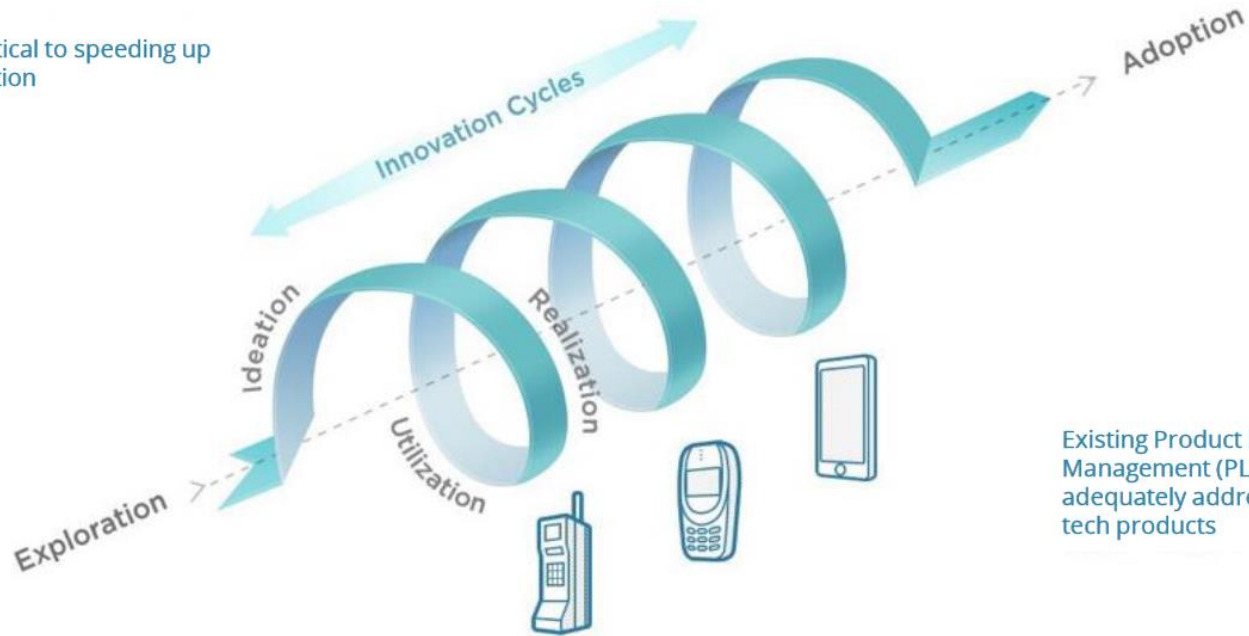


Outdated practices related to electronic design are at the heart of multi-disciplinary challenges in designing smart products



# Speed up the Pace of Innovation

Electronics is critical to speeding up cycles of innovation



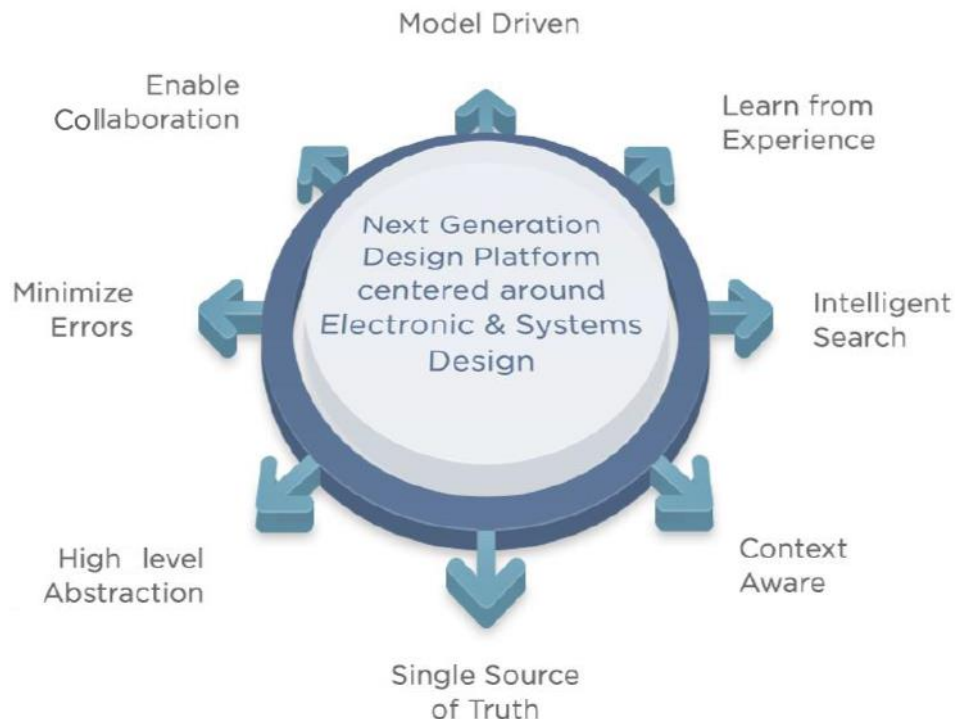
Existing Product Lifecycle Management (PLM) tools do not adequately address the need of high-tech products

Success depends on the ability of the enterprise to move through innovation cycles faster than its competitors

# Smart Product Need Smart Tool

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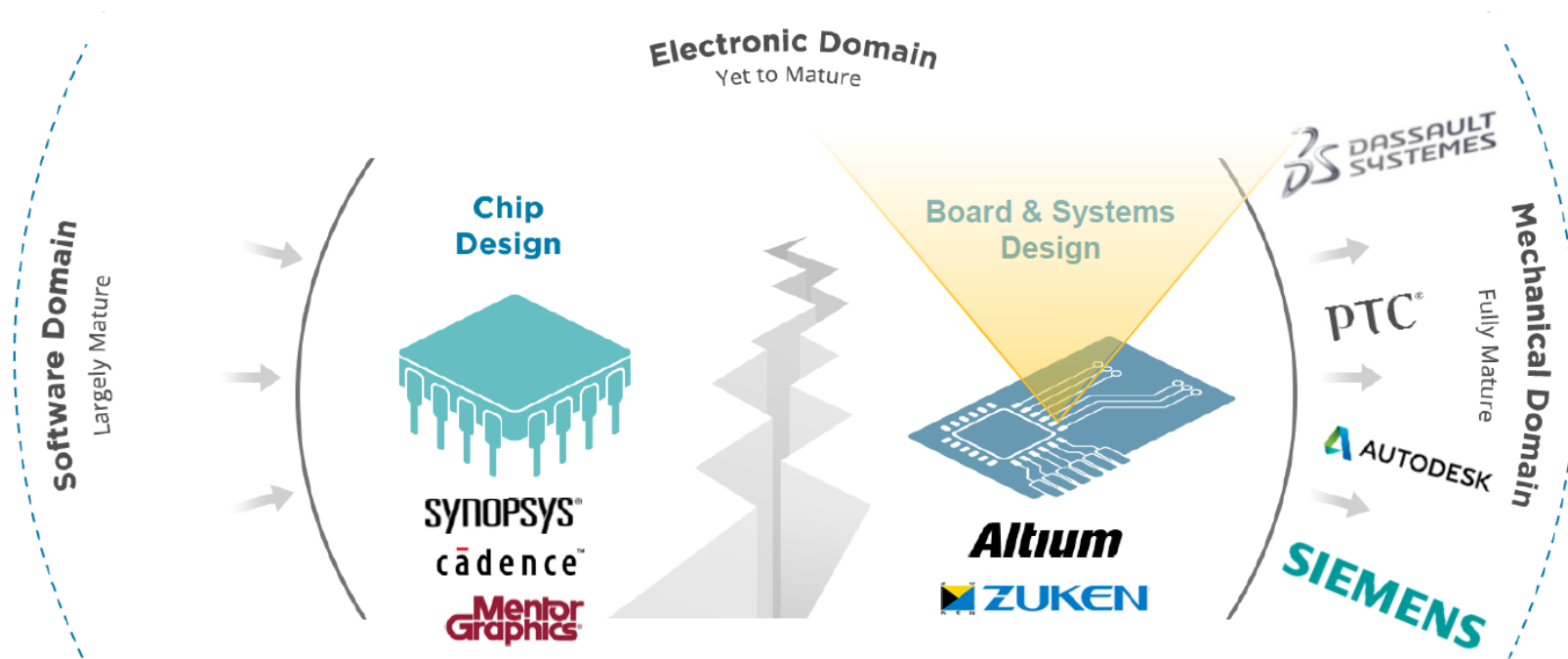
Current generation of CAD tools come from drafting background. This limits their level of smartness



Engineering tools need to coalesce and operate at higher level of abstraction

# Innovation in the Age of Internet of Things

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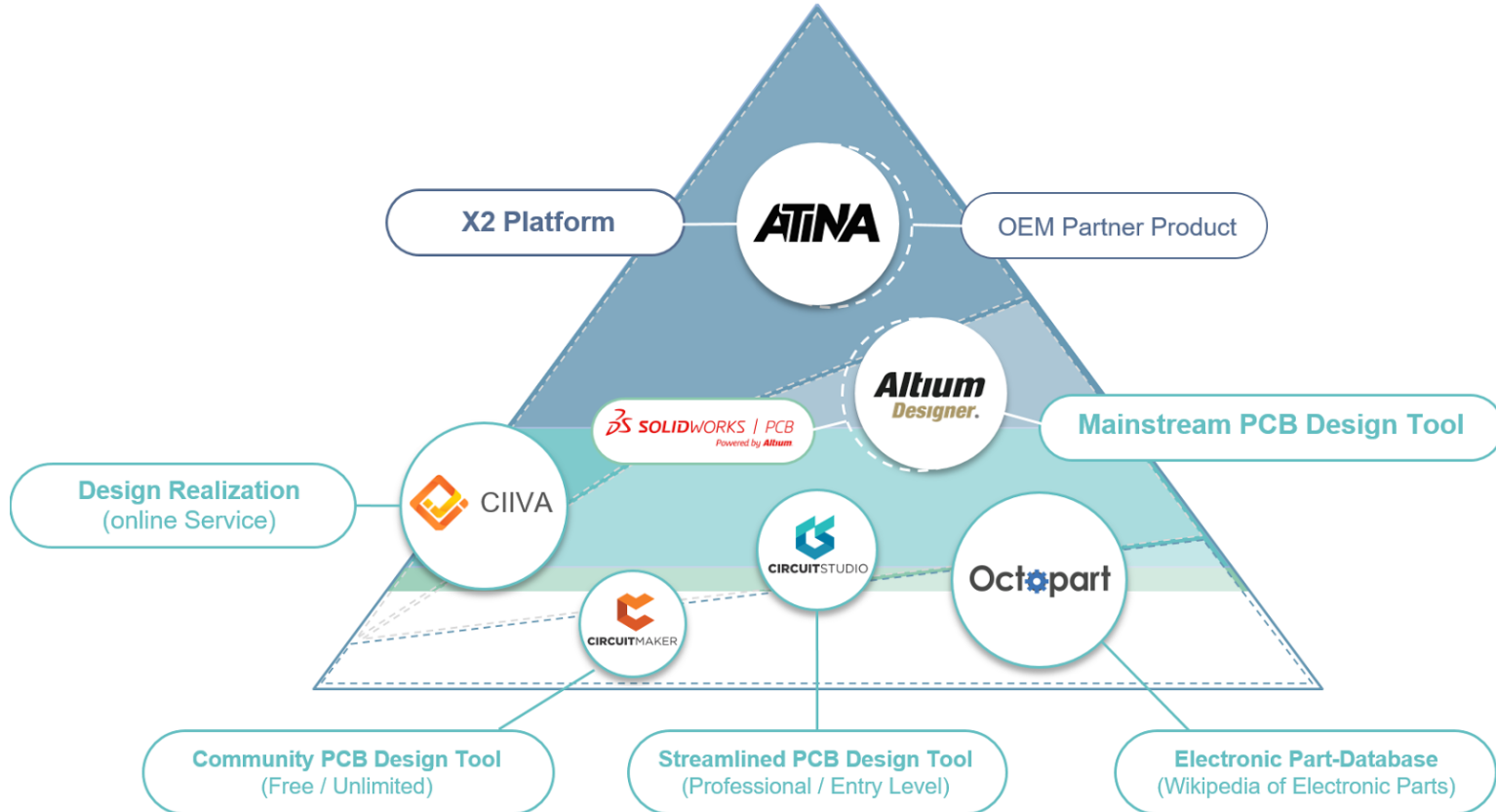


The rise of smart connected devices is driving a deep transformation in the EDA industry with the Board & Systems Design going mainstream while Chip Design is becoming highly specialized

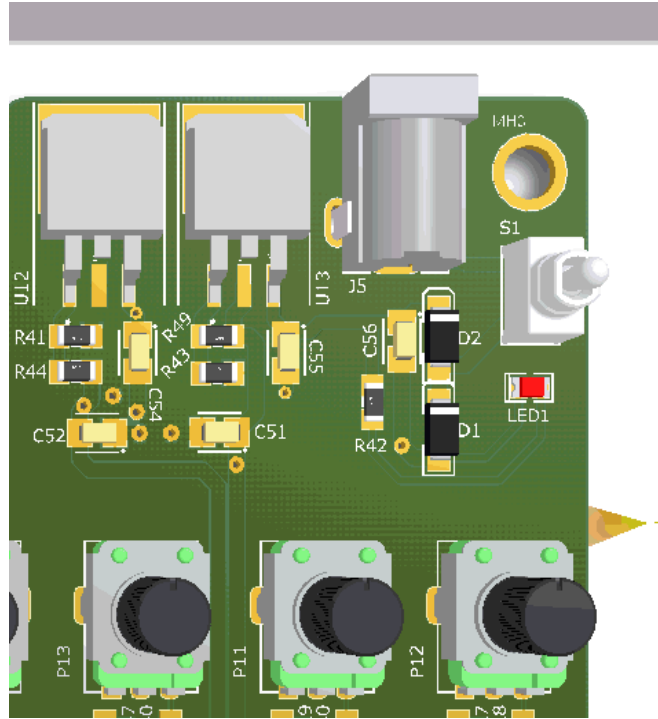
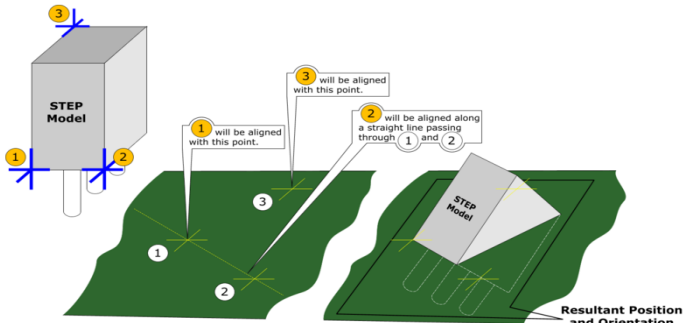
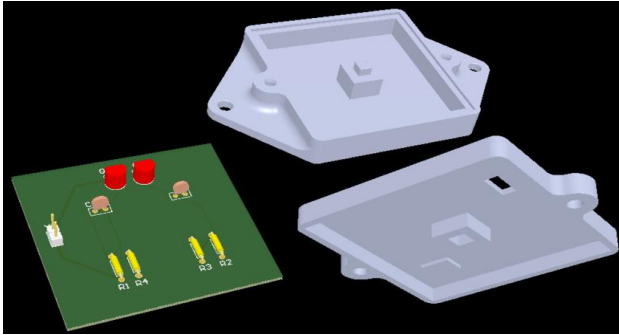


# Enabling Innovation in Different Segments of the Market

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# ECAD – MCAD Collaboration



SolidWorks Collaboration

Pull Push

Project: StereoEQ

Accept	Object	Type	Change
<input type="checkbox"/>	J5	Comp...	Placement Chang...
<input type="checkbox"/>	LED1	Comp...	Placement Chang...
<input type="checkbox"/>	S1	Comp...	Placement Chang...

Accept

By phil 26-05-2015 16:49 PM

Power connector, switch and LED positions changed, as per ECO 10341

By Me 26-05-2015 15:59 PM

# ATINA – Altium’s High-End PCB Design Tool

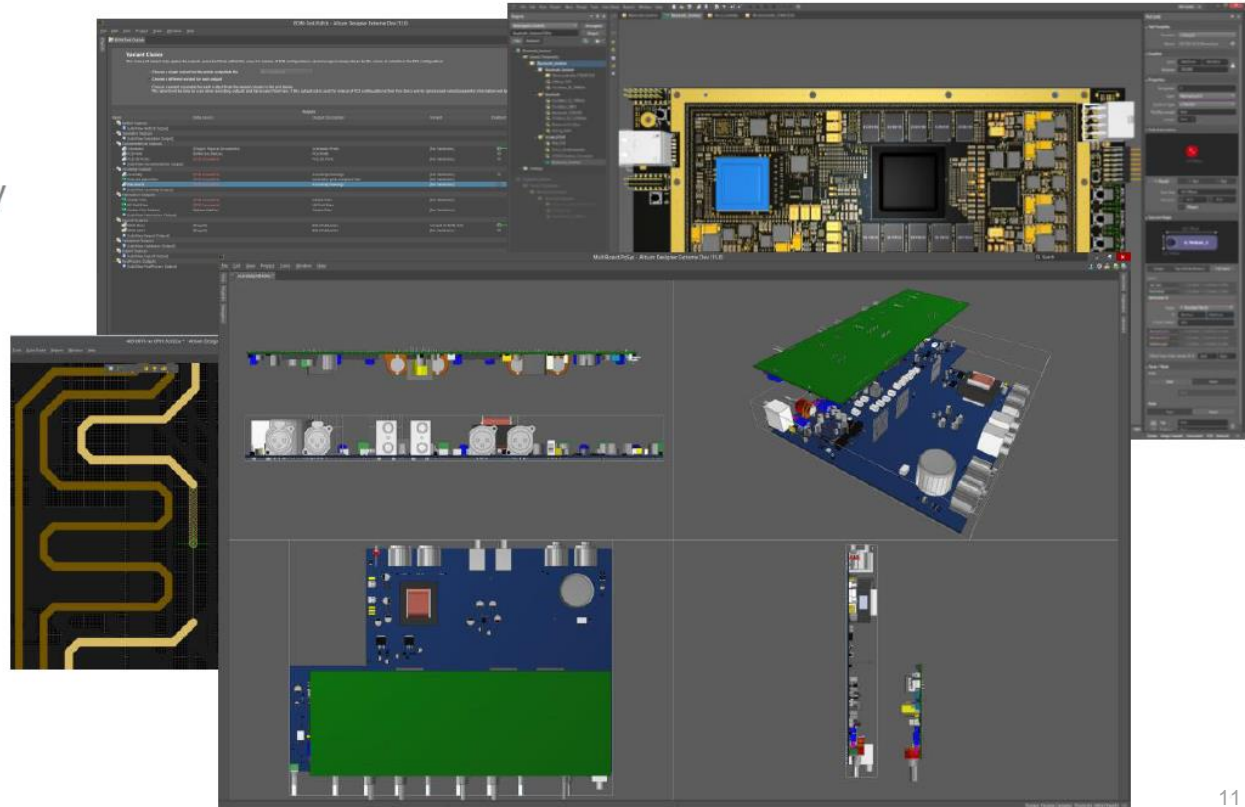
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## ATINA

- Multi-board System Design Capability
- Advanced Routing Capability
- Constraint-Driven Design
- Handling Large Boards with Ease

## X2 Platform

- Next Generation - 3D Graphics Engine
- State-of-the-art User Interface/Experience
- 64-bit Computing Architecture

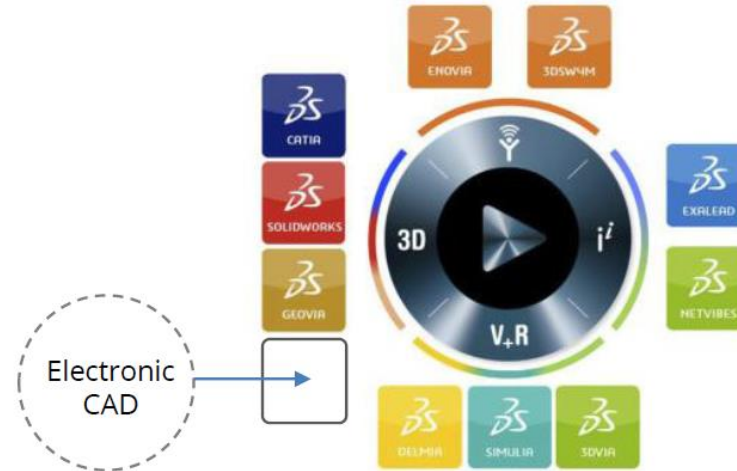


# Enabling Innovation in the Enterprise Segment

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Enterprise Resource Planning (ERP)  
(First appeared in 1980's)

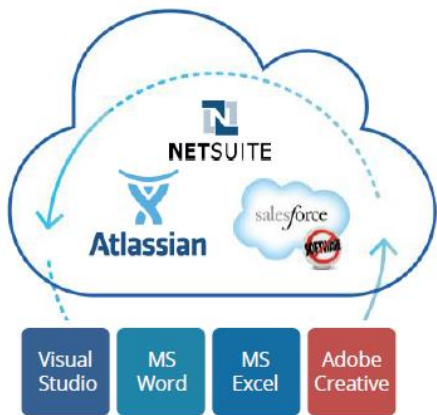


Product Lifecycle Management (PLM)  
(Dassault's 3D Experience Platform, 2010's)

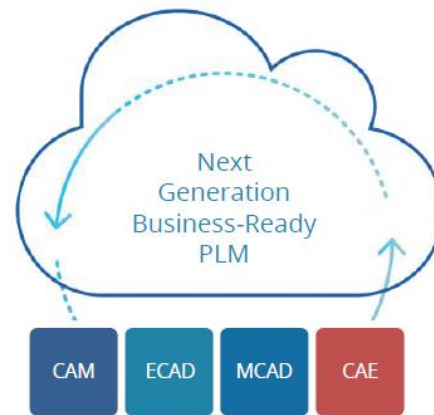
To speed up innovation in the enterprise segment, Electronic CAD and Product Lifecycle Management (PLM) must come together

# Enabling Innovation in the Mainstream Segment

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Commoditization of Business (Data & Process Management) Software through Cloud  
(Cloud-based services appeared in 2000's)



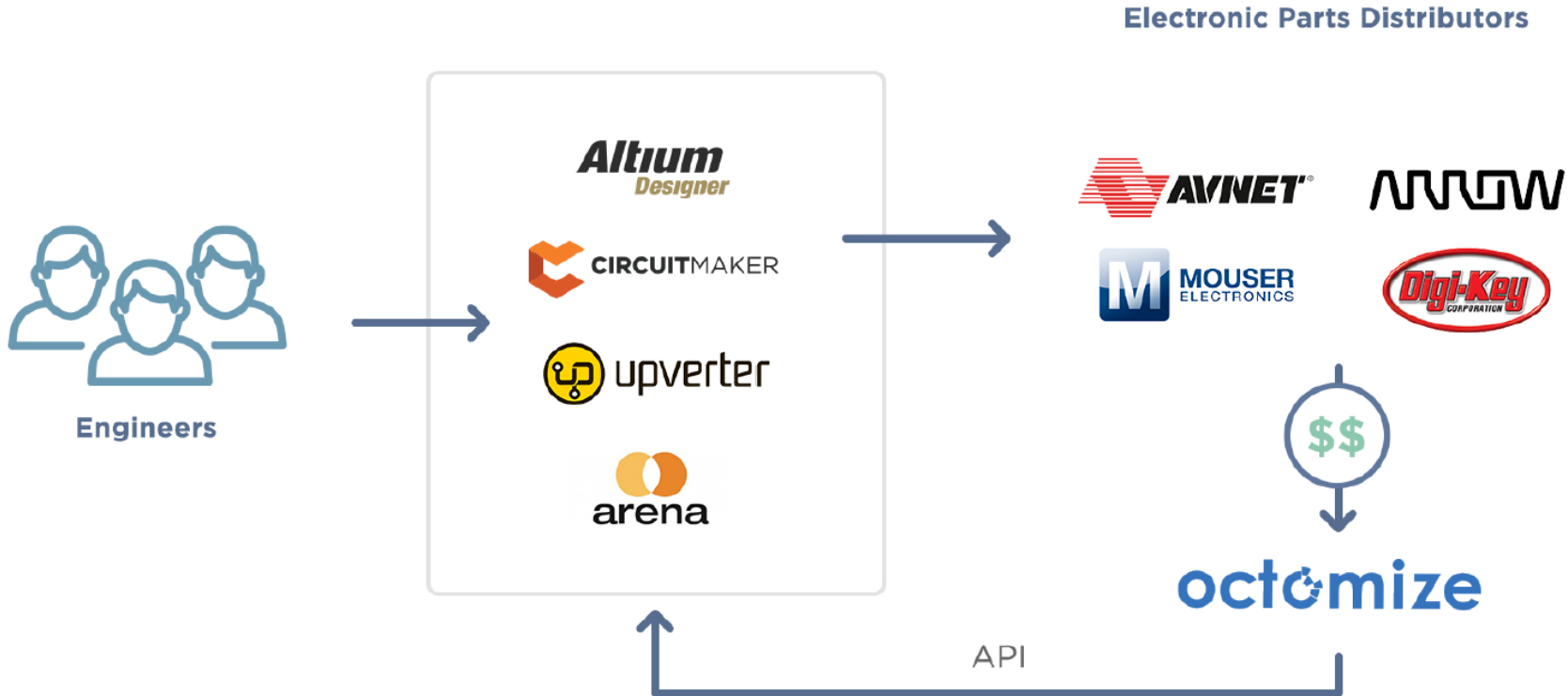
Commoditization of Engineering (Data & Process Management) Software through Cloud  
(Cloud-based services expected to gain traction in 2020's)

Mainstream evolution will eventually mirror the high-end with the enterprise engineering software evolving from the current delivery model



# Supply Chain Integration: Octopart & CIIVA

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# Altium Content Vault: 300,000+ Free Component

**Vaults**

▶ **Altium Content Vault** Hubert Hu

Top ▶ Unified Components ▶ Components ▶ Texas Instruments ▶ Amplifiers and Linear ▶ Difference Amplifier Search Vault...

**Vault Folders**

- Sumida
- Sunlord
- Switchcraft
- Taitek
- Taiyo Yuden
- Taoglas
- TDK
- TE Connectivity
- Technik Industrial
- Telit
- Texas Instruments
  - Amplifiers and Linear
    - Current Shunt Monitors
    - Difference Amplifier
    - Haptic Driver
  - Instrumentation Amplifier
  - Isolation Amplifier
  - Operational Amplifier
  - PGA-VGA
  - Special Function Amplifier
- ARM Processors
- Audio
- Data Converters
- Digital Signal Processors
- Interface
- Logic
- Microcontrollers
- Models
- Motor Drivers
- ...

**Difference Amplifier**  
[No description]

Drag a column header here to group by that column

Item	Lifecycle	Comment	Description
CMP-0985-00015-1	Released	INA2143UAE4	High-Speed, Precision, G = 10 or G = 0.1 Difference Ampli...
CMP-0985-00058-2	Released	INA148UA/2K5	+/- 200 V Common-Mode Voltage Difference Amplifier, -40 ...
CMP-0985-00102-2	Released	INA143UA/2K5	High-Speed, Precision, G = 10 or G = 0.1 Difference Ampli...
CMP-0985-00037-1	Released	INA134UJAG4	Audio Differential Line Receiver, 0 dB (G=1), -40 to 85 deg...
CMP-0985-00010-1	Released	INA2132UAG4	Dual, Low Power, Single-Supply Difference Amplifier, -40 t...
CMP-0985-00031-1	Released	INA117KU/2K5G4	High Common-Mode Voltage Difference Amplifier, -40 to 85...

**CMP-0985-00015-1 [INA2143UAE4]** Released Preview ▶

High-Speed, Precision, G = 10 or G = 0.1 Difference Amplifier, -40 to 85 degC, 14-pin SOIC (D14), ...

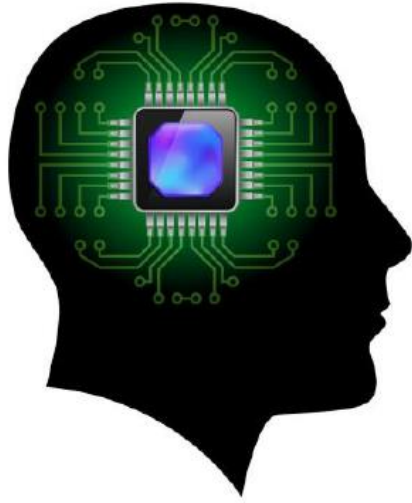
Revision Models	Item	Revision	Description	Comment	Status	Release Date
Symbol	SYM-0119-05422	1		TI-INA21XXX14	Released	06-六月-14 13:
Footprint	PCC-0151-00060	4	SOIC, 14-Leads, Body 8.75x4mm, Pi TI-D14_L		Released	06-六月-14 13:
Footprint	PCC-0151-00070	4	SOIC, 14-Leads, Body 8.75x4mm, Pi TI-D14_M		Released	06-六月-14 13:
Footprint	PCC-0151-00076	4	SOIC, 14-Leads, Body 8.75x4mm, Pi TI-D14_N		Released	06-六月-14 13:

**PackageDescription**  
**PackageReference**  
**PackageVersion**  
**PartNumber**  
**Slew Rate(Typ)(V/us)**  
**SubFamily**  
**Vs(Max)(V)**  
**Vs(Min)(V)**

**Part A** **Part B**

At the Heart of All Intelligent System is Electronics

Altium®



Printed Circuit Boards Central to Electronics

**Thank You**