

Investor & Analyst Day

20
17

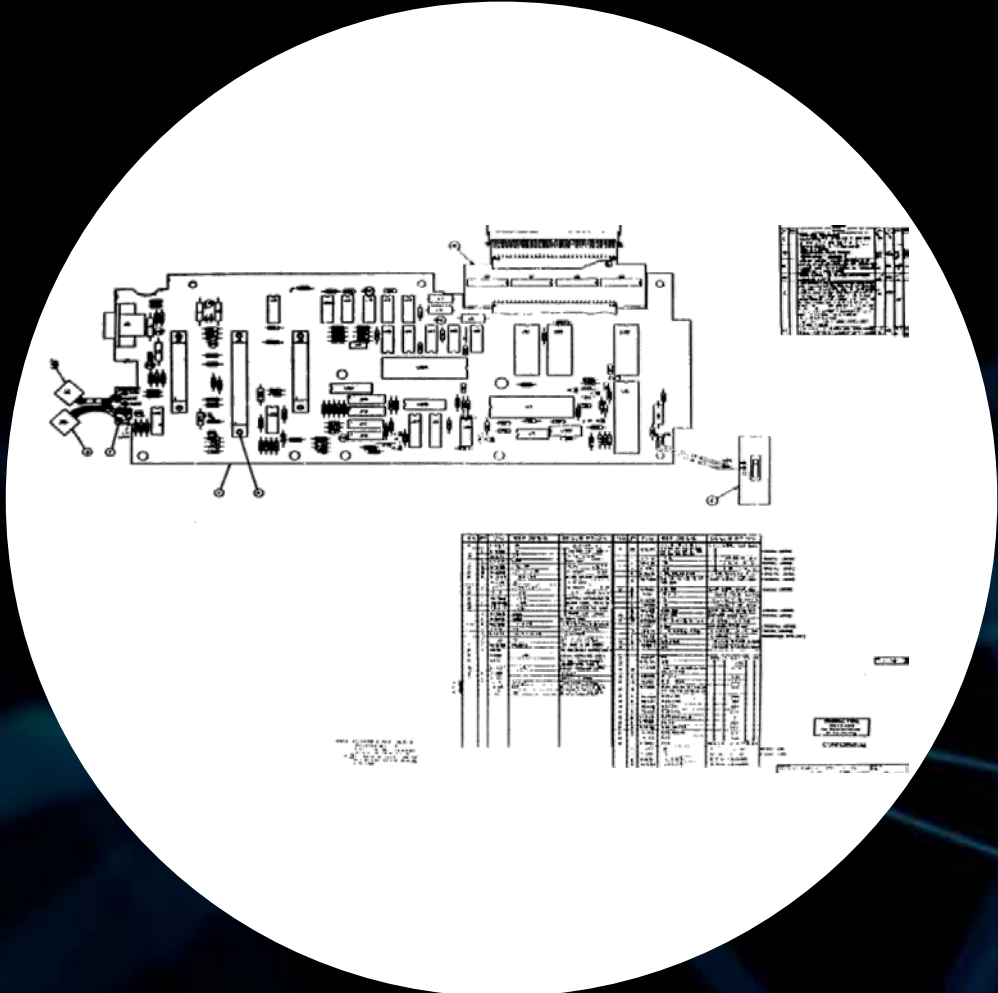
The Flex Innovation System

Jeannine Sargent

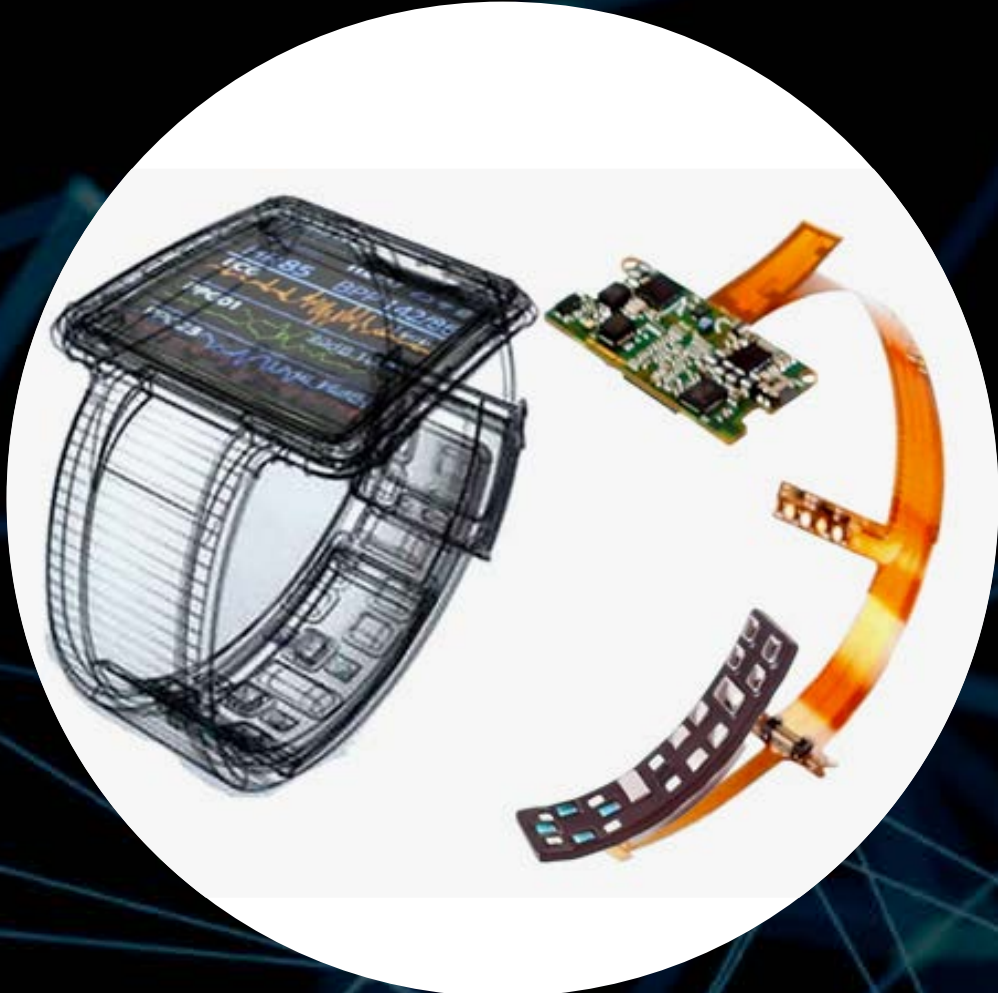
President of Innovation and New Ventures

Our Innovation Journey...

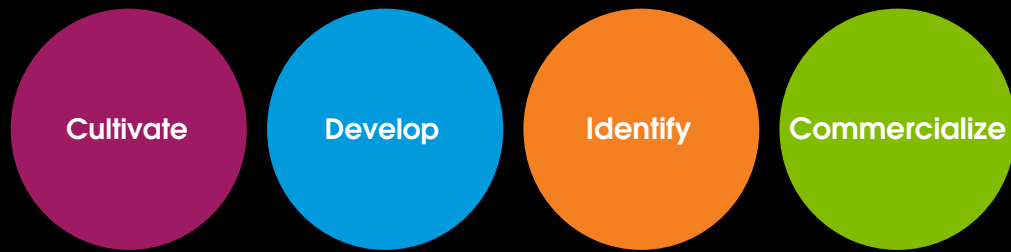
Build-to-Print



Sketch-to-Scale™

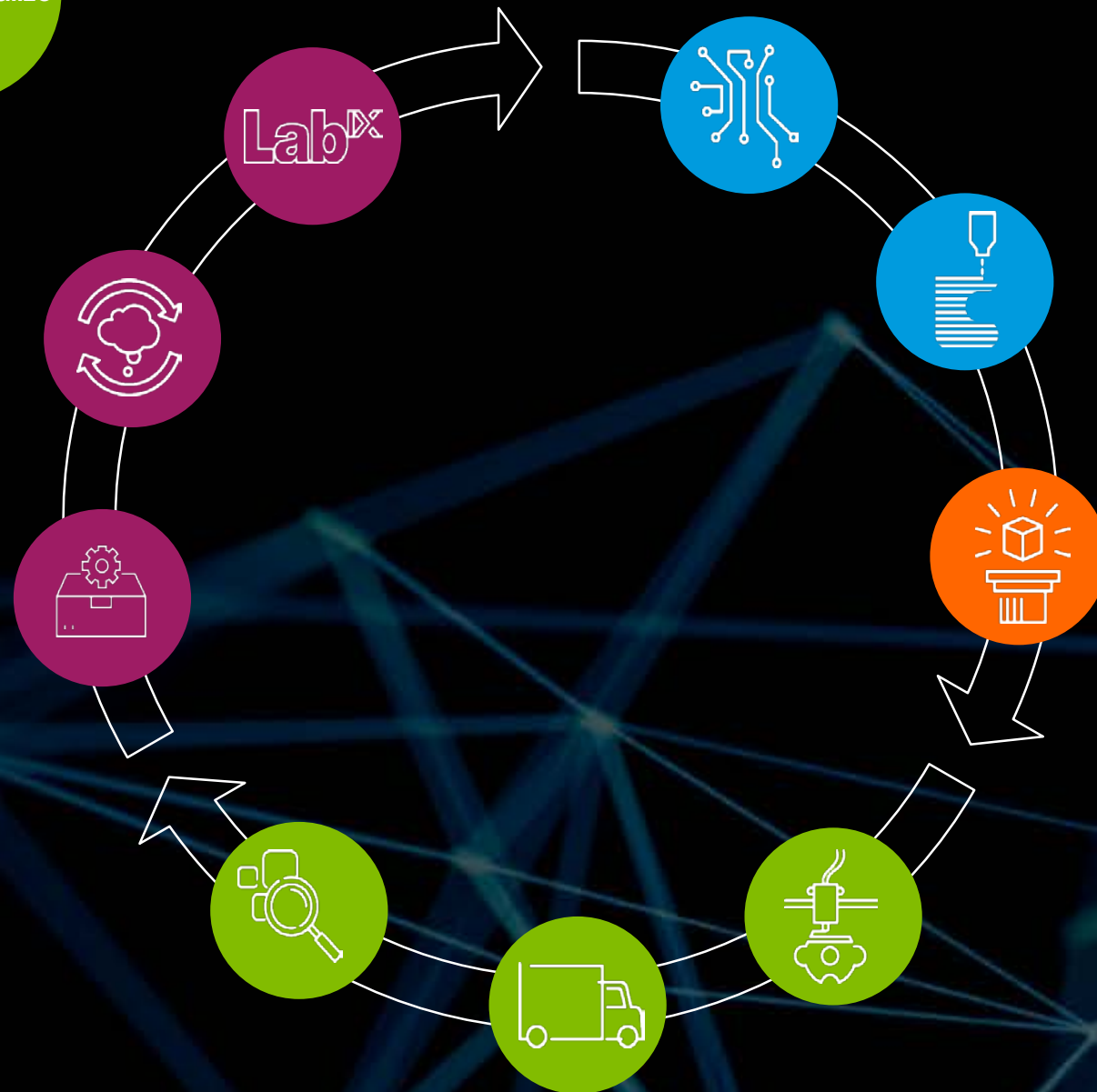


Flex Innovation System



Cultivate Technology and Provide Market Access

- » LabIX
- » Collective Innovation Platform (CIP)
- » Technology Centers of Excellence (CoE)
- » Flex Smart & Connected Solutions (FSC)



Product Development/ Identify Opportunities (Sketch)

- » Innovation Labs
- » Multek Interconnect Technology Center (ITC)
- » Innovative Connected Emerging Technology Group (ICE)
- » Innovation Centers
- » Global Design Centers
- » Cloud Labs
- » Flex Power
- » Flex Digital Health
- » Flex Lighting Solutions
- » Flex Living (Residential/Commercial)
- » Advanced Engineering Group (AEG)

Commercialization (Scale)

- » Product Introduction Centers (PIC)
- » Centers of Competence (CoC)
- » Manufacturing Sites
- » Global Services and Solutions / Logistics
- » Active Tracking (Pulse)
- » Financial Supply Chain Design (FSCD)
- » Elementum

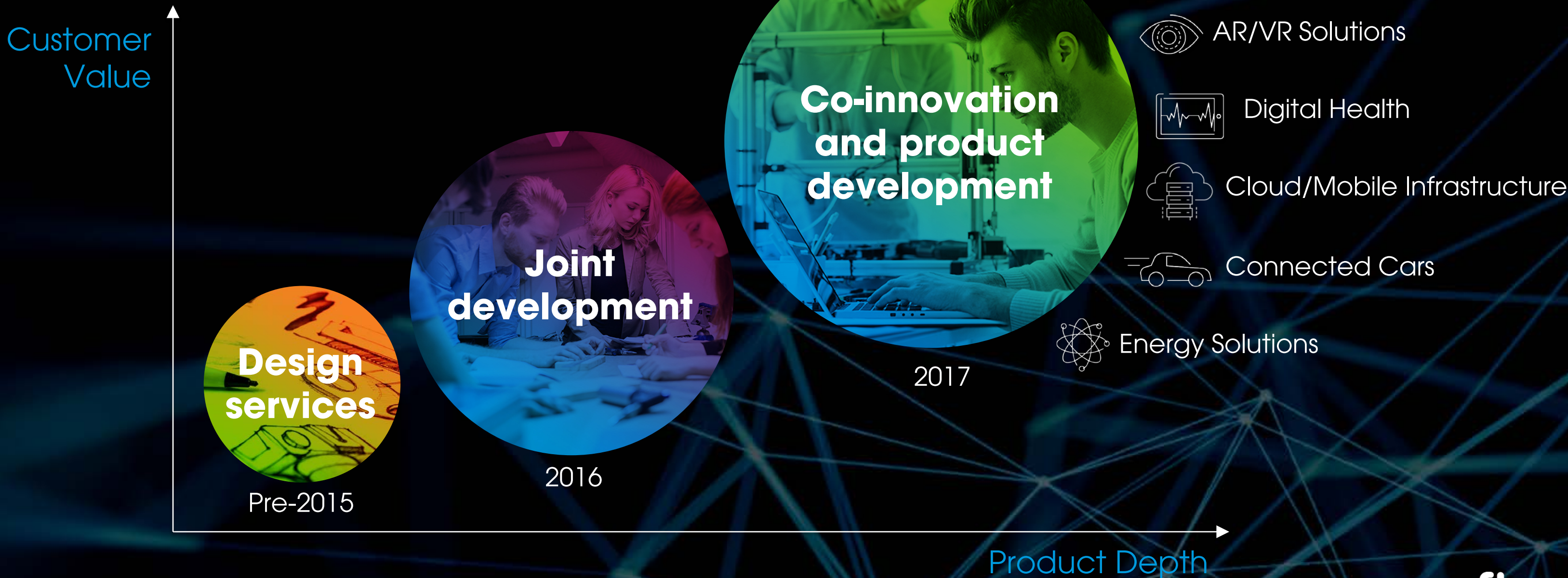
Growing our Innovation System

5 Innovation Centers | 9 Product Introduction Centers | 25+ Design Locations | 3000+ Design Engineers



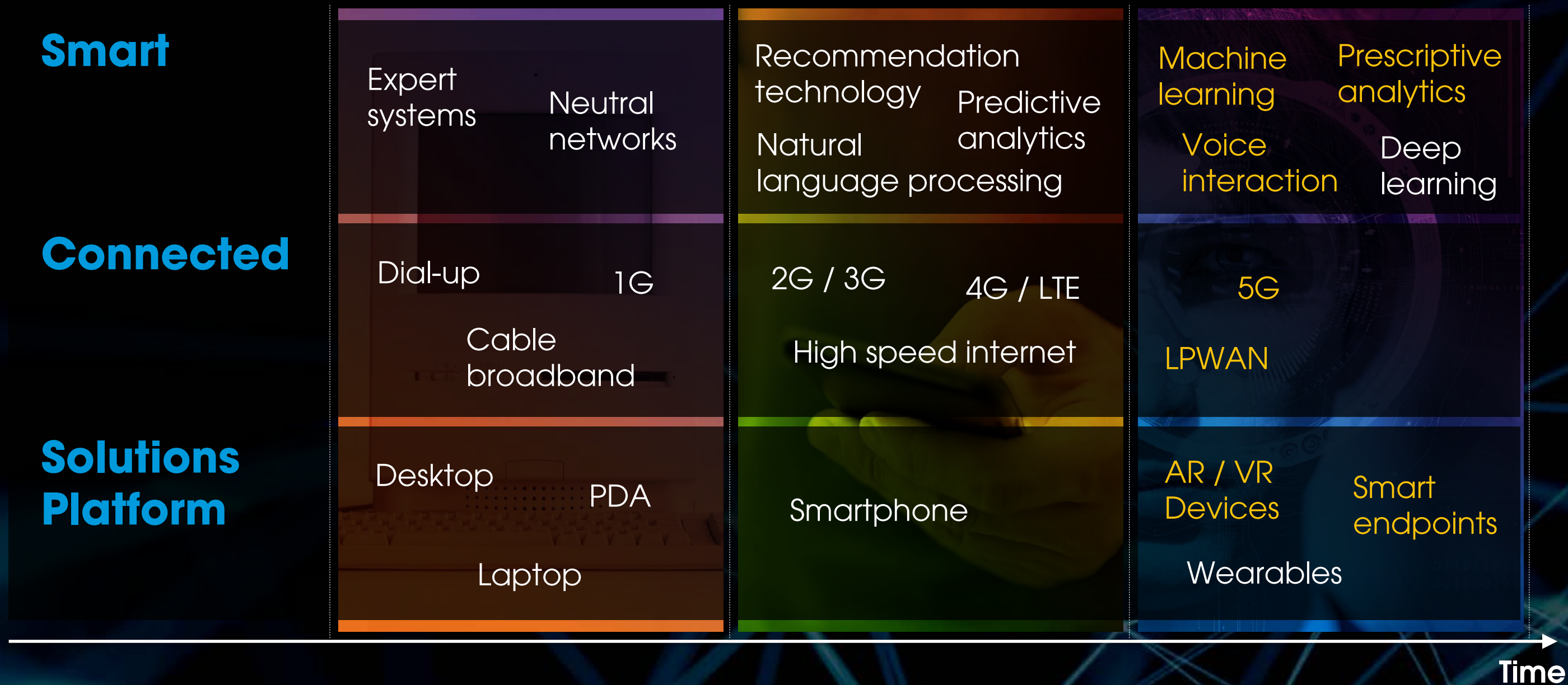
Expanding Our Co-Innovation Capabilities

We are growing our product development scope and depth



Identifying Transformative Opportunities

History has shown inflection points in the past. We are at a new inflection point.



Next Key Transformations for Intelligence of Things™

AI

Machine learning
Voice interaction

15% cost saving

from predictive maintenance and
vision-based parts inspection

5G

Low cost cellular

10x data speed

to support AR/VR, autonomous vehicles, on-
demand video and cloud-based applications

AR/VR

New IoT platform

65% AR adoption

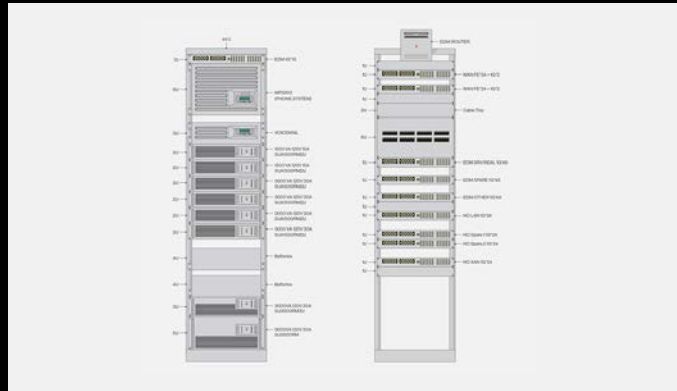
planned by enterprise companies
over next 3 years

\$3 Trillion+ potential impact of IoT in factory setting

Case Study: AR/VR for Manufacturing

Pricing a complex Configure-to-Order manufacturing opportunity

Traditional Approach



VR Enhanced Approach



Background

- » 5 weeks to quote, assemble and validate data center rack with many parts and complicated assembly
- » Worldwide 250K+ product SKUs assembled
- » Time consuming and error prone to price project
- » Difficult to recover cost if build cost higher than initial quoted price

Solution

- » 5 days to “virtually build” product, generate quote and validate costs
- » Flex-developed VR application avoids manual process

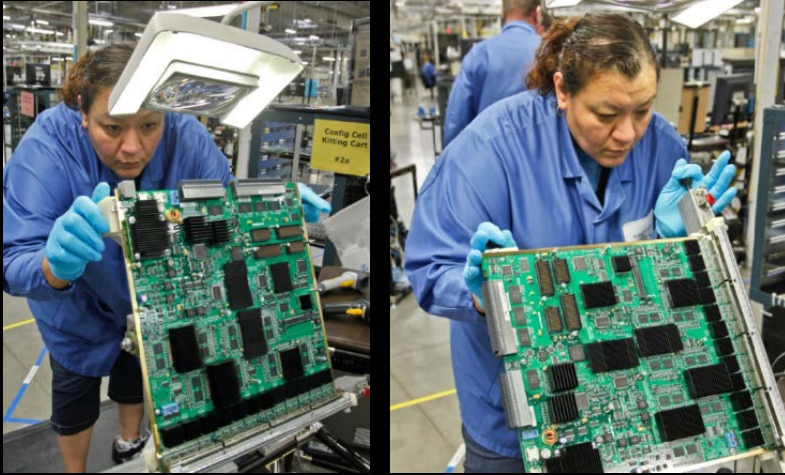
Benefit

- » Accurate price quotes in days not weeks
- » Applies to multiple business segments

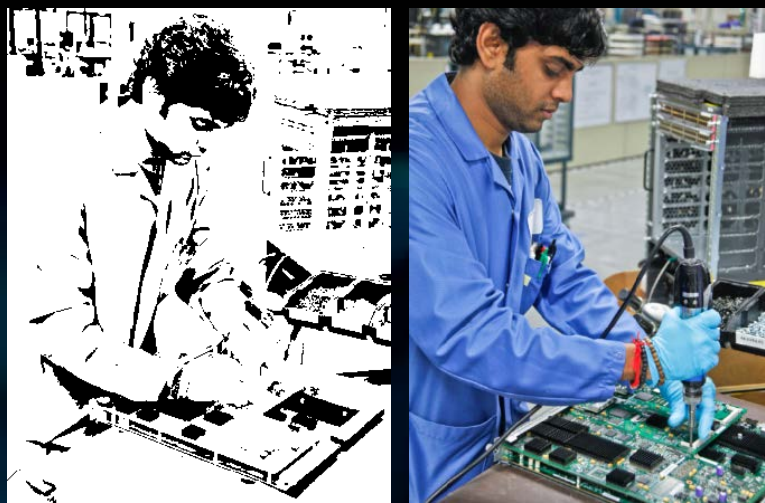
Case Study: AI for Manufacturing

AI enhanced approach to assembly

Traditional Approach



AI Enhanced Approach



Background

- » Unnecessary handling, bending and operations cause variance
- » **5 Billion+** individual human operations annually performed during product assembly
- » Improve repeatability, quality and ergonomics for workers
- » Optimize process to replicate and scale

Solution

- » Digitize human operations to identify and recommend improvements
- » Pilot project uses machine vision and algorithms to digitize human activity, 'learn' assembly process and mentor

Benefit

- » **10%+** potential quality and productivity improvement
- » **Improved worker** ergonomics and engagement in process

Case Study: 5G Infrastructure Projects

Telecom Pilots in Europe



Flex Cell Radio Experience



Small cell
infrastructure



Cellular base
station

Background

- » IoT device and data volume will exceed existing cellular capacity
- » Telecoms are investing **\$6B** in 5G R&D pilots over next 4 years
- » 5G infrastructure market exceeds **\$250B** globally

Solution

- » Flex Sketch-to-Scale expertise in centralized radio area networks (C-RAN) applies to 5G infrastructure
- » Telecoms can leverage Flex facilities for RF testing and certification

Benefit

- » **5x** less latency for on demand video
- » **10x** less expensive to embed in IoT devices
- » **100x** more connected devices supported
- » **1,000x** more data volume

Design-Enabled Business Impact

Sketch-to-Scale solutions deliver greater value

Design Win Growth



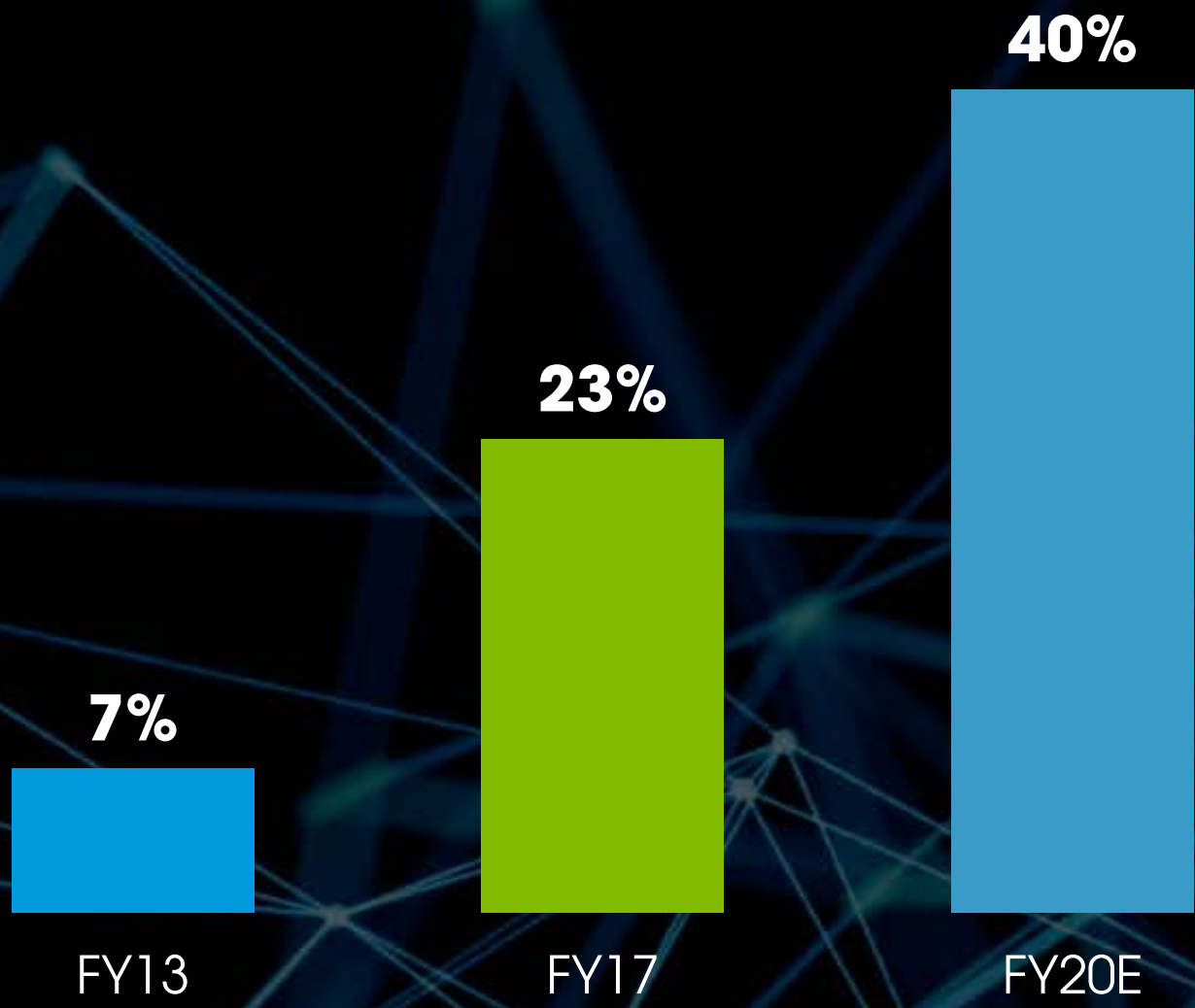
>75%

Design Center projects are Sketch-to-Scale

>230

patents issued in CY 2017

Sketch-to-Scale Manufacturing Revenue



Developed a comprehensive **innovation system**

Majority of new design engagements are **Sketch-to-Scale**

Leading development of next foundational digital **technology advances**

Next digital disruptions will generate **>\$6T economic impact**