Digitize Your Enterprise Network Management for Competitive Advantage

9 March 2017

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& Social Product Development
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- Please enter questions in the GoToWebinar Question panel
- We will answer as many questions as time allows…
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Suna Polat, Ph.D.

Director, Collaborative Innovation & Social Product Development Practice

- 25+ years of experience in technology and product development, innovation management, implementation of strategic innovation capabilities, including
  - Open Innovation
  - Modeling and Simulation (M&S)
  - Knowledge management and social technologies
- Hands on experience with driving change and adoption in large organizations
- Worked with best-in-class companies in diverse industries including consumer goods, material suppliers, IT technology, auto, airline, and pharmaceuticals, to source technology and to identify best practices and new approaches for cultivating innovation and innovation productivity

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Our Mission…

Strategic management consulting for competitive advantage in global markets

CIMdata is the leading independent global strategic management consulting and research authority focused exclusively on the PLM market.

We are dedicated to maximizing our clients' ability to design and deliver innovative products and services through the application of PLM.

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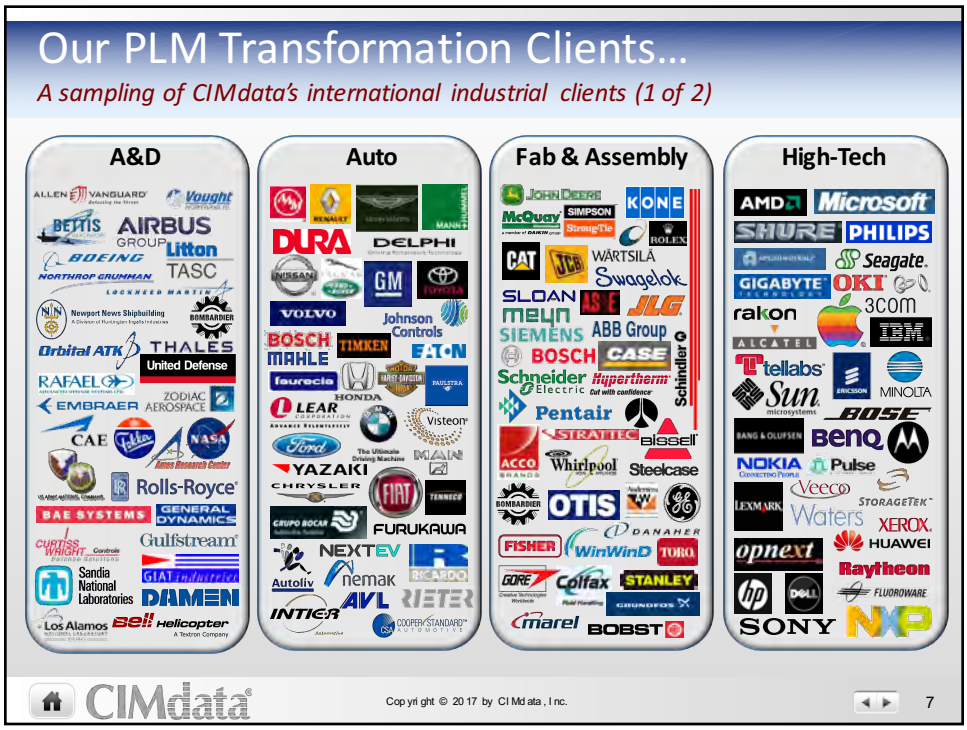

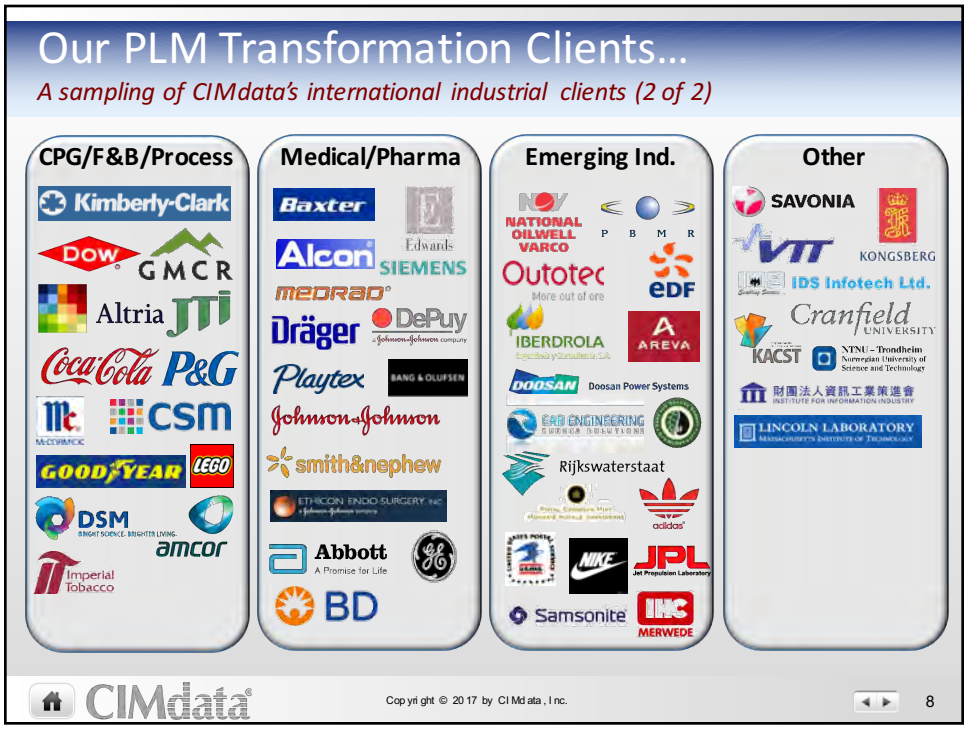

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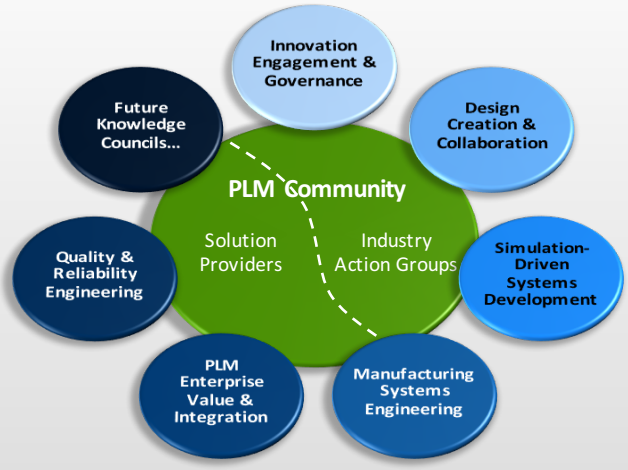
A rich set of community and knowledge council services



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Agenda

- Why Should You Care?
- Current State of Enterprise Innovation Network Management
- Proposed Digital Framework for Enterprise Innovation Network Management
- A Few "transformation" Ideas & their Benefits
- Final Thoughts
- Q & A

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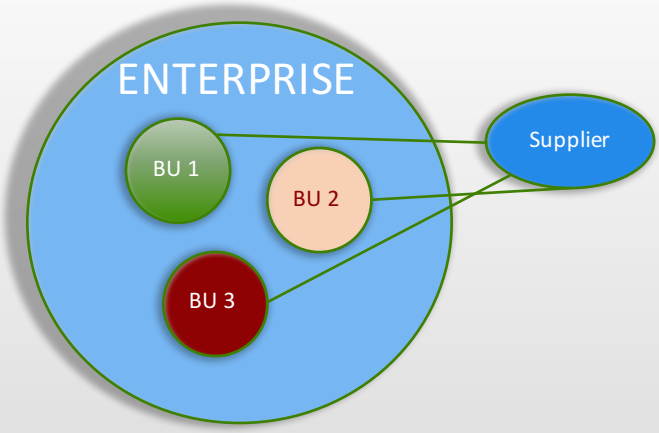
A Personal Experience

External partner knew more about what was going in my company



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Poll Question

Question for the attendees

Have you ever learned about what was going in your company by hearing from external partners?

A) Yes

B) No

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Enterprises are Challenged!

Must reevaluate how to innovate and manage innovation!

- Acceleration of everything!
  - Networked economy
  - Technology advancements: *Social, Mobile, Sensors, Cloud, AI, VR, Blockchain*
    - Smart & Connected Products
    - Internet of Everything -> Internet of Experiences
    - Smart Factory - Industry 4.0
- The worlds of physical and digital are converging
  - Digital twin concept in product development, manufacturing, and service
  - Business models based on digital network orchestration
- Enterprises should look at everything with new lenses including ***how to innovate and manage innovation***

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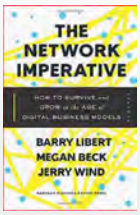
Value Creation by Business Model Type

Network Orchestrators are more valuable and more profitable

	Asset Builders	Service Providers	Technology Creators	Network Orchestrators
Description	Make, market, distribute, and sell physical goods	Hire employees who provide services to customers	Develop and sell intellectual property such as software, analytics, and technology	Create a network in which participants interact and share in the value creation
Example companies	Wal-Mart, Ford, FedEx	Aetna, JP Morgan, Accenture	Microsoft, Oracle, Amgen	TripAdvisor, Red Hat, Uber
2015 Multiplier	1.5	2.5	4.7	5.8
2015 Profit Margin	27.9%	47.1%	61.6%	69.5%
2015 Return on Assets	1.6%	2.0%	-0.9%	2.4%
2015 1 Year Sales Growth	1.3%	9.0%	13.2%	17.0%



"Networks and Platform Based Business Models Win in the Digital Age"

Source: https://news.wharton.upenn.edu/press-releases/2016/06/networks-and-platform-based-business-models-win-in-the-digital-age-according-to-a-new-study-by-the-wharton-school-of-the-university-of-pennsylvanias-sei-center-for-advanced-studies-in-m/

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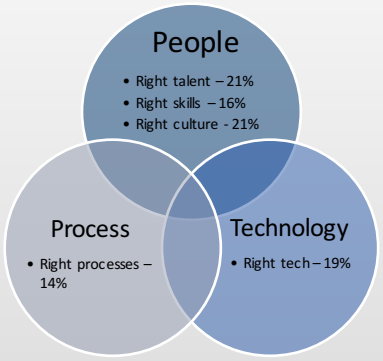
Digital is Top of Mind for Executives

98% of the market are based on non-digital, non-network business models

- Majority of executives think either their industry was already disrupted or will be disrupted soon by "digital" forces
- Yet, many feel that they are not ready for it
- Only 25% of executives feel confident that their company understands the "value creation" potential of digital



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Leadership Thinking is Key

Traditional	New
Firm-centric	**Network-centric**
Focus on tangibles	Intangible and tangible
Firm creates value	Network co-creates value
Operating at full capacity	Abundant capacity
Hierarchical	Horizontal

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Poll Question

Question for the attendees

Which type of leadership thinking does your company have?

A) Firm-centric

B) Network-centric

C) Somewhere in between

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"Big Picture" EIM System

Enterprise Innovation Management System – CIMdata Four Quadrant Model

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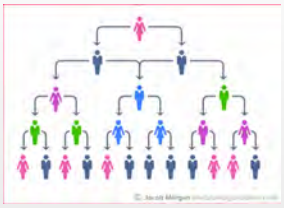
Example EIM Best Practices

Organizational structure and process

Functions manage careers, functional processes, and data



Hierarchical governance

Stage-gate project management

Matrixed Organization

Multi-functional teams

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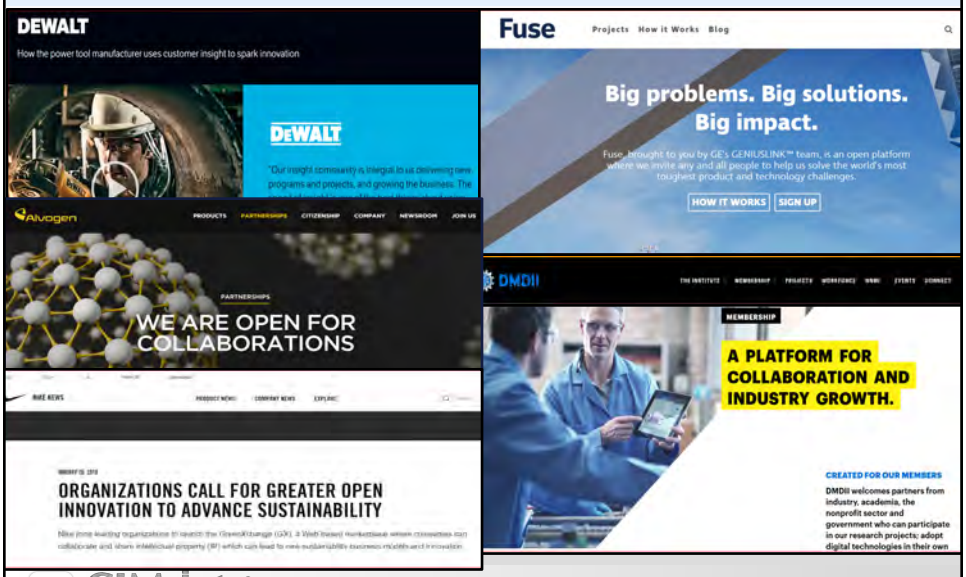
Open Innovation

Most traditional enterprises have now adopted Open Innovation as a strategy



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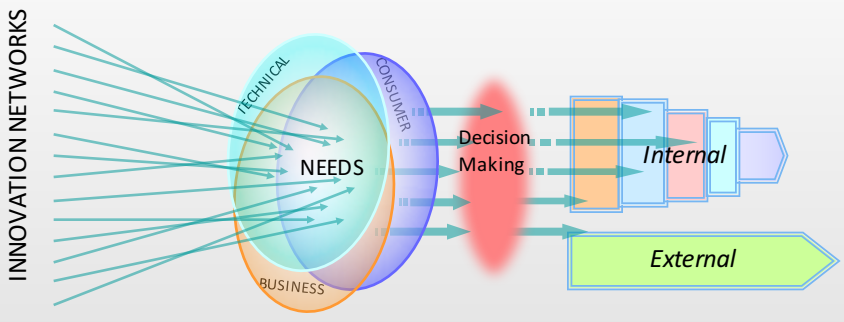
Typical Open Innovation Process

Practiced often based on traditional "leadership" thinking



There are no digital mechanisms to connect the dots in a given context

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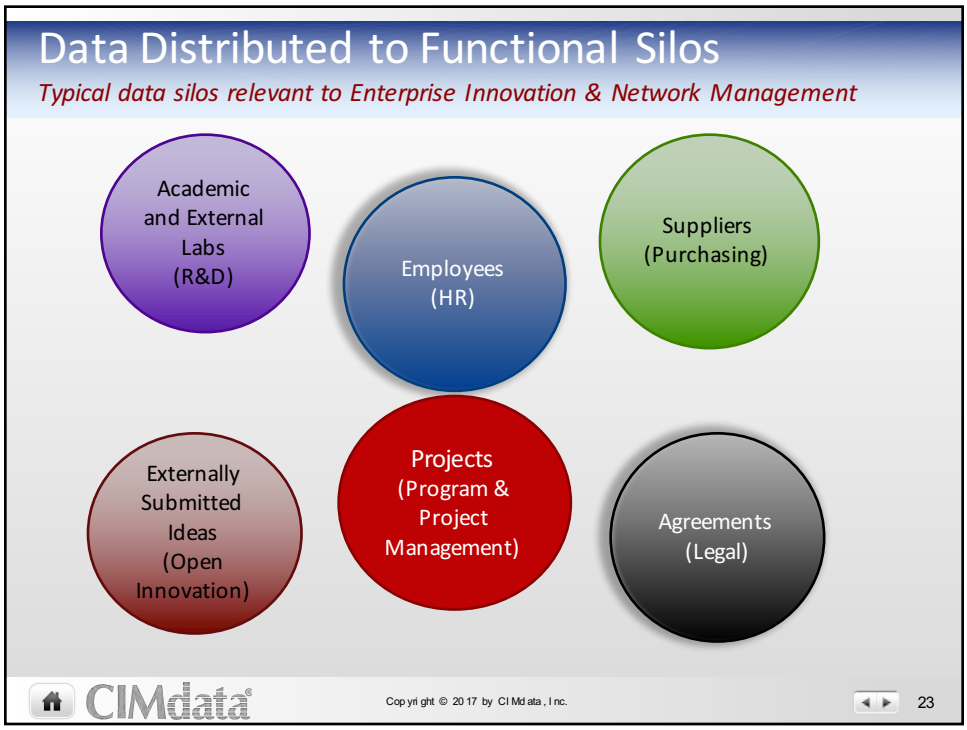

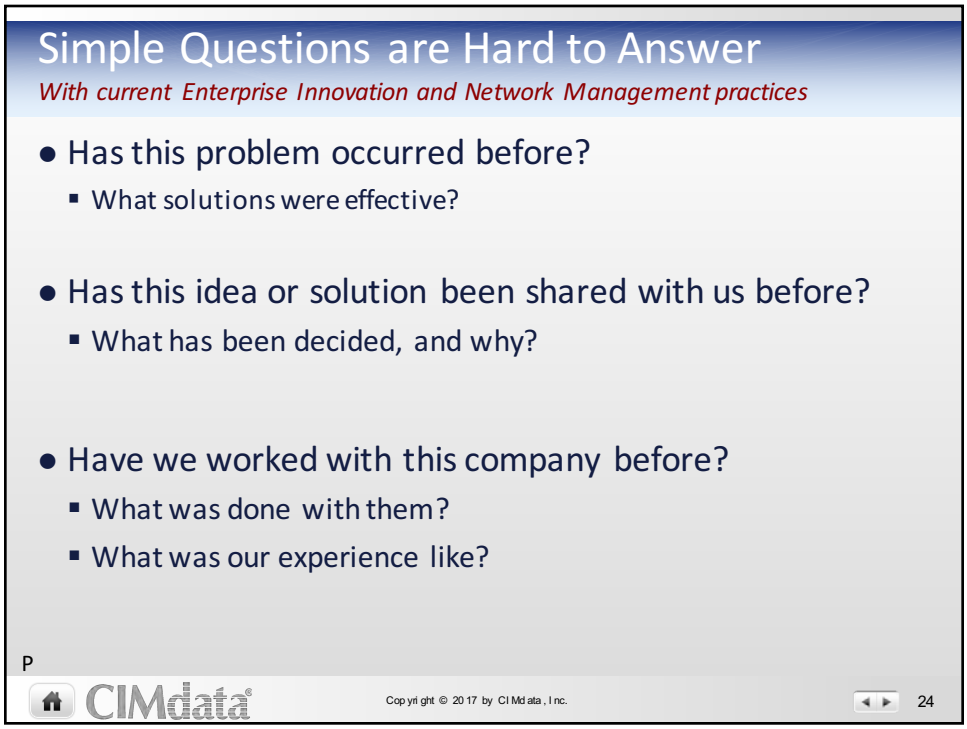

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Poll Question

Question for the attendees

Do you believe innovation and product development efficiency and effectiveness suffer due to disjointed data and processes?

A) Strongly agree

B) Somewhat agree

C) Do not agree

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Consequences of the Current EIM Approach

A few examples

- No time to think and innovate!
  - People are consumed by never-ending meetings and emails
- Wasted resources
  - Repeated experiments
  - Revisited decisions
- Mistakes
  - Missed information
  - Poor data quality
- Missed opportunities
  - Long time to market
- Poor business results

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Essence of EIM System

Align your digital framework with EIM management framework

- EIM has three basic stages
  - Knowledge gathering and generation stage, e.g., new technology
  - Turning knowledge into specific product design and manufacturing process
  - Scaling and making money
- Enterprises deploy two key resources to achieve their innovation goals: ***People*** and money (budget)
- ***Programs and projects*** are the vehicles for deployment of people and budget to do the work
- People belong to ***organizations***, e.g., functions, BU, etc.
- People use ***tools and applications*** to accomplish and communicate their work

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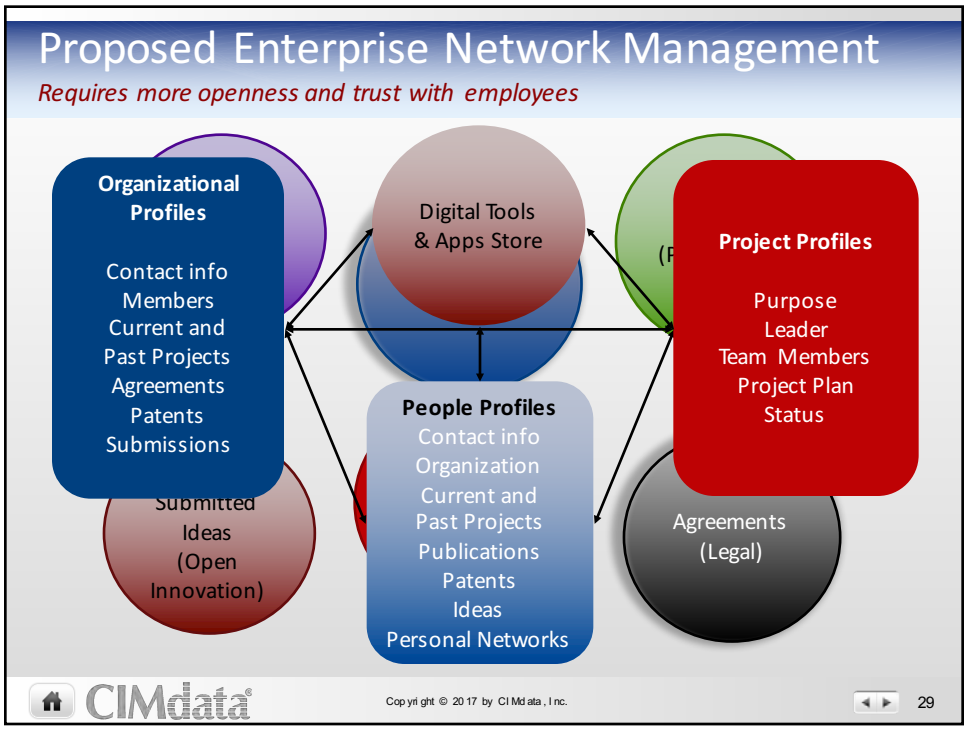

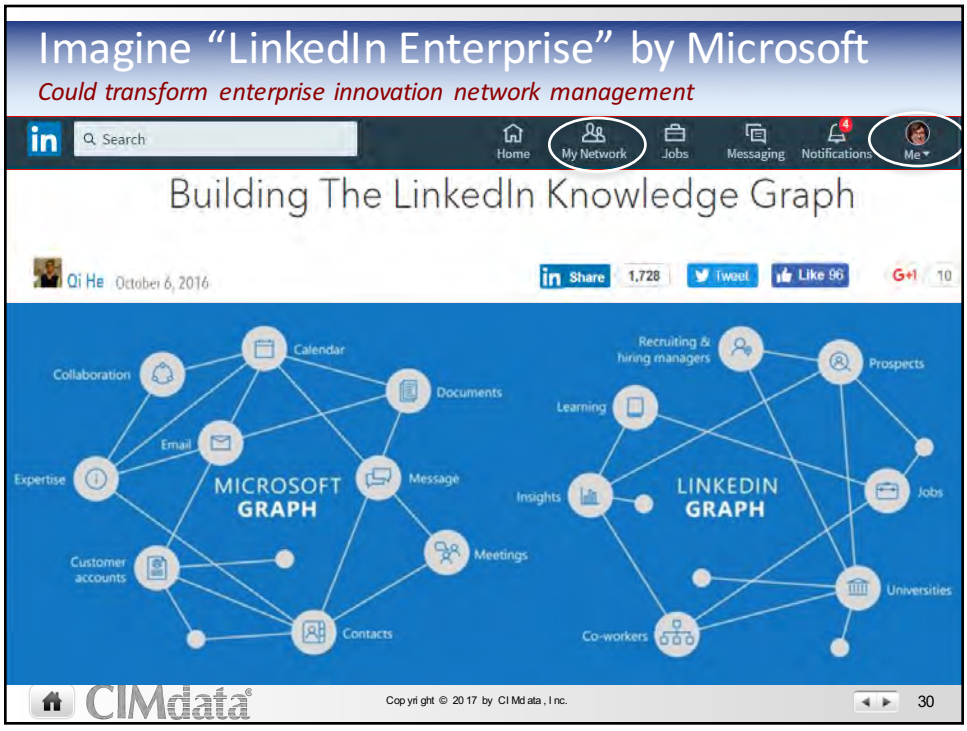

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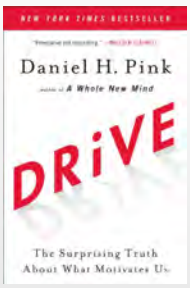
Approach to Staffing Projects

Empower employees to chose based on their passion, skills, and growth objectives

- In current EIM systems
  - Organizations hire people and assign them to projects
- In the proposed EIM system
  - **Projects** could post "jobs" and compete for talent - *the "Hollywood" model*
  - **People** could find projects and apply to work on them



What motivates us?

- ***Purpose***
- ***Autonomy***
- ***Mastery***

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Knowledge Capture & Share

Becomes easier and more personalized – bolstering people's pride in their work

- In current EIM system
  - Documents, designs, models etc. that capture learning and insights remain locked in personal computers or in shared drives
- In the proposed EIM system
  - People could post "blogs," upload documents or link to other knowledge artifacts to which they have contributed to

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Performance Review Feedback

Just in time and in context

- In the current EIM system
  - Annually the manager gathers input from a few people who worked with the employee over the year
- In the new EIM system
  - People could exchange feedback through their profiles (think "Recommendations" in LinkedIn)

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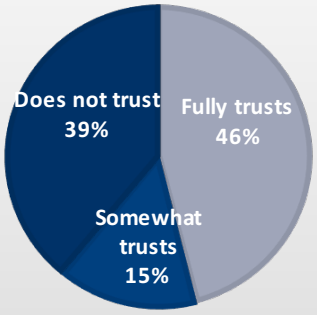
"Trust" &"Engagement" – Currency of Business

There is much room for improvement

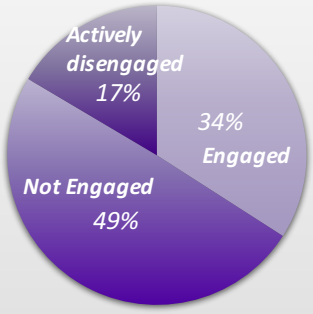
Employee Trust

https://hbr.org/2016/07/a-gbbal-survey-on-the-ambiguous-stateof-employee-trust



Employee Engagement

(Gallup – 2016)



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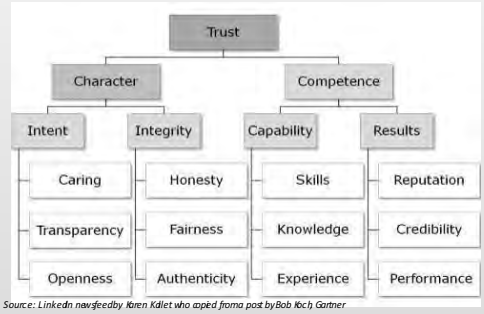
Digital Platforms Built for "Trust"

Learn from Network Orchestrators

Enterprises can learn from digital network business models where "trust" among strangers is facilitated through the platform



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Final Thoughts

- Given the rapidly changing technology and business landscape Enterprises should look at everything with new lenses including ***how to innovate and manage innovation***
- Today innovation management in many enterprises is driven by leadership thinking and best practices of the 20th century
- Enterprises have significant opportunities to improve trust and engagement of their key stake holders, and adopting CIMdata's Proposed digital framework and a more open culture will only help

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CIMdata Position Paper

A Proposed Framework to Simplify Enterprise Network Management

Available to download at:

http://www.cimdata.com/en/resources/complimentary-reports-research/position-papers/item/7789-a-proposed-framework-to-simplify-enterprise-network-management-why-microsoft-with-linkedin-has-the-right-elements-to-deliver-it-position-paper

A Proposed Framework to Simplify Enterprise Network Management

Why Microsoft with LinkedIn Has the Right Elements to Deliver It

CIMdata Position Paper

Key takeaways:

- Given the rapidly changing technology and business landscape, Enterprises should reevaluate their innovation and network management practices with new lenses. Especially if it is critical that enterprises address the functional "data silo" problem which leads to inefficiencies in development of new products and services, and reduces their scale advantage.
- CIMdata's proposed digital framework described here links People, Organizations, Projects, and Applications/Tools through visible profiles. This framework aligns better with how a business deploys resources to achieve its innovation goals.
- Enterprises have significant opportunities to improve trust and engagement of their key stake holders by adopting CIMdata's proposed digital framework within a more open culture.
- With the recent acquisition of LinkedIn, Microsoft now has a "proven" approach to implement the network management framework that is proposed by CIMdata.

There is no more debate. In today's accelerated and connected economy, turning an idea into product innovations that customers need requires integrative thinking and multi-disciplinary collaboration, often involving industrial design, science and engineering, process engineering, and hardware and software engineering. Given the diversity of expertise and knowledge that must be integrated to create new innovative products and to introduce them successfully to the correct markets, collaborative innovation is a must—no one can do it alone. Enterprises must leverage collective intelligence in their ecosystems to continue to fuel their growth through innovation and new product development.

Collaboration is a basic human endeavor. We need to connect, communicate, and collaborate to meet our basic emotional and physical needs. To do so, we quickly adopt to those technologies and tools that make our connectivity, communication, and collaboration with others easier. Wide-spread adoption of mobile devices and social media platforms such as Facebook and LinkedIn in our personal lives is a testament to this fact. Yet, despite technology advancements, enterprises continue to suffer from inefficiencies in collaboration and network management. Often collaboration breaks down due to difficulties associated with managing relationships in geographically distributed teams, processes and tools that create data silos, and differences in cultural norms and personal practices. Intranets are full of stale knowledge capture spaces, be it MS SharePoint sites or Wikis, that were once part of "hot" knowledge management initiatives.

As more business decisions need to be made in real time based on data that is constantly streaming from all corners of the world—from consumers, partners, employees, and smart connected products and manufacturing systems—it is critical that enterprises overcome inefficiencies that prevent them to unlock value from their innovation networks. In today's digital age there is significant customer value creation opportunity for enterprise software providers who can help organizations streamline and simplify collaboration. In this paper, we propose a high-level enterprise innovation network management architecture that supports

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Date: April 13

Presenter: Mike Fry, Director, Manufacturing Systems Engineering Consulting Practice

Register at:

http://www.cimdata.com/en/education/educational-webinars/webinar-how-to-apply-iot-industry-4-0-predictive-analytics-in-the-manufacturing-domain

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The next CIMdata Workshop

Driving Manufacturing Innovation with Digital Design and Simulation - *Challenges, Strategies, and Best Practices for Business Success*

Date: June 6 & 7

Location: DMDII/UI Labs Facility, Chicago

Register at:

http://www.cimdata.com/en/education/knowledge-council-workshops/joint-kc-workshop-2017

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CIMdata Research

Seeking collaboration partners

Topic:	Research on Future of Digitalized Enterprise Innovation and Product Development
Approach:	Crowdsourcing *(in partnership with Spigit)*
Partners:	Maximum 10
Cost:	$15K

Timing:

- ✓ Finalize identification of partners by July
- ✓ Partner interviews and digital space preparation: July – Sep
- ✓ Conduct research: Oct
- ✓ Analysis and reporting to partners: Nov - Feb

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Look forward to hearing from you

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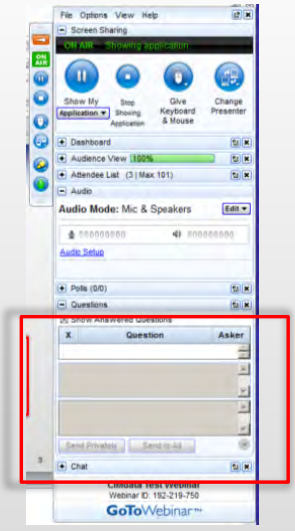

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Wrap-up and Q&A

Let's hear what's on your mind?

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