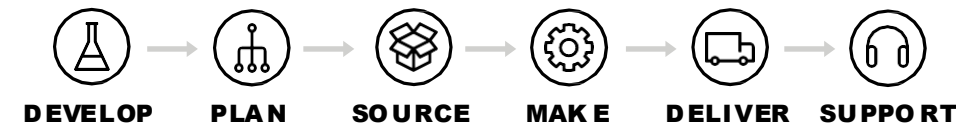


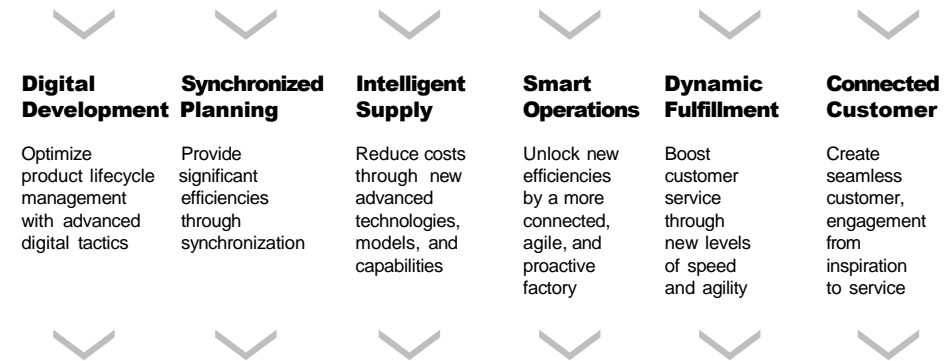
Digital Capabilities Model for Supply Networks

THE COLLAPSE OF THE LINEAR SUPPLY CHAIN

New technologies and tools have allowed the traditionally linear supply chain to collapse into an agile interconnected network that unlocks new value across the digitized nodes

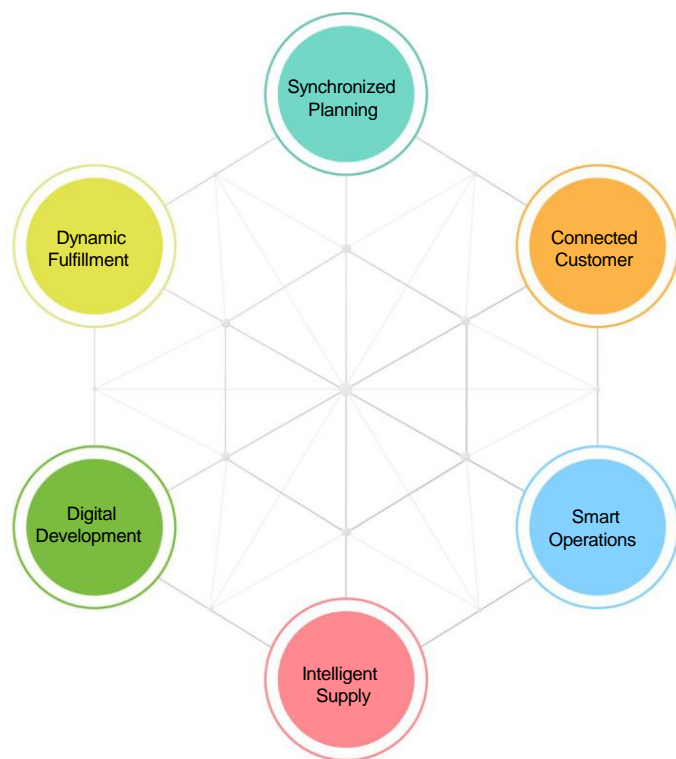


New value is being created by digitizing and connecting the traditional nodes

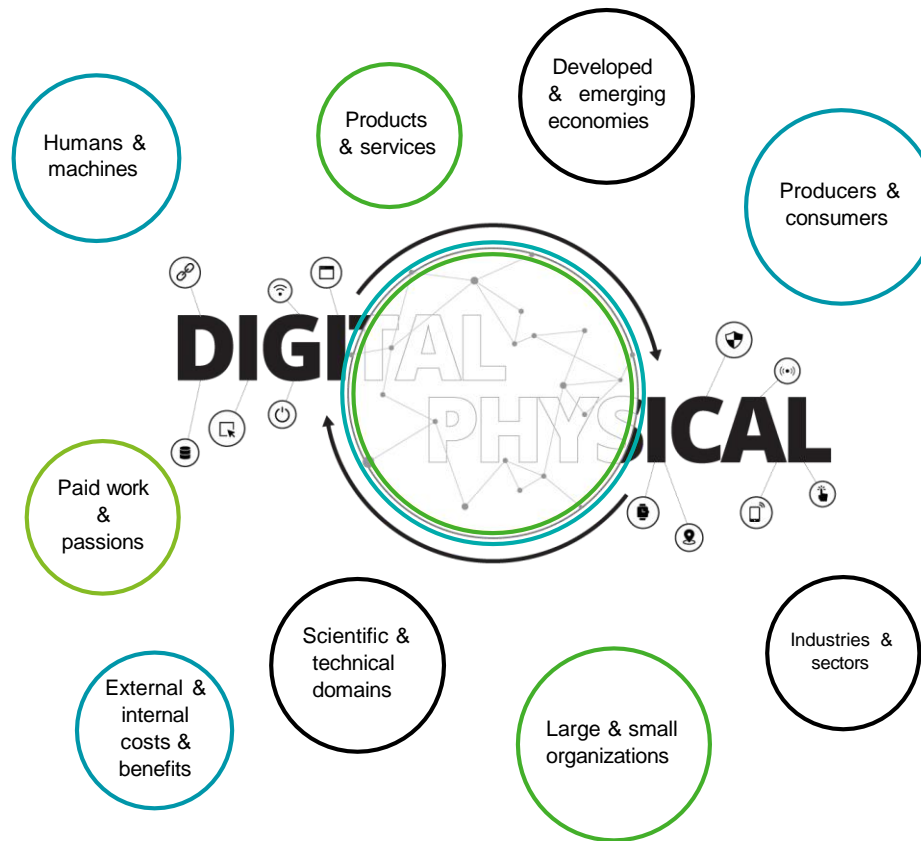


DIGITAL CAPABILITIES MODEL FOR SUPPLY NETWORKS

Innovative and disruptive technologies can enable supply chains to transform into Digital Supply Networks (DSNs), which can serve as a powerful competitive weapon



BLURRING BOUNDARIES



MARKETPLACE DEMANDS

Traditional Challenges

- Bullwhip effect magnifying variability from customer to supplier by up to **50x**
- Poor end-to-end visibility leading to buffers and safety stocks at every stage in the supply chain, creating the quarter-end hockey stick effect
- Functional silos and misaligned incentives in organizations combined with decoupled planning and execution, causing unwarranted delays

New Technologies



Expanding Demand

2.8% Projected global growth by 2021¹

82% of consumers consult their phones while they're in a store deciding what product to buy (one in 10 ended up buying a different product than they had planned)²

36% of consumers are interested in buying personalized products and services (and 48% would wait longer to receive a personalized product)³

Hyper Connectivity

6B Internet users by 2022 (75% of projected world population of 8 billion)⁴

> 7.5B Internet users by 2030 (90% of the projected world population of 8.5 billion, 6 years of age and older)⁵

30B IoT connected devices by 2020⁶

5.5M New things connected to network infrastructure each day in 2016⁷

ABOUT THE MODEL

Deloitte and ASCM will incrementally develop and release components of the model through 2022

Compatible with the **Supply Chain Operations Reference (SCOR) Digital Standard**, the new model helps companies advance their capabilities from traditional linear supply chains to digital supply networks, the dynamic, interconnected systems that simultaneously plan, execute, and enable digital supply "chains".

Include **capabilities and their interdependencies** that transcend physical-digital boundaries and include people, processes and technologies needed to break through traditional organizational silo's and be competitive in the digital age.

How to **explicitly leverage established and emerging digital enablement**, from IoT and sensors, to the application of data science, machine learning and artificial intelligence, and lights out supply network planning and execution functions.

Span functions to achieve enterprise level optimization, aligning planning and execution in collaboration with customers, suppliers and internal facilities.

HOW TO ENGAGE












Supply Chain Maturity Assessment

Assess your supply chain: Take a comprehensive supply chain maturity assessment to learn how digitally ready your organization's supply chain is. Request your access to the assessment on our website.

Digital Capabilities Model for Supply Networks

DIGITAL SUPPLY NETWORKS CHARACTERISTICS

DSNs share common characteristics that drive differentiated performance and value

	End-to-end Transparency	The ability to see across the network	Capability Elements Existing data sets, Sensors, New data sets, Visualizations
	"Always-on" Agility	The ability to proactively operate across the network	Capability Elements Predictive alerts, Advanced analytics, Edge computing
	Connected Environment	The ability to extend into your suppliers and customers	Capability Elements Third party data sets, Real-time collaboration and live data sharing
	Resource Optimization	The ability to identify and utilize the right worker, human or machine, for work	Capability Elements Artificial intelligence, Optimization algorithms, Unstructured data
	Holistic Decision Making	The ability to continuously learn and make optimal network decisions	Capability Elements Machine learning, Voice and thought interaction
Foundational Elements			
	Cybersecurity		Data Integrity
	Safety		Talent

DIGITAL DISCIPLINES

Sense: Identify and act on environmental changes

DSNs sense the environment around them, their customers, suppliers and own operations to detect risks and opportunities

- Customer sentiment
- Supplier risk and performance
- Internal operational performance
- Employee performance and satisfaction

Respond: Place decisions into action

DSNs systematically and effectively convert decisions into actions

- Within the enterprise and with partners, suppliers, and customers
- Highly automated capabilities to convert decisions to tasks with owners

Collaborate: Inside and outside the organization

DSNs collaborate with their business partners, upstream and downstream, to understand and address the impact of the sensed signals

- Improved data visibility as "one source of the truth"
- Improved collaboration technologies, from phone to email to chat to corporate social media
- Concurrent and transparent engagement across multiple nodes in the network

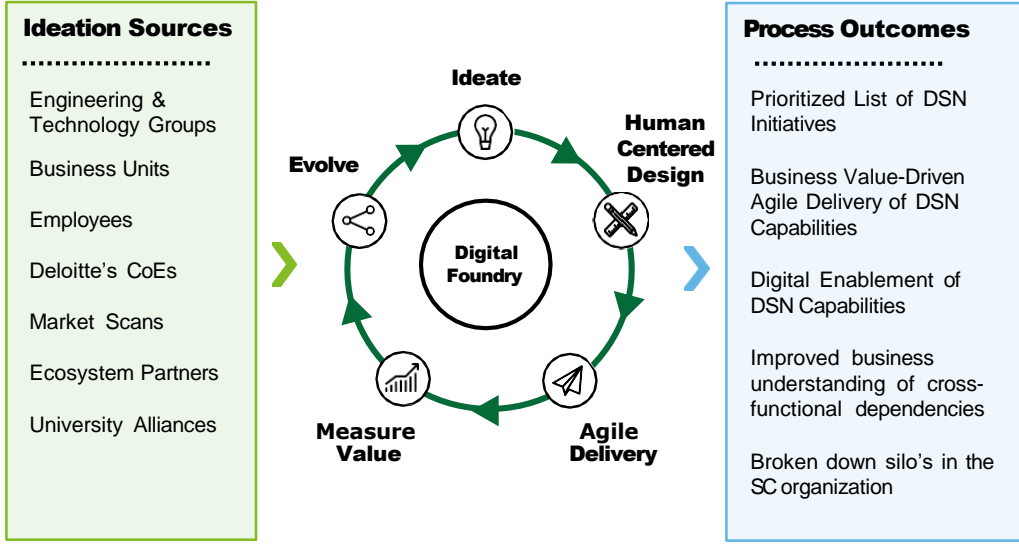
Optimize: Maximize performance

DSNs persistently seek to identify the best, implementable courses of actions to optimize the end-to-end network

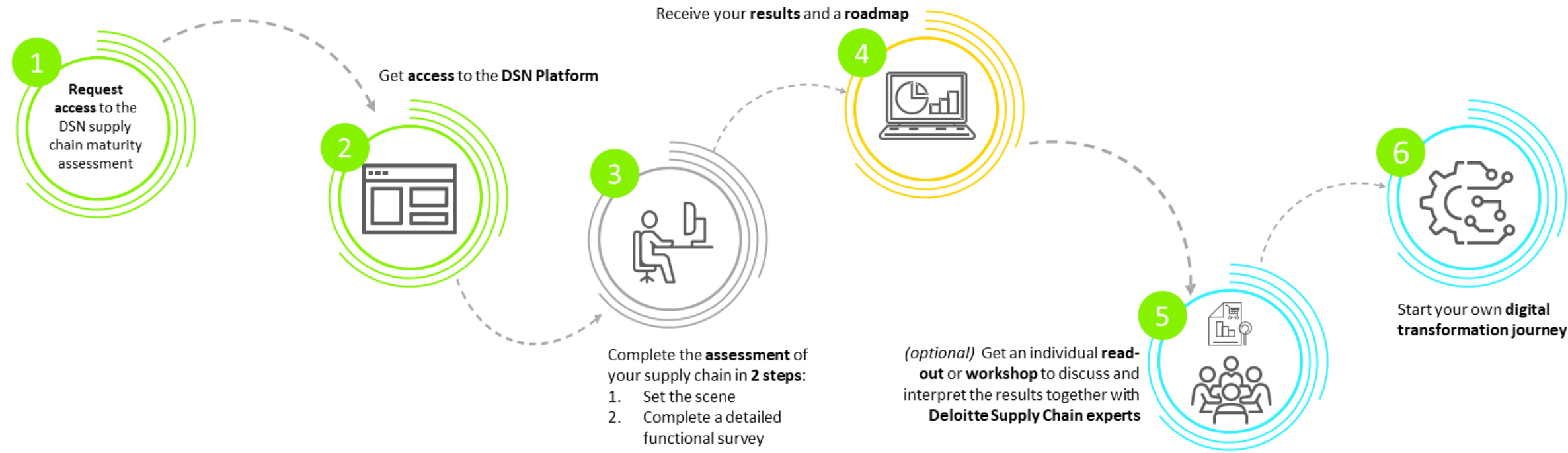
- Cross-functional and cross-enterprise optimization
- Computing, communication and storage technologies augmented by artificial intelligence capabilities

THE DIGITAL FOUNDRY

Build a scalable delivery model that rapidly ideates, prototypes, and implements digital tactics, on an ongoing basis using established processes and governance.



YOUR TRANSFORMATION JOURNEY WITH THE ASSESSMENT



CONTACTS

Get in touch with our team to begin your supply chain transformation.

Milan Kulhánek
Partner
Supply Chain & Network Operations
Deloitte Consulting Czech Republic
mkulhanek@deloittece.com

Lukáš Jílek
Senior Manager
Supply Chain & Network Operations
Deloitte Consulting Czech Republic
ljilek@deloittece.com

Jiří Dušička
Senior Manager
Supply Chain & Network Operations
Deloitte Consulting Czech Republic
jdušicka@deloittece.com

Learn more at:
[Deloitte/cz/en/SCNO](https://deloitte.cz/en/SCNO)

1. Global Economic Prospects: <https://www.worldbank.org/en/publication/global-economic-prospects>, June 2019
 2. Think with Google: <https://www.thinkwithgoogle.com/marketing-resources/micro-moments/how-micro-moments-are-changing-rules/>
 3. Deloitte Consumer Review: <https://www2.deloitte.com/content/dam/Deloitte/uk/Documents/consumer-business/deloitte-uk-consumer-review-mass-personalisation.pdf>
 4. <https://cybersecurityventures.com/how-many-internet-users-will-the-world-have-in-2022-and-in-2030/>
 5. <https://cybersecurityventures.com/how-many-internet-users-will-the-world-have-in-2022-and-in-2030/>
 6. Statista.com: <https://www.statista.com/statistics/471264/iot-number-of-connected-devices-worldwide/>
 7. Deloitte: <https://www2.deloitte.com/insights/us/en/focus/tech-trends/2016/internet-of-things-iot-applications-sensing-to-doing.html>