Arthur D Little

Managing Global Production Networks

Study Results
June 2015

Contents

1 Management summary

Megatrends have strong impact on production networks, which requires companies to constantly review network structure and strive towards centralization while meeting local requirements

Global megatrends and manufacturing industry trends

Global megatrends create transformative industry trends with a strong impact on management of global production networks

Network goals

Key network goals are access to markets and qualified workforce, not low-cost labor

Network structure

Companies define roles and strategies for their networks – different network types are equally common

Network coordination

A high degree of standardization and centralization is prevalent, independent of the network structure

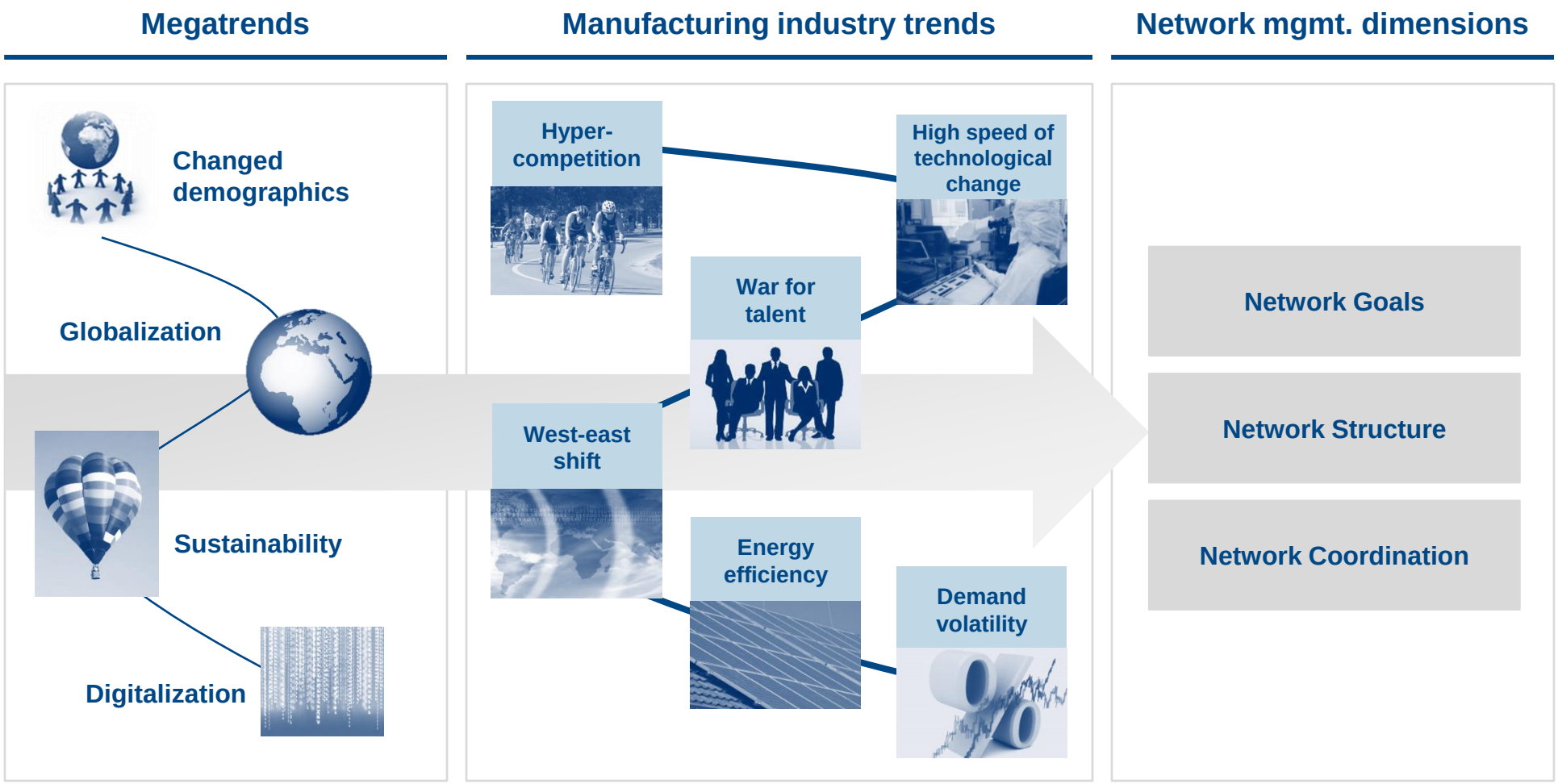
Implications for companies

1. Define goals and strengthen key network capabilities
2. Constantly review network design to respond to the dynamic market
3. Strive for high degree of centralization while meeting the local requirements

Source: Arthur D. Little production network study 2014.

Contents

Global megatrends create transformative industry trends with a strong impact on the manufacturing industry and the management of global production networks



Source: Arthur D. Little

The megatrends are reflected in the network goals – the most important network goals are access to markets and qualified workforce, not low-cost labor

Network goals

90%	Access to markets and customers
75%	Access to a highly qualified workforce
72%	Access to suppliers
70%	Benefits by economies of scope
70%	Benefits by reduction of duplication
68%	Benefits by economies of scale
60%	Access to low-cost labor
40%	Transfer of products, processes, resources
39%	Access to competitors' markets
35%	Exchange of production volume
26%	Access to external know-how

Most important goals are:

Access to customers

Access to skilled workforce

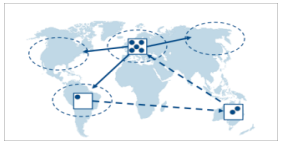
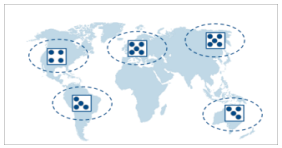
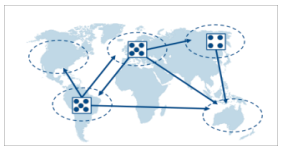
Access to suppliers

Low labor costs is only no. 7

Source: Arthur D. Little production network study 2014; % of respondents that find the network goal very important or important.

Companies define roles and strategies for their networks – different network types are equally common

Network structure

Network type		Share	Study results
Sequential		**5%**	■ Most common network types: – Web structure – World factory – Local for Local ■ High degree of globalization, with 60% of the companies being present in at least 3 continents ■ All companies are present in Europe, most in Asia but only 10% in Africa ■ 89% have assigned roles for each site, of which most production sites focus on one product or market ■ 84% define a long-term strategy for the production network, and this strategy is aligned to the corporate strategy
Hub & spoke		**15%**	
Local for local		**25%**	
World factory		**25%**	
Web structure		**30%**	

Source: Arthur D. Little production network study 2014.

Independent of the network structure a high degree of standardization and centralization is prevalent

Network coordination

Standardization & Centralization	■ Generally high degree of centralization and standardization across sites ■ High standardization and centralization for strategic and long-term systems, decisions and processes
Know-How sharing	■ Knowledge sharing is an area where improvements can be made ■ Management and employee commitment are the most critical success factors
Performance	■ Performance is tracked at site and company level

Source: Arthur D. Little production network study 2014.

Long-term and strategic systems, processes and decisions are often highly centralized and standardized while operational systems, decisions and processes are decentralized

Centralization & Standardization

low → high

	Low centralization & standardization	High centralization & standardization
Systems	■ **Operational** – production systems – operational systems – know-how exchange systems	■ **Strategic** – quality systems (e.g. standards) – management systems (e.g. ERP)
Decisions	■ **Short-term, operational:** e.g. – short-term capacity allocation – organizational structure – production process decisions	■ **Long-term, strategic:** e.g. – make or buy – business targets – transfer pricing
Processes	■ **Short-term, operational:** e.g. – short-term manufacturing planning – internal supply chain planning – exchange of best practices	■ **Long-term, strategic:** e.g. – strategic sourcing – strategic logistics – product development
	High flexibility, fast adaptation to changes	**High control, fast execution of decisions**

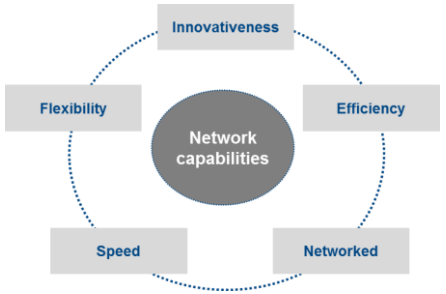
Source: Arthur D. Little production network study 2014. High centralization and standardization for questions answered on average with 3.67 or above from 5

Companies need to define goals to strengthen required network capabilities, constantly review their network structure and strive for centralization while meeting local requirements

Implications for companies

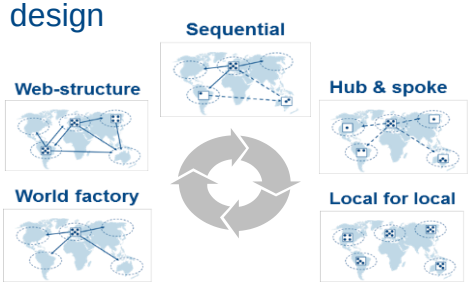
1 Define goals and strengthen key network capabilities

- Megatrends and manufacturing trends require key network capabilities
- Companies need to define and measure network goals to strengthen these capabilities:
  - Innovativeness
  - Efficiency
  - Networked
  - Flexibility
  - Speed



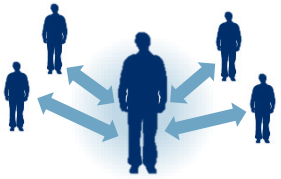
2 Constantly review network structure

- Global trends create a dynamic environment that requires the strategy and network design also to be dynamic
  - Current setup is a result of historical decisions and often not a perfect match with the ideal network design
  - Companies' product portfolios are dynamic, which is another reason for constantly reviewing the network design



3 Centralize while meeting local requirements

- The study shows a high degree of centralization and standardization among companies
  - No significant difference in degree of centralization and standardization between the different network designs
- Most companies benefit from a high degree of centralization and standardization independently of network design, but need a local edge to respond to diversified customer demand



Source: Arthur D. Little analysis

Contact details

Arthur D. Little has been at the forefront of innovation since 1886. We are an acknowledged thought leader in linking strategy, innovation and transformation in technology-intensive and converging industries.
We navigate our clients through changing business ecosystems to uncover new growth opportunities.
We enable our clients to build innovation capabilities and transform their organizations.

Our consultants have strong practical industry experience combined with excellent knowledge of key trends and dynamics. Arthur D. Little is present in the most important business centers around the world.
We are proud to serve most of the Fortune 1000 companies, in addition to other leading firms and public sector organizations.

For further information please visit www.adlittle.com.

Contact:

Bernd Schreiber, Partner
Arthur D. Little GmbH
The Squaire
60600 Frankfurt am Main
T: +49 69 450098-260
E: schreiber.bernd@adlittle.com

Niklas Brundin, Principal
Arthur D. Little AB
Kungsgatan 12-14
Box 70434
107 25 Stockholm
T: +46 8 50 30 6508
E: brundin.niklas@adlittle.com