Deloitte.

Supply Chain Leadership
Distinctive approaches to innovation, collaboration, and talent

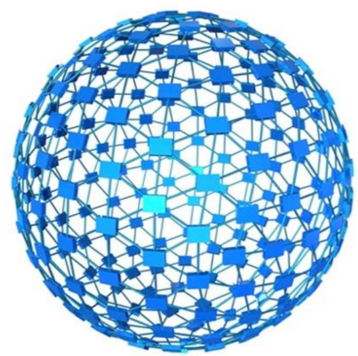
October 2014

Deloitte Consulting LLP

The treacherous global landscape

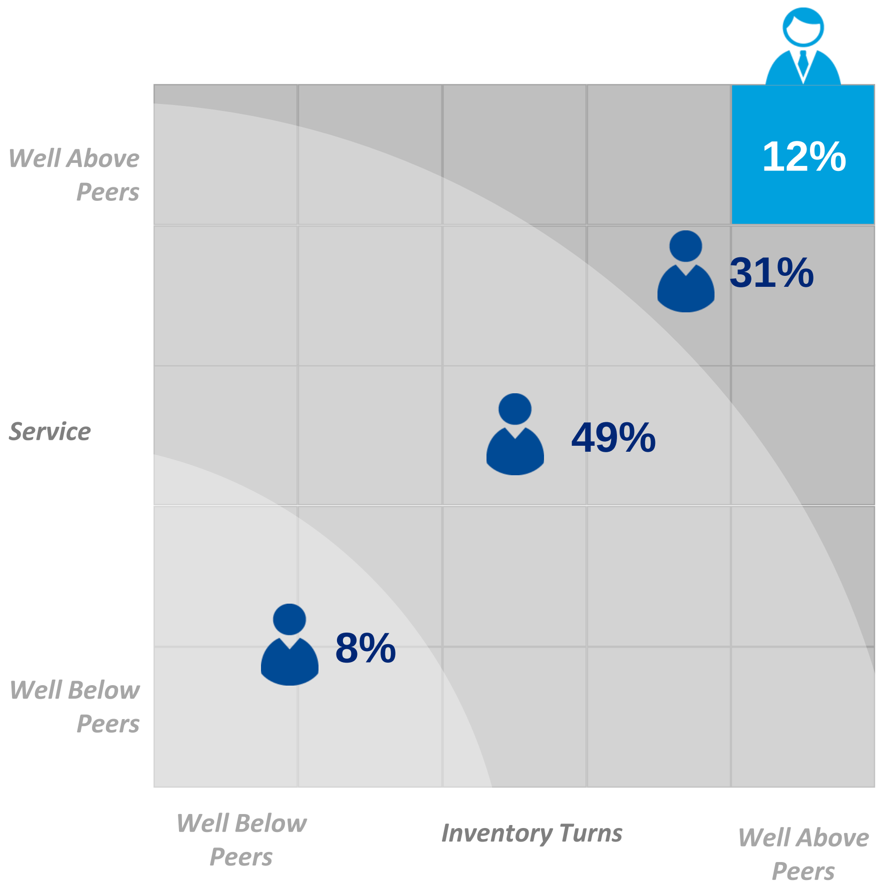
Intensifying Competition and Rising Customer Expectations

Increased Global Complexity



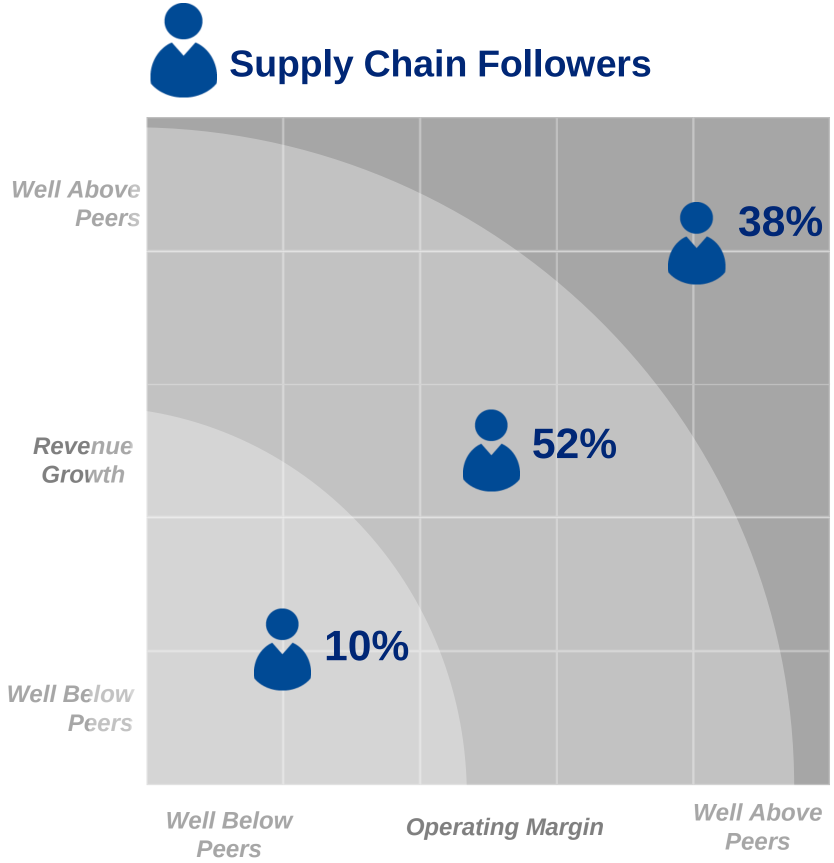
Changing Regulatory Requirements

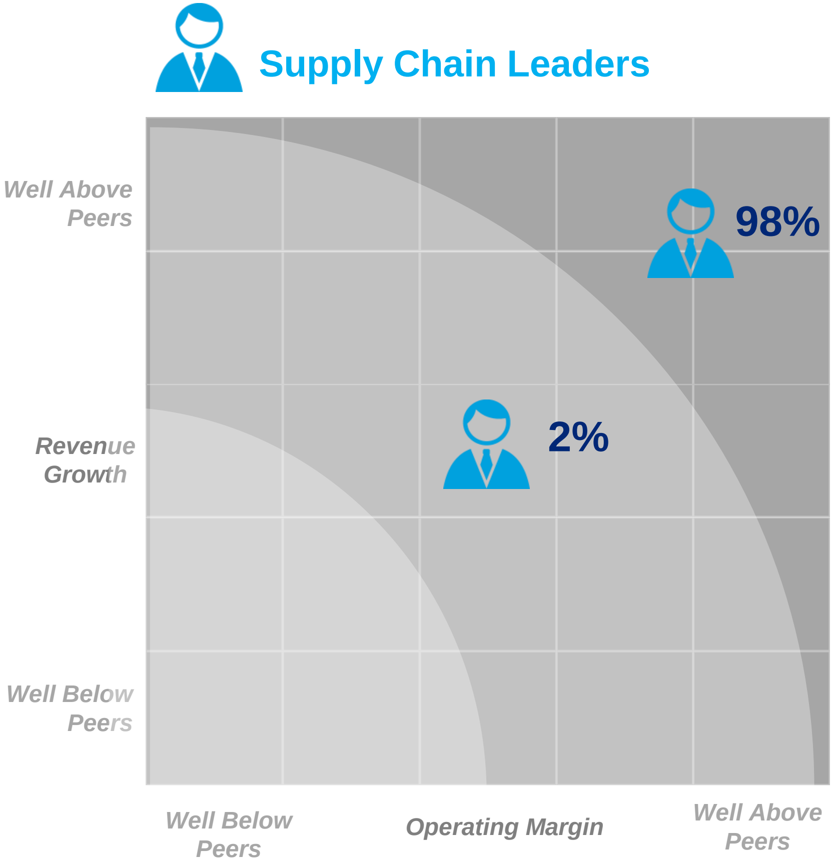
Breaking the efficient frontier



Source: Deloitte's 2014 Global Supply Chain Survey

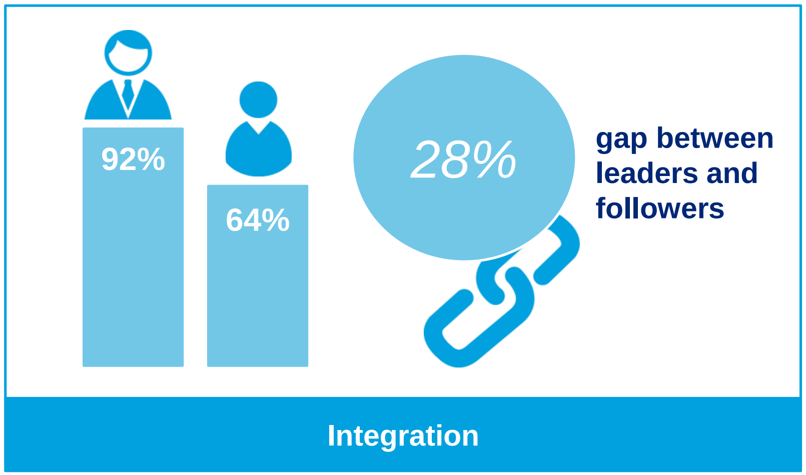
Supply chain excellence = Financial excellence

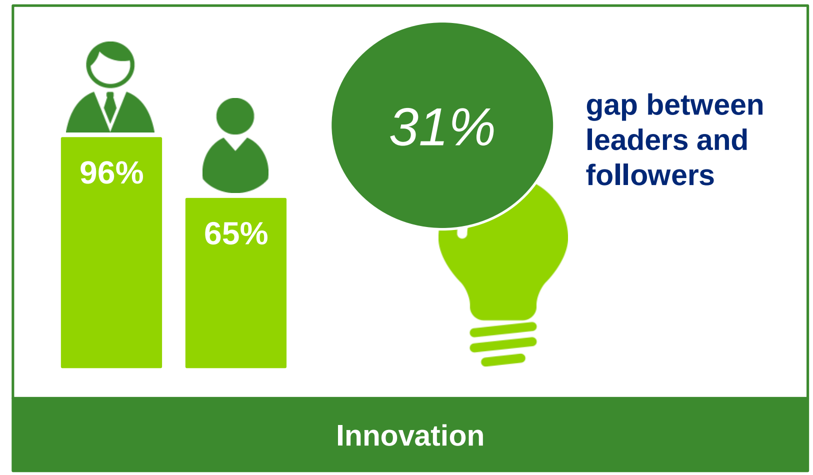


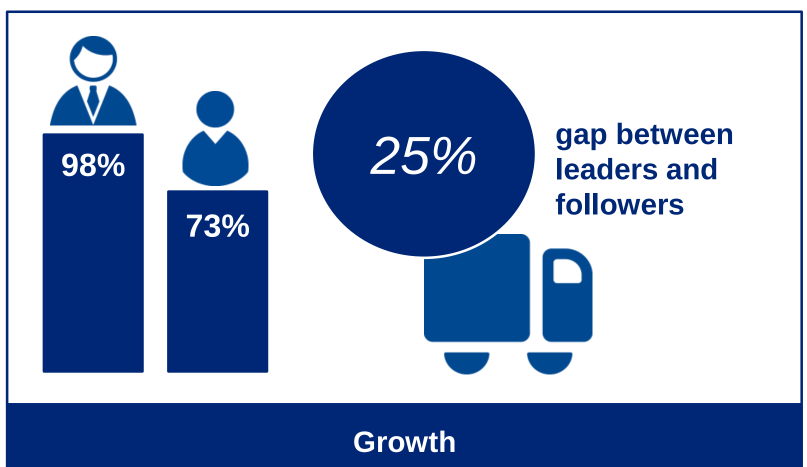


Supply chain leaders more likely to concentrate on integrating, innovating and growing

Supply chain Objectives







Source: Deloitte's 2014 Global Supply Chain Survey

Pillars of a sustainable competitive advantage

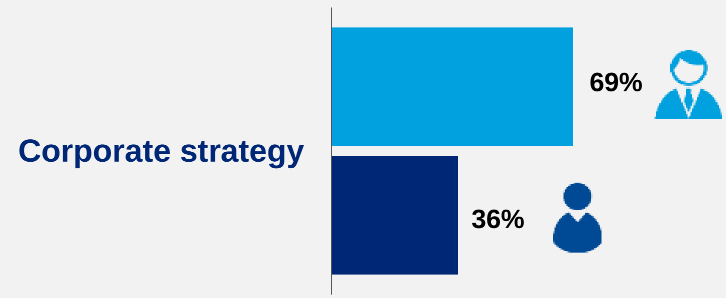
Supply chain as a strategic function

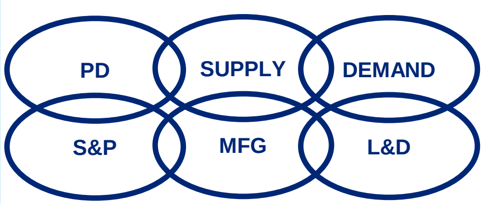
Senior Leadership

More often headed by EVP/SVP

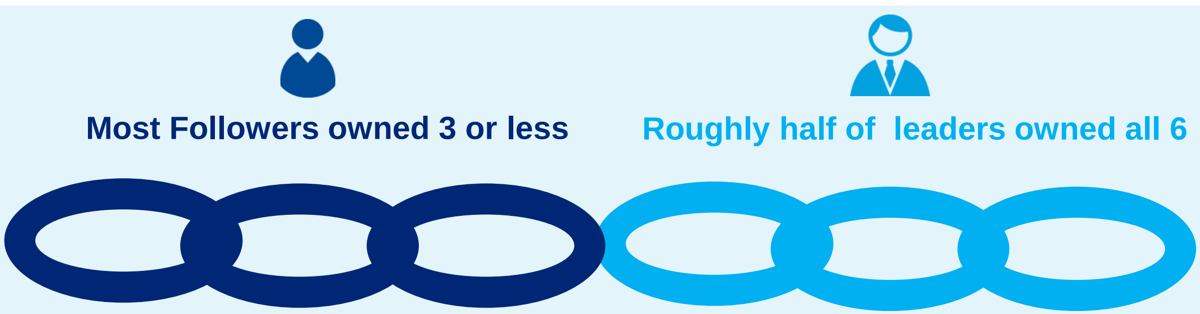
Strategic Alignment

More likely to align with corporate strategy





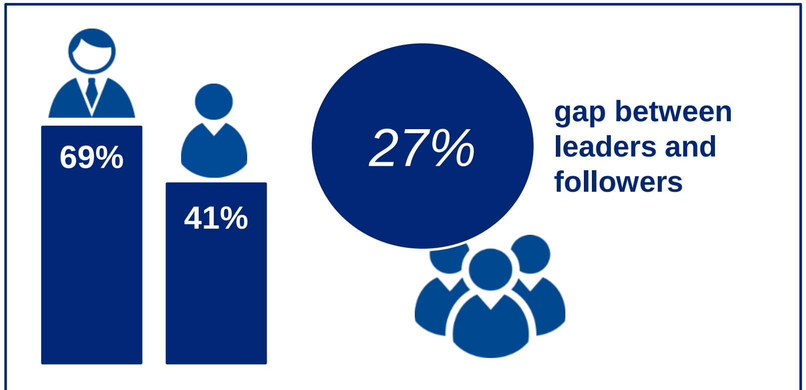
End-to-End Span of Control



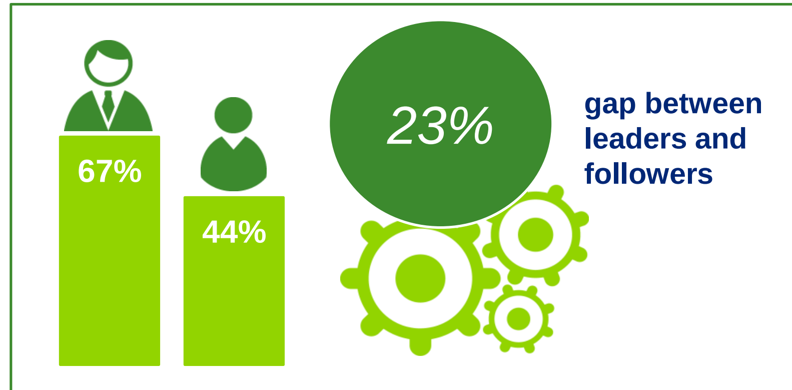
Source: Deloitte's 2014 Global Supply Chain Survey

Supply chain leaders more likely to concentrate on integration

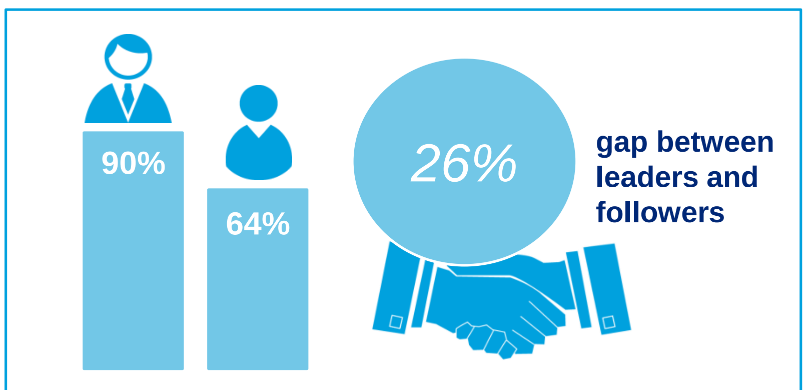
Supply chain Challenges



Integrating with customers



Integrating with Sales and Marketing

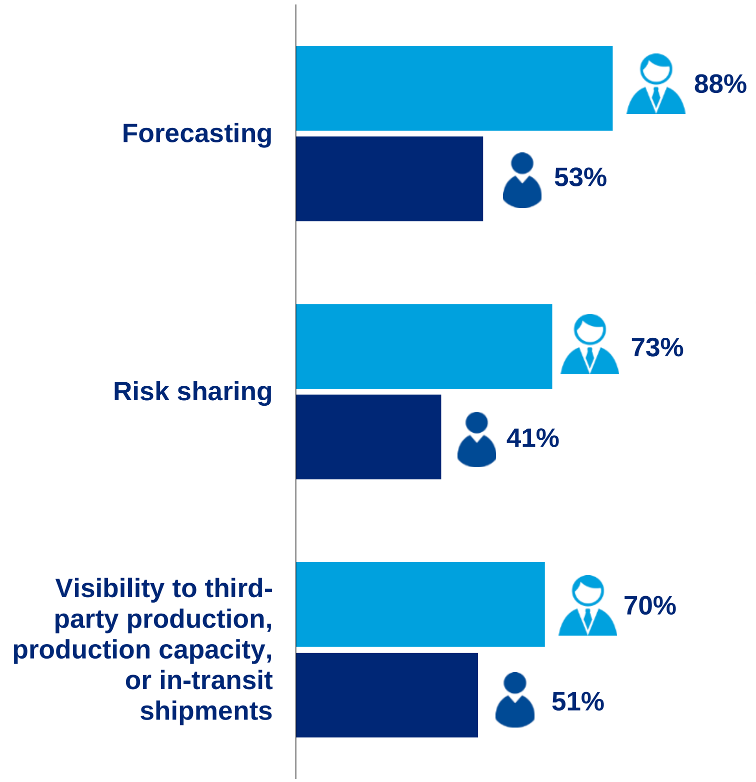


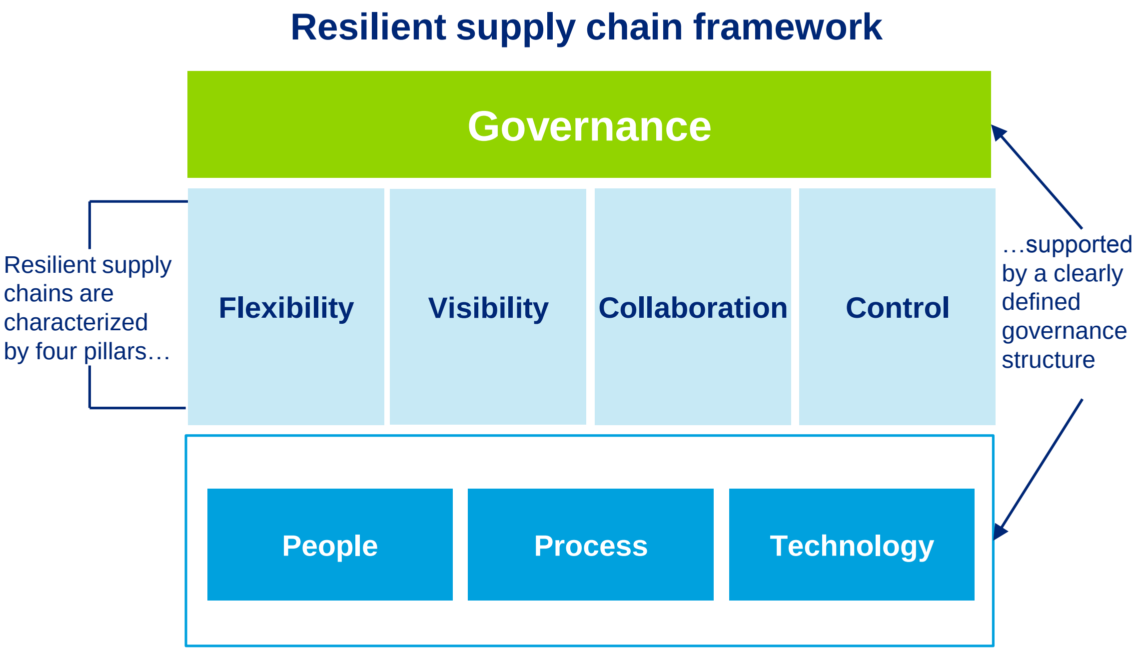
Integrating with Suppliers

Source: Deloitte's 2014 Global Supply Chain Survey

Reliance on third-party suppliers as a virtual extension of a supply chain

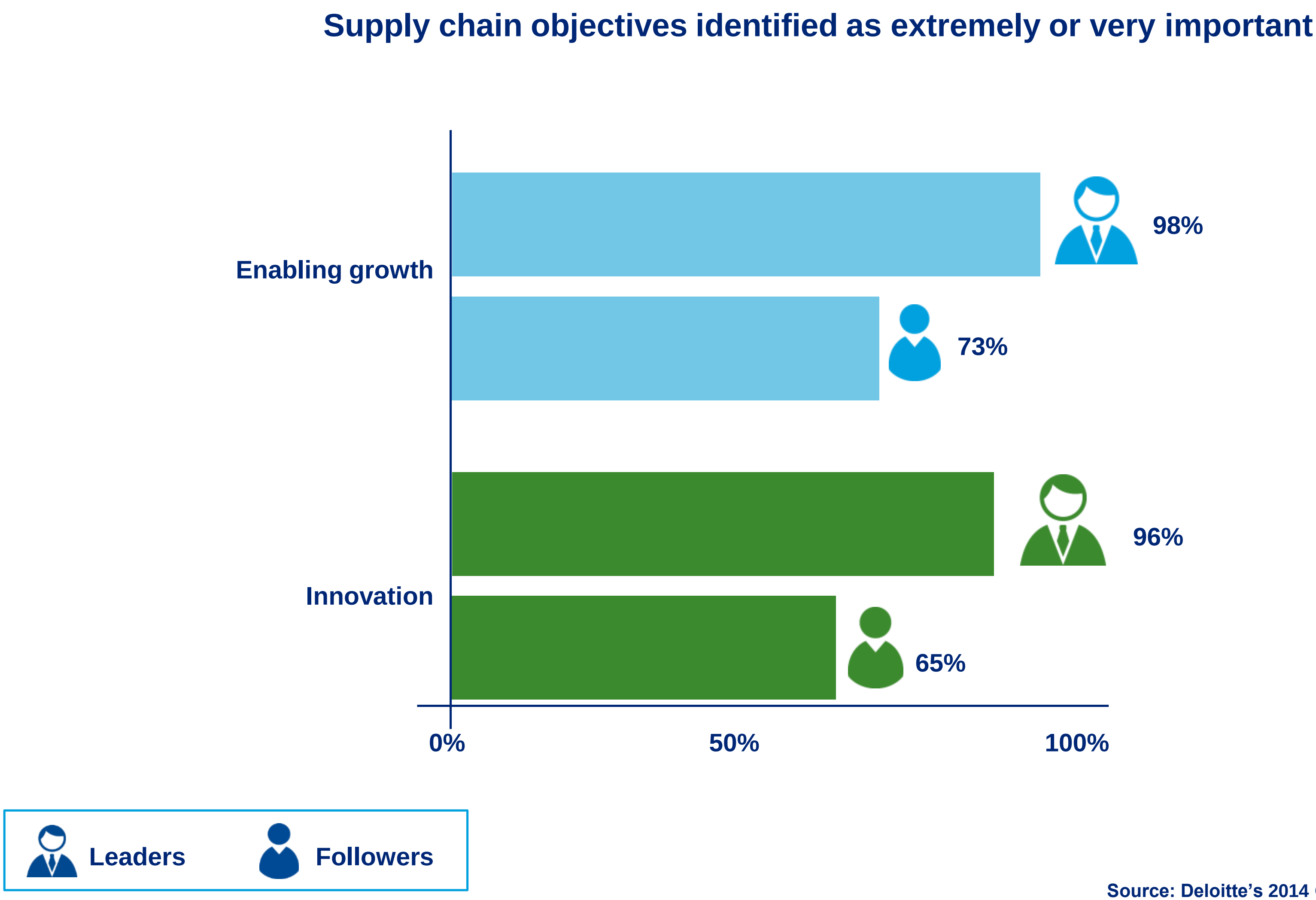
Coordination with Third-Party Providers





Source: Deloitte's 2014 Global Supply Chain Survey

Supply Chain Leaders have a mandate to fuel growth through innovation



Source: Deloitte's 2014 Global Supply Chain Survey

Evolution of the bookstore: 1994

Innovation is not invention

TEN TYPES OF INNOVATION

Network
Connections with others to create value

Process
Signature or superior methods for doing your work

Product System
Complementary products and services

Channel
How your offerings are delivered to customers and users

Customer Engagement
Distinctive interactions you foster

Profit Model
The way in which you make money

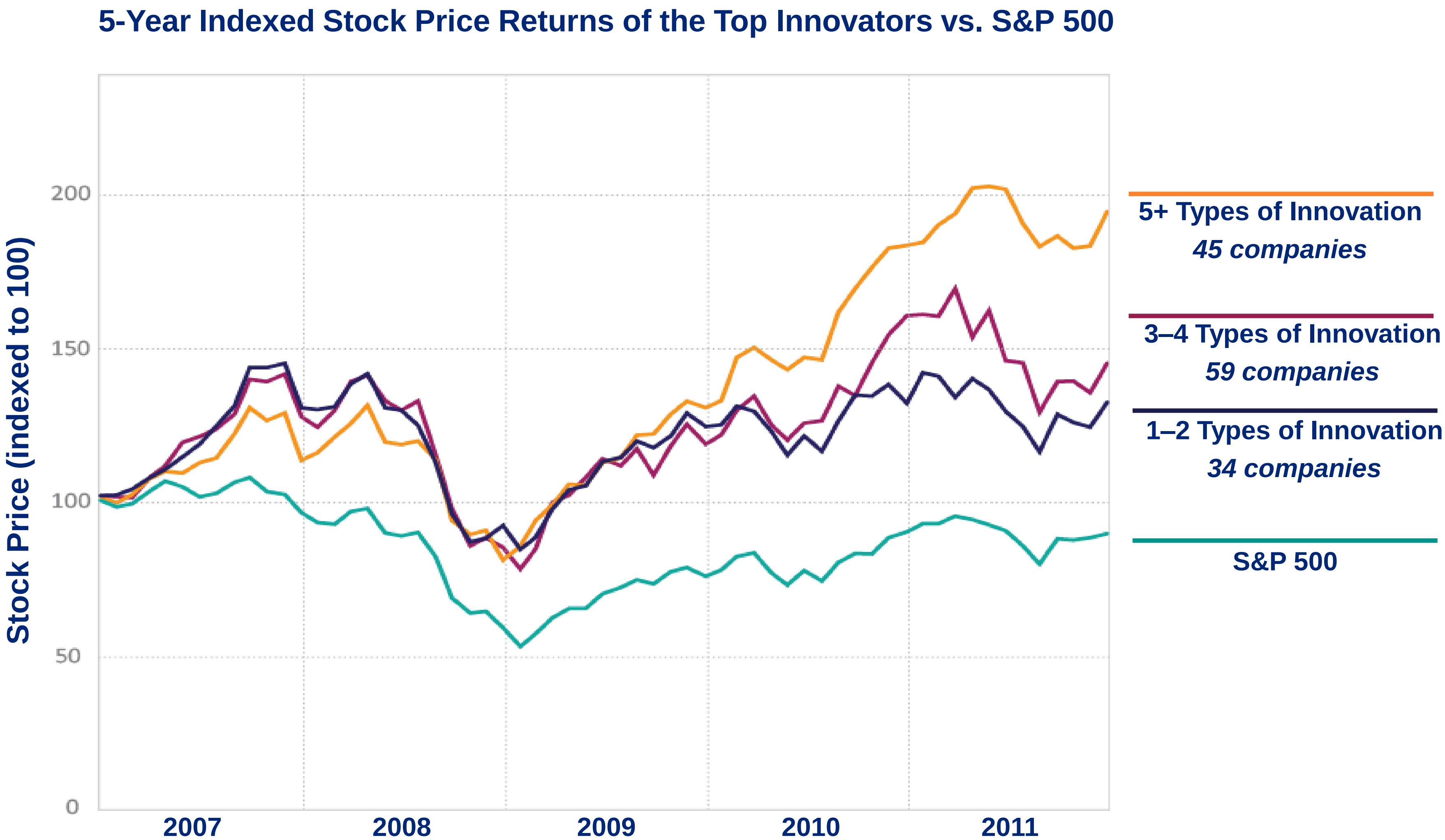
Structure
Alignment of your talent and assets

Product Performance
Distinguishing features and functionality

Service
Support and enhancements that surround your offerings

Brand
Representation of your offerings and business

More innovation types = superior financial returns



Potentially disruptive technologies offer platform for innovation

Emerging Technologies in Supply Chain

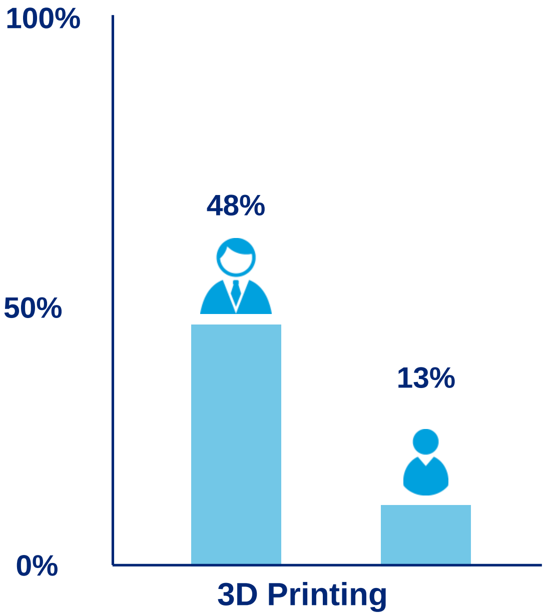
3D Printing

Advanced Analytics

How will 3D Printing impact your industry?

Extensive Use of 3D Printing

Percentage Responding “Use Extensively”



Source: Deloitte’s 2014 Global Supply Chain Survey

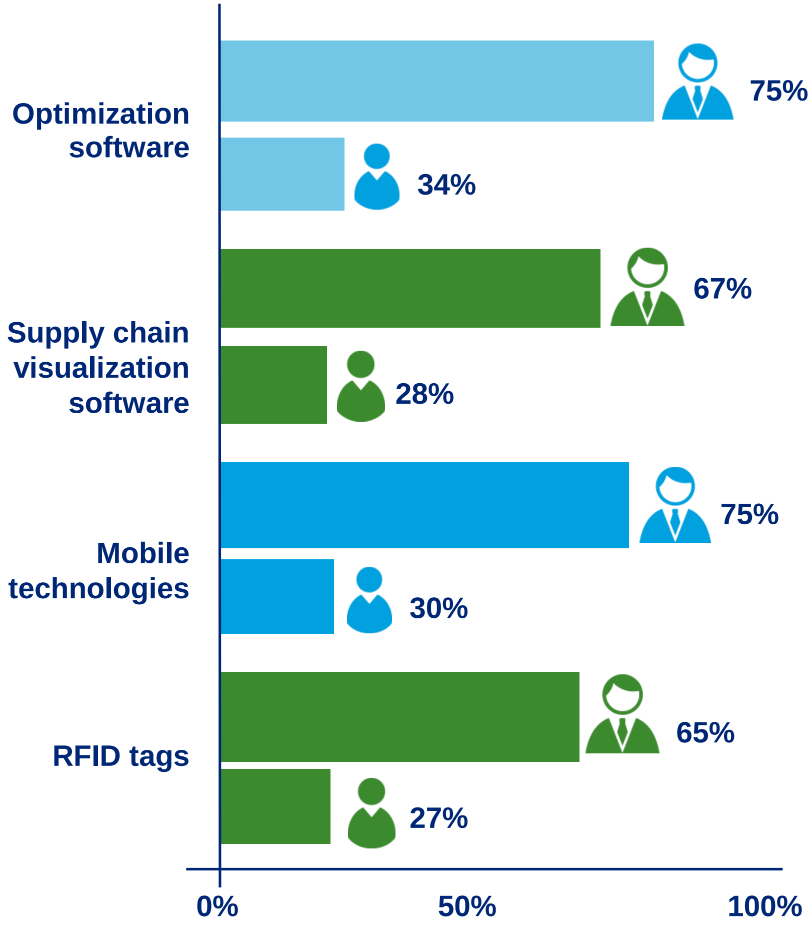
> “[3D Printing] is growing rapidly in ways that promise to replace the almost 100-year-old mass-production model that defined the industrial revolution.”

- Greg Emerson, The Street, October 14, 2010

Analytics as tool for innovation and integration

Extensive Use of Analytics

Percentage Responding “Use Extensively”



Source: Deloitte’s 2014 Global Supply Chain Survey

Analytics Applications

Operational

Dynamic Re-routing

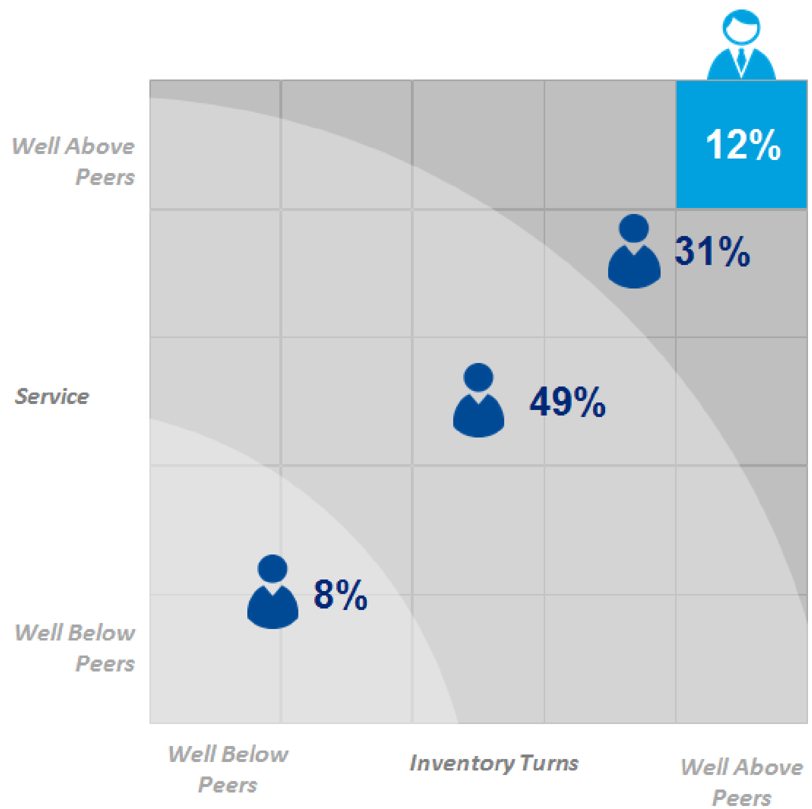
Tactical

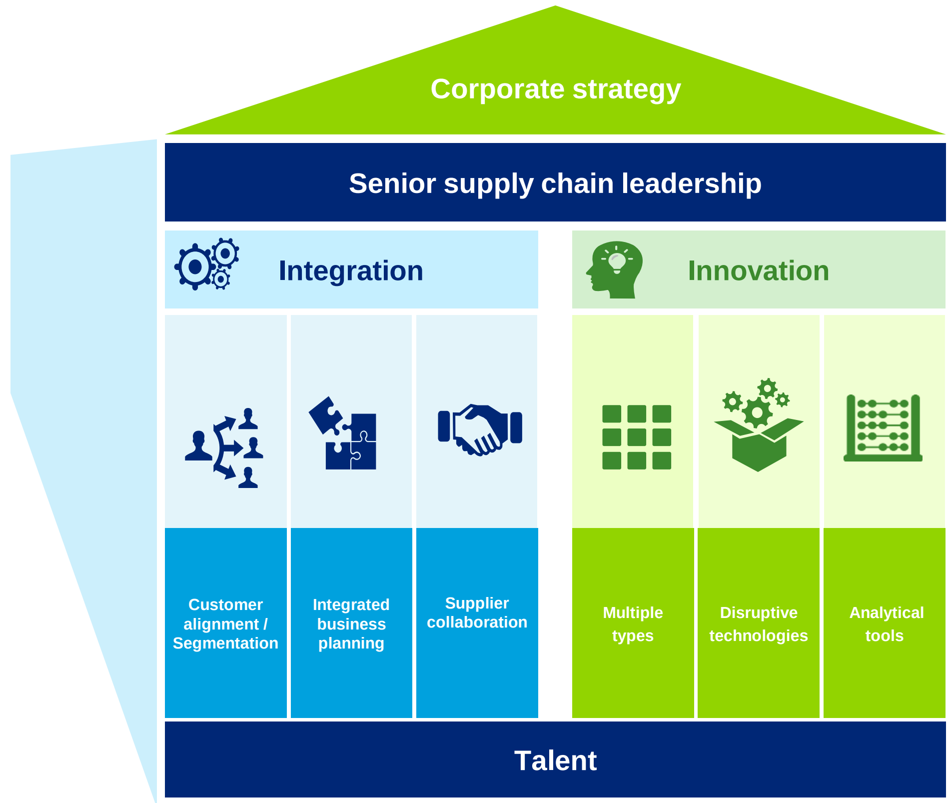
Source Switching

Strategic

Product
Complexity Reduction

What will it take to stay on top?

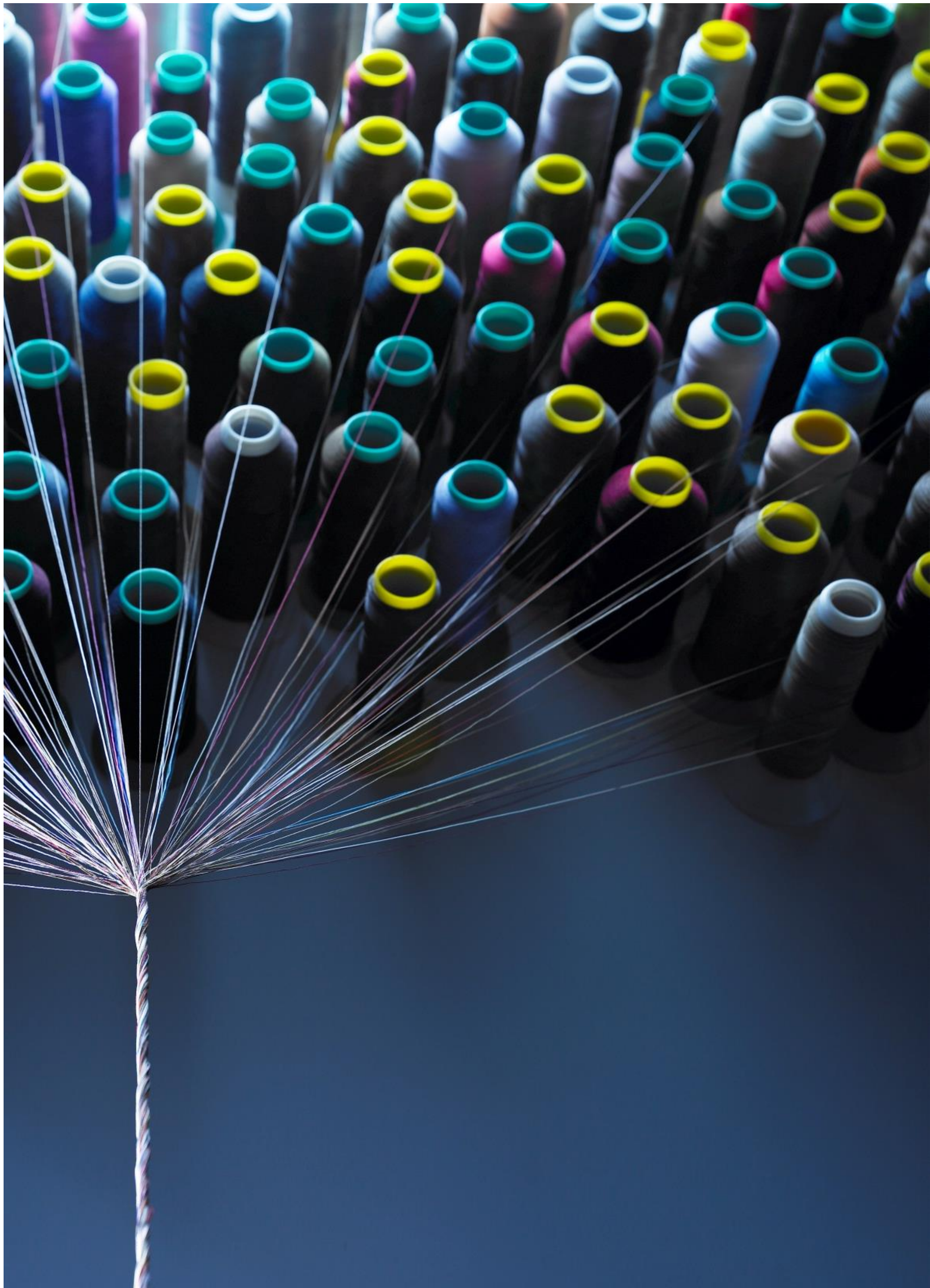




Leaders   Followers

Source: Deloitte's 2014 Global Supply Chain Survey

Sustainability trends in the marketplace



BEST GLOBAL GREEN BRANDS 2014

Interbrand | Deloitte.

01	Ford	GAP = 3.2	+1
02	Toyota	GAP = 0.3	-1
03	Honda	GAP = 1.8	0
04	Nissan	GAP = 6.6	+1
05	Panasonic	GAP = 13.9	-1
06	Nokia	GAP = 19.0	+3
07	Sony	GAP = 10.7	+4
08	adidas	GAP = 6.1	+7
09	Danone	GAP = -1.3	-1
10	Dell	GAP = 6.9	0
11	Samsung	GAP = 8.3	+5
12	Johnson & Johnson	GAP = 2.8	-6
13	BMW	GAP = 5.8	0
14	Philips	GAP = 5.4	+9
15	Intel	GAP = 12.3	+6
16	Volkswagen	GAP = 3.0	-9
17	HP	GAP = 9.7	-5
18	Nestlé	GAP = 4.0	-4
19	IKEA	GAP = -6.5	+14
20	Coca-Cola	GAP = -12.2	-1
21	Apple	GAP = -1.1	+1
22	L'Oréal	GAP = 15.3	-2
23	GE	GAP = -1.8	+2
24	Mercedes-Benz	GAP = 10.0	-7
25	IBM	GAP = 10.9	+2
26	Canon	GAP = 3.8	+4
27	Xerox	GAP = 14.6	+2
28	UPS	GAP = 6.3	+4
29	Nike	GAP = -0.5	+2
30	Pepsi	GAP = -2.3	-4
31	Siemens	GAP = 14.1	-13
32	Chevrolet	GAP = -2.9	NEW
33	Cisco	GAP = 19.0	-5
34	Zara	GAP = 4.7	+14
35	Kia	GAP = 9.5	+2
36	3M	GAP = 3.4	-12
37	Starbucks	GAP = -2.0	-1
38	Kellogg's	GAP = -6.0	0
39	H&M	GAP = 4.7	+3
40	Hyundai	GAP = 7.2	-6
41	Microsoft	GAP = -9.1	-6
42	Avon	GAP = 5.7	-1
43	McDonald's	GAP = -14.5	+4
44	Santander	GAP = -0.9	+2
45	AXA	GAP = 0.9	-1
46	Caterpillar	GAP = 3.1	-7
47	Shell	GAP = -9.1	-7
48	Colgate	GAP = -7.0	+2
49	Disney	GAP = -9.1	NEW
50	Heineken	GAP = -1.5	NEW

Perception — Performance

www.bestglobalgreenbrands.com

BGGB evaluates brands based on environmental sustainability perception and performance

Best Global Brands

- In order to be eligible for BGGB 2014, a brand must be in the top 100 of Interbrand's 2014 Best Global Brands (an assessment of brand value)

Perception

- Public perception of brands' environmental sustainability is evaluated through surveys in the 10 largest global economies

Performance

- Environmental sustainability performance is evaluated through an assessment of brands' publicly available environmental sustainability information and data, typically in corporate sustainability reports and websites and from information from the Asset4 database

Gap

- The gap is the difference of the performance and perception scores, with a positive gap indicating performance stronger than perception

The performance score is calculated by Deloitte and is composed of 83 metrics across six pillars

Environmental Performance Score

Products & Services *(30 possible points)*

- Product efficiency
- Sustainable materials
- Sustainable packaging
- Innovation

Governance *(12.5 possible points)*

- Description of environmental management structure
- Disclosure of environmental impacts and targets

Transportation & Logistics *(5 possible points)*

- Transportation and logistics
- Business travel
- Employee commuting

Stakeholder Engagement *(12.5 possible points)*

- Identification of stakeholders and issues
- Engagement with the relevant stakeholder groups on environmental issues

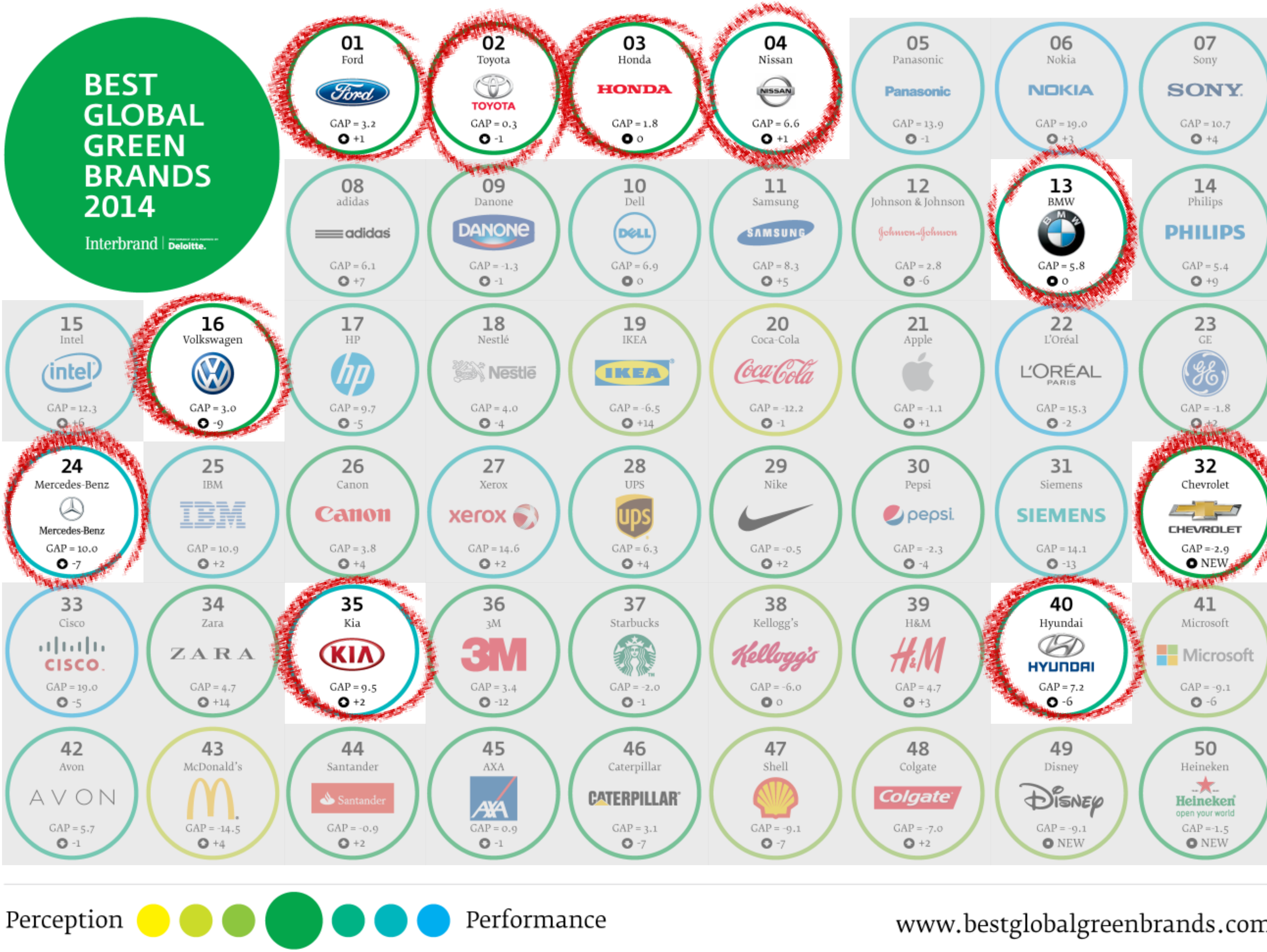
Supply Chain *(10 possible points)*

- Supply chain engagement
- Supply chain environmental impacts
- Supply chain impact reduction initiatives and targets

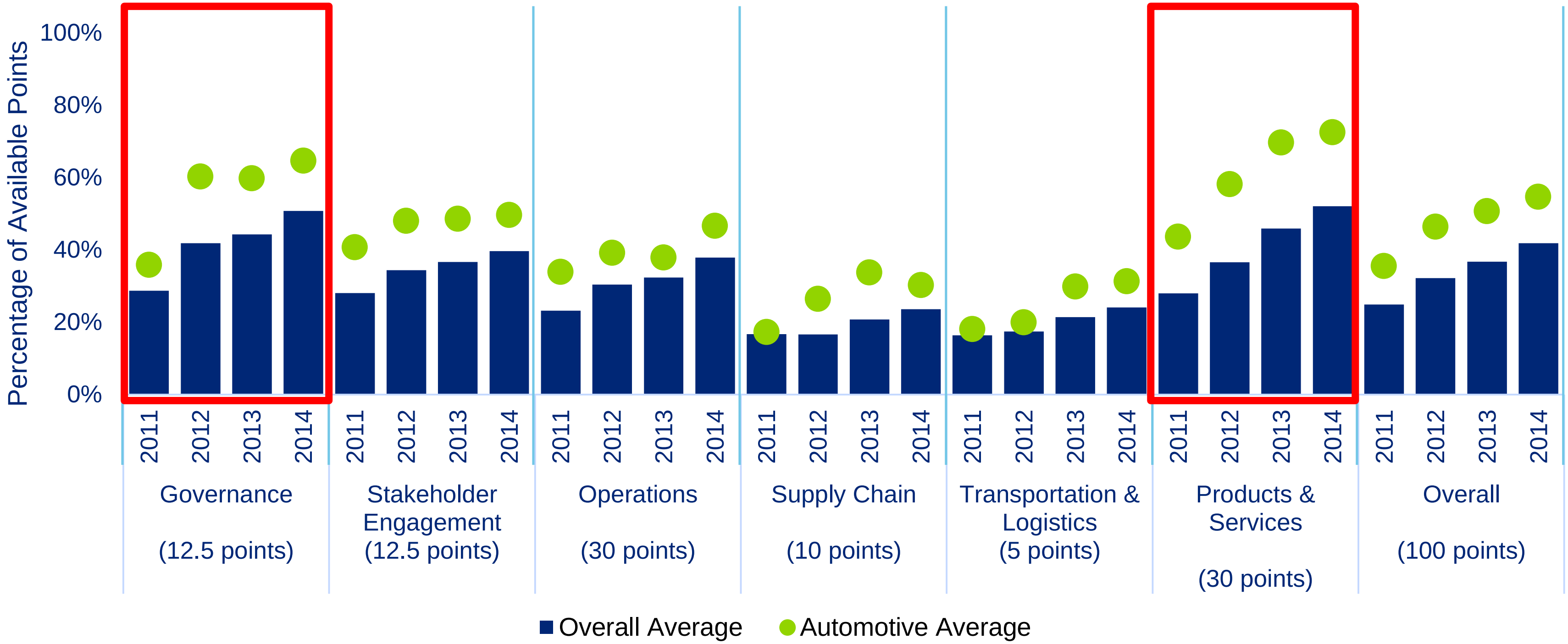
Operations *(30 possible points)*

- Energy use
- GHG emissions
- Water use
- Waste management
- Toxic emissions

Auto companies - consistently ranked among the leaders

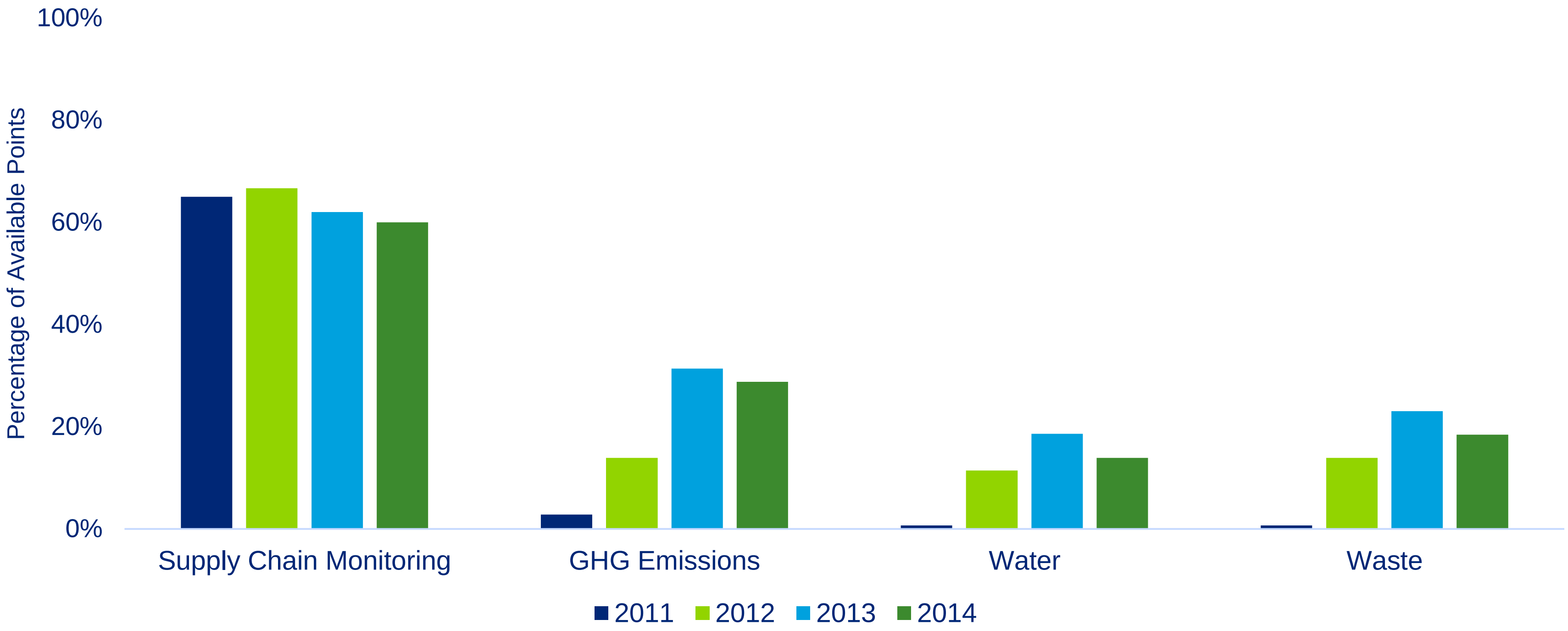


Average BGGB Performance scores are increasing



- On average companies earned **less than 55%** of available points across all pillars
- **The automotive average exceeds the overall average for all pillars and years**
- Automotive companies are particularly strong in the Governance and Products & Services Pillars

Auto companies – increased quantification of impacts



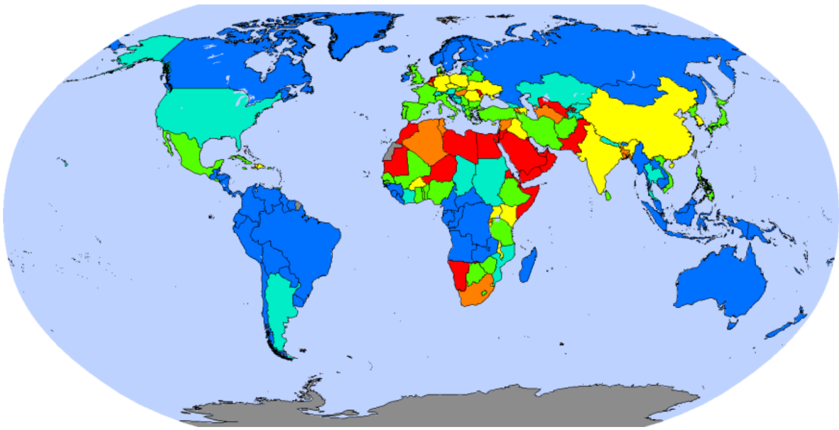
- Focus on quantifying GHG emissions first, followed by waste and then water
- Quantification of environmental impacts has increased since 2011

Water Risk and Stewardship

Water scarcity is projected to increase

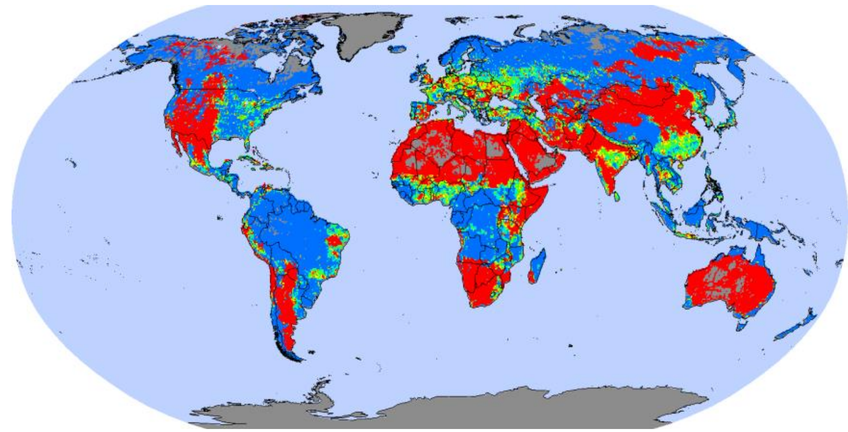
Water Availability: 2000[1]

- Regions of water stress, scarcity, and extreme scarcity across Asia, Africa, and Europe



Water Availability: 2025[1]

- Extreme water scarcity projected to be widespread across all continents



Extreme Scarcity <500

Scarcity 500–1,000

Stress 1,000–1,700

Adequate 1,700–4,000

Abundant 4,000–10,000

Surplus >10,000

Ocean/ Inland Water

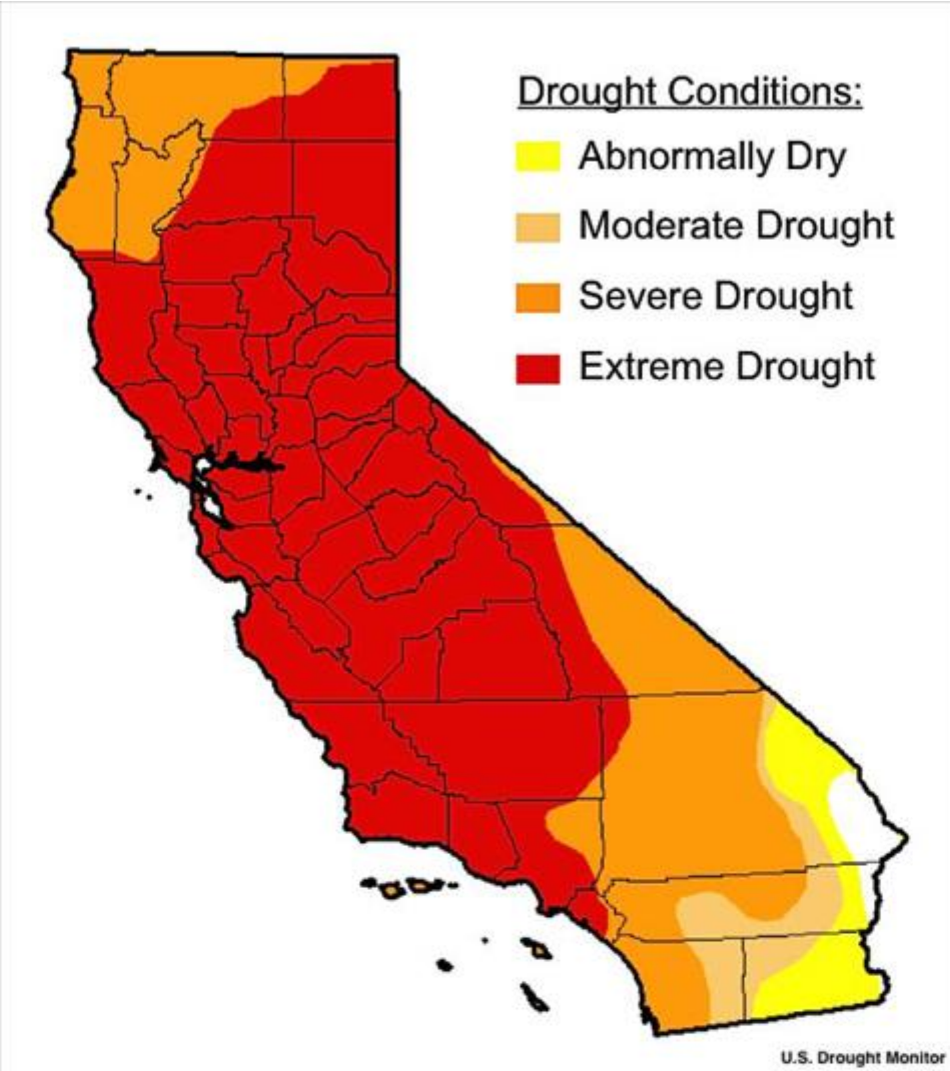
No Data

m3/person/year

Water withdrawals are predicted to increase by 50% in developing countries, and 18% in developed countries by 2025.[2]

1 – Center for Environmental Systems Research, University of Kassel.
2 – “Water Use Statistics”, UN Water.

Water scarcity has a *current* economic impact



Supply Cutbacks

Reduced surface water deliveries of **6.6 million acre-feet** of water, or **32.5%** of normal water use by Central Valley growers

Lost Farm Jobs

Estimated loss of **17,100** seasonal and full-time jobs and household income decline of **$555 million**

Disproportionate Impact

60% of the economic losses will occur in the San Joaquin Valley, which is responsible for producing about **1/3** of the nation's field, vegetable, fruit and nut crops

Lost Ag Production

Fallowing of **410,000** acres means higher food prices and fewer choices for consumers

Industry Decline

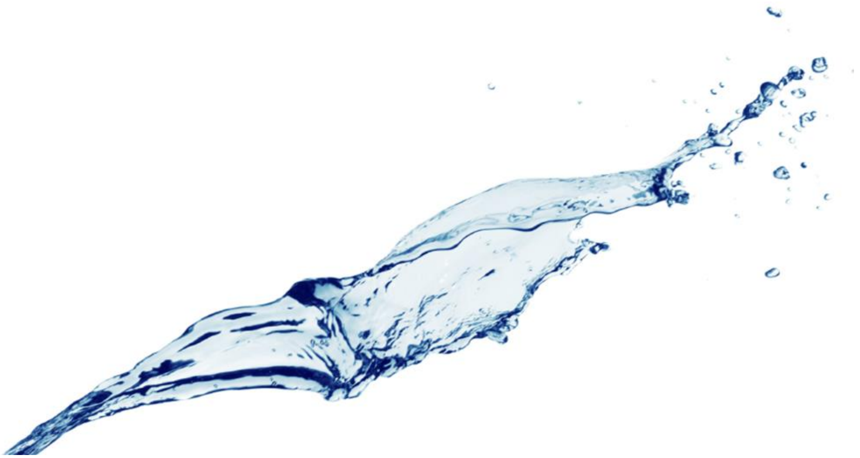
Direct costs of **$1.5 billion** to the Central Valley's agricultural industry

Harm to State Economy

California GDP decline by **$855 million**

Source 1: http://farmwater.org/droughtupdate6-12.pdf
Source 2: https://watershed.ucdavis.edu/files/biblio/DroughtReport_23July2014_0.pdf

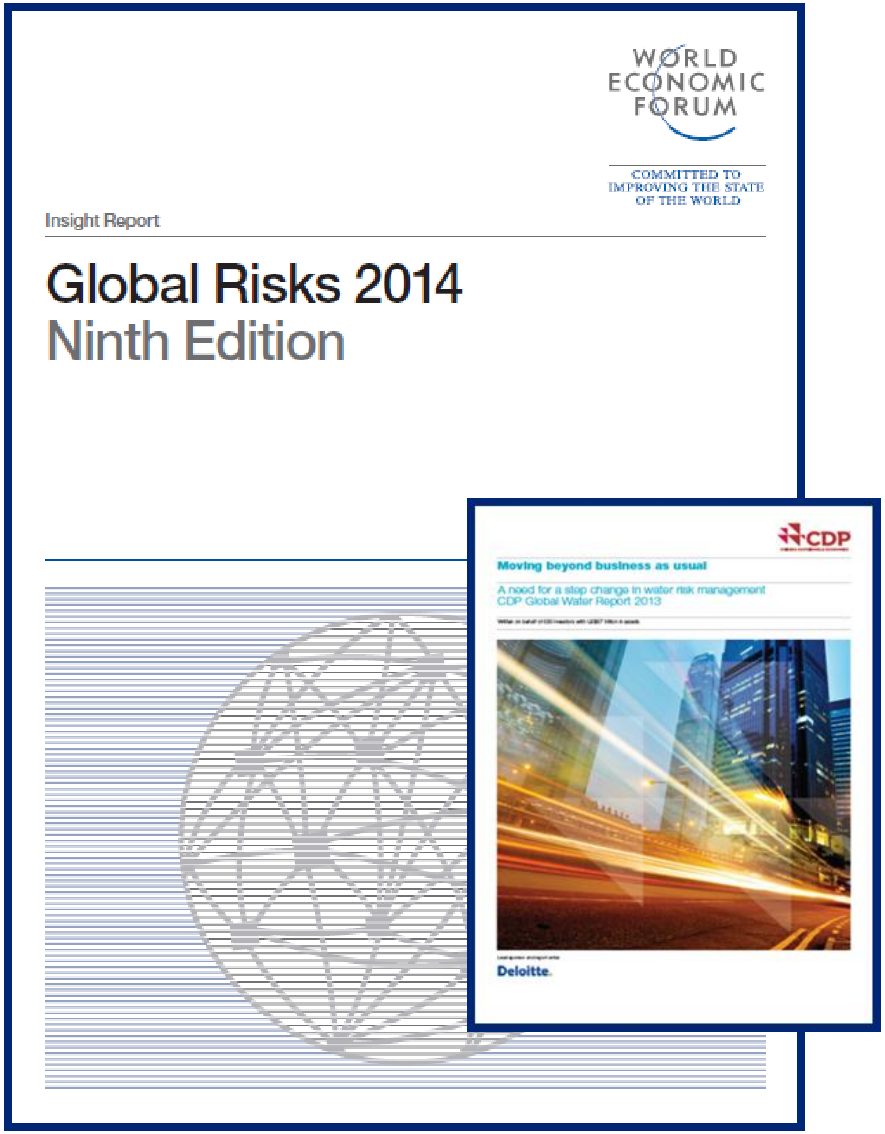
Business Responses



What should we be worried about?

- Will you have access to **water in 20 years** *at any price?*
- How much will this **cost to secure**? And what strategies do you have in place to ensure this?
- What is my **business value at risk** from water risk? What is the potential for **stranded assets**?
- What are the Capex **water requirements to support growth**? And who else is competing for that water?
- **Multinational growth projections**….are they reasonable?

Water scarcity risk is a *current* business risk



2014 World Economic Forum

- **# 3 – Water Crisis**
- **# 8 – Food Crisis**

2013 CDP Water Program Global 500 Report

- **70%** of respondents have identified water risks as a **substantive business risk**
- **64%** of reported risks are expected to impact businesses **now or within the next five years**
- **Near-term substantive risks** reported have increased by **16%**

Water risk - physical, regulatory, reputational

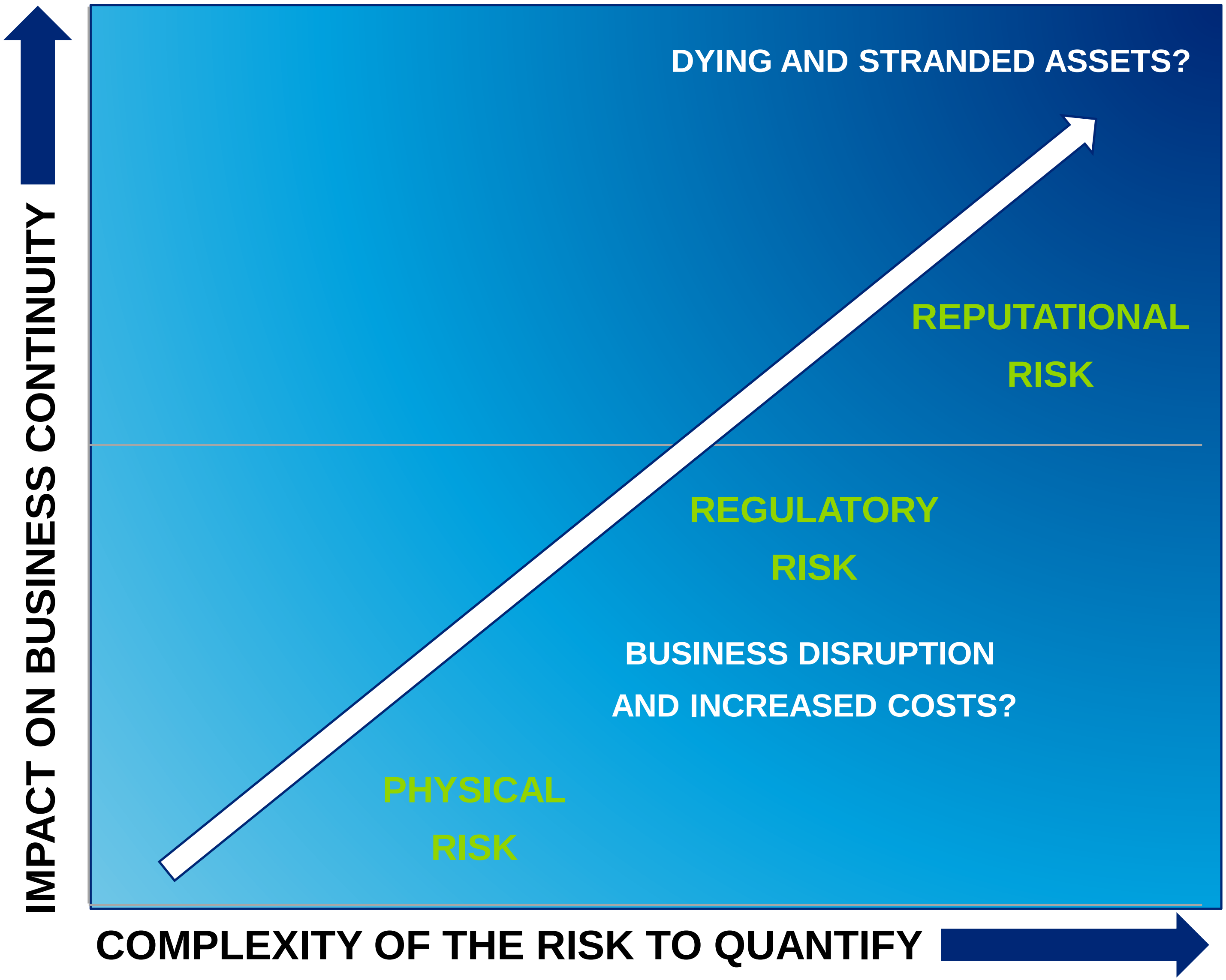
	Supply Chain	Operations	Product Use
Physical	▪ Temporary non-availability of water disrupts supply chain ▪ Water scarcity drives up input prices (~2%-20%)	▪ Temporary non-availability of water disrupts operations ▪ Increased capital expenditure on water treatment, extraction or alternative technologies raises costs	▪ Non-availability or scarcity of water required for using product or service limits growth
Regulatory	▪ Intensifying competition for scarce water constrains growth ▪ Suspension or withdrawal of supplier's water license or discharge permits disrupts supply chain	▪ Intensifying competition for scarce water constrains growth ▪ Reallocation to more urgent needs during drought disrupts operations ▪ Suspension or withdrawal of supplier’s water license or discharge permit disrupts operations	▪ Non-issuance of water license or restrictions on use of particular products or services due to water intensity raises costs or checks growth
Reputational	▪ Competition with household water demand constrains suppliers' growth ▪ Responsibility "by association" for suppliers' water pollution damages brand or reputation, hinders growth	▪ Increased capital expenditure on wastewater treatment to meet or exceed standards ▪ Competition with household demands, or pollution incidents, damages brand or reputation, hinders growth	▪ Public outcry regarding water intensity of product damages brand, reputation, hinders growth

Financial Impact

- Lost revenue from disruption of water supply
- Higher costs from:
  - Supply chain disruption
  - Changes in production processes
  - Capital expenditure to secure, save, recycle, or treat water
  - Regulatory compliance
  - Increasing price of consuming or discharging water
- Delayed or suppressed growth, potentially impacting share price
- Potential higher cost of capital for businesses that rely heavily on fresh water resources

1 – “Watching Water,” JP Morgan Chase Global Equity Research, April 2008.

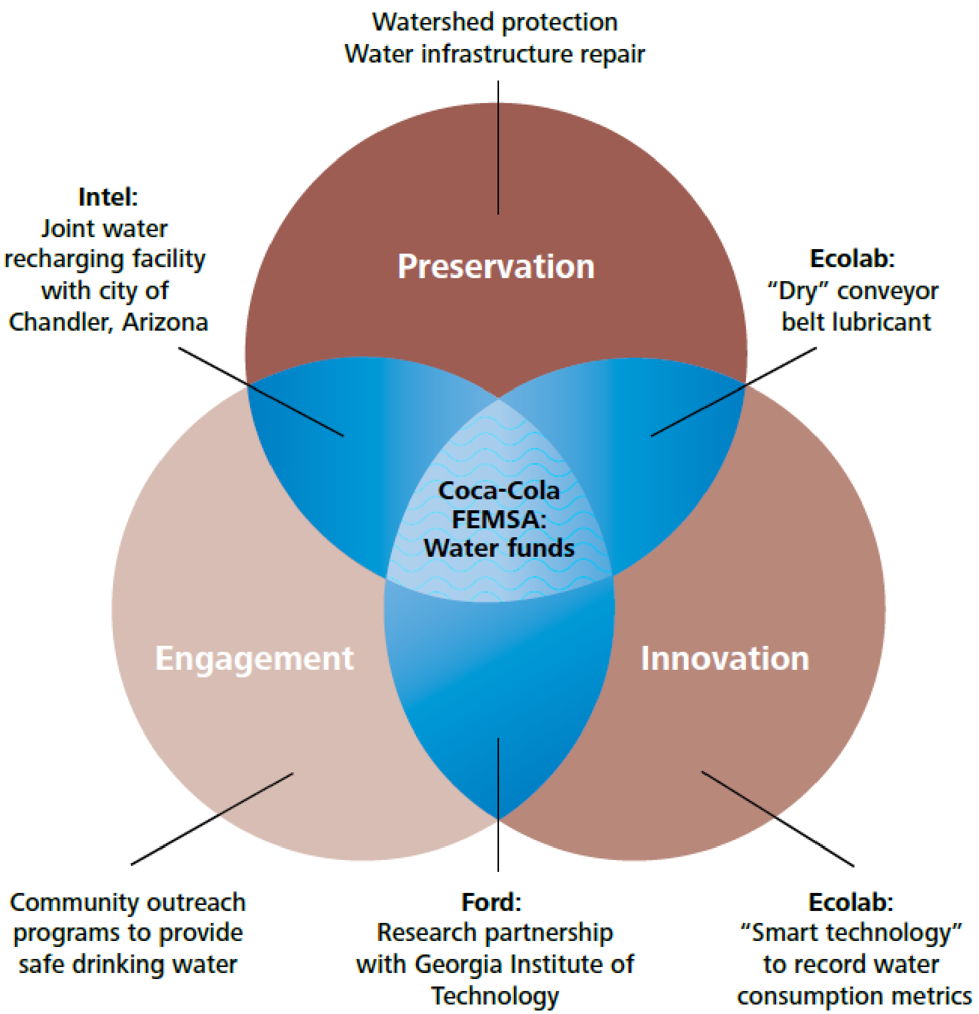
Water risk and value at risk dimensions



Elements of a water stewardship strategy

Companies should:

- **Incorporate water risk** into 'traditional' corporate risk management processes
- **Quantify the "real" value** of water to the business
- **Understand the energy-water nexus** and its potential business implications, set targets across the value chain
- **Increase** focus on **engagement and innovation**
- **Look for opportunities** in the overlaps
- **Make a public commitment** to water stewardship
- **Practice "radical transparency"** about water and seek opportunities to collaborate – or clear the (internal) path for collaboration



Customers often have similar goals – open collaboration for mutual benefit is a key trend

Getting Ahead of the "Ripple Effect" A Framework for a Water Stewardship Strategy. W. Sarni, Deloitte University Press. 2013

Water stewardship and business growth strategy

INCREASING VALUE AND COLLECTIVE ACTION

No strategy

- Actual or perceived water scarcity is not acknowledged as a salient issue
- All resources are treated equally
- Cash flows are heavily weighted
- Current market price of water governs decisions

Efficiency strategy

- Recognizes water scarcity as a driver of cost
- Costs of acquisition and use of water are considered
- Profitability risks are heavily weighted
- Focuses on water conservation—efficiency
- Targets and goals set for internal water efficiency

Risk strategy

- Risks of water scarcity are managed at the facility or business-unit level, but not consistently at the enterprise level
- Stakeholder engagement is pursued to improve access to water, in some cases on an ad hoc basis
- May calculate the full cost of water or use a "shadow price"
- May participate in public policy formulation
- Ad hoc investment in technology innovation at the facility level
- "Social license-to-operate" risks are heavily weighted

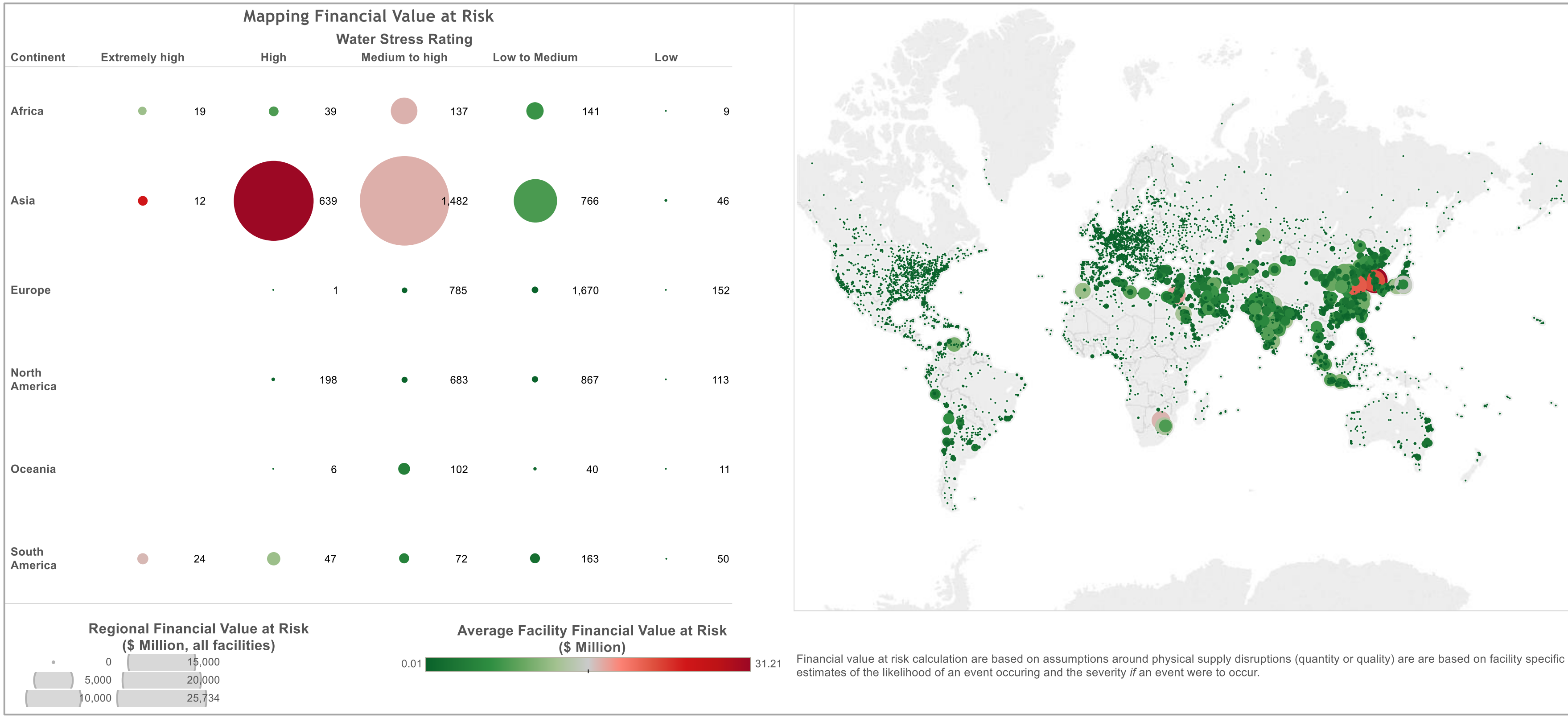
License-to-grow strategy

- Internalizes externalities (e.g., water and ecosystems)—considers these external issues
- Recognizes the need to manage water scarcity as a platform for growth
- Where relevant, develops products or business models that take into account scarcity, and product/service offerings address water scarcity
- Consistently quantifies value of water, not just its cost or full cost
- Proactively engages with stakeholder and leads water-focuses initiatives and collective action programs—more than just participating
- Participates in water-related policy development
- Invests in and accelerates technology innovation at the corporate level
- "Social license-to-grow" mindset regarding water issues

Fueling Growth: You Can't Always Buy What You Need. **W. Sarni. Deloitte University Press. 2013.**

Graphic: Deloitte University Press | DUPress.com

Mapping financial value at risk (physical scarcity)

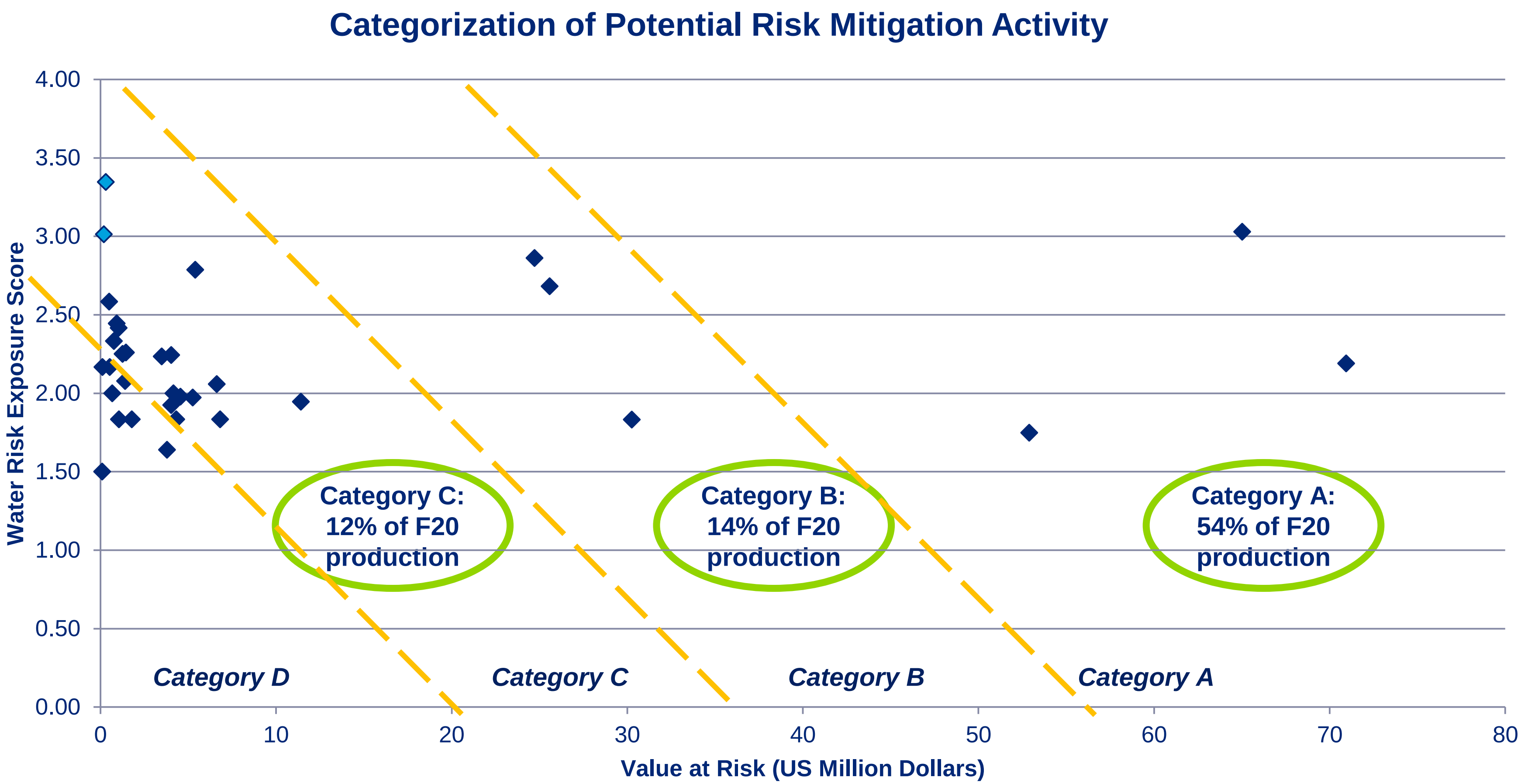


Source: Financial value at risk calculations are based on assumptions around physical supply disruptions (quantity or quality) and are based on facility specific estimates of the likelihood of an event occurring and the severity *if* an event were to occur

Gassert, F., M. Luck, M. Landis, P. Reig, and T. Shiao. 2013. "Aqueduct Global Maps 2.0." Working Paper. Washington, DC: World Resources Institute. Available online at http://wri.org/publication/aqueduct-metadata-global.

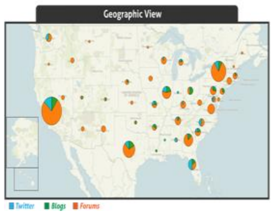
Physical risks and “value at risk”

Plotting the water risk exposure score against potential value at risk identifies logical breakpoints for risk mitigation activities – this does not indicate priority, but differentiates between the requirements.



Managing reputational risk by leveraging social media

MAP THE AUDIENCE



Size

Conversation

Key platforms

Determine appropriate ratios and metrics for ambassadors and content to optimize perception shift results

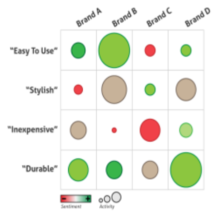
IDENTIFY AMBASSADORS

Influencers

Advocates

in each group determined by audience size and platform density

TACKLE NEGATIVE PERCEPTION



Positive comments generated by advocates

POSITIVE COMMENTS

1:3 comment ratio negative to positive

DEPLOY CONTENT STRATEGY

Educate %

Entertain %

Assist/Support %

Excite/Inspire %

Leadership/ Trust %

Optimized for client, 50-75% of content must be created by audience

ACTIVATE AUDIENCE

Monthly drumbeat activation

Quarterly splash activation

Ongoing injection of energy and new voices


i will not waste water
i will not waste water