Cisco IBSG Horizons Program

- Ongoing program of research and analysis to examine key technology innovations that will impact our customers over the next 24 months

- Other areas of investigation include video, collaboration, cloud, and mobility

- Focus on customer behavior and economics: adoption patterns, use cases, drivers, inhibitors, perceived benefits, delivery models

Source: Cisco IBSG, 2012

IBSG Horizons BYOD Study Waves: Global State of BYOD and Its Implications

Current Wave

IBSG Horizons: BYOD **U.S. Trends**	IBSG Horizons: BYOD **Global Trends**	IBSG Horizons: BYOD **Financial Impact**
• Spring 2012 • 600 IT leaders • U.S. enterprises	• Summer 2012 • 4,892 IT leaders • Midsize + enterprise • 8 countries + U.S. (original survey + 312 midsize)	• Fall 2012 • Financial impact of BYOD on companies • Maximizing ROI of BYOD

Source: Cisco IBSG, 2012

IBSG Horizons BYOD Study: Global Results

4,892
IT Leaders

18
Industries

- Expansion of original U.S. study from spring 2012
- Nine total countries
- 70% enterprise (1,000+ employees), 30% midsize (500-999 employees)
- 69% director or above (29% CXO), 31% manager
- Decision makers or influencers for mobile solutions

Source: Cisco IBSG, 2012

IBSG Horizons BYOD Study: Regional Breakdown

United States

912* Respondents

Latin America:
- Brazil
- Mexico

681 Respondents

Asia:
- China
- India

1,493 Respondents

Europe:
- U.K.
- France
- Germany
- Russia

1,806 Respondents

600 enterprises (original study) + 312 midsize

3 major regions; 2,805 enterprises + 1,175 midsize

* Please note: The U.S. results in this study differ slightly from the results of the original U.S. study because of the addition of 312 respondents from midsize companies.

Source: Cisco IBSG, 2012

IBSG Horizons BYOD Study:
Top Research Findings

- BYOD is a global phenomenon: strong evidence of employees everywhere using own devices for work

- Transformative potential of BYOD is employee-driven innovation, empowering employees to decide **how**, **when**, and with **which tools** work is done

- Few differences between midsize companies and enterprises

- BYOD has regional flavor: Asia and Latin America see and encourage extensive BYOD, while Europe is more restrictive

- U.S. leads in BYOD and virtualization, with most comprehensive usage and policy

- BYOD increases mobile cost and complexity, and companies quickly develop robust mobile policy, cost-reduction strategies

- Global IT leaders are aware of desktop virtualization, but do not feel it applies to most knowledge workers, so implementation is low

Source: Cisco IBSG, 2012

Around the World, Mobility Is Pervasive

60% Knowledge workers who use a mobile device for work

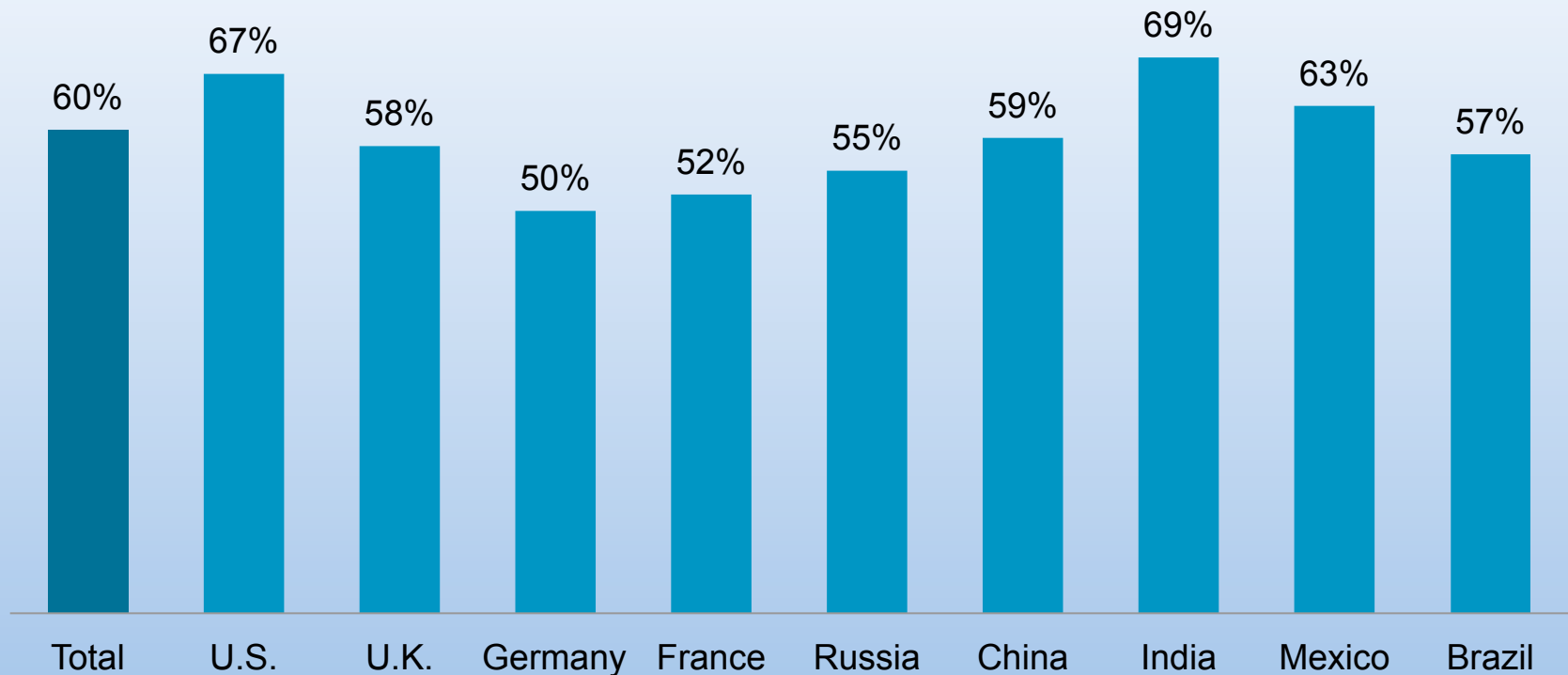**47%** White-collar roles that require mobility

41% Employees who telecommute at least once per week

Source: Cisco IBSG, 2012

N = 4,892

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Between Half and Two-Thirds of Employees Use a Mobile Device for Work

Percentage of Knowledge Workers Who Use a Mobile Device at Work

Bar chart:
- Total: 60%
- U.S.: 67%
- U.K.: 58%
- Germany: 50%
- France: 52%
- Russia: 55%
- China: 59%
- India: 69%
- Mexico: 63%
- Brazil: 57%

Source: Cisco IBSG, 2012

N = 4,892

Growth of Mobility Is Having a Global Impact on IT

2.8 Average number of connected devices per knowledge worker in 2014, up from 2.3 in 2012
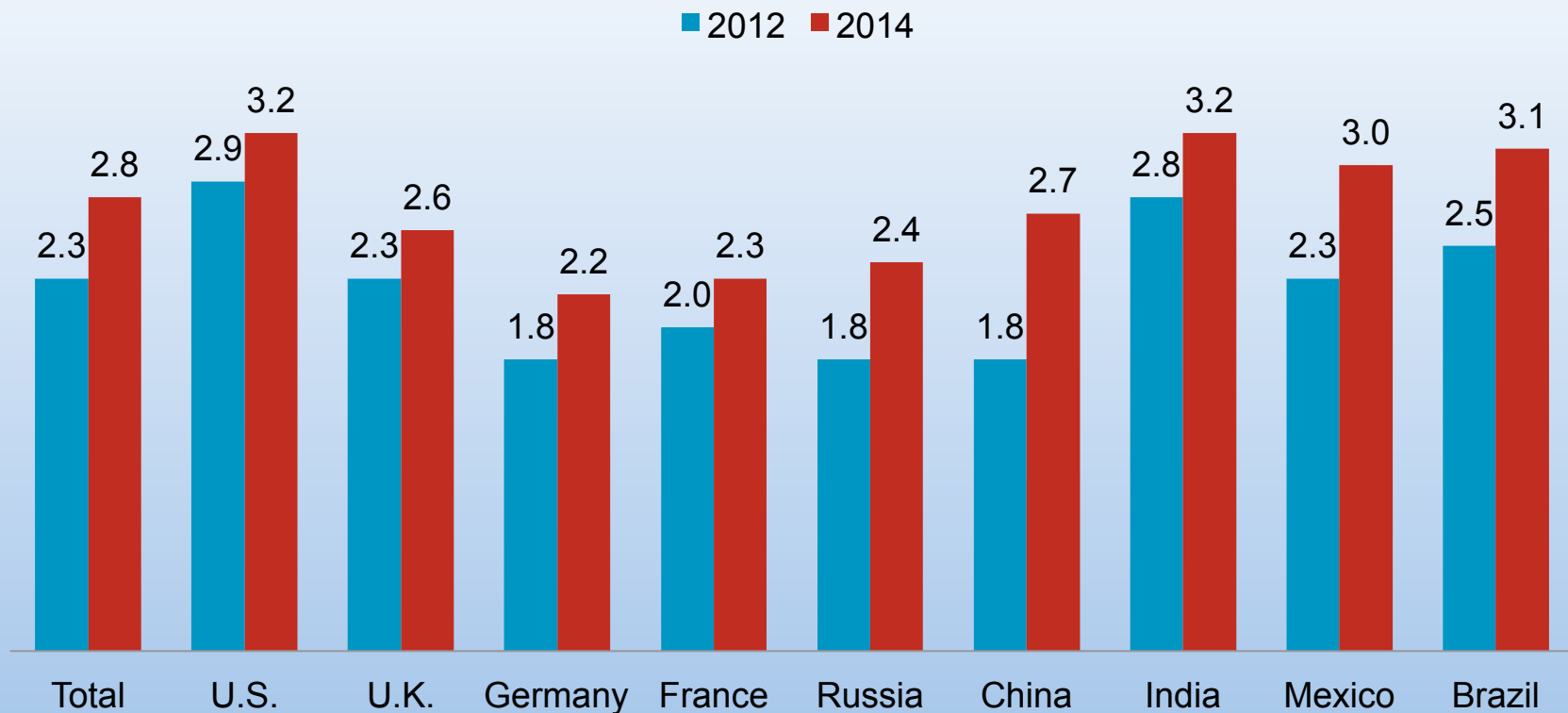
23% Average share of IT spending devoted to mobility initiatives in 2014—up from 18% in 2012

Source: Cisco IBSG, 2012

N = 4,892

Number of Connected Devices: U.S. Leads, Asia and Latin America Grow

Average Number of Connected Devices per Knowledge Worker

■ 2012 ■ 2014

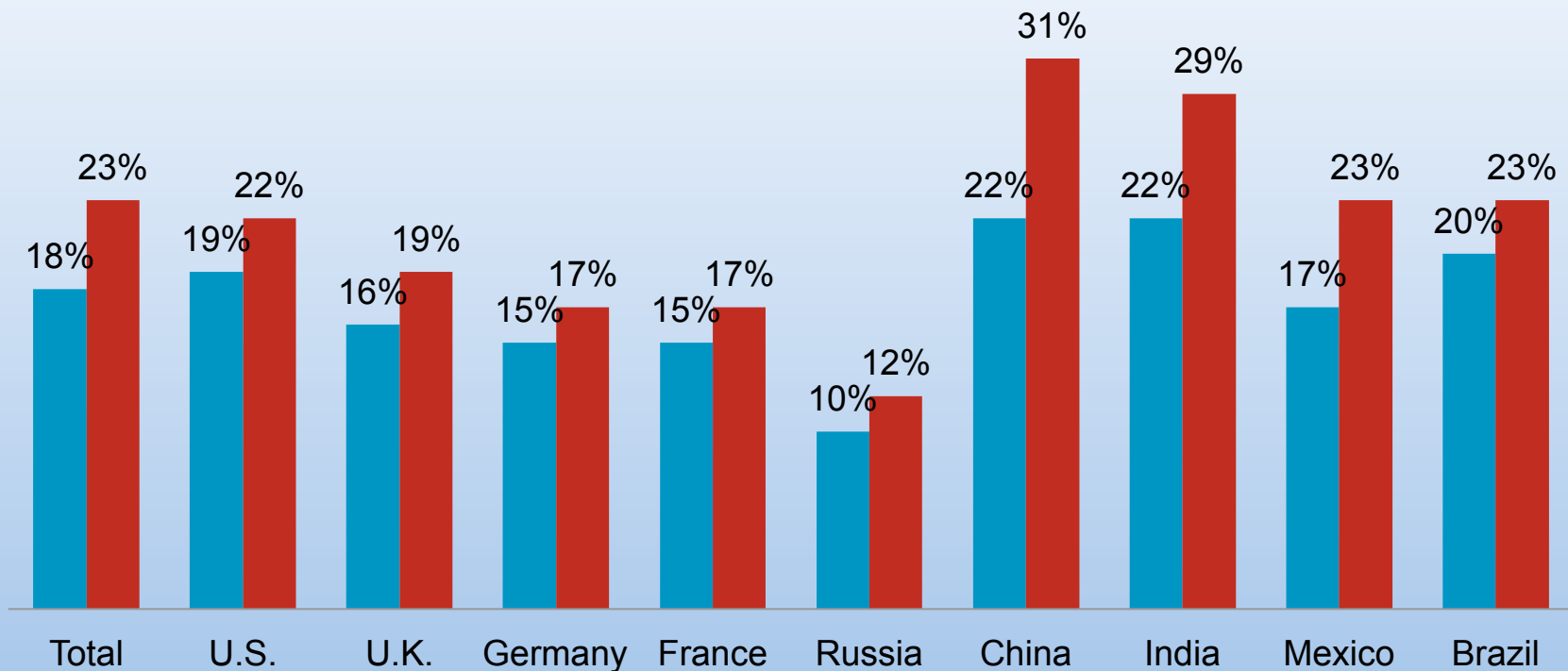|	Total	U.S.	U.K.	Germany	France	Russia	China	India	Mexico	Brazil
2012	2.3	2.9	2.3	1.8	2.0	1.8	1.8	2.8	2.3	2.5
2014	2.8	3.2	2.6	2.2	2.3	2.4	2.7	3.2	3.0	3.1

Source: Cisco IBSG, 2012

N = 4,892

Mobility To Reach 23% of Global IT Spending by 2014

Percentage of IT Budget Spent on Mobility Initiatives

■ 2012 ■ 2014

	Total	U.S.	U.K.	Germany	France	Russia	China	India	Mexico	Brazil
2012	18%	19%	16%	15%	15%	10%	22%	22%	17%	20%
2014	23%	22%	19%	17%	17%	12%	31%	29%	23%	23%

Source: Cisco IBSG, 2012

N = 4,892

BYOD Is Here, Now

42% Employees who own the smartphones they use for work
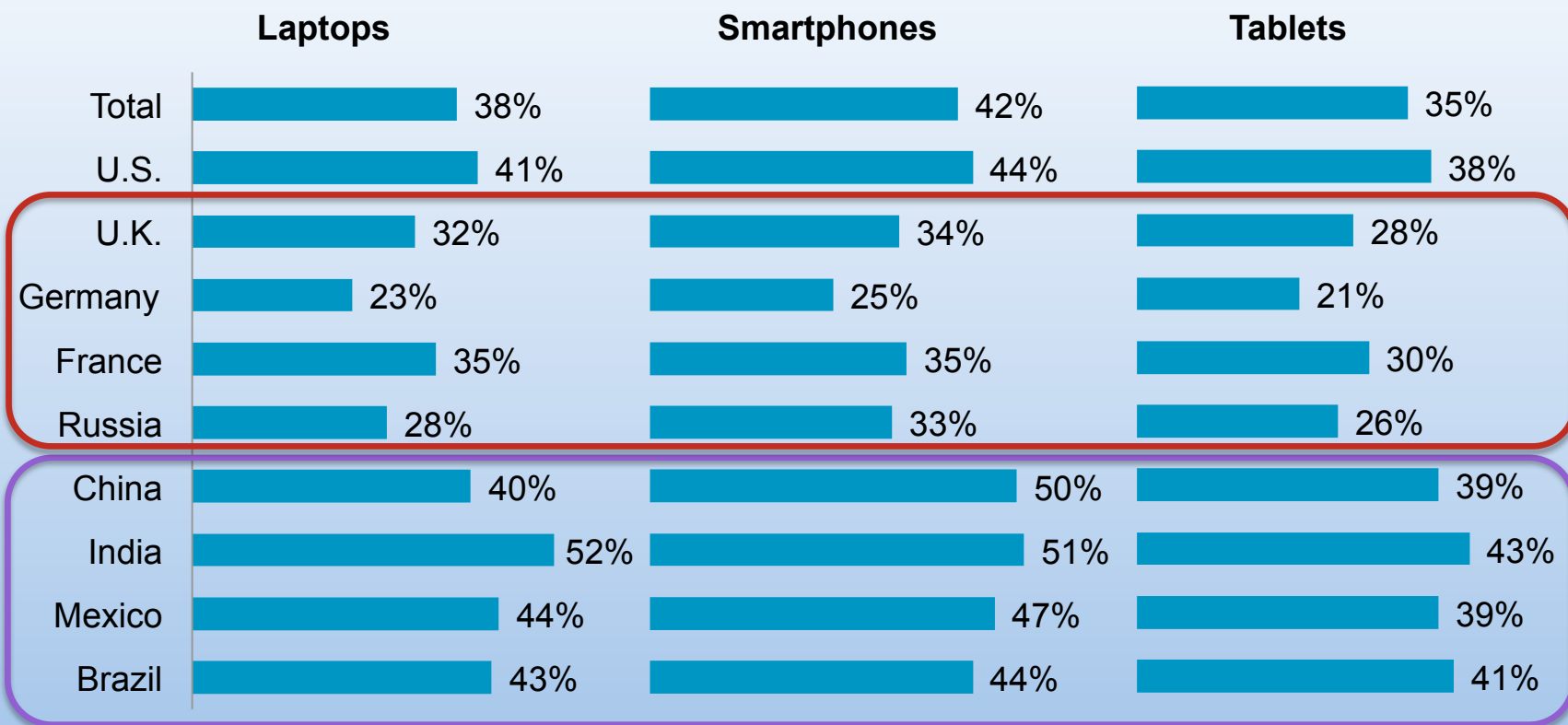
63% Companies that expect the share of employee-owned devices connecting to company networks to increase somewhat to significantly over the next two years

Source: Cisco IBSG, 2012

N = 4,892

Asia, Latin America Lead in BYOD Adoption, While Europe Resists

Percentage of the Following Devices Owned by Employees, Rather than by Company

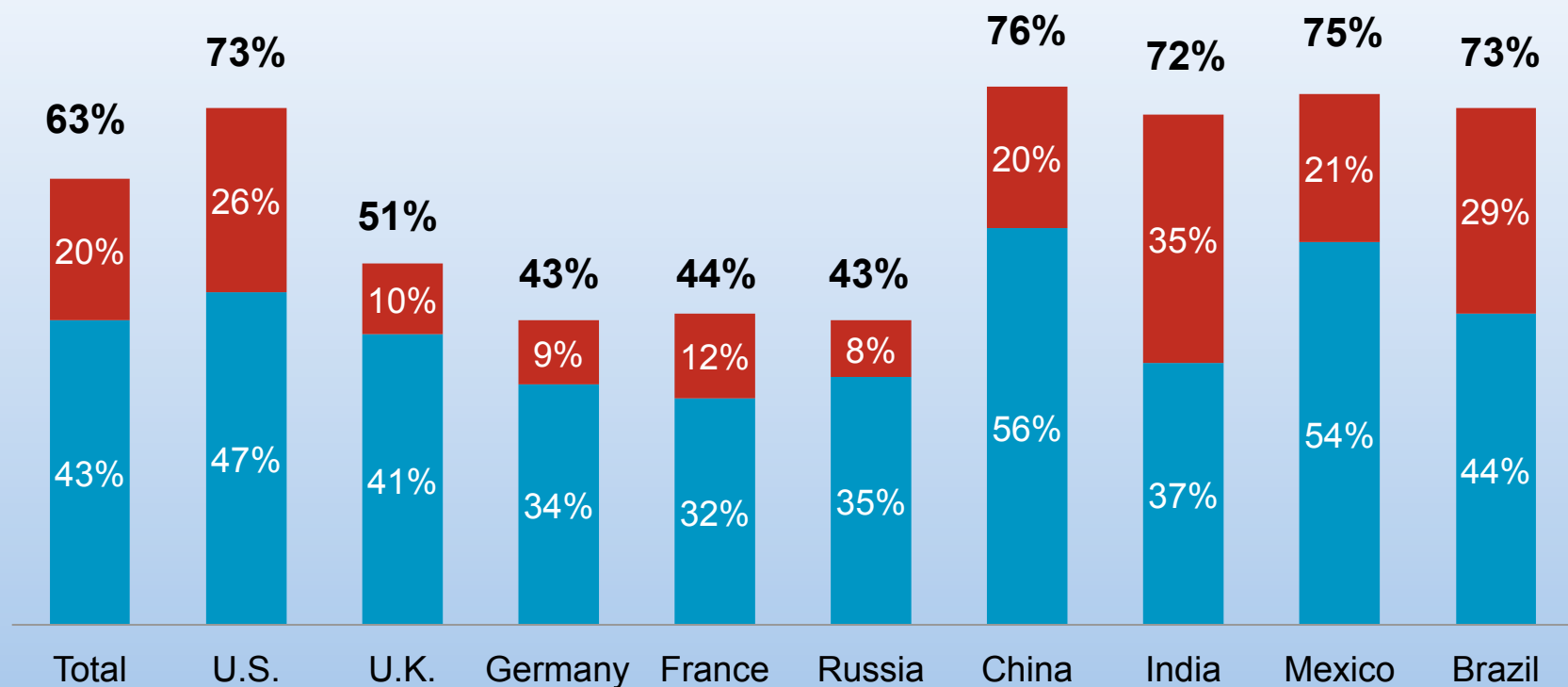|	Laptops	Smartphones	Tablets
Total	38%	42%	35%
U.S.	41%	44%	38%
U.K.	32%	34%	28%
Germany	23%	25%	21%
France	35%	35%	30%
Russia	28%	33%	26%
China	40%	50%	39%
India	52%	51%	43%
Mexico	44%	47%	39%
Brazil	43%	44%	41%

Source: Cisco IBSG, 2012

N = 4,892

BYOD Growth Expected Across Board, Especially in U.S., Asia, Latin America

Percentage of Companies that Expect Share of Employee-Owned Devices To Increase in Next Two Years

■ Increase somewhat   ■ Increase significantly

Country	Total %	Increase significantly	Increase somewhat
Total	63%	20%	43%
U.S.	73%	26%	47%
U.K.	51%	10%	41%
Germany	43%	9%	34%
France	44%	12%	32%
Russia	43%	8%	35%
China	76%	20%	56%
India	72%	35%	37%
Mexico	75%	21%	54%
Brazil	73%	29%	44%

Source: Cisco IBSG, 2012

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IT Leaders Acknowledge and Embrace BYOD

84% IT leaders who are seeing BYOD growth in the enterprise

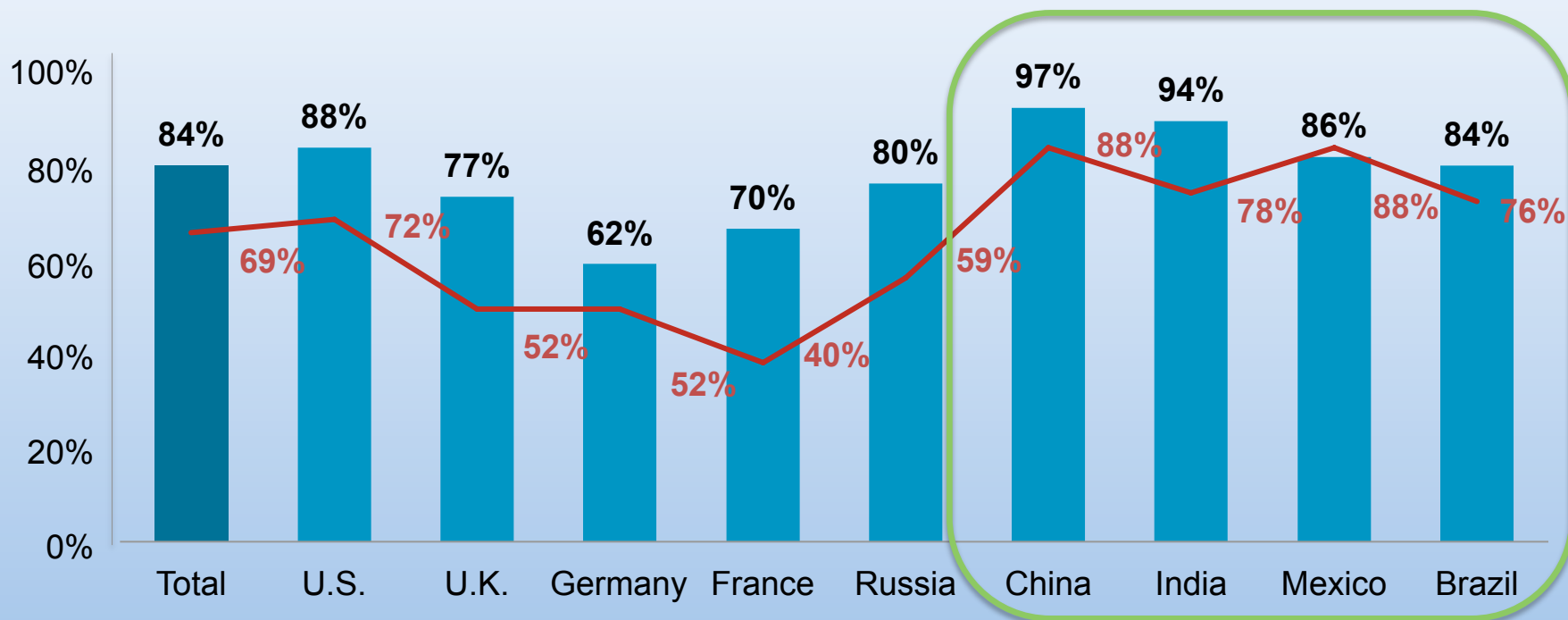**69%** Consider BYOD somewhat or extremely positive

Source: Cisco IBSG, 2012

N = 4,892

BYOD Is Global, but Highest Growth, Optimism Is Outside Europe

Percentage of IT Leaders Who Are Seeing Growth of BYOD, and Percentage Who Are Positive About the Trend

■ Seeing growth of BYOD ── Positive about BYOD

	Total	U.S.	U.K.	Germany	France	Russia	China	India	Mexico	Brazil
Seeing growth of BYOD	84%	88%	77%	62%	70%	80%	97%	94%	86%	84%
Positive about BYOD	69%	72%	52%	52%	40%	59%	88%	78%	88%	76%

Source: Cisco IBSG, 2012

N = 4,892

Benefits BYOD Brings to Companies

#1 Improved employee productivity, more opportunities to collaborate

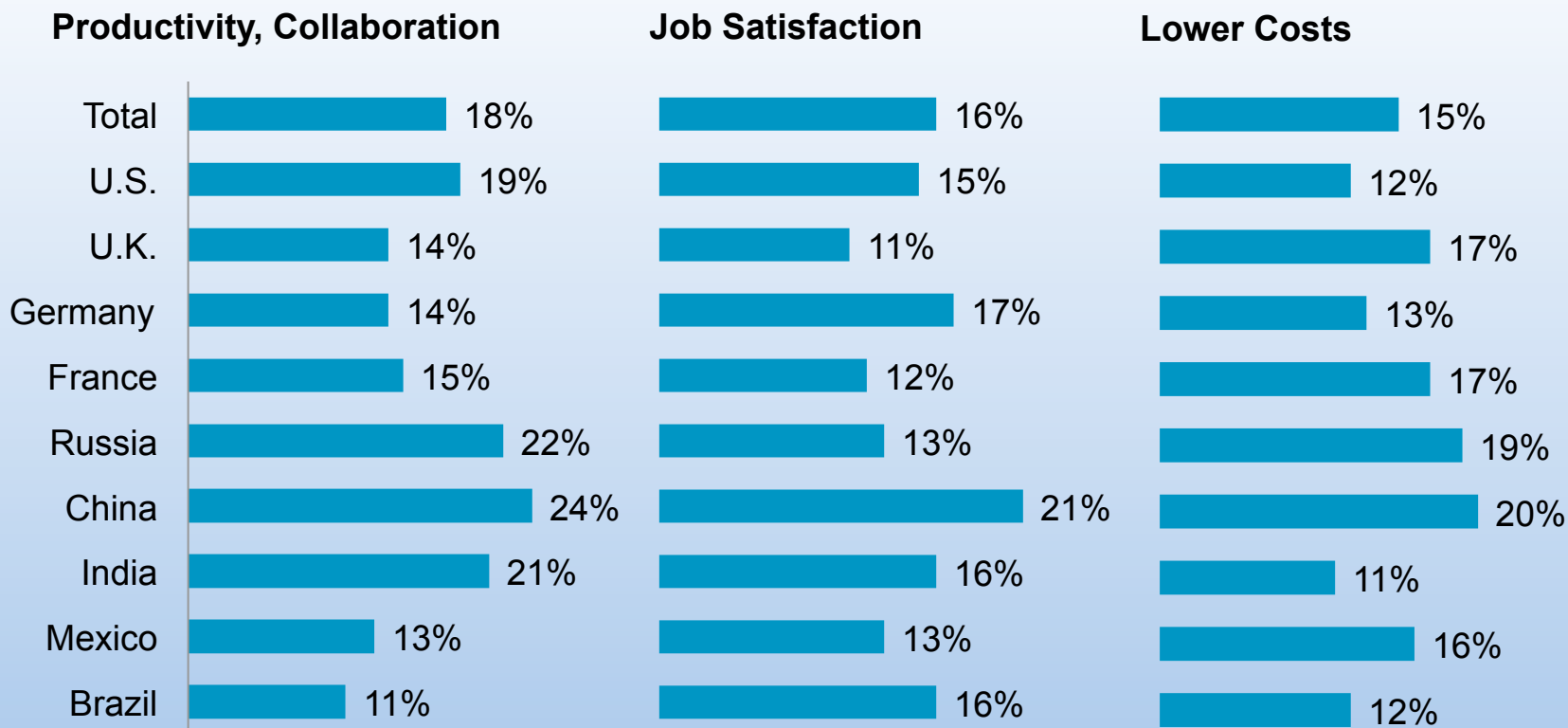**#2** Preferred device means greater job satisfaction

#3 Lower costs

Source: Cisco IBSG, 2012

N = 4,892

IT Leaders See Increased Employee Productivity Through BYOD

Top Benefits BYOD Brings to the Company

	Productivity, Collaboration	Job Satisfaction	Lower Costs
Total	18%	16%	15%
U.S.	19%	15%	12%
U.K.	14%	11%	17%
Germany	14%	17%	13%
France	15%	12%	17%
Russia	22%	13%	19%
China	24%	21%	20%
India	21%	16%	11%
Mexico	13%	13%	16%
Brazil	11%	16%	12%

Source: Cisco IBSG, 2012

N = 4,892

BYOD Does Bring Complexity: Top Concerns

#1 New threats to security / privacy of company data
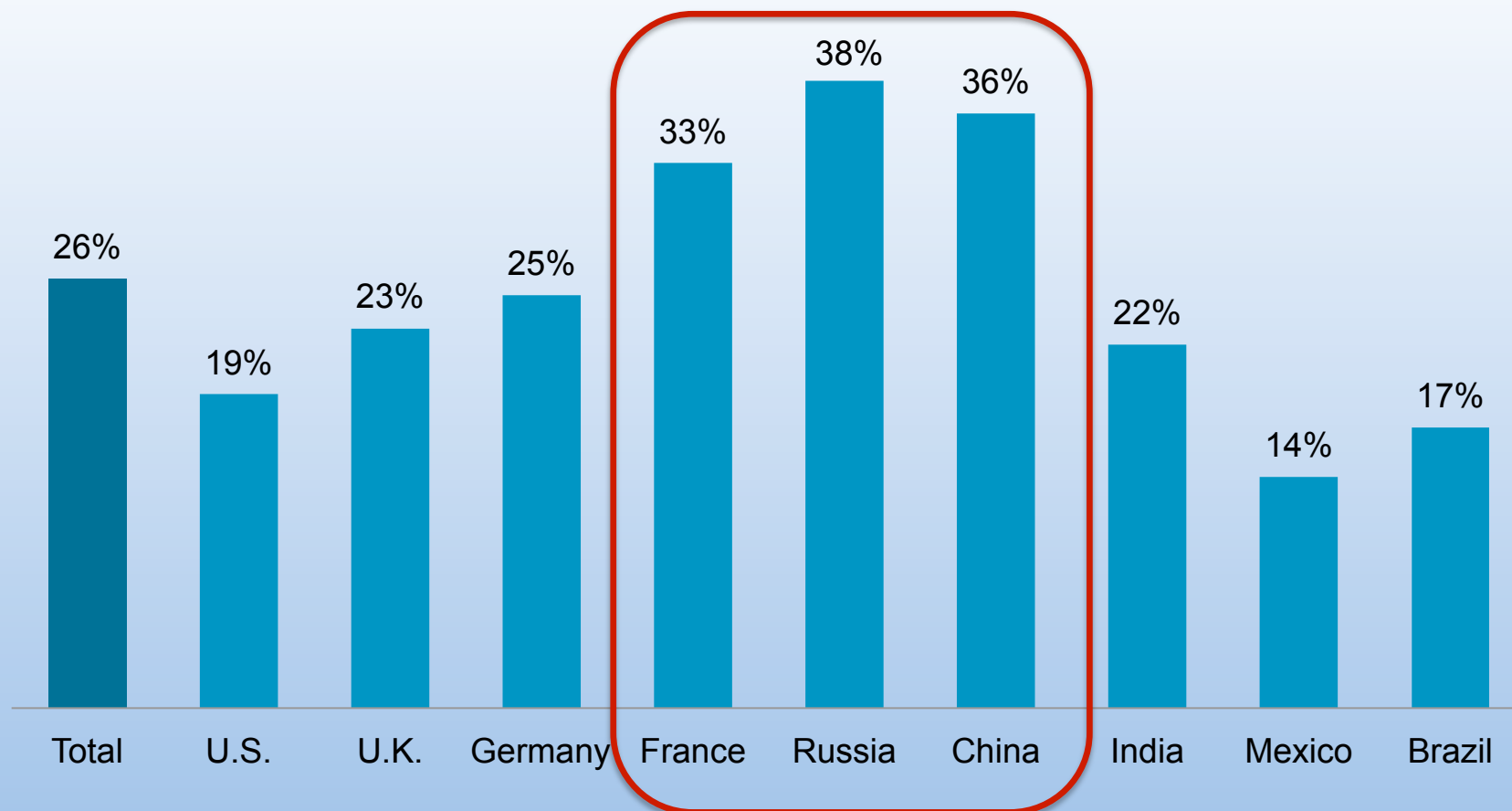
#2 Providing IT support for multiple mobile platforms

Source: Cisco IBSG, 2012

N = 4,892

Security Threats Are a Major Concern in Europe, China

Percentage of Companies that Find Security a Top BYOD Challenge

				France	Russia	China			
26%	19%	23%	25%	33%	38%	36%	22%	14%	17%
Total	U.S.	U.K.	Germany	France	Russia	China	India	Mexico	Brazil

Source: Cisco IBSG, 2012

N = 4,892

IT Support: Most Companies Enable BYOD, but Europe Hesitant

89% Companies that enable BYOD in some form, from allowing employees to connect their own devices to company network, to full support for all employee-owned devices

71% Companies that provide IT support for either select employee-owned devices or all devices
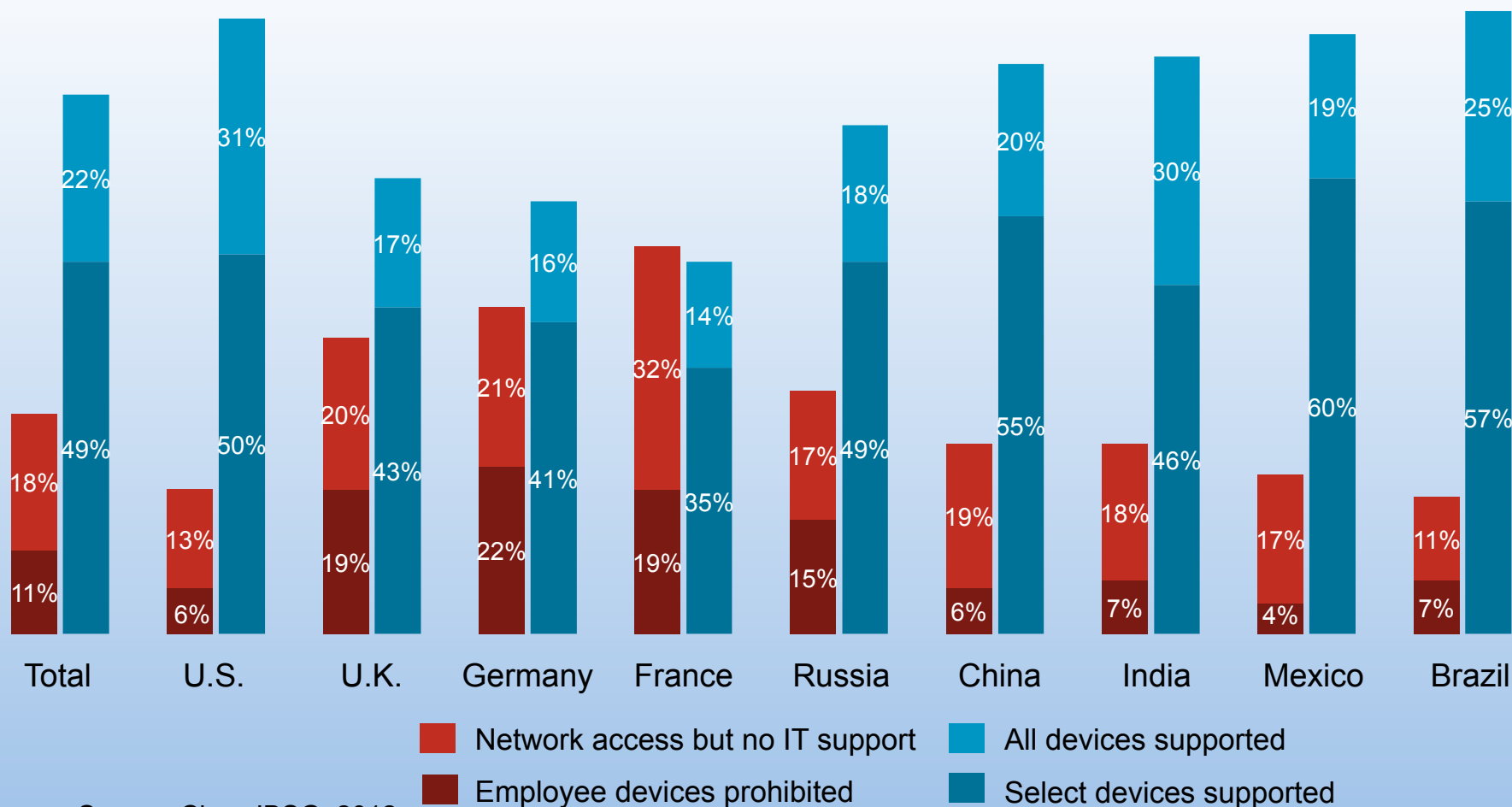
19% European companies that prohibit BYOD, compared to 6% for non-European countries

Source: Cisco IBSG, 2012

N = 4,892

Overall, Companies Support BYOD Globally

Company IT Support for Employee-Owned Devices

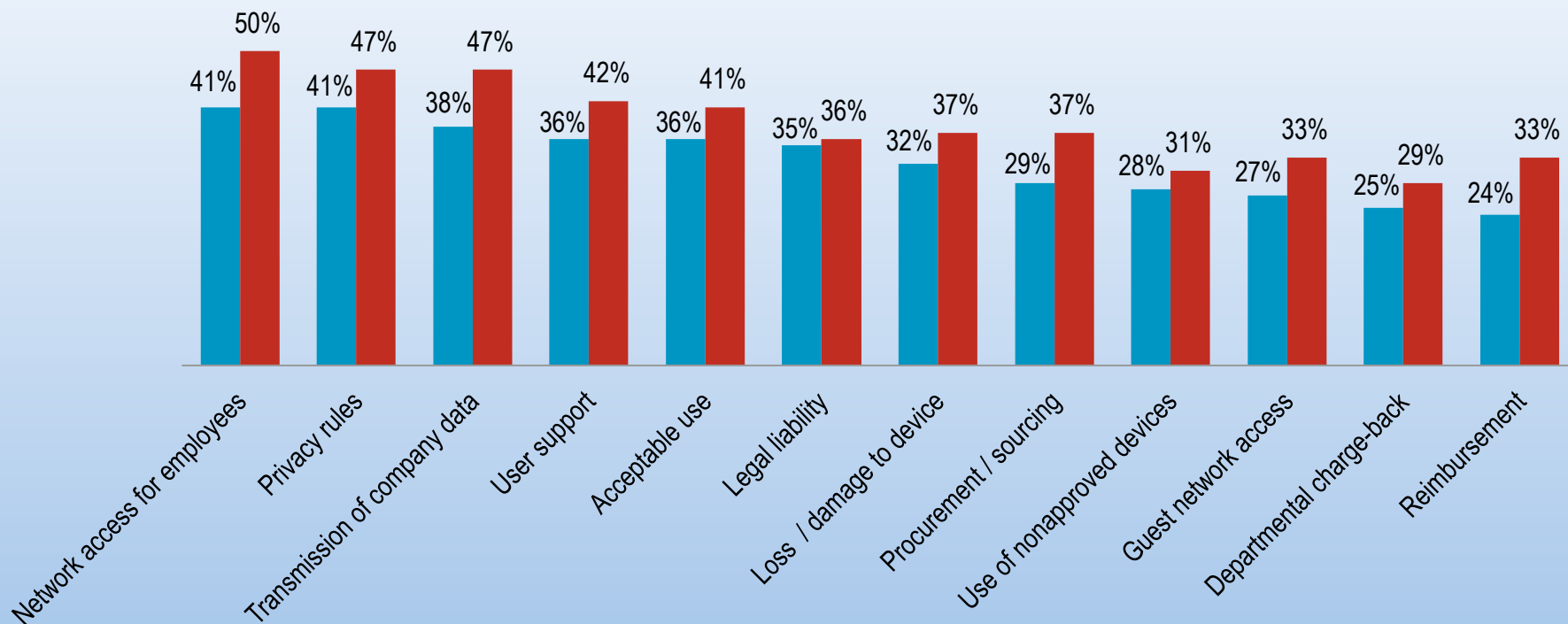|	Network access but no IT support	All devices supported
	Employee devices prohibited	Select devices supported

Source: Cisco IBSG, 2012

N = 4,892

Mobile Policy: Plenty of Work To Do for Enterprises, Midsize Firms

Areas Covered by Company Mobile and Mobile Device Policy

■ Midsize companies   ■ Enterprises

Category	Midsize companies	Enterprises
Network access for employees	41%	50%
Privacy rules	41%	47%
Transmission of company data	38%	47%
User support	36%	42%
Acceptable use	36%	41%
Legal liability	35%	36%
Loss / damage to device	32%	37%
Procurement / sourcing	29%	37%
Use of nonapproved devices	28%	31%
Guest network access	27%	33%
Departmental charge-back	25%	29%
Reimbursement	24%	33%

Source: Cisco IBSG, 2012

N = 4,892

Employees Want Freedom To Reinvent Their Work Style Through BYOD…

#1 Employees want an any-device, anywhere work style (37%)

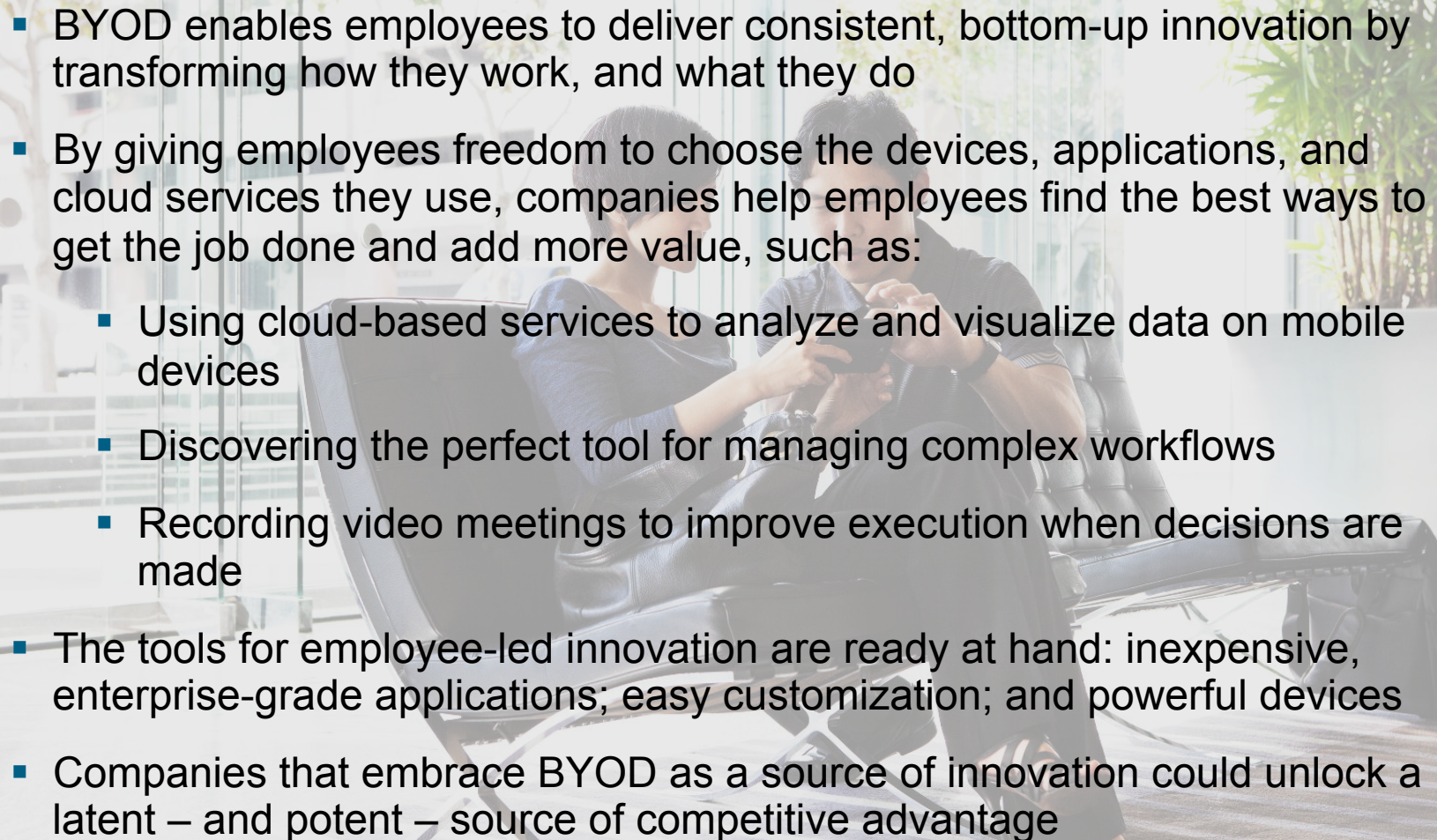**#2** Employees want to do personal activities during work and work activities during personal time (35%)

#3 Avoid usage restrictions of company-owned devices (31%)

Source: Cisco IBSG, 2012

N = 4,892

…Which Can Foster Employee-Led Innovation

- BYOD enables employees to deliver consistent, bottom-up innovation by transforming how they work, and what they do

- By giving employees freedom to choose the devices, applications, and cloud services they use, companies help employees find the best ways to get the job done and add more value, such as:

  - Using cloud-based services to analyze and visualize data on mobile devices

  - Discovering the perfect tool for managing complex workflows

  - Recording video meetings to improve execution when decisions are made

- The tools for employee-led innovation are ready at hand: inexpensive, enterprise-grade applications; easy customization; and powerful devices

- Companies that embrace BYOD as a source of innovation could unlock a latent – and potent – source of competitive advantage

Source: Cisco IBSG, 2012

N = 4,892

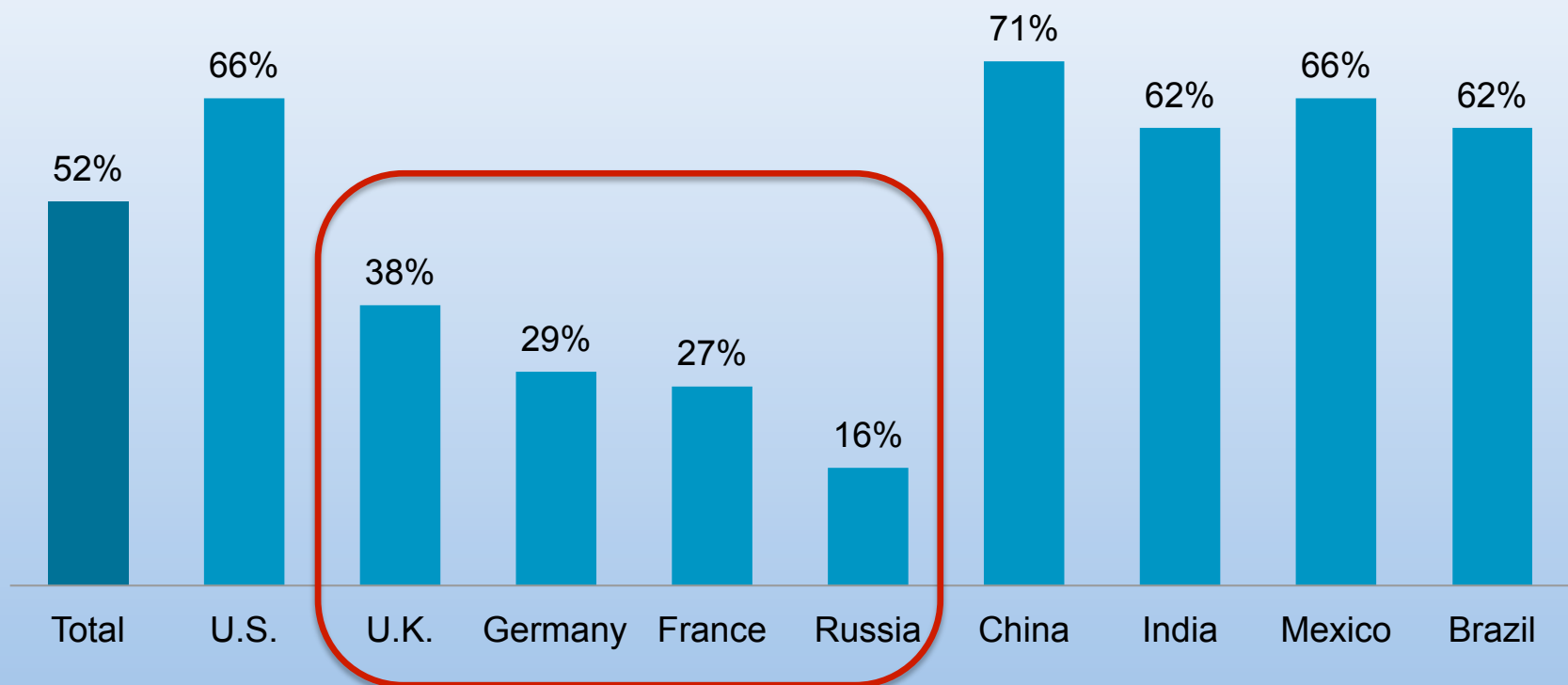# Employees Also Want To Bring Their Own Applications

52% IT leaders who say nonapproved applications are somewhat to much more prevalent today than two years ago—a huge difference between Europe, rest of world

Source: Cisco IBSG, 2012

N = 4,892

Nonapproved Applications Increasing Sharply Everywhere but Europe

Percentage of Companies Saying Number of Nonapproved Applications "Somewhat" or "Much More" Prevalent vs. 2 Years Ago

Bar chart values:
- Total: 52%
- U.S.: 66%
- U.K.: 38%
- Germany: 29%
- France: 27%
- Russia: 16%
- China: 71%
- India: 62%
- Mexico: 66%
- Brazil: 62%

Source: Cisco IBSG, 2012

N = 4,892

Desktop Virtualization Is on the Rise —
In Some Countries

91% IT leaders who are somewhat or very aware of desktop virtualization

44% Agree that a majority of knowledge-worker roles are suitable for desktop virtualization, with U.S. much higher at 64%
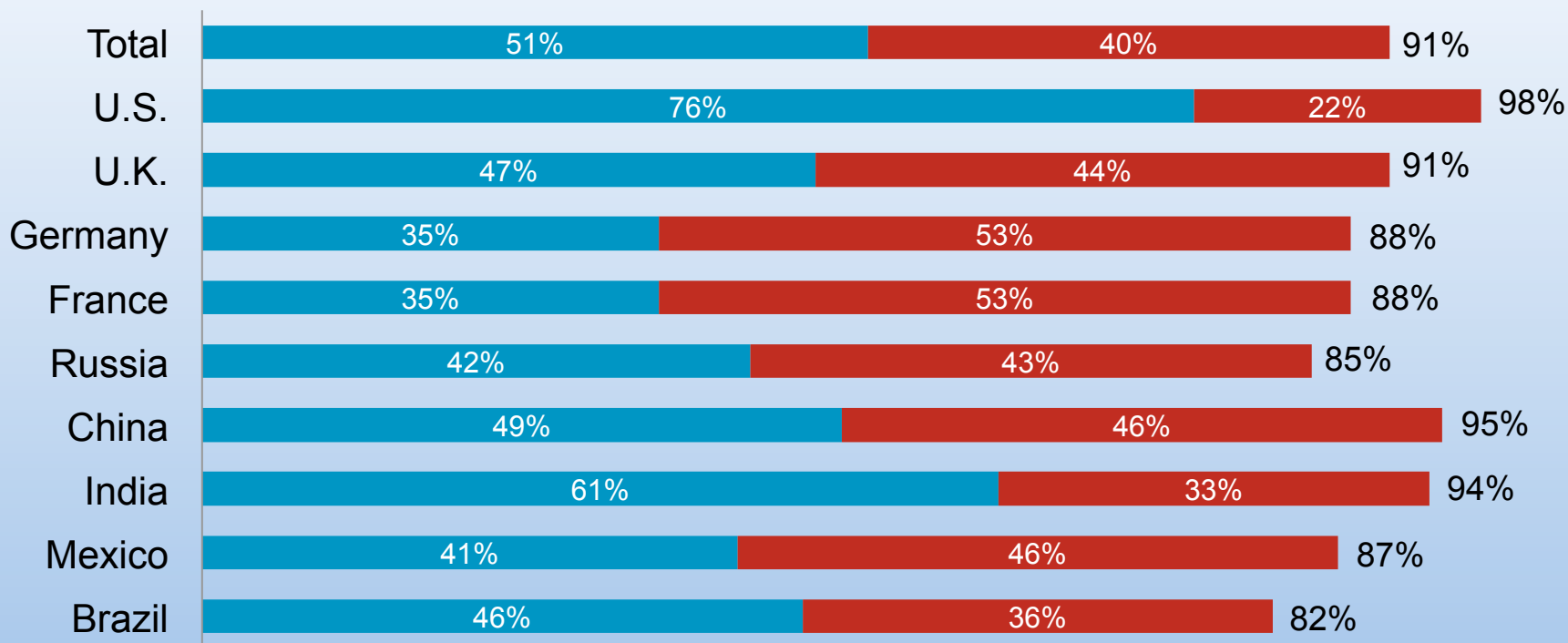
Source: Cisco IBSG, 2012

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IT Leaders Are Well Aware of Desktop Virtualization…

Awareness of Desktop Virtualization

■ Very aware   ■ Somewhat aware

	Very aware	Somewhat aware	Total
Total	51%	40%	91%
U.S.	76%	22%	98%
U.K.	47%	44%	91%
Germany	35%	53%	88%
France	35%	53%	88%
Russia	42%	43%	85%
China	49%	46%	95%
India	61%	33%	94%
Mexico	41%	46%	87%
Brazil	46%	36%	82%

Source: Cisco IBSG, 2012

N = 4,892

…But Implementation Is Trailing Awareness

Desktop Virtualization Strategy

	Fully implemented	In the process of implementing	Have a strategy, but not yet funded / implemented	No current strategy
Total	5%	28%	39%	27%
U.S.	4%	47%	32%	15%
U.K.	4%	22%	43%	30%
Germany	6%	23%	33%	36%
France	5%	20%	40%	32%
Russia	1%	11%	36%	48%
China	1%	35%	35%	27%
India	13%	27%	39%	21%
Mexico	2%	14%	59%	25%
Brazil	2%	19%	57%	19%

- ■ Fully implemented
- ■ In the process of implementing
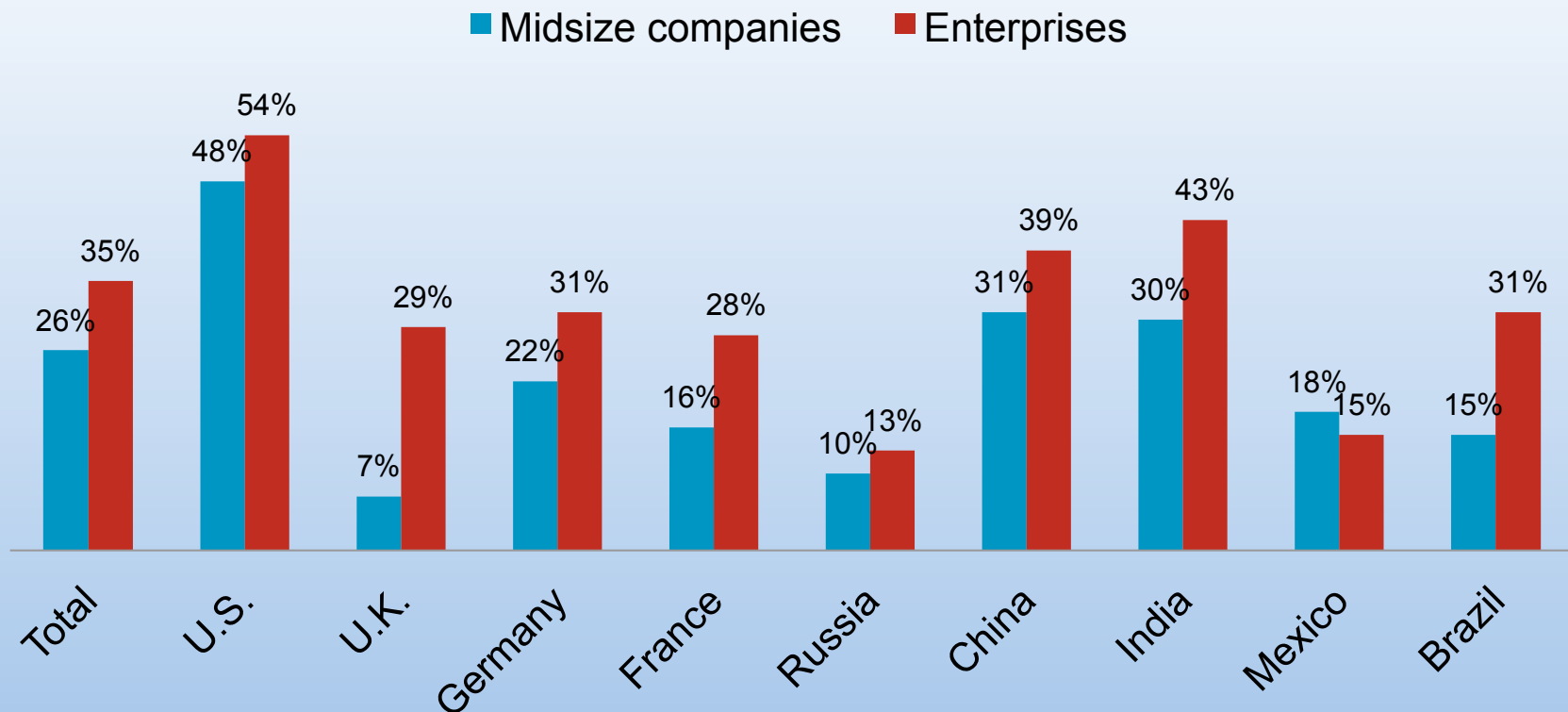- ■ Have a strategy, but not yet funded / implemented
- ■ No current strategy
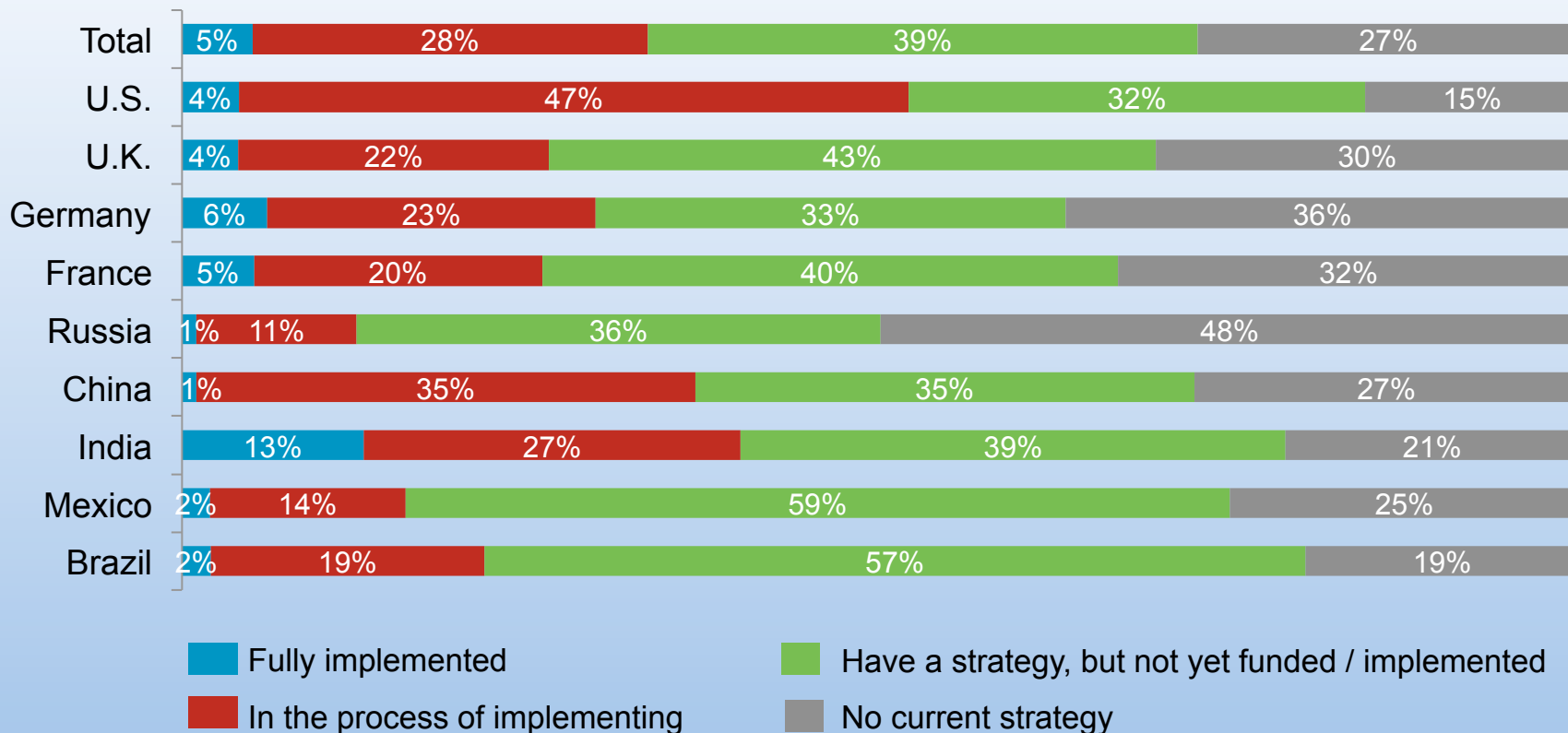
Source: Cisco IBSG, 2012

N = 4,892

Enterprises Lead in Implementing Virtualization

**Percentage of Companies in the Process of Implementing — or that Have Already Completed — Their Virtualization Strategy**

■ Midsize companies ■ Enterprises

	Midsize companies	Enterprises
Total	26%	35%
U.S.	48%	54%
U.K.	7%	29%
Germany	22%	31%
France	16%	28%
Russia	10%	13%
China	31%	39%
India	30%	43%
Mexico	18%	15%
Brazil	15%	31%

Source: Cisco IBSG, 2012

N = 4,892

IT Leaders Outside U.S. Not Sold on Virtualization for Knowledge Workers

Percentage of Respondents Who Believe a Majority of Knowledge Workers Are Suitable for Desktop Virtualization
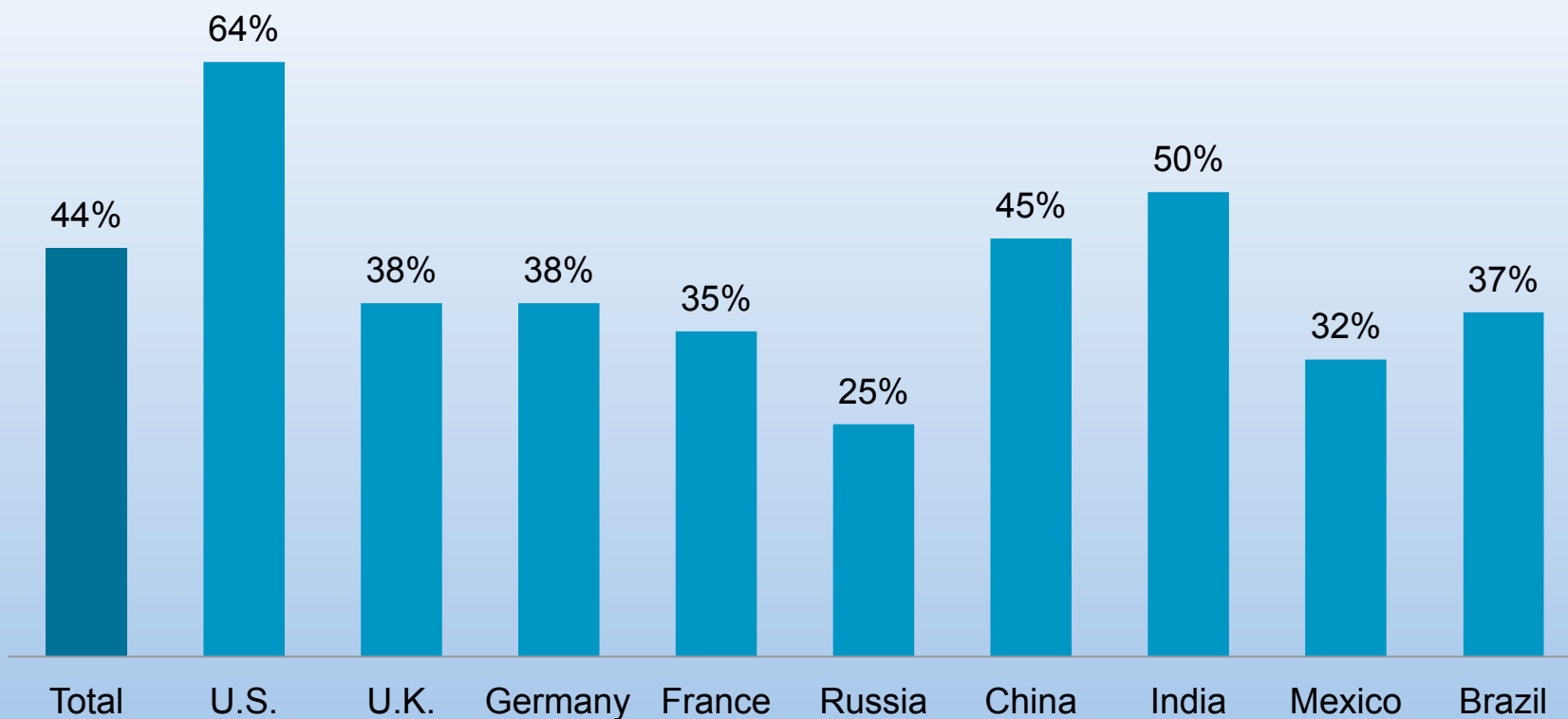
Source: Cisco IBSG, 2012

N = 4,892

Top Desktop Virtualization Drivers

#1: Data Protection—31%

#2: Mobility for Employees—28%

#3: Business Agility—27%

Source: Cisco IBSG, 2012

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Globally, Application Provisioning and Management Are Changing

Primary Application Provisioning and Management with Current Approaches to Desktop Virtualization

Standard desktop "image" to all devices · Company "app store" · Other approaches
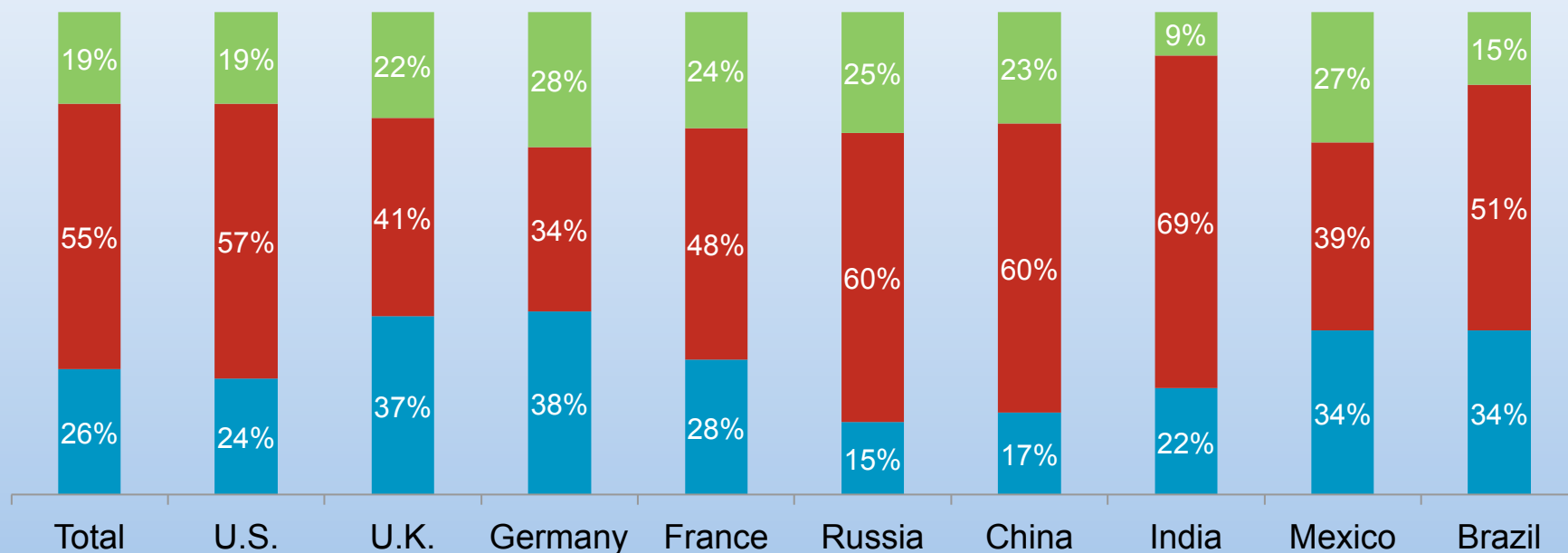
Source: Cisco IBSG, 2012

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Key Takeaways

- BYOD is not an emerging trend but a *fact* across geographies, different company sizes

- The United States, Asia, and Latin America are most enthusiastic about BYOD, and there is an opportunity for employees to **innovate** how and where they work. This, rather than cost containment, is the real BYOD opportunity

- European companies are less supportive of BYOD, see benefits more in terms of cost containment than employee-led innovation, and could miss the next wave of employee effectiveness

- Mobility budgets are rising quickly, and firms may be missing opportunities to optimize spending — without restricting access

- BYOD also implies new challenges in security and support

- Better mobile policy can help deliver security, support, and lower costs

- Desktop virtualization is top of mind for U.S. IT leaders, but seen as less applicable to knowledge workers in other countries

Source: Cisco IBSG, 2012

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