

# Emerging Technologies and Top 10 Recommendations for Your CEO

Ken McGee

@GARTNER\_INC

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# Gartner at a Glance



# The Emerging Technologies CEOs Will Want by 2018

Ken McGee

# Polling Question # 1: My CEO Or H of O Has A 3 To 5 Year Strategy For The Future Of Our Enterprise

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1. I Strongly Agree
2. I Agree
3. It's Unclear To Me
4. I Disagree
5. I Strongly Disagree

## **Polling Question # 2: My CEO Or H of O Has A Deep Appreciation For The Importance Of Emerging Technologies**

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1. I Strongly Agree
2. I Agree
3. It's Unclear To Me
4. I Disagree
5. I Strongly Disagree

## **Polling Question # 3: I Am A Permanent Member Of My Enterprise's Senior Strategic Planning Committee**

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1. Yes
2. No

Yfg gsviv'h hlnv yzw mvdh zylfg gsrh xlvv.  
Mlg lmob rh rg vzhb gl vmxlvv, rg'h vzhb gl  
wvxlwv, gll! Yvxzfhv zoo blf szev gl wl gl  
wvxlwv rg rh wl gsv kilxvhh zoo levi ztzrm!  
Gl hvv dszg R nvzm, gbkv z nvhhztv rmgl  
gsv vmxlvvi zmw xorxp "Vmxlvv". Mld,  
rmhgvzw lu xorxprmt "Wvxlwv", xorxp  
"Vmxlvv" ztzrm. Blf tvg vczxgob gsv hznv  
nvhhztv gszt blf hgzigvw drgs!

```
<table border="0"><tr><td><a  
href="http://www.theproblemsite.com/codes/  
default.asp"></a></td><td><a  
href="http://www.theproblemsite.com/codes/  
default.asp">Learn About Codes, Decoding,  
and Secret Messages</a></td></tr></table>
```



# Decoding

# Welcome To "Decoding Executive Messages"

Decoding  
**Executive**  
**+@\*%&#**



**Kenneth G. McGee**

# Please Decode

7

G--d

--y

# Please Decode

8

A  is fun. I like to go on a  at the  
 with my . We take a  to the   
with us. We eat , , and . We like to  
drink .  likes to go fishing after we eat.  
I like to play with my  after we eat. Do you like to go on a  
 with your  ?

# Please Decode

9



**Clarity of a  
Typical CEO  
Business Plan**

# Underlying Assumptions

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- CEOs will spend more than 2,500 hours working this year, but will devote fewer than 2 of those hours to matters directly pertaining to IT.
- CEOs know **exactly** what they want.
- CEOs **DO NOT** want emerging technologies.

# Key Issues

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1. When will CEO and CIO priorities directly align?
2. Which emerging technologies will CEOs want by 2018?
3. What will tomorrow's successful senior executives need to know about IT?



# Key Issues

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# Key Issue: When will CEO and CIO priorities directly align?

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## Responses to 2012 CEO and Senior Executive Survey

1. Increasing Enterprise Growth
2. Reducing Enterprise Costs
3. Expanding Into New Markets Or Geographies
4. Increase Profitability
5. Implementing Finance and Controls
6. Talent & Workforce Management/Development
7. Consolidating, Standardizing And Streamlining Operations
8. Execute M&As and Partnerships
9. Improve Governance, Compliance, Risk And Security
10. Create New Products and Services

## 2012 CIO Survey Identified Business Strategies

1. Increasing Enterprise Growth
2. Attracting/Retaining New Customers
3. Creating New Products Or Services (Innovation)
4. Improving Business Processes
5. Delivering Operational Results
6. Improving Efficiency
7. Improving Profitability (Margins)
8. Attracting/Retaining The Workforce
9. Improving Marketing and Sales Effectiveness
10. Expanding Into New Markets and New Geographies

# Key Issue: When will CEO and CIO priorities directly align?

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\* July 1 2011 to June 30, 2012

## Responses to 2012 CEO and Senior Executive Survey

1. Increasing Enterprise Growth
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10. Create New Products and Services

## > 58,000 “Substantive CIO Interactions” \*

1. IT Management
2. Strategic Planning
3. Mobile Enterprise Strategy
4. IT Organizational Design
5. Business Value of IT
6. Enterprise App Suites & ERP
7. IT Governance
8. Outsourcing
9. Cloud Computing
10. Data Center Modernization and Consolidation

# **Suggested Homework Assignment**

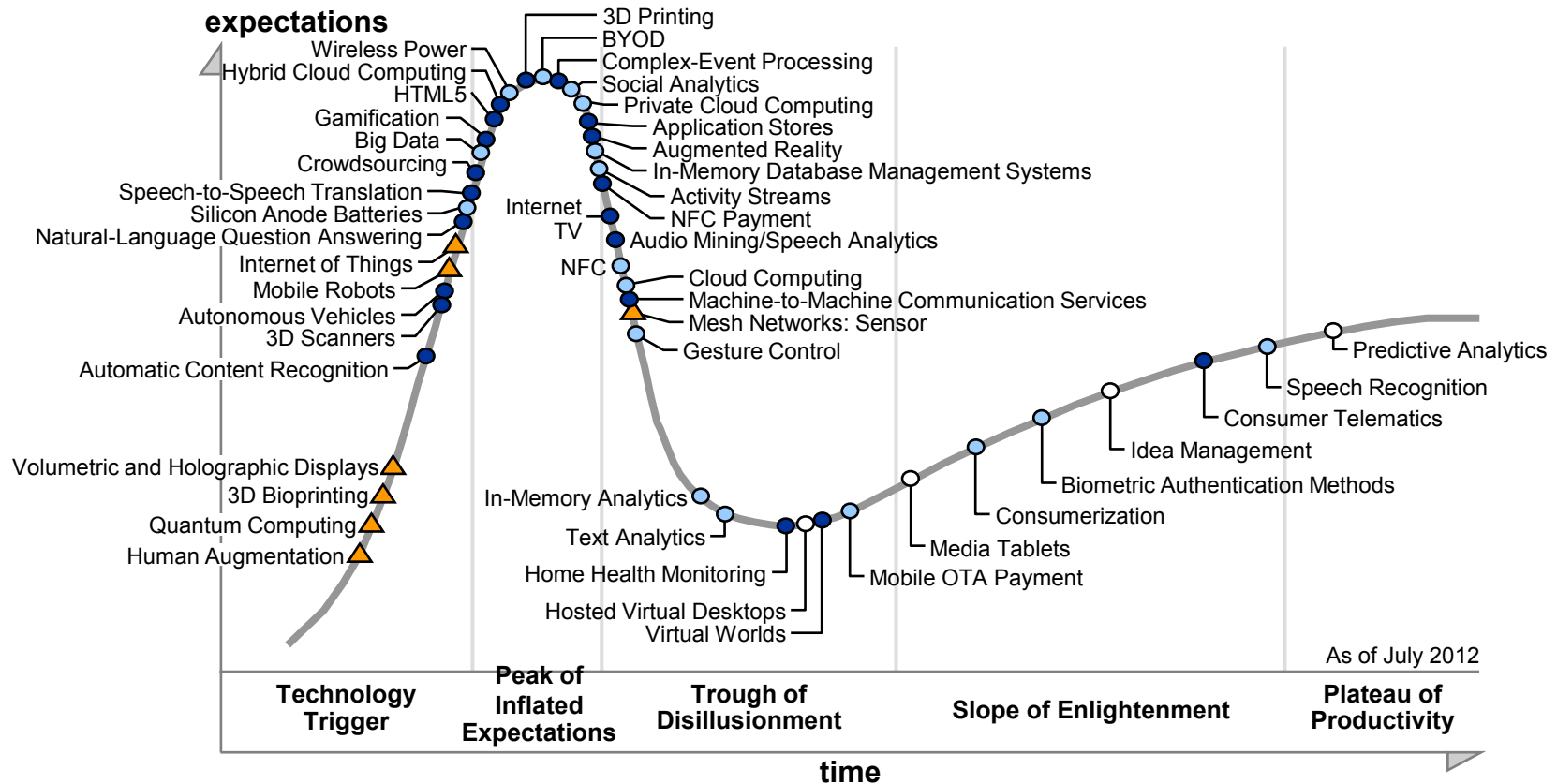
# Key Issues

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1. When will CEO and CIO priorities directly align?
- 2. Which emerging technologies will CEOs want by 2018?**
3. What will tomorrow's successful senior executives need to know about IT?

# Which emerging technologies will CEOs want most by 2018? 17

## 2012 Gartner Emerging Technologies Hype Cycle



Plateau will be reached in:

○ less than 2 years

○ 2 to 5 years

● 5 to 10 years

▲ more than 10 years

obsolete

⊗ before plateau

# Methodology for Today's Discussion

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- 1. Cite A Question Posed To CEOs From Gartner's 2012 CEO Survey**
- 2. Provide The Responses From The Survey.**
- 3. Introduce A Filter**
- 4. Apply The Filter To The Response**
- 5. Summarize The Results**
- 6. Present The Emerging Technology Hype Cycle**
- 7. Show The Summary Of Results From Applying The Filter**
- 8. Apply The Same Filter To The Emerging Technology Hype Cycle**
- 9. Analyze Result**

# Regularly Updated Pieces of Information

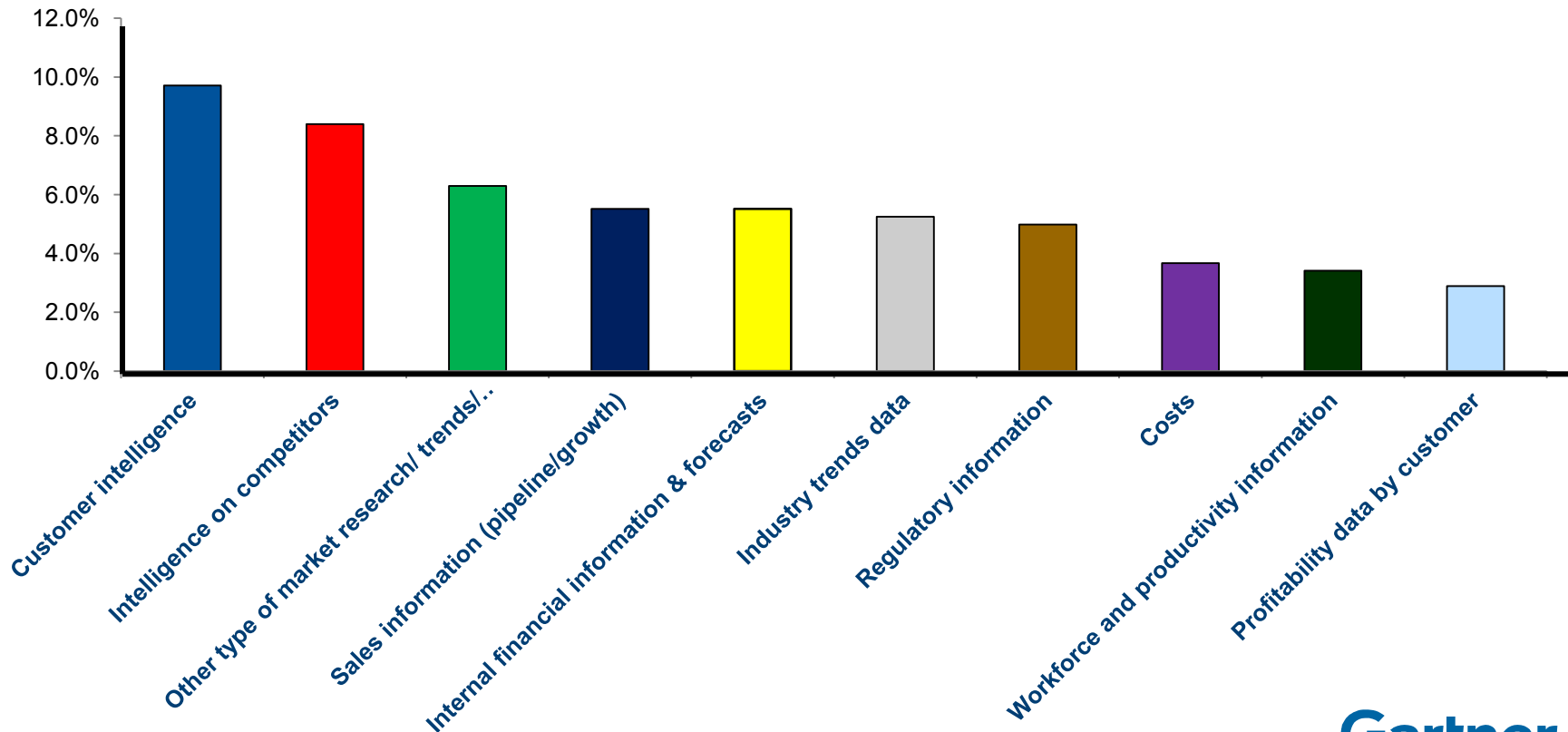
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**Q11. If there was one additional regularly updated piece of information you could have, that would enable you to manage your business better, what would it be?**



# Regularly Updated Pieces of Information

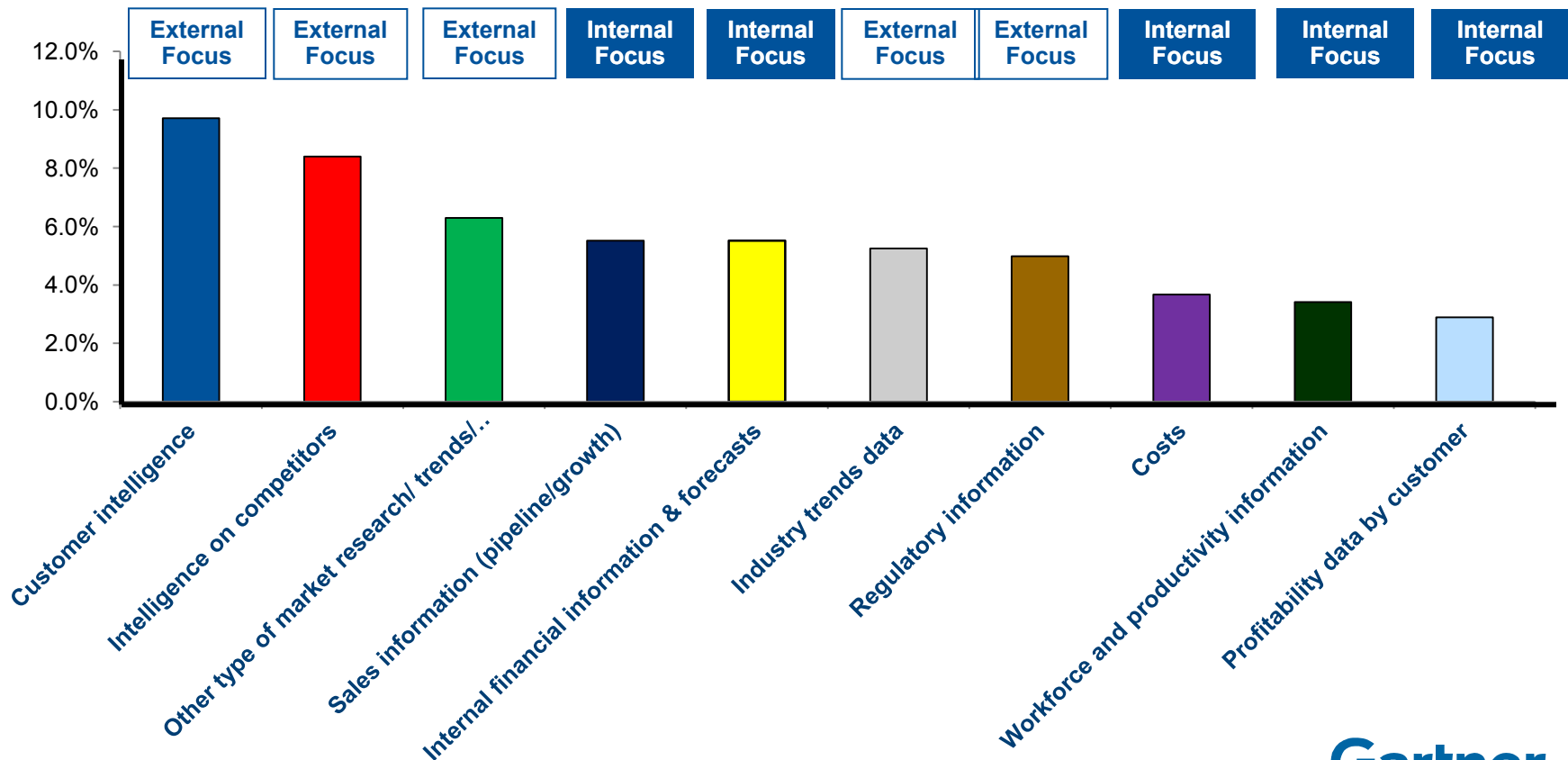
**Q11. If there was one additional regularly updated piece of information you could have, that would enable you to manage your business better, what would it be?**



Source:

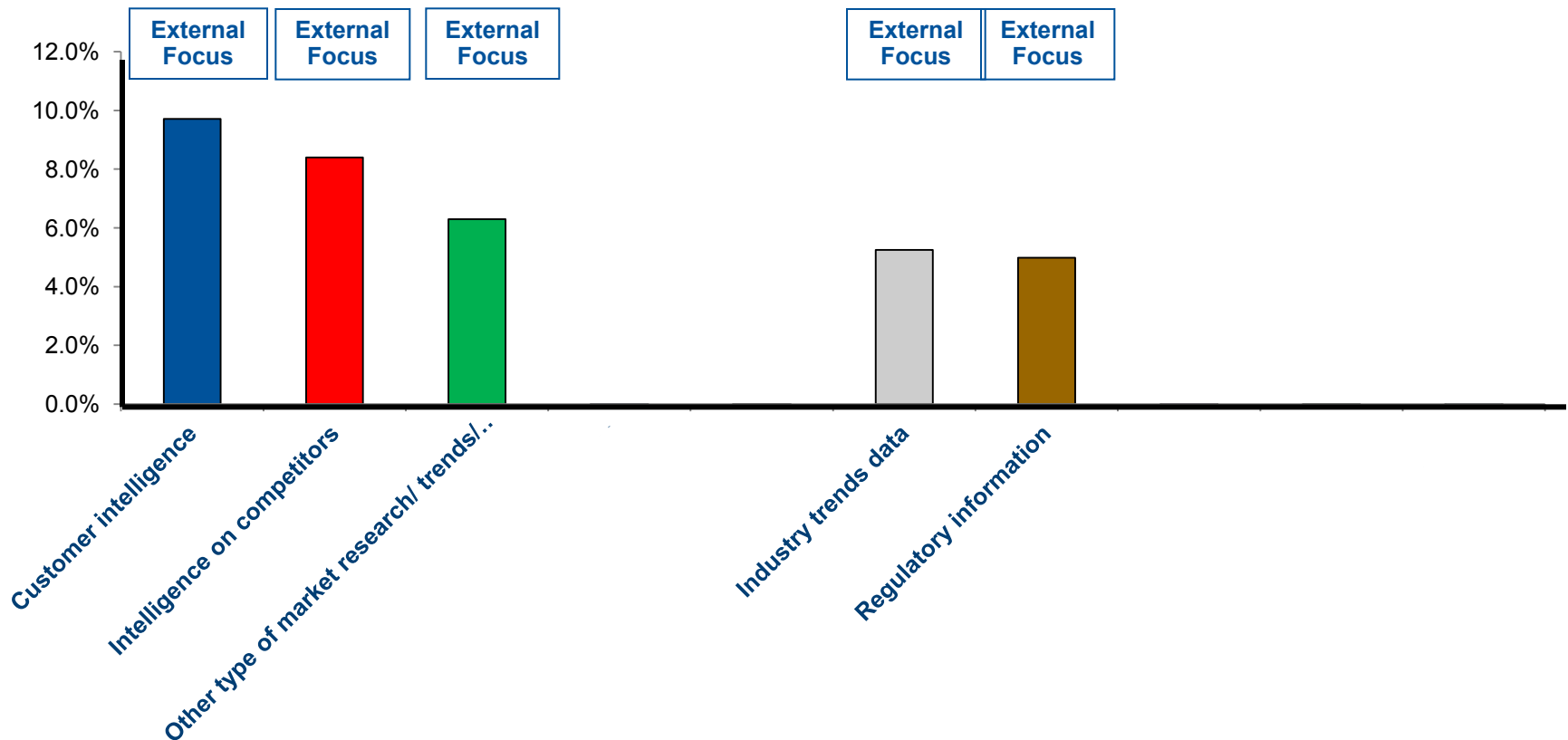
# Regularly Updated Pieces of Information

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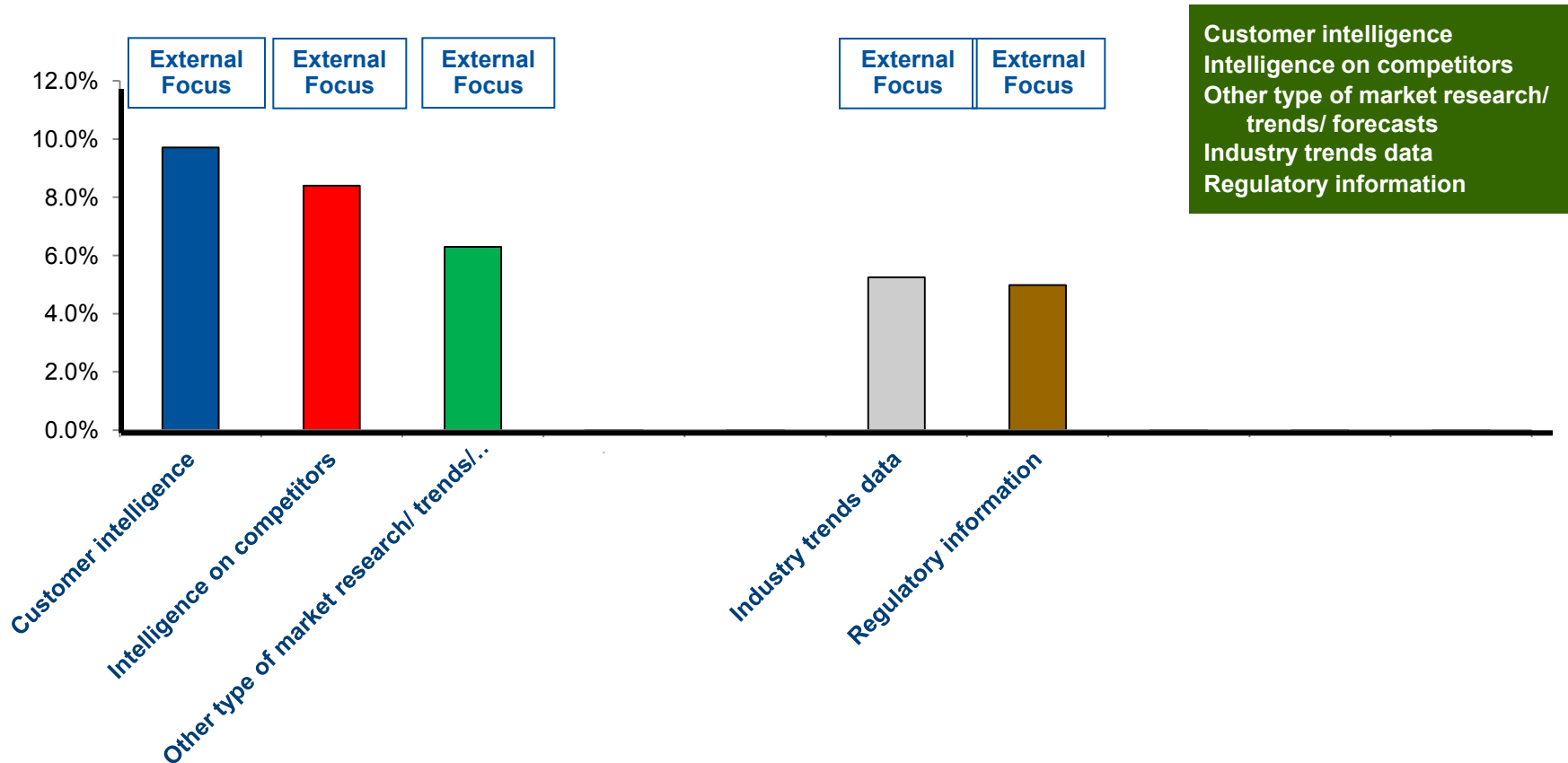
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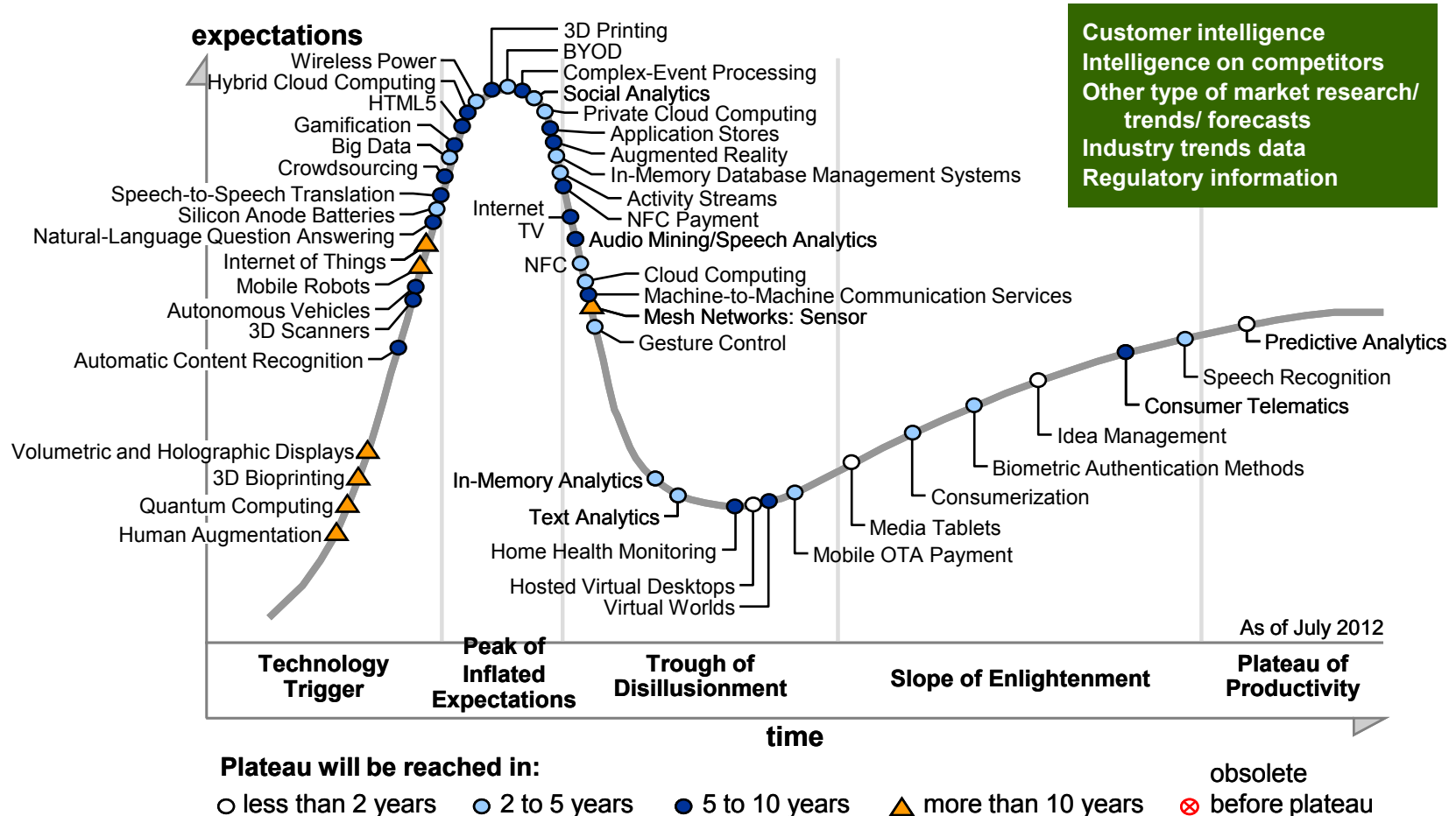
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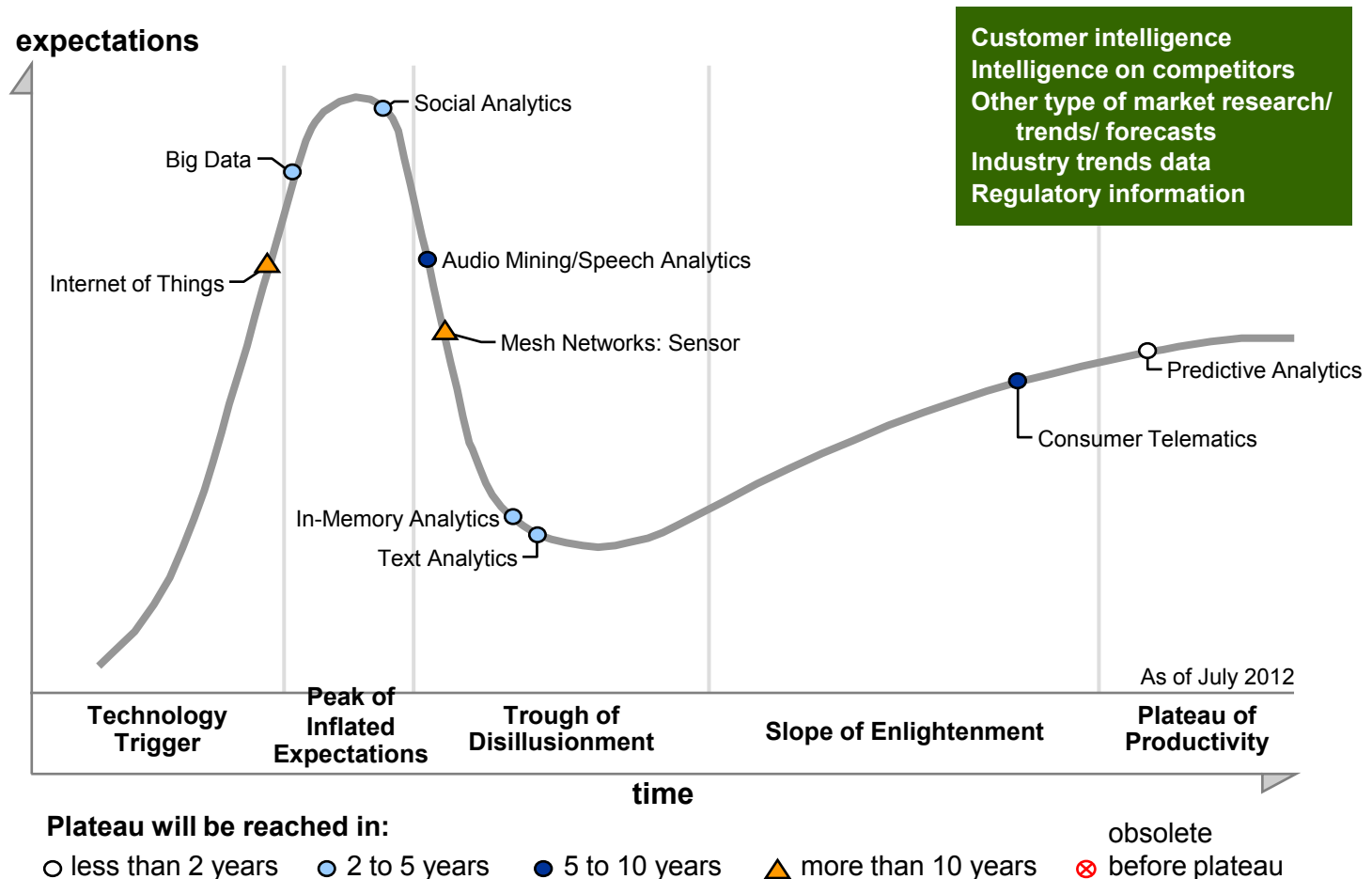
# Regularly Updated Pieces of Information

## 2012 Gartner Emerging Technologies Hype Cycle

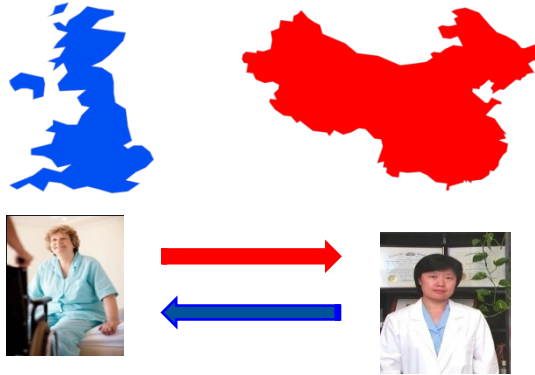


# Regularly Updated Pieces of Information

## 2012 Gartner Emerging Technologies Hype Cycle



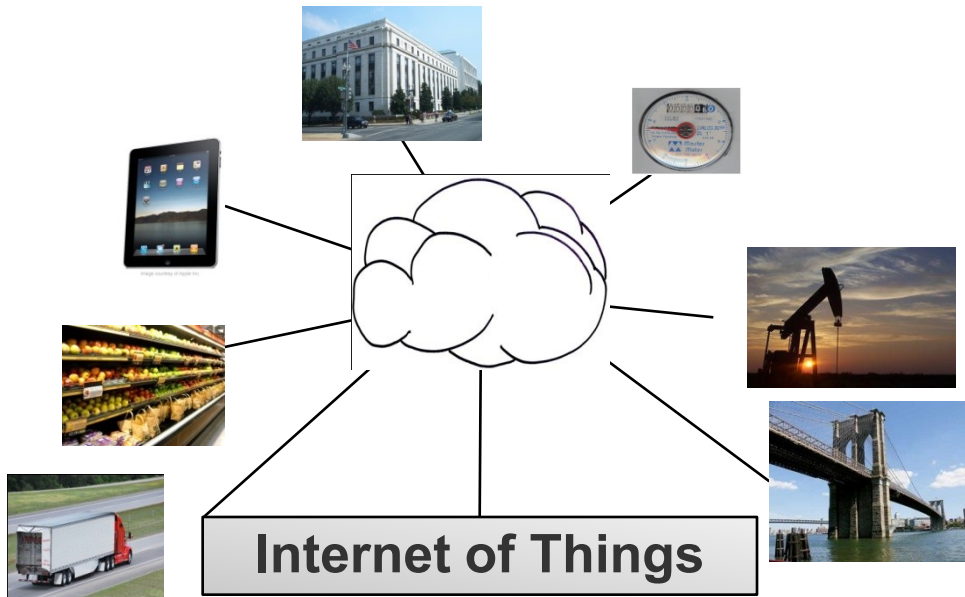
# “External” Insight Will Dominate Senior Executive Demand For New Information 26



**Speech to Speech Translation**



**Social Analytics**



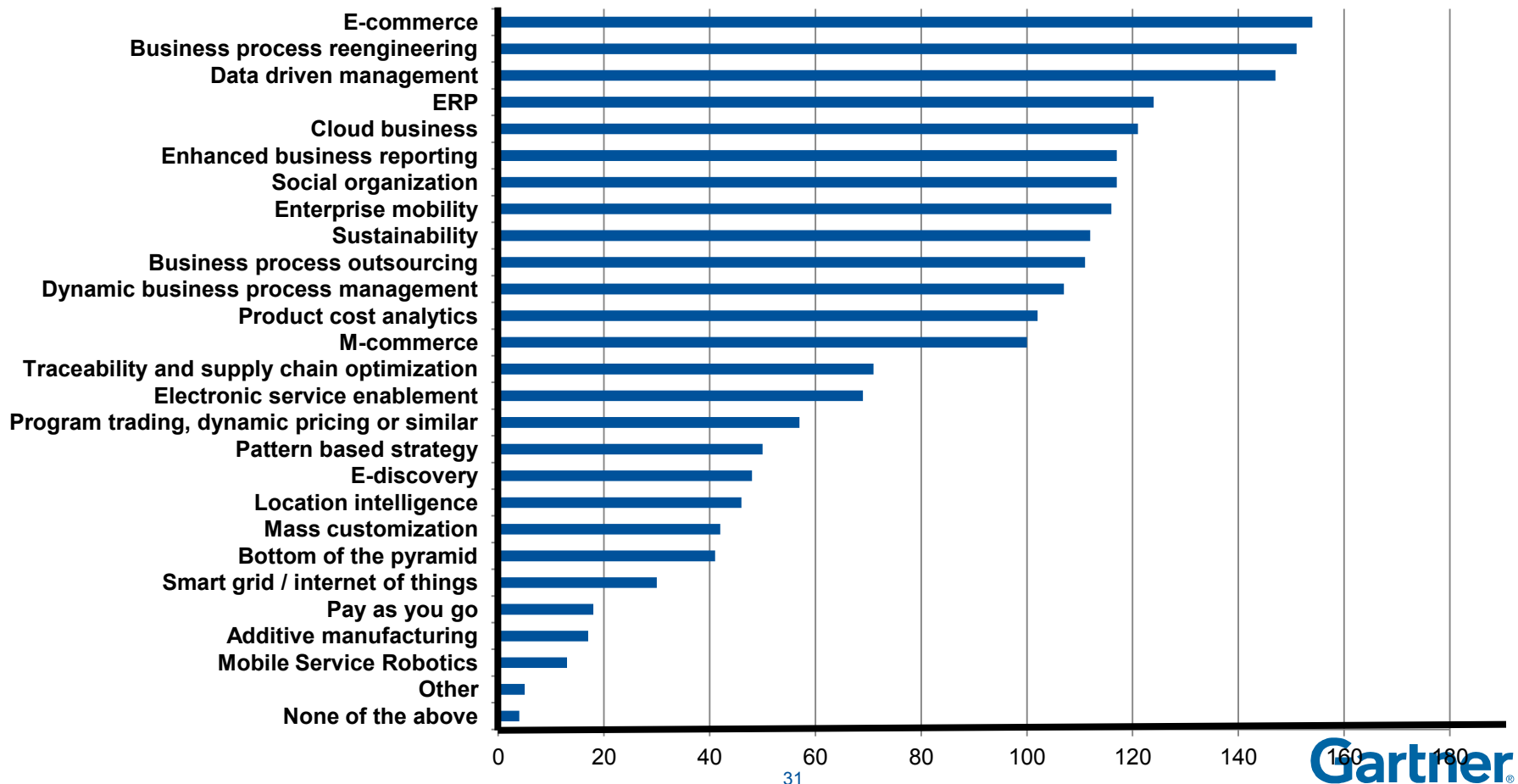
2017  
2016  
2015  
2014  
2013

**Predictive Analytics**

# Important Investments To Improve Business During The Next Five Years

27

**Q16. Which Of The Following Technology Enabled Capabilities Will Be An Important Area Of Investment To Improve Your Business Over The Next Five Years?**

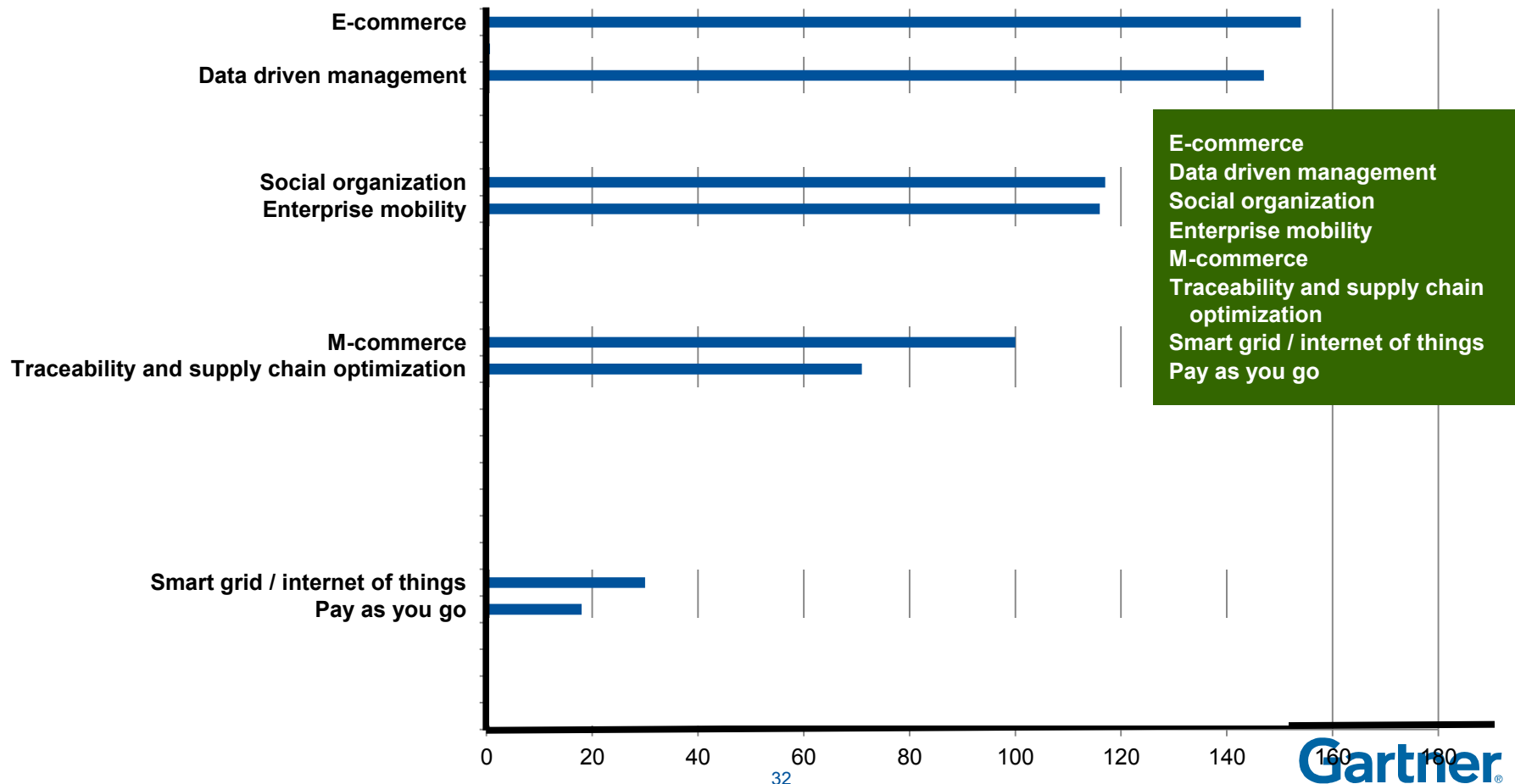




# Important Investments To Improve Business During The Next Five Years

28

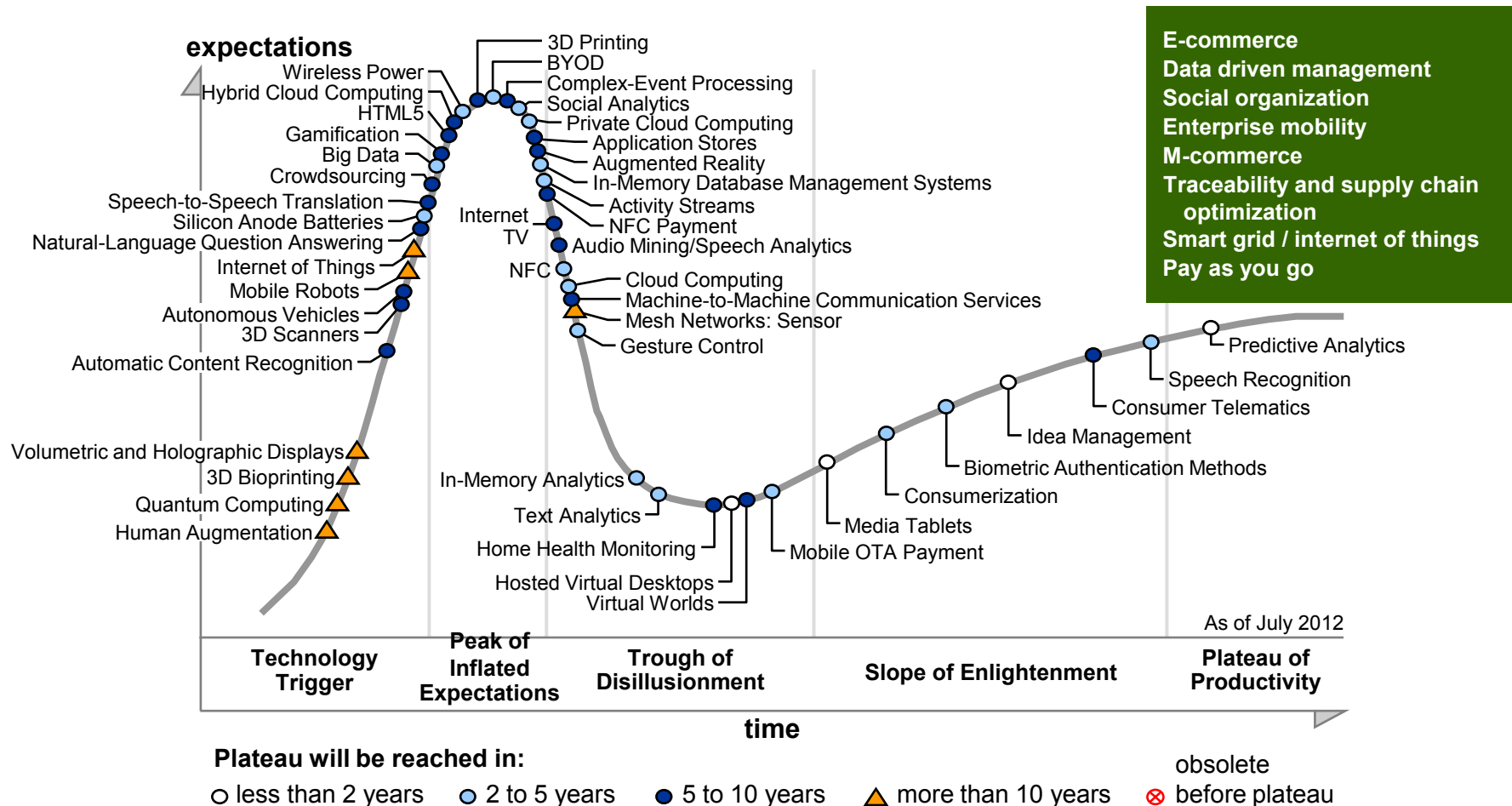
**Q16. Which Of The Following Technology Enabled Capabilities Will Be An Important Area Of Investment To Improve Your Business Over The Next Five Years?**



# Important Investments To Improve Business During The Next Five Years

29

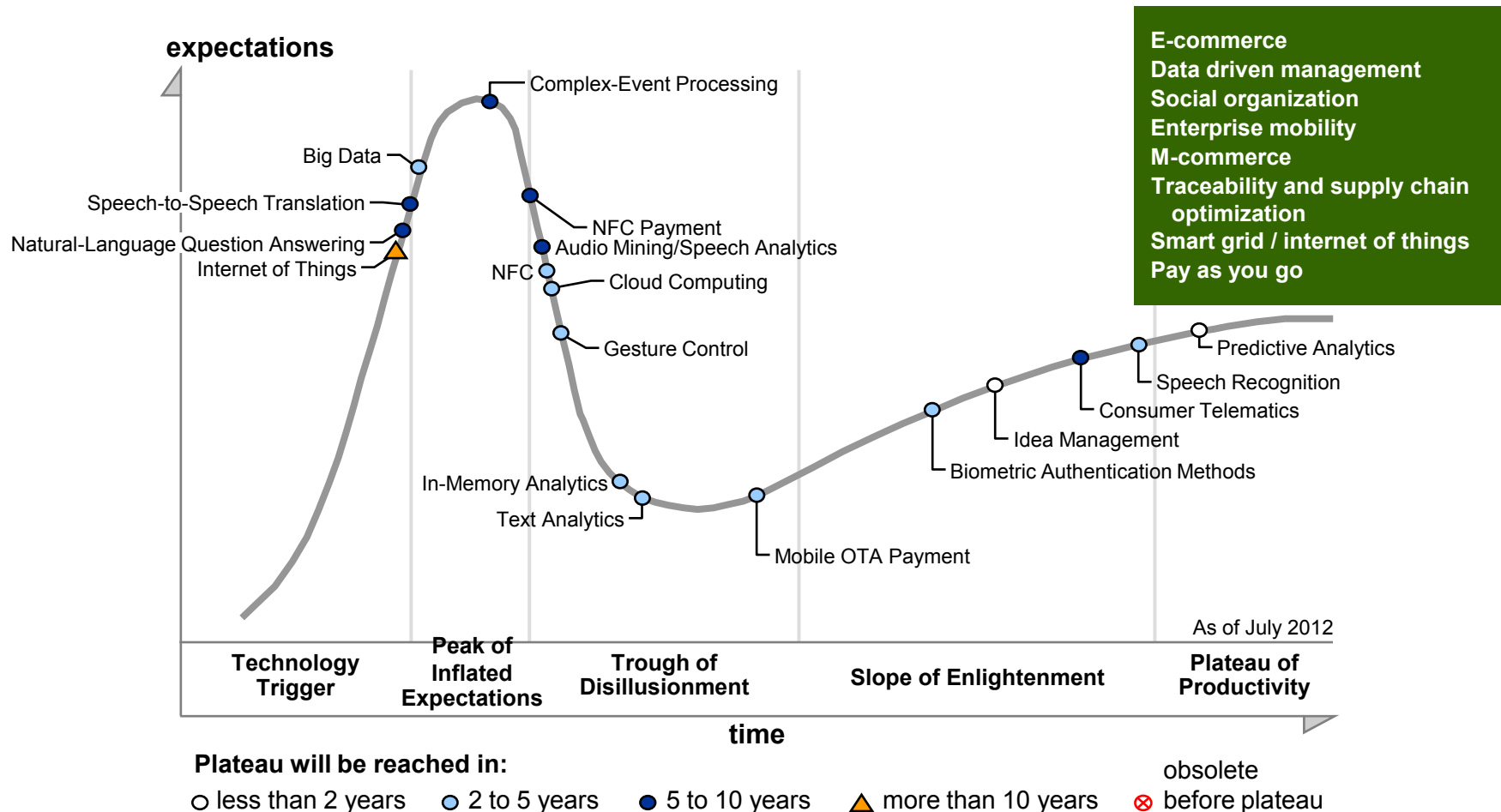
## 2012 Gartner Emerging Technologies Hype Cycle



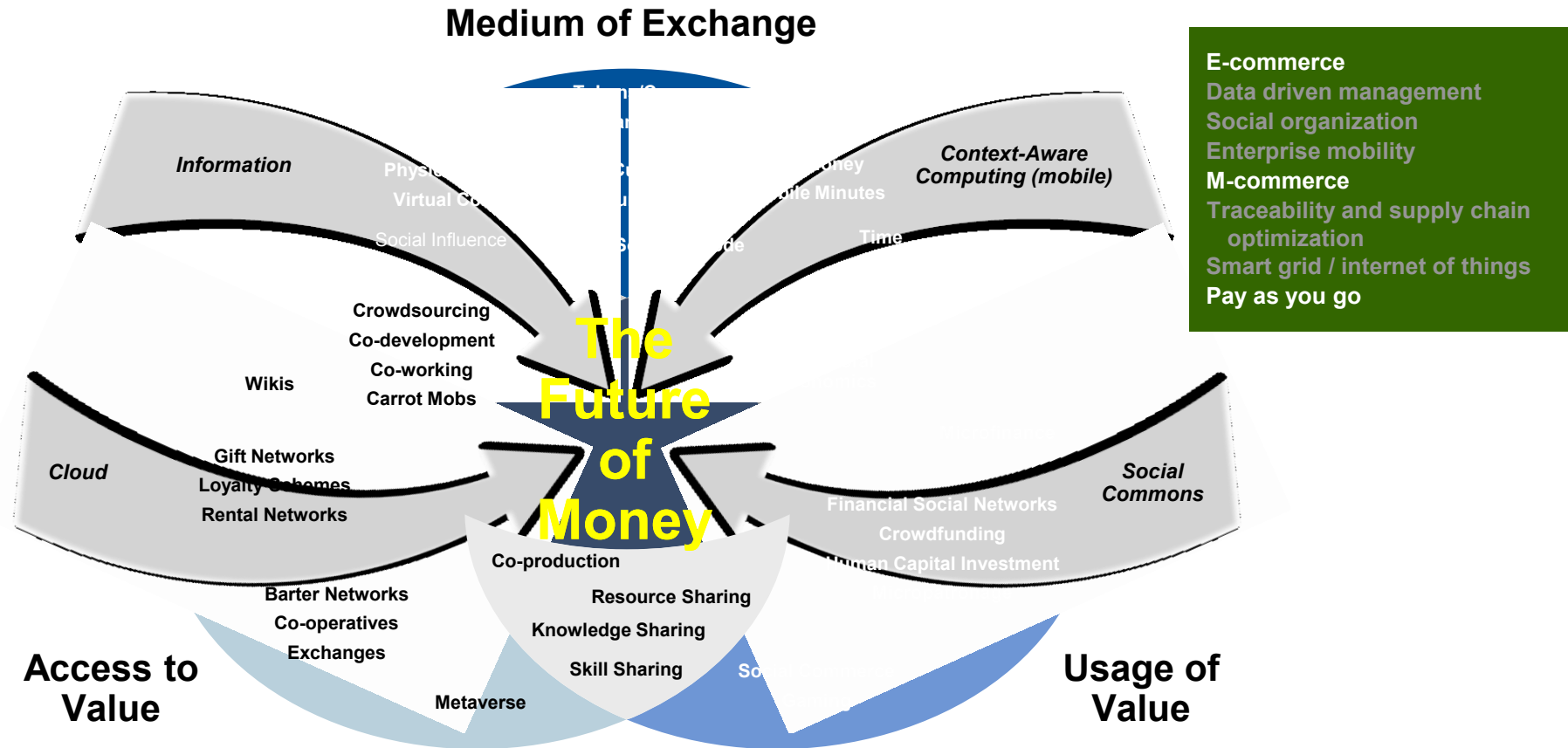
# Important Investments To Improve Business During The Next Five Years

30

## 2012 Gartner Emerging Technologies Hype Cycle



# Commerce & Payment: Easiest Emerging<sup>31</sup> Technologies To “Sell” To CEOs 2013 - 2018

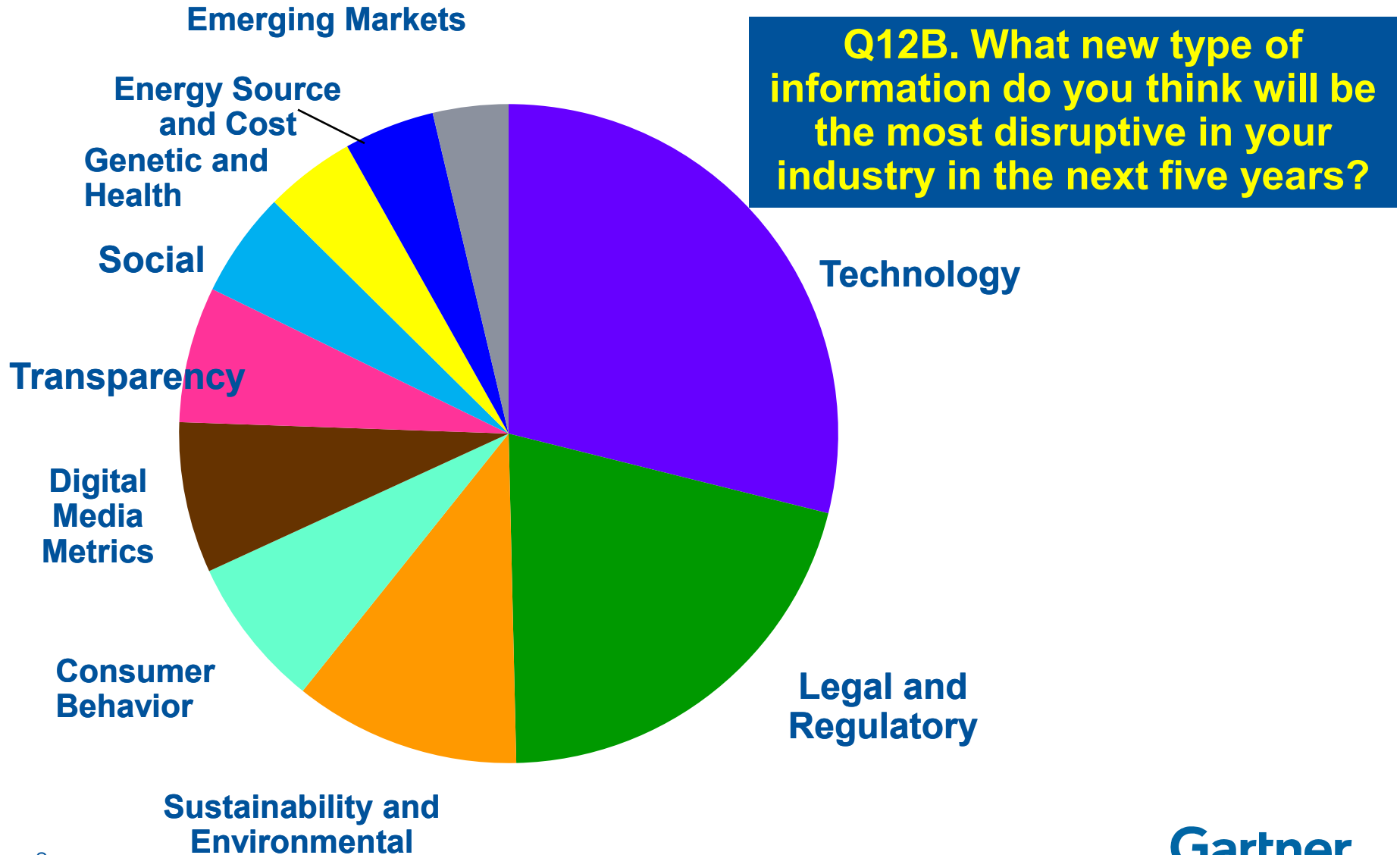


# Most Disruptive Information

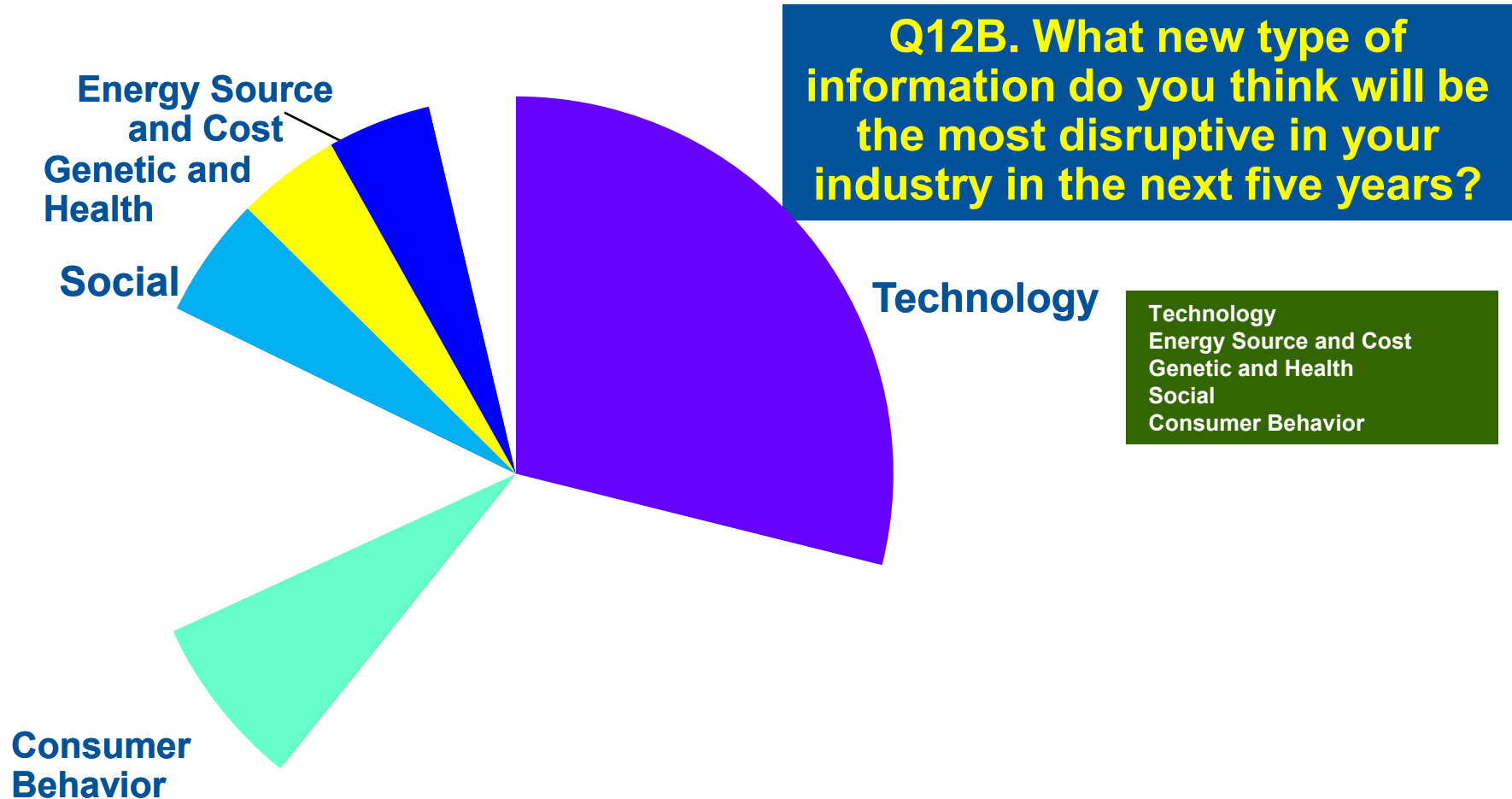
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**Q12B. What new type of information do you think will be the most disruptive in your industry in the next five years?**

# Most Disruptive Information

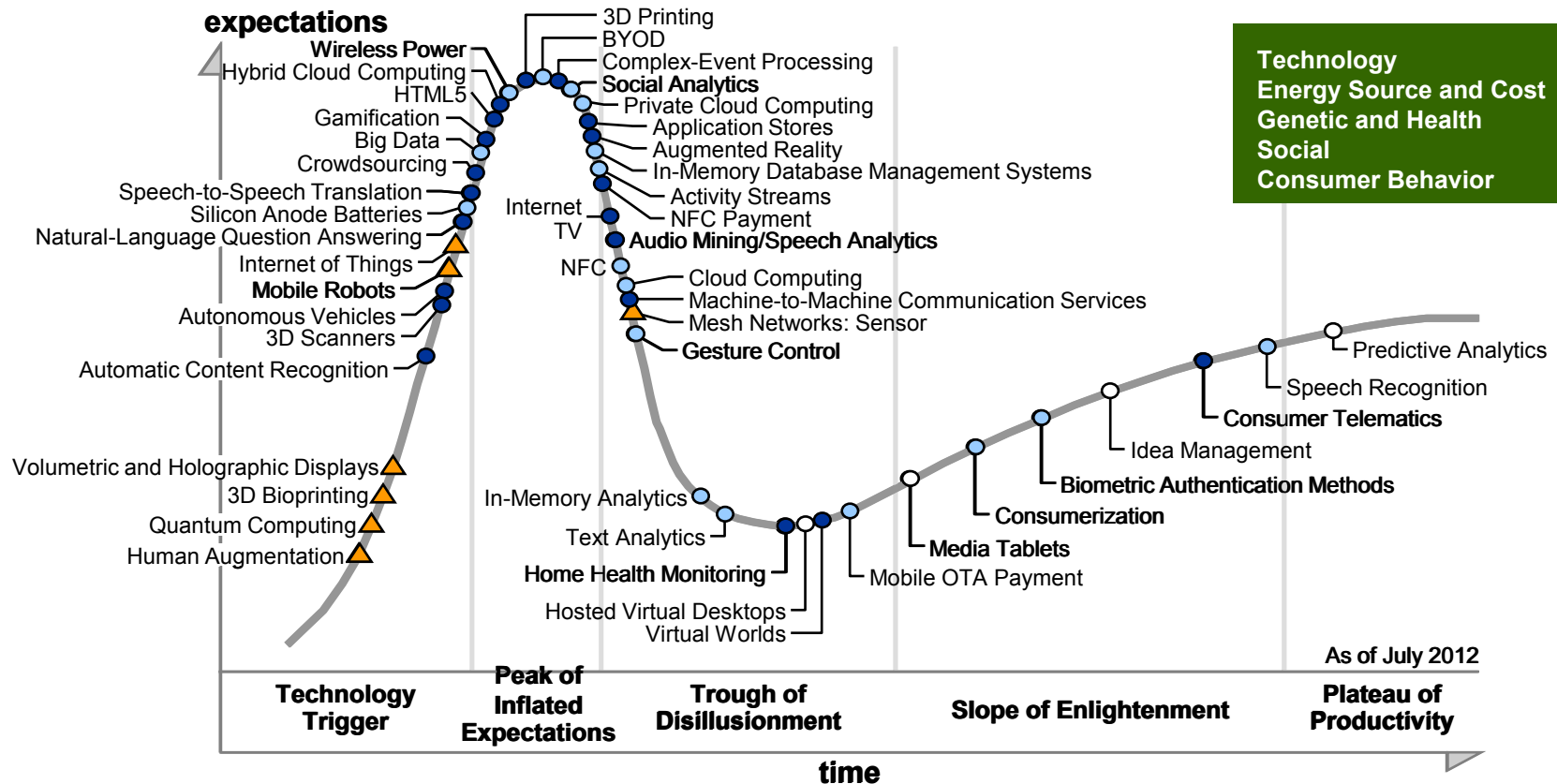


# Most Disruptive Information



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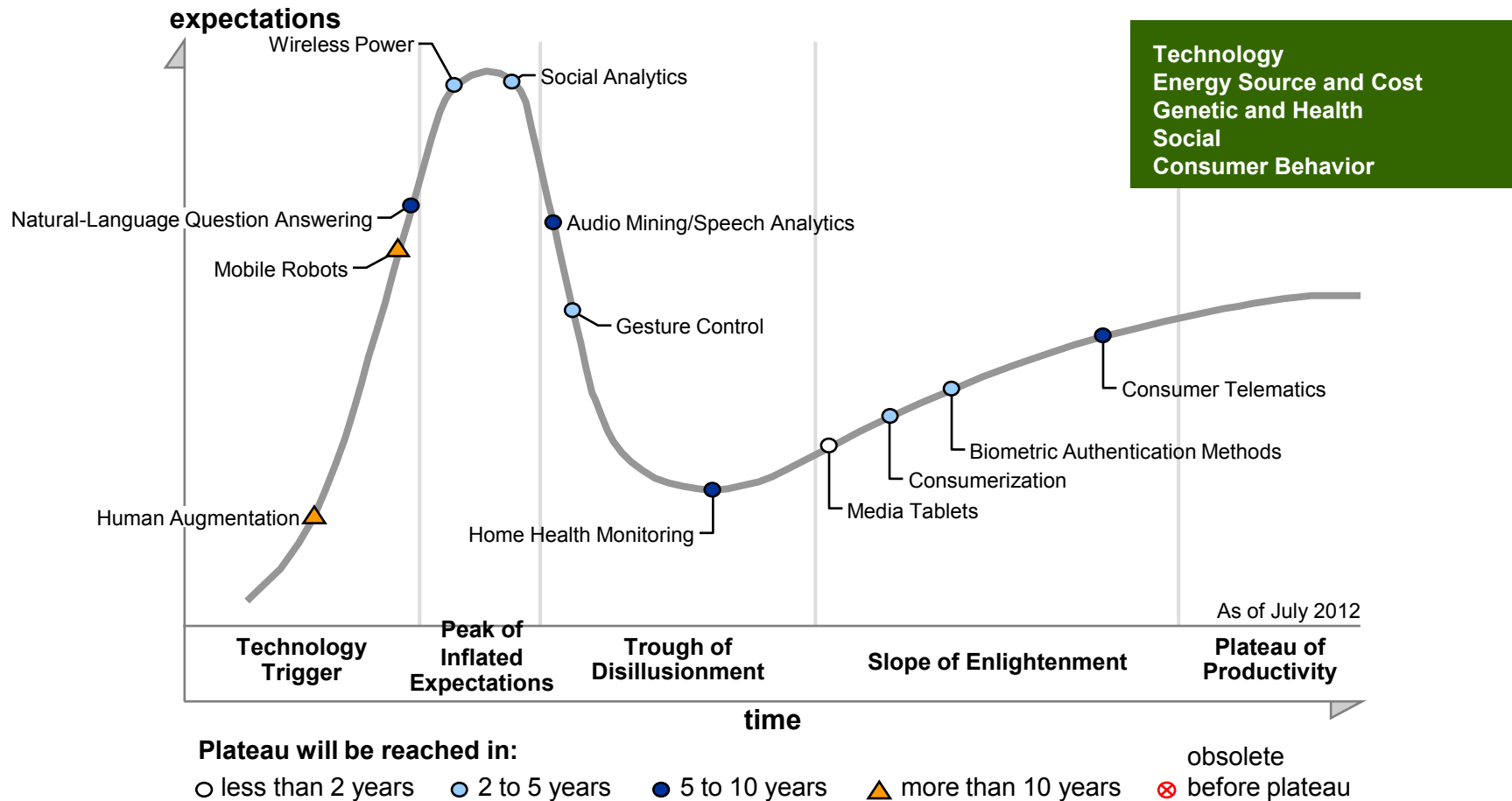
## 2012 Gartner Emerging Technologies Hype Cycle





# Most Disruptive Information

## 2012 Gartner Emerging Technologies Hype Cycle



# 2018 - The Most Disruptive Information Lets You Do What You Could Never Do Before.<sup>37</sup>

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## ***Human Augmentation:***

The field of human augmentation (sometimes referred to as "Human 2.0") focuses on creating cognitive and physical improvements as an integral part of the human body.

## ***Natural-Language Question Answering:***

Applications that provide users with a means of asking a question in plain language that a computer or service can answer with a meaningful response in a reasonable time frame.

## ***Gesture Control:***

The ability to recognize and interpret movements of the human body in order to interact with and control a computer system without direct physical contact.

## ***Home Health Monitoring:***

Use of IT and telecommunications to monitor the health of patients in their homes and to help ensure that appropriate action is taken.

## ***Biometric Authentication Methods:***

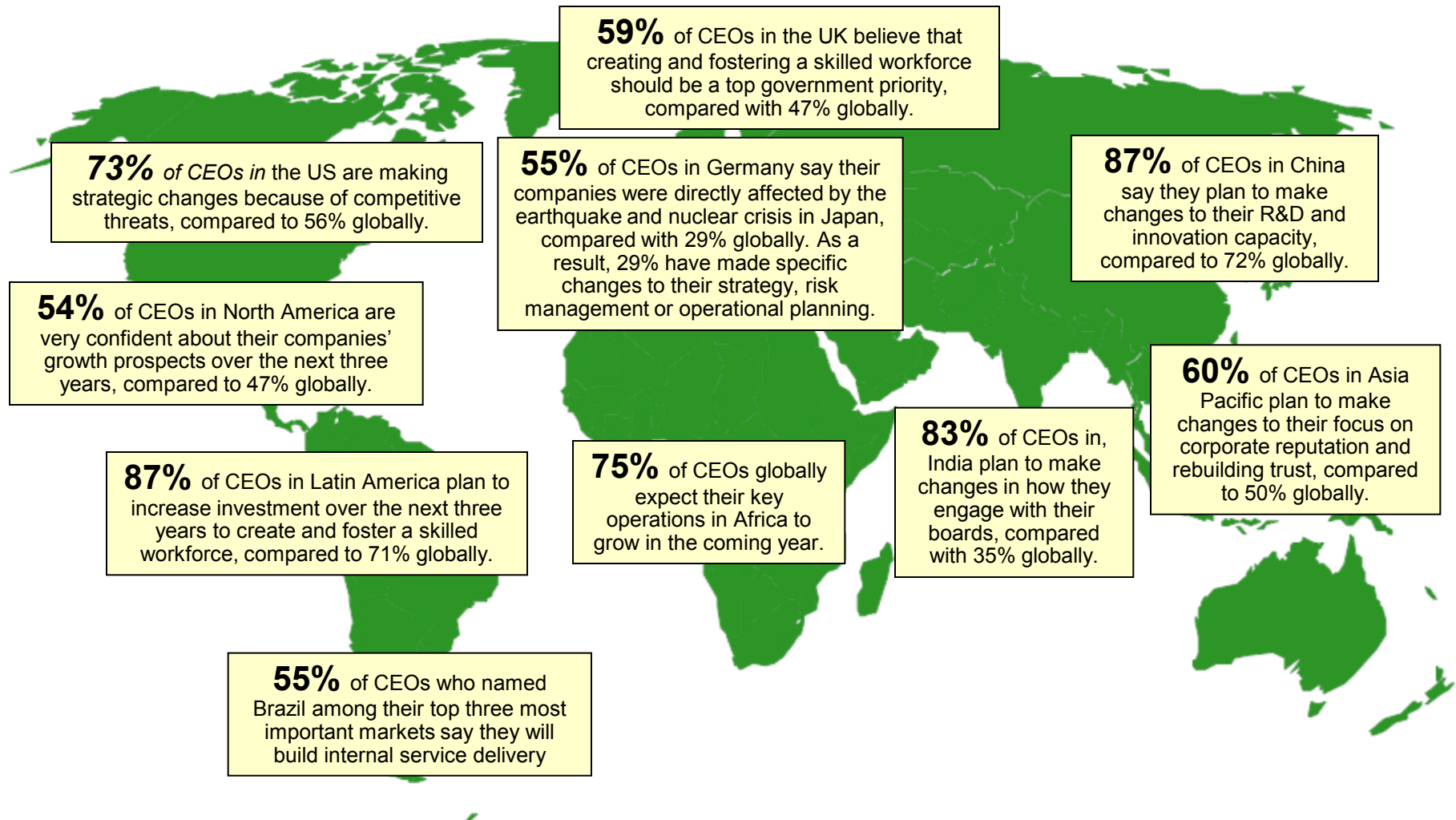
Use of biometric characteristics or traits to verify users' claimed identities when users access endpoint devices, networks, networked applications or Web applications.

# Key Issues

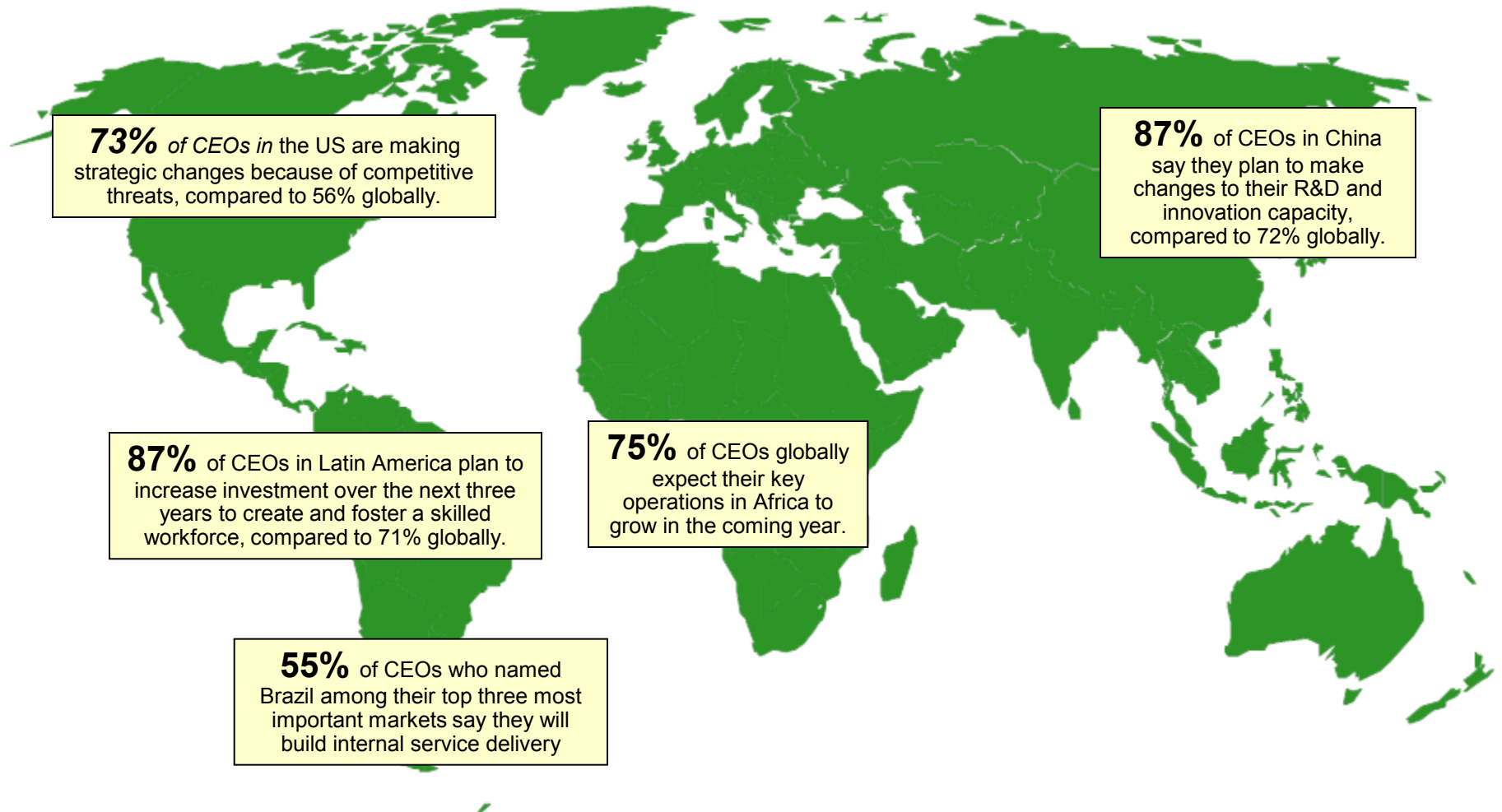
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1. When will CEO and CIO priorities directly align?
2. Which emerging technologies will CEOs want by 2018?
- 3. What will tomorrow's successful senior executives need to know about IT?**

# Key Issue: What will tomorrow's successful senior executives need to know about IT? <sup>39</sup>



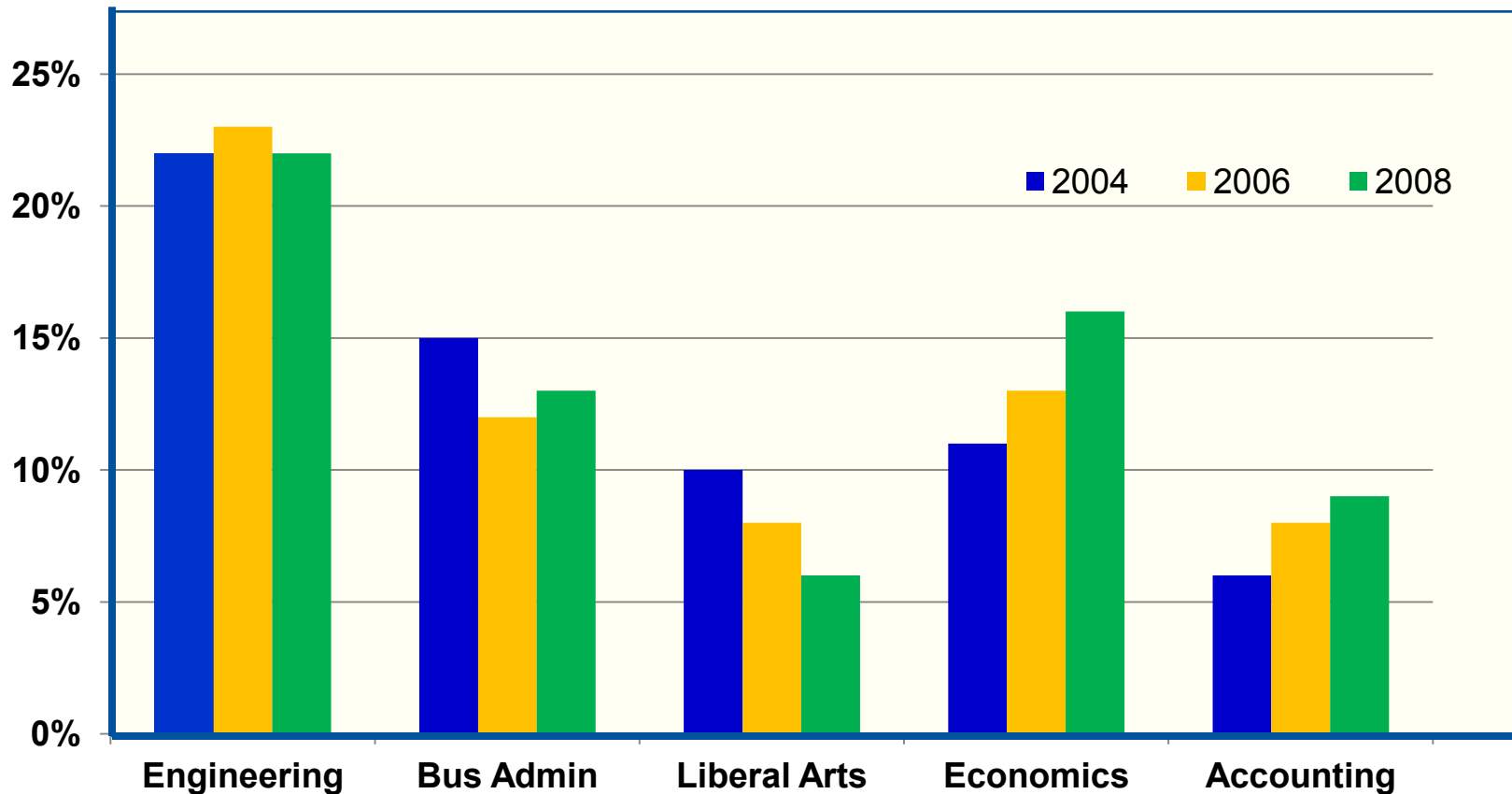
# Key Issue: What will tomorrow's successful senior executives need to know about IT? <sup>40</sup>



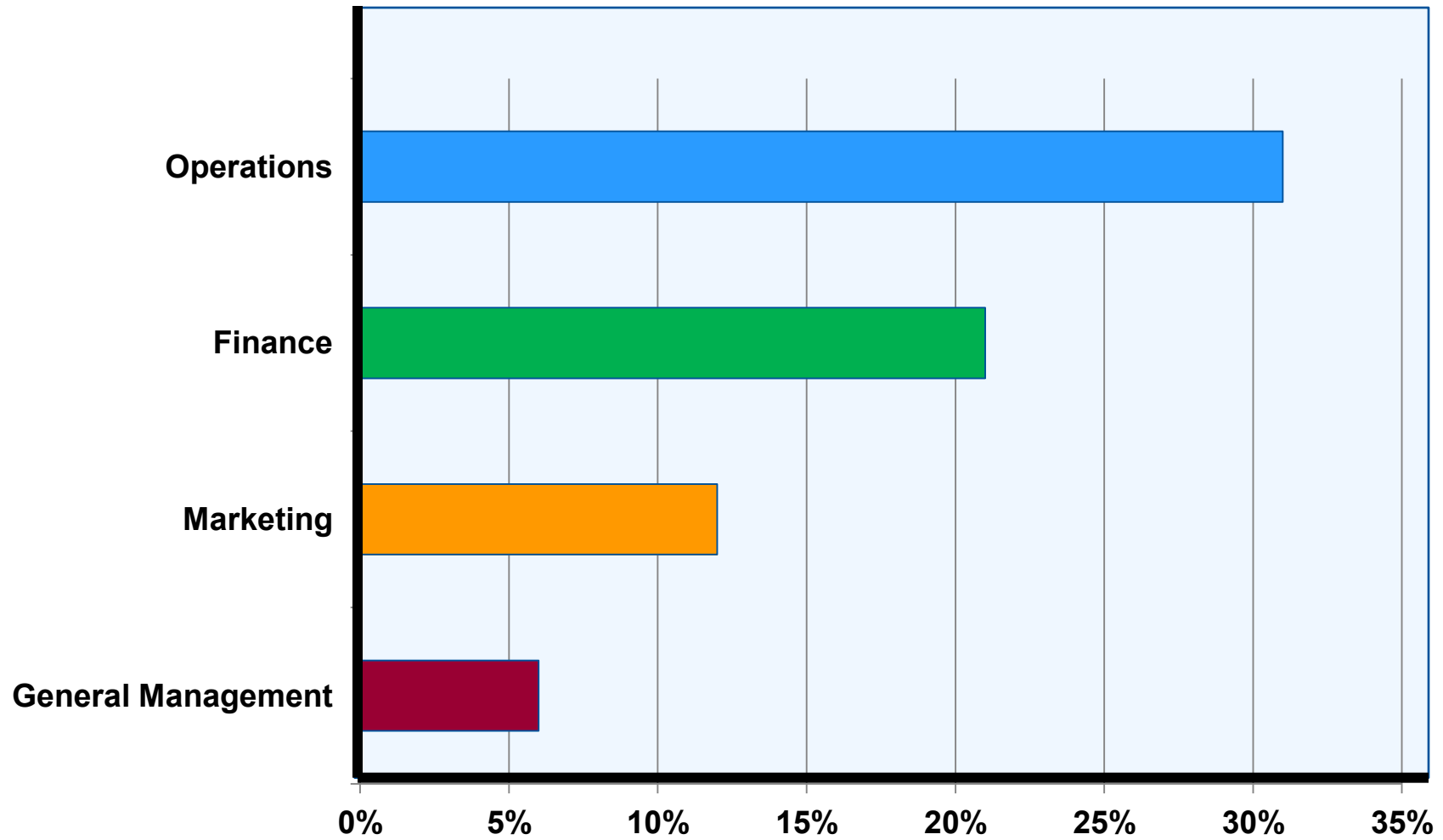
# Most CEOs Have Knowledge And Backgrounds In Matters Other Than IT

41

## Five Most Common Undergraduate Degrees Held By S&P 500 CEOs as of 2004, 2006, 2008



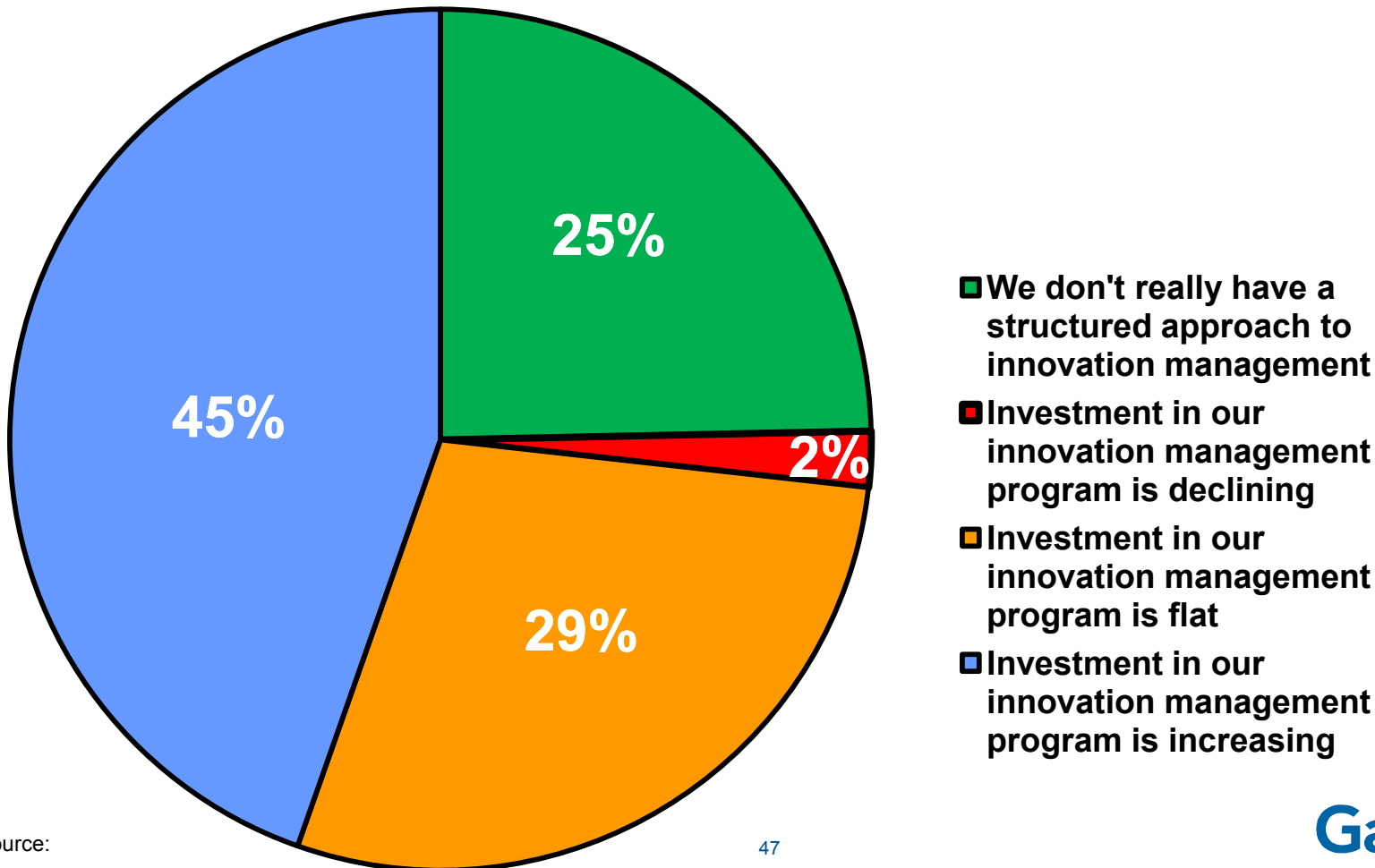
# Functional Role Prior to Becoming CEO 42 (S&P 500 CEOs as of 2008)



# Investment in management time and attention into innovation management


43

**Q09A. Which statement best reflects your organization's level of investment of money as well as management time and attention into innovation management?**







$$73 \times \text{Watson} = \text{?????}$$


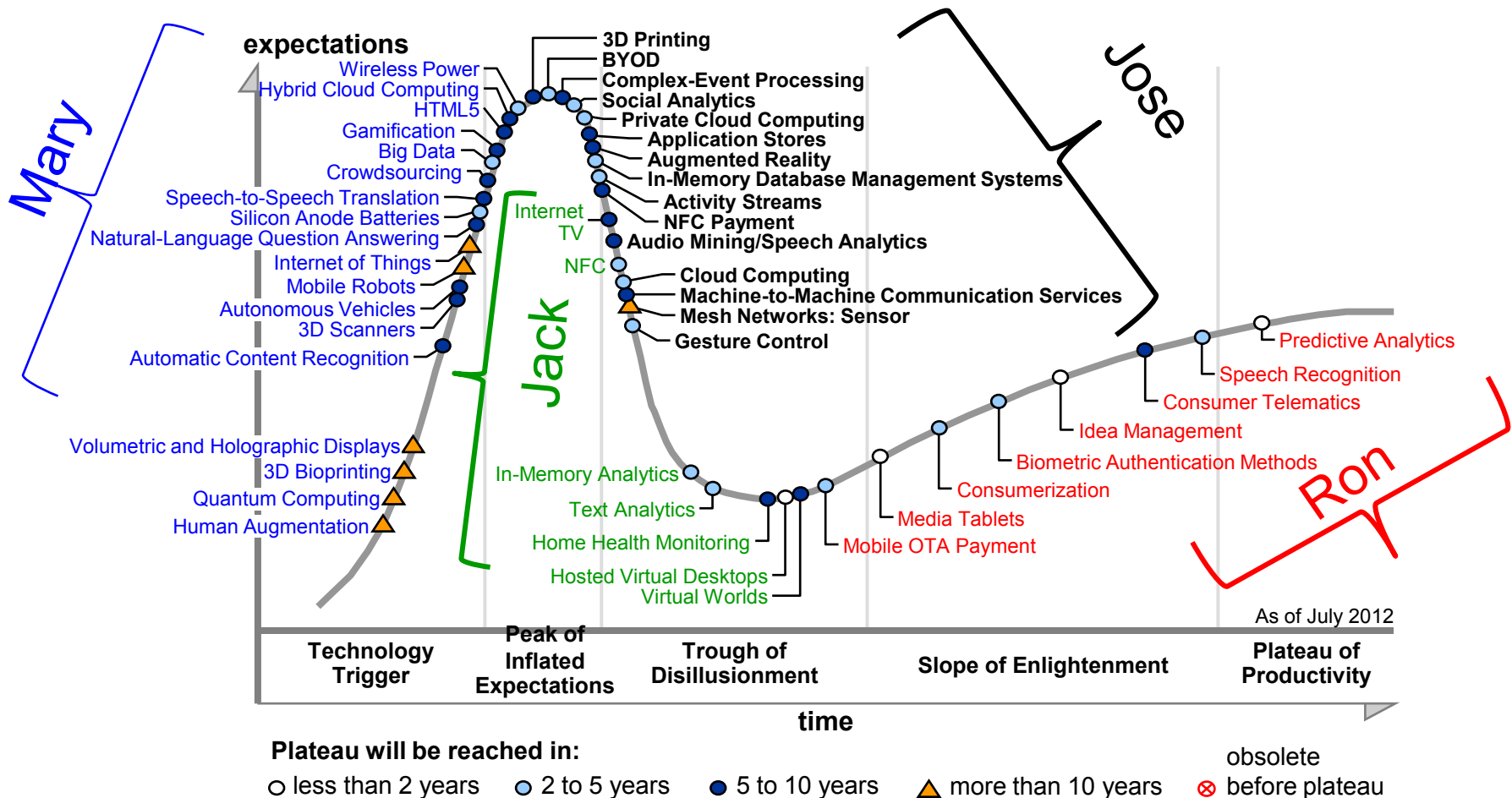
Watson

# CEO During IT Presentation



# Assign Specific Staff Members To “Cover”<sup>47</sup> Specific Emerging Technologies

## 2012 Gartner Emerging Technologies Hype Cycle



# Apply A Demand / Alignment Filtering Process For All Emerging Technology Lists

48



## Egg Stem Cells

A recent discovery could increase older women's chances of having babies.



## Ultra Efficient Solar

Under the right circumstances, solar cells from Semprius could produce power more cheaply than fossil fuels.



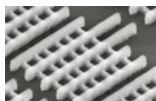
## Light-Field Photography

Lytro reinvented the camera so that it can evolve faster.



## Solar Microgrids

Village-scale DC grids provide power for lighting and cell phones.



## 3-D Transistors

Intel creates faster and more energy-efficient processors.



## A Faster Fourier Transform

A mathematical upgrade promises a speedier digital world.



## Nanopore Sequencing

Simple and direct analysis of DNA will make genetic testing routine in more situations.



## Crowdfunding

Kickstarter is funding the commercialization of new technologies.



## High-Speed Materials Discovery

A new way to identify battery materials suitable for mass production could revolutionize energy storage.



## Facebook's Timeline

The social-networking company is collecting and analyzing consumer data on an unprecedented scale

# Recommendations

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- ✓ Develop a demand / alignment process tailor made to predict which emerging technologies will be relevant to your enterprise
- ✓ Assign Specific Staff Members To “Cover” Specific Emerging Technologies
- ✓ Avoid using decorative clipart to fill the empty space on the slide.

# Action Plan for CIO

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## Monday Morning

- *Decode your CEO's most recent presentation to investors, staff, Board, etc.*
- *Identify at least three emerging technologies that align with the result of your decoding effort to test concept.*

## Next 90 Days

- *Assign staff members to “cover” specific emerging technologies.*
- *Assign staff members to “cover” emerging business and emerging societal trends.*

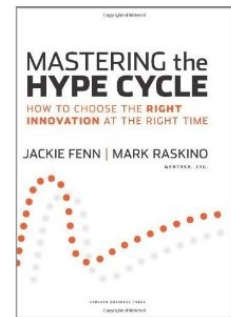
## Next 12 Months

- *Present “Revenue Threat Assessment Summit” findings to CEO.*
- *Present CEO with list of emerging technologies that align with CEO comments.*

# Recommended Gartner Research

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- **Gartner's Hype Cycle Special Report for 2012**  
J. Fenn, M. Raskino (G00233944)
- **Hype Cycle for the Future of Money, 2012**  
David Furlonger G00235990
- **Innovation Insight: The 'Internet of Everything'**  
**Innovation Will Transform Business** G00225942  
John Mahoney Hung LeHong
- **J. Fenn and M. Raskino,**  
**"Mastering the Hype Cycle: How to Choose**  
**the Right Innovation at the Right Time,"**  
Harvard Business School Press, 2008





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