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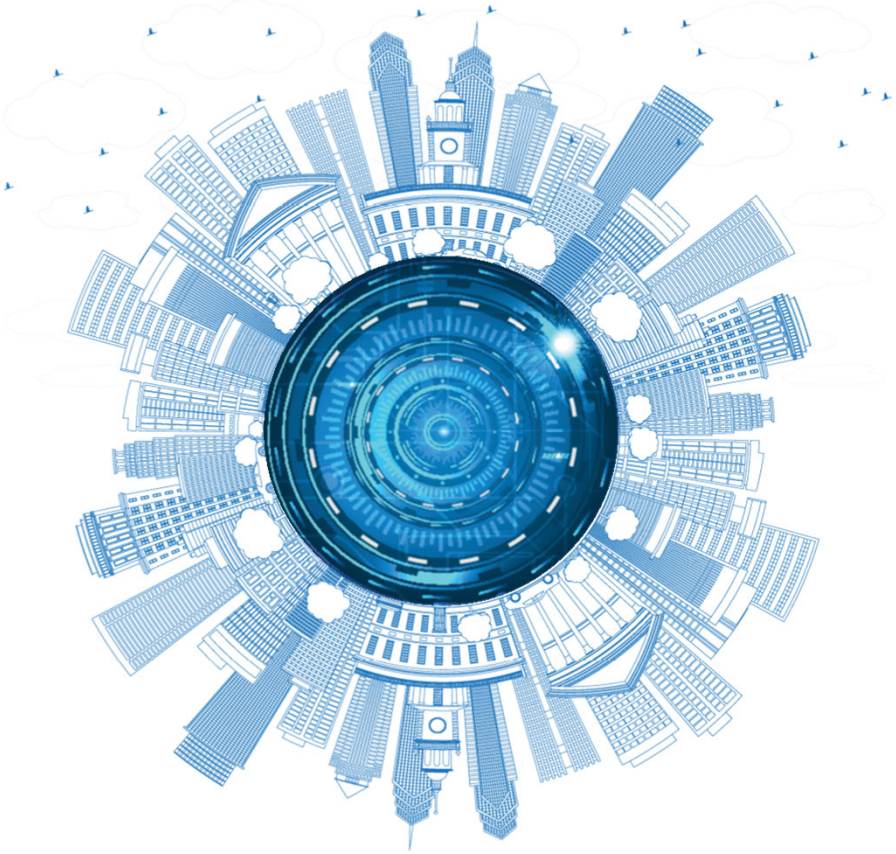


Building a Successful Cybersecurity Program

Impact Day, 06/07/2019

The next hour…

Cybersecurity Program – Organize to succeed

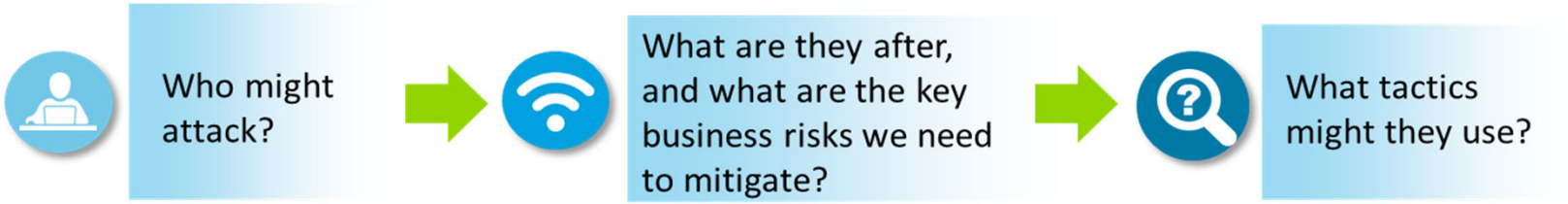
1. Identify Cyber Risks
2. Develop a Cybersecurity Strategy and Plan
3. Align to Business
4. Build a Roadmap and Obtain Funding
5. Communicate Progress

1. Identify cyber risks

Understand your organization and identify cyber risks

1. What are the assets in the organization?
2. Of those assets, which ones contain sensitive information?
3. If the sensitive information is subject to loss or breach, what are the financial and reputational risks?
4. What are the threats and vulnerabilities that provide the greatest exposure to your organization?
5. To what extent do we have capabilities and practices in place to protect critical assets?
6. How effective are we at monitoring and detecting cyber incidents?
7. Can we effectively respond to and recover from a cyber incident? Do we have response plans in place, and have they been tested?
8. What metrics demonstrate that we are effectively protecting the organization?
9. Is cybersecurity an executive leader priority item?

Need to Understand threats and motives relevant to your environment

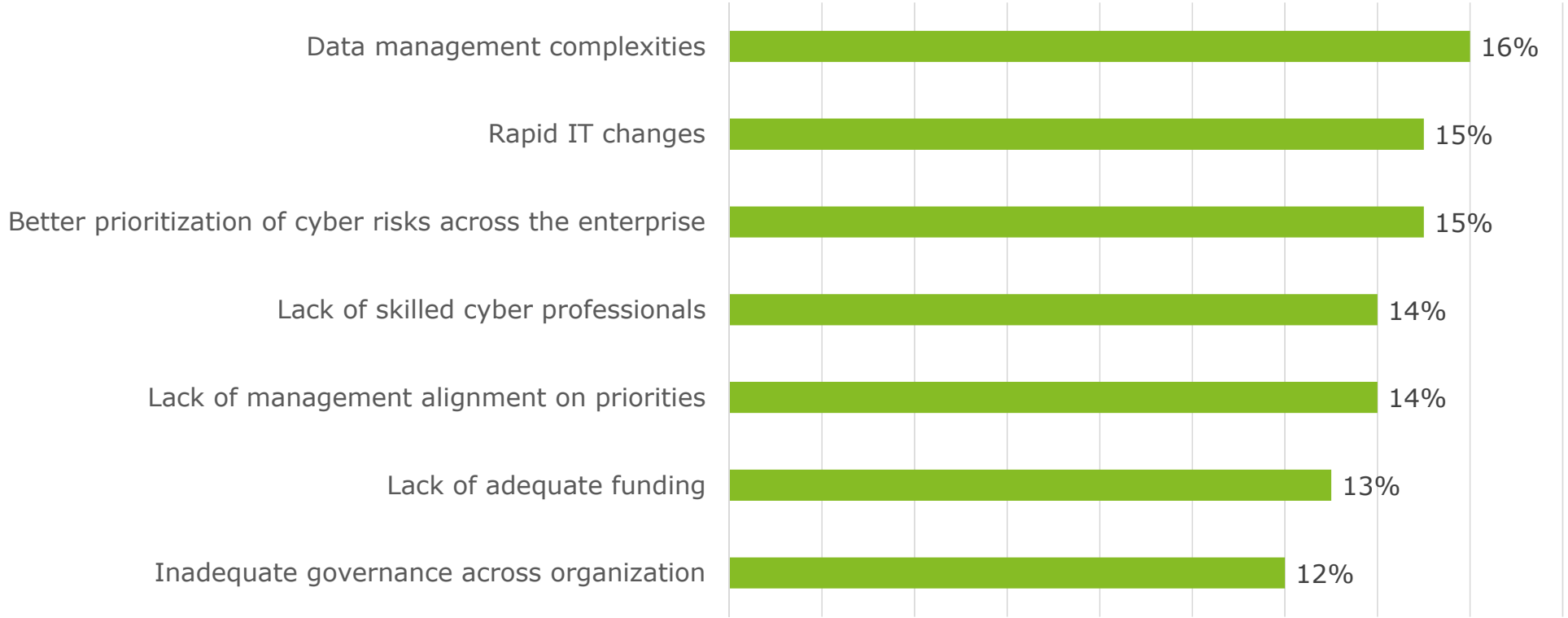


IMPACTS / ACTORS	Financial theft / fraud	Theft of IP or strategic plans	Business disruption	Destruction of critical infra-structure	Reputation damage	Threats to life safety	Regulatory
Organized criminals							
Hactivists							
Nation states							
Insiders / Partners							
Skilled individual hackers							

KEY — Very high | High | Moderate | Low

Challenging Aspects of Cyber security management

Participants were asked to select their cybersecurity management challenges



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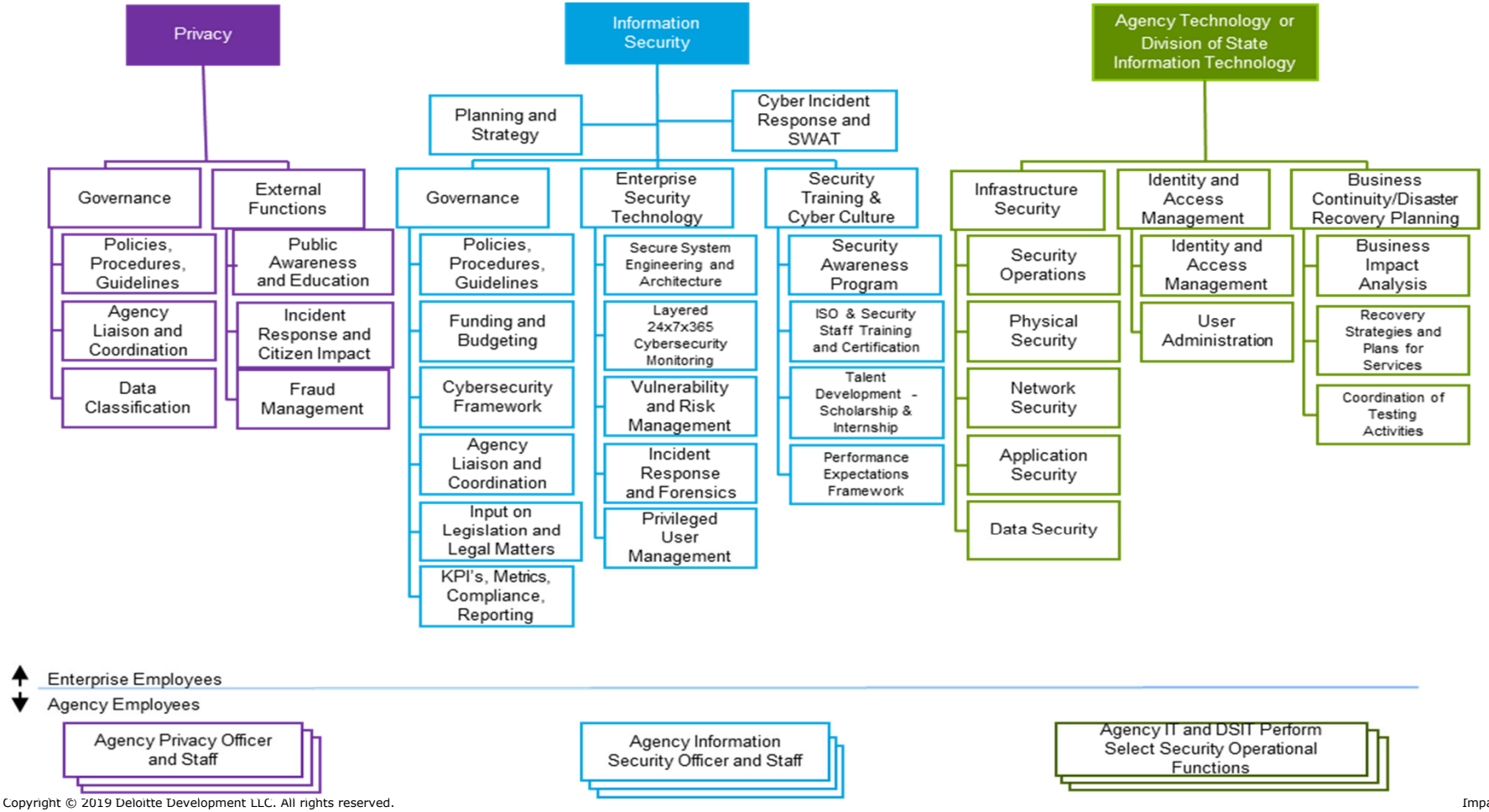
2. Develop a Cybersecurity Strategy and Plan

Sample Cybersecurity Program Considerations

Overview of the Technology and Security Operations, Information Security and Privacy Functions – Example State Gov Org mode



3. Align to Business

Ask the right questions

First and foremost: understand your business

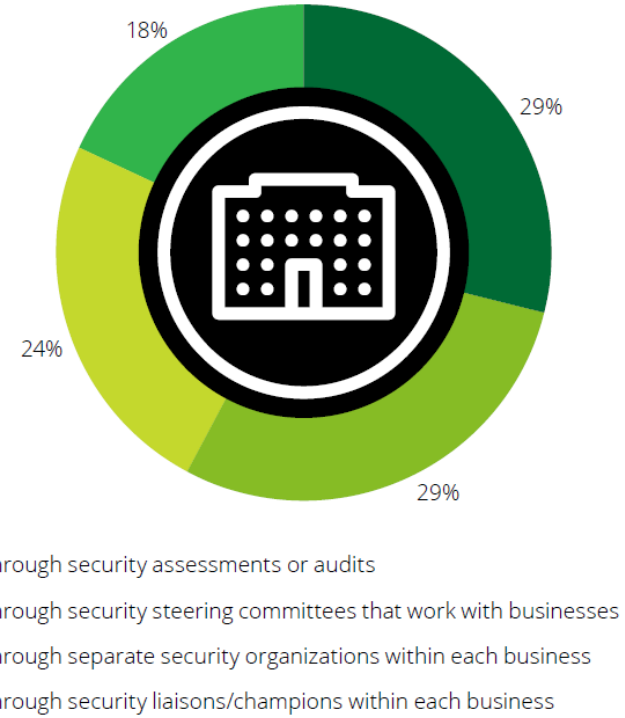
- Agenda, mission and priorities of the agency head

Understand cyber risks to the business agenda

- Where are my high-risk assets?
- Where does the data reside?
- What are the citizen privacy issues?
- Why does the citizen data need to be protected?
- What are the possible motives of an attack based?
- What is the business implication of a breach within the agency, state and external parties?
- What systems are in place to manage risks and where are they?

The future of cyber demands alignment and collaboration both internally and outside the organization

Cyber department's interaction with other business units



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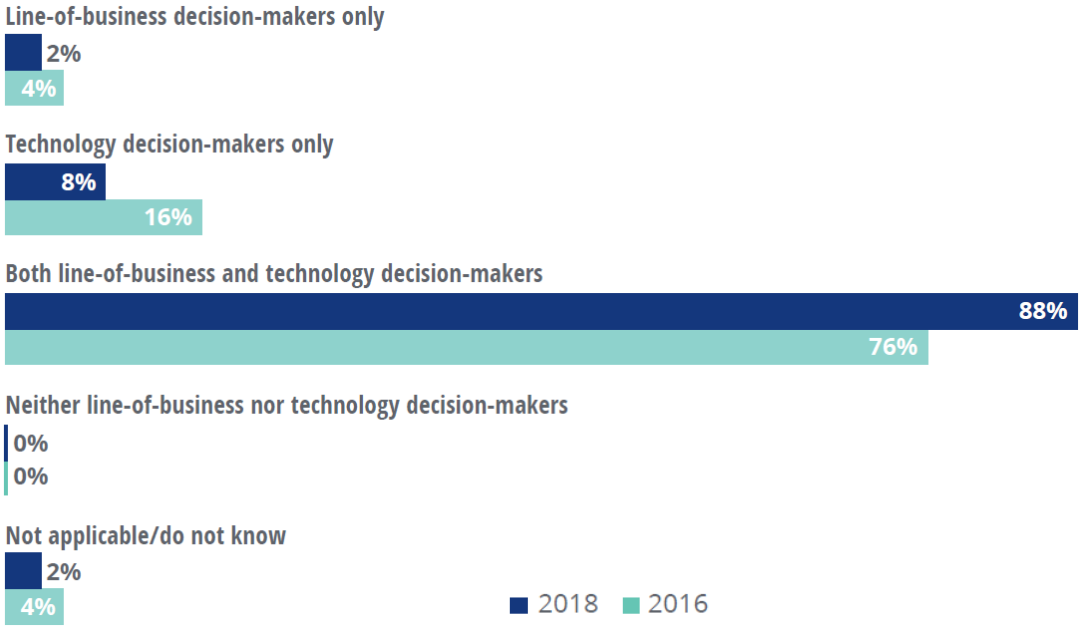
Both business stakeholders and technology decision-makers are more actively engaged in defining their state cybersecurity strategy



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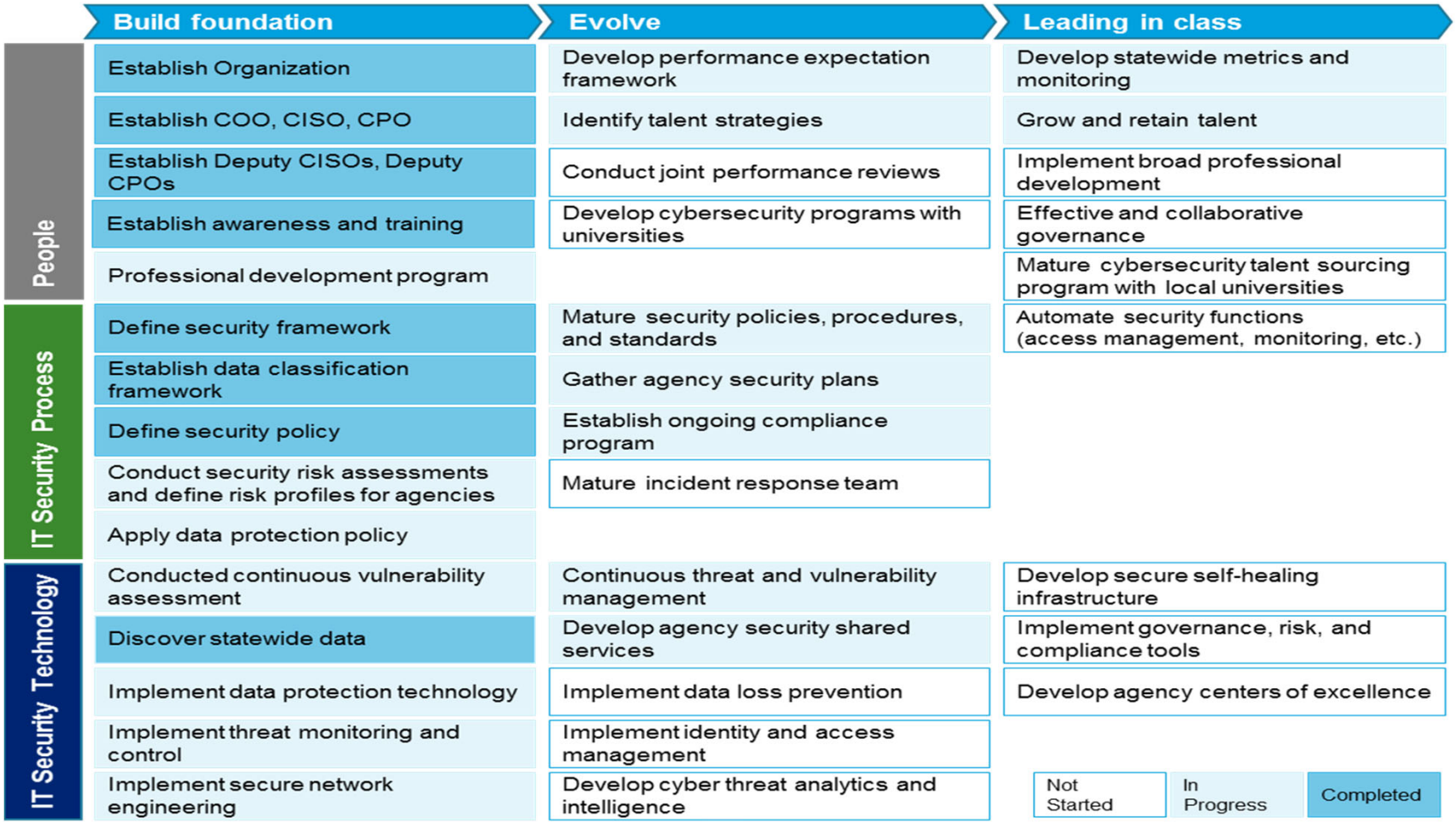
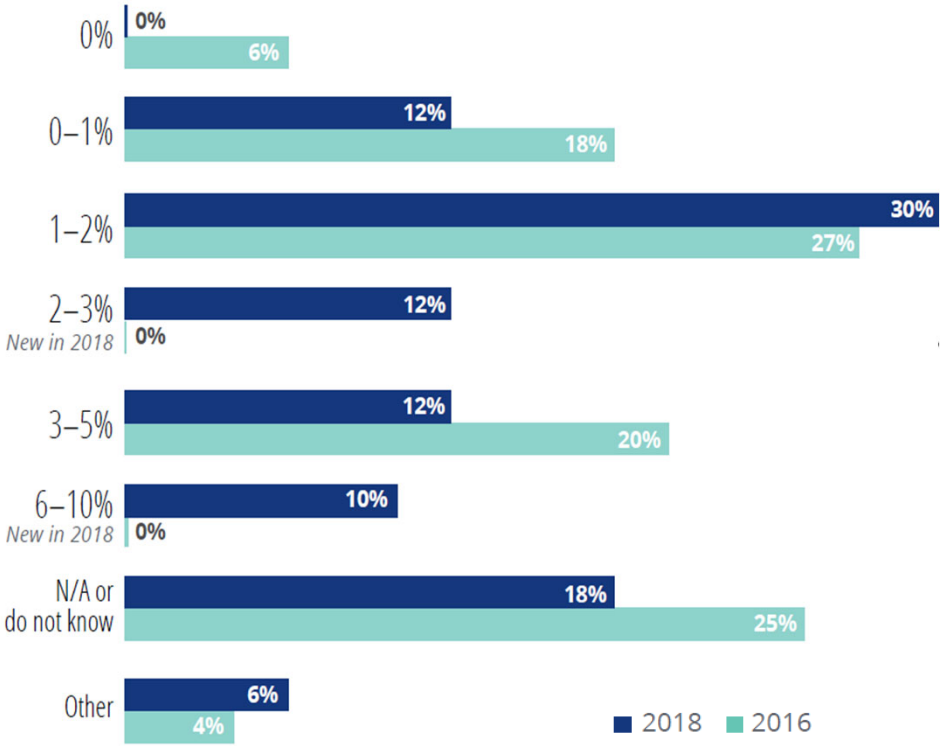
4. Build a Roadmap and Obtain Budget

An example: Progress of the State Government

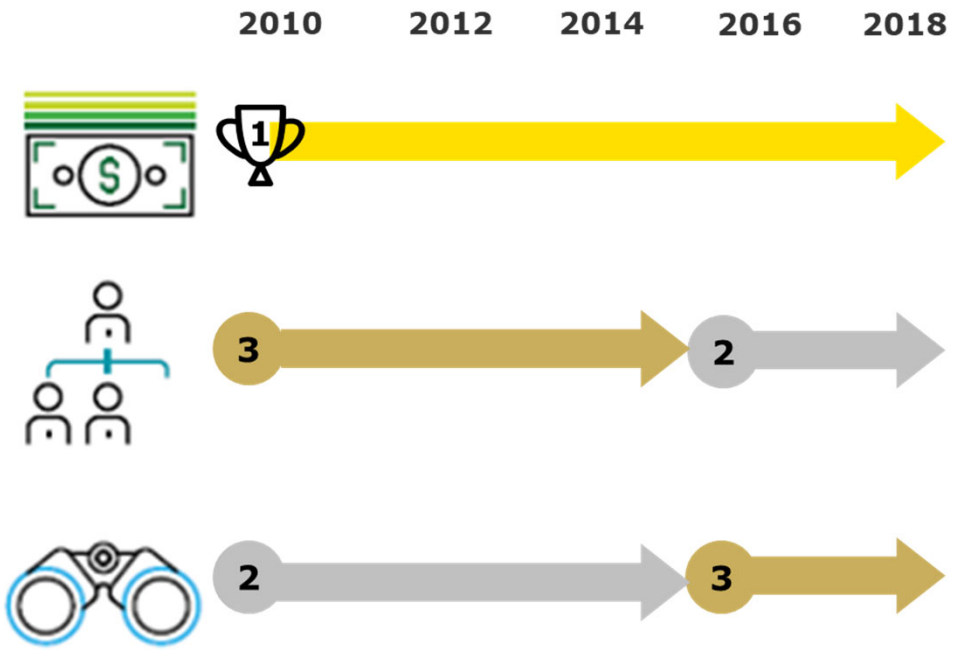


Budget continues to be a challenge

Most states only spend 0-3% of their IT budget on cybersecurity



Budget, talent, and threats rank the top three since 2010



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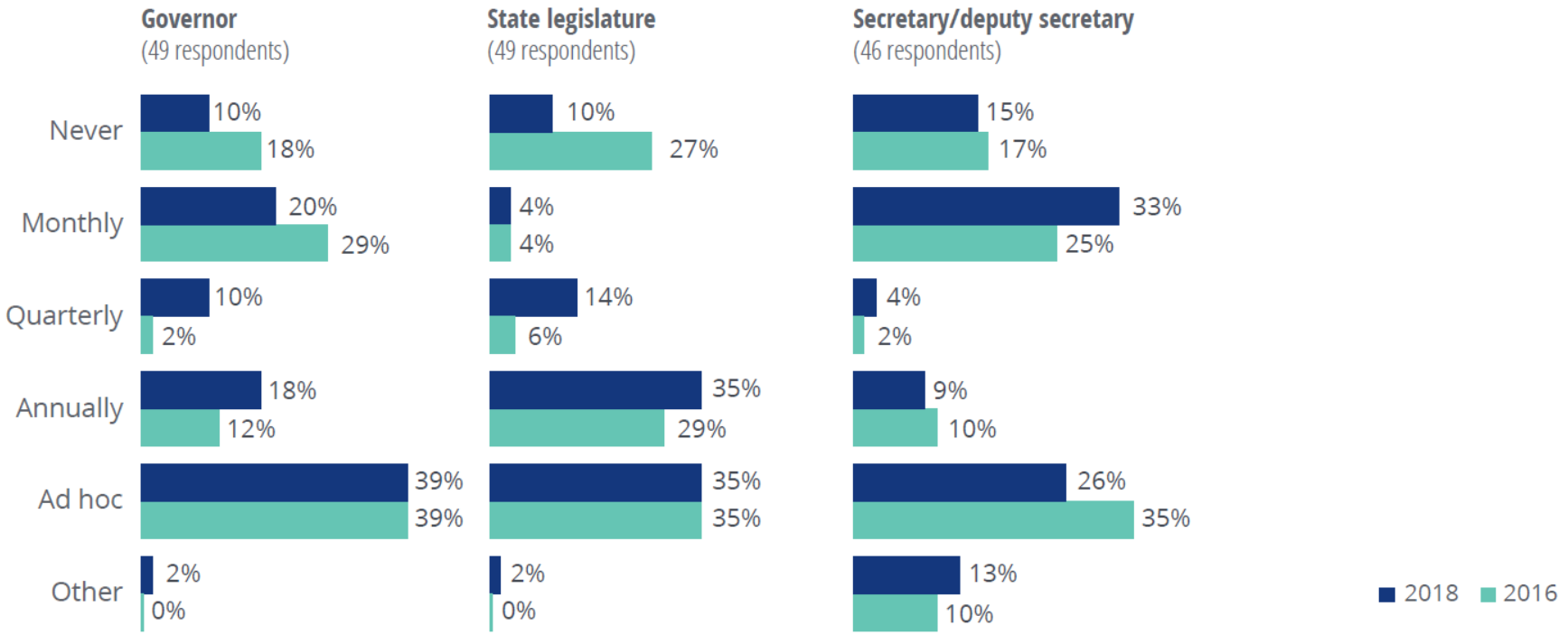
5. Communicate Progress

Moving forward… Strategize & achieve appropriate funding

- Communicate and collaborate with legislators and state business/program leadership to build a business case for security as a line item in the budget
- Effectively collaborate with agency-level program and business leaders to get cybersecurity included in program budgets
- Work with CIOs to:
  - Allocate a reasonable percentage of new business and technology initiatives for cybersecurity
  - Identify creative ways to include cybersecurity as a critical part of enterprise data center consolidation initiatives

Governor-level cyber awareness is on the rise

To what extent are you required to provide reports on cybersecurity status or posture of the enterprise?



Bold Plays for Change

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1 ADVOCATE FOR DEDICATED CYBER PROGRAM FUNDING

CISOs should raise cybersecurity's visibility with the state legislature and executive branch by making it a line item in the IT budget. They can also seek funding from federal agencies to support compliance with those agencies' security mandates.

2 CISOs AS AN ENABLER OF INNOVATION, NOT A BARRIER

CISOs should actively participate in shaping the state's innovation agenda, collaborate with state digital and innovation officers, and lead the charge to help program leaders securely adopt new technologies.

3 TEAM WITH THE PRIVATE SECTOR AND HIGHER EDUCATION

CISOs should leverage public-private partnerships and collaborations with local colleges and universities to provide a pipeline of new talent, as well as consider outsourcing to private-sector firms.

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Deloitte's cyber risk services help complex organizations more confidently leverage advanced technologies to achieve their strategic growth, innovation, and performance objectives through proactive management of the associated cyber risks. Deloitte provides advisory, implementation, and managed cybersecurity services to help our government clients lead the way with a collaborative threat intelligence strategy. Deloitte's demonstrated approach and methodology help our clients better align security investments with risk priorities, establish improved threat awareness and visibility, and strengthen the ability of organizations to deliver services in the face of cyber incidents.

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Founded in 1969, the National Association of State Chief Information Officers (NASCIO) represents state chief information officers (CIOs) and information technology (IT) executives and managers from the states, territories, and District of Columbia. NASCIO's mission is to foster government excellence through quality business practices, information management, and technology policy. NASCIO provides state CIOs and state members with products and services designed to support the challenging role of the state CIO, stimulate the exchange of information, and promote the adoption of IT best practices and innovations. From national conferences to peer networking, research, publications, briefings, and government affairs, NASCIO is the premier network and resource for state CIOs.

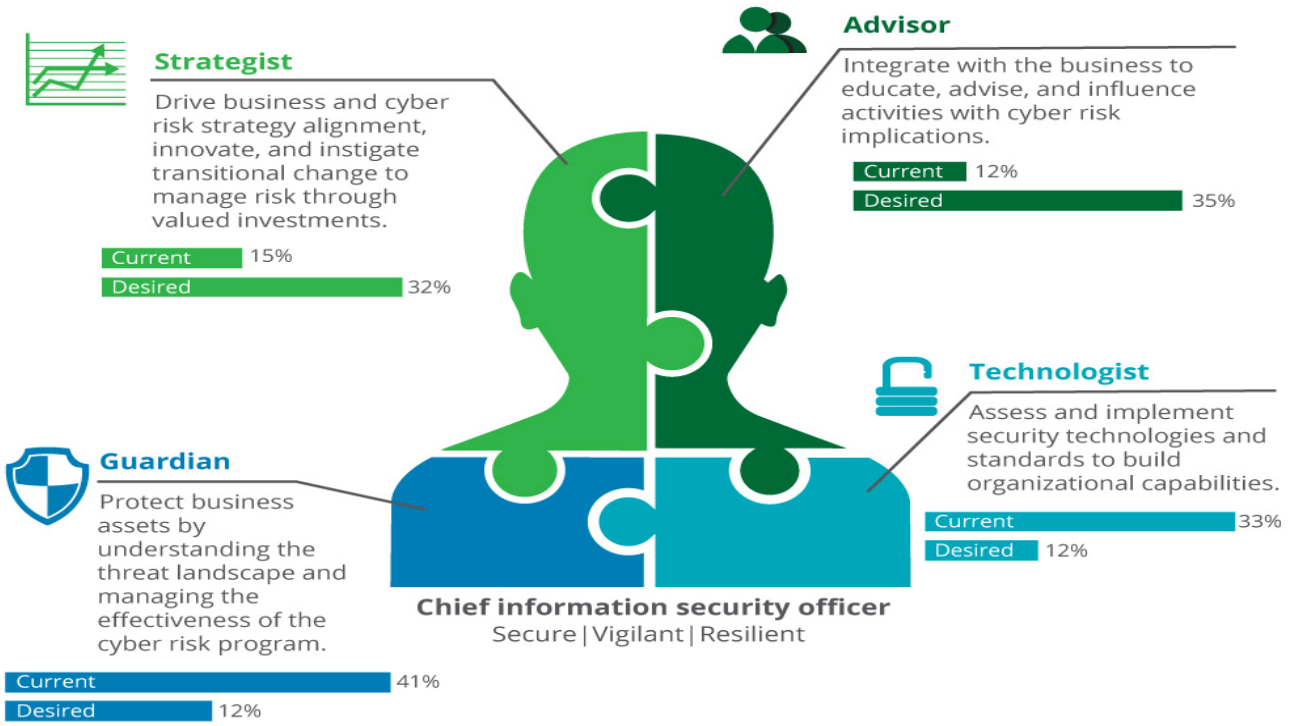
For more information, visit www.nascio.org

Appendix - Transitioning to a CISO

Consider where you spend your time

As a new executive, there will be endless demands on your time. The most successful CISOs determine early on how to balance their time and energy across four critical roles

Figure 2. The four faces of the CISO



Source: Research from Deloitte's CISO Transition Labs.

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