



DVMS Cybersecurity Culture Assessment Tool (DVMS-CAT™)

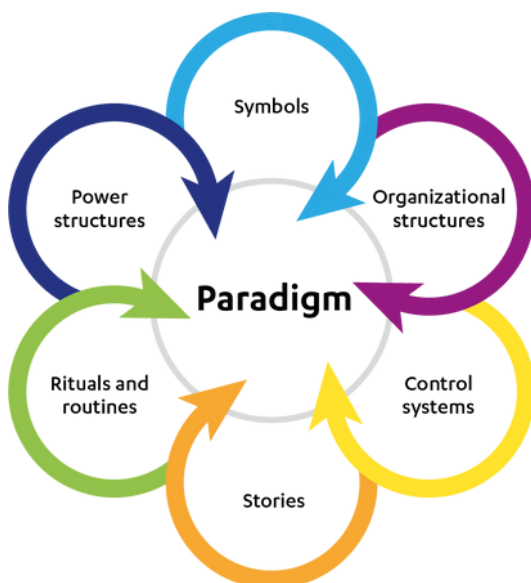
Turn your biggest risk, into your greatest asset

Even today, human error is still the #1 cause of cyber-attacks and breaches.

One of the best ways for an organization to reduce cyber risk is to build a positive cybersecurity awareness culture. This entails creating a mindset in employees that the risk is real and their daily actions impact that risk.

Using the Cybersecurity Culture Assessment Tool (DVMS-CAT™), you can comprehensively understand your employees' attitudes and perceptions toward critical cybersecurity matters. Once results have been obtained, the tool's corresponding report provides actionable insights and advisable next steps to protect your organizational digital business value and resiliency.

Organizations unveil grand strategies and meticulously crafted blueprints for success. Yet, amidst the fanfare of vision statements and market analyses, Peter Drucker's timeless adage whispers a crucial truth: "Culture eats strategy for breakfast." Though deceptively simple, these five words provide a stark warning: no matter how superb the strategy is, human factors can undermine it, the invisible forces of organizational culture.



The DVMS-CAT survey and resulting report explore the essence of that force, using the Johnson and Scholes culture web¹ as a lens to examine the complex tapestry woven within an organization. Just as a spider diligently constructs its web, thread by thread, culture also quietly binds organizational values, behaviors, and beliefs together.

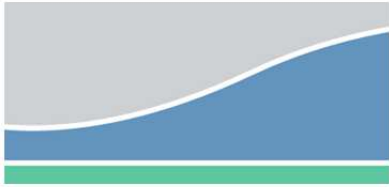
This intricate network, often invisible to the naked eye, exerts a powerful influence on every facet of the organization, from collaboration and innovation to decision-making and engagement.

The Cybersecurity Culture Assessment Tool is a 67-question survey designed to understand employees' attitudes and perceptions toward cybersecurity matters. Once responses have been collected, the organization is scored against the known factors that drive positive culture.

These factors include:

- **Symbols (leadership commitment)**
- **Power Structures (management capabilities)**
- **Organizational Structures (technology & business silos)**
- **Control Systems (practices/processes)**
- **Habits & Routines (People)**
- **Stories (People)**

The tool provides actionable insights and advisable next steps based on the results. Organizations can then perform in-depth analysis and filtering to understand their current state better and build a plan to reach their future state.



Cybersecurity culture assessment report for Sample Organization

20 February 2024



**Cybersecurity enabled
by your people**

DVMS Culture assessment tool for cybersecurity

Background

Organizations unveil grand strategies and meticulously crafted blueprints for success. Yet, amidst the fanfare of vision statements and market analyses, Peter Drucker's timeless adage whispers a crucial truth: "Culture eats strategy for breakfast." Though deceptively simple, these five words provide a stark warning: no matter how superb the strategy, it can be undermined by human factors that are the invisible forces of organizational culture.

This survey and resulting report explore the essence of that force, using the Johnson and Scholes culture web¹ as a lens to examine the complex tapestry woven within an organization. Just as a spider diligently constructs its web, thread by thread, so culture also quietly binds organizational values, behaviors, and beliefs together. This intricate network, often invisible to the naked eye, exerts a powerful influence on every facet of the organization, from collaboration and innovation to decision-making and engagement. In very simple terms, organizational culture is revealed by how staff (full-time and part-time) feel about the company; it has nothing to do with how management describes the culture.

Our objective in creating the cybersecurity culture assessment tool was to unearth the implicit perceptions that guide interactions, the shared assumptions that inform choices, and the narratives that bind. The resulting data presents a nuanced picture of the cultural landscape, revealing both areas of undeniable strength and opportunities for strategic improvement.

The survey should be conducted across multiple departments and management levels to illuminate this hidden web. The survey attempts to reveal and therefore understand the implicit rules that guide interactions, the shared assumptions that underpin choices, and the stories that bind the organization together. The results paint a portrait of the current cultural landscape, revealing both strengths and areas for growth.

The object is to weave together pockets of collaboration and diverse perspectives that were previously hidden, providing a basis for innovative solutions. This report is not merely a collection of data points; it is a call to action. Understanding cultural nuances makes both the improvement of some areas and the maintenance of excellence in others possible.

The report should be viewed as data captured at a point in time. The organization should use the results to harness the collective power of its values to navigate the ever-changing landscape, ensuring that its strategies, however brilliant, are not consumed by the inertia of an unexamined culture.

This journey of cultural introspection is not a destination but a continual process. As the organization evolves, so too must its cultural web. By embracing adaptability and open dialogue, organizational leadership can ensure that culture doesn't devour strategy but instead provides a foundation on which to build future success.

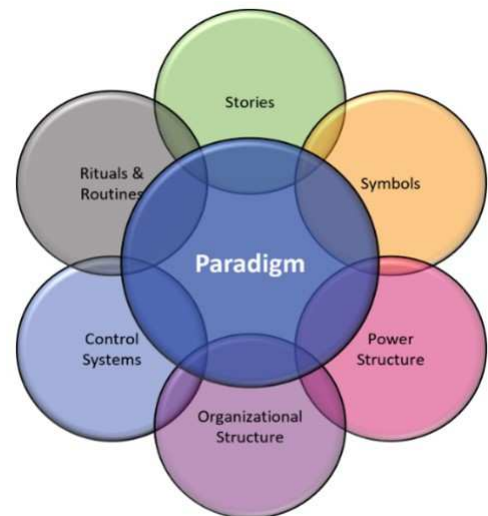
This report serves as the first step in that journey.

¹ Johnson, G. & Scholes, K. Exploring Strategy, originally published in 1992 and updated through several editions. The current edition, Exploring Strategy, Text & Cases, 13th edition, by Whittington, R., Regnér, P., Angwin, D., Johnson, G., and Scholes, K. (2023). Pearson Education, Harlow, UK.

Culture web

In the center of the culture web is the paradigm representing the fundamental mindset of how most members of staff think – these are the widely held assumptions that are consciously or unconsciously applied to the organization. The paradigm represents the aspects of culture taken for granted; it forms the basis for the assumptions staff (full- and part-time) make about the organization, which affects and represents their worldview. The other six aspects of the web support the paradigm.

Changing the organizational culture requires an understanding of the two-way relationship between the paradigm and each of the six aspects. Leaders morph the culture by understanding and modeling new behaviors in each aspect.



This survey looks at culture from various information flows within the organization. Using a set of Likert scale² statements, participants are asked to evaluate various questions based on the Johnson and Scholes culture web, which includes six themes:

- **Symbols:** Visual representations of the organization, including brands and/or logos, perks, and benefits. They are what you see when you walk in the door
- **Power structures:** Reflect how formal and informal sources influence decisions, operations, and strategic direction
- **Organizational structures:** The formal relationships related to the power structures described above
- **Control systems:** What and how the organization monitors and measures performance and controls resources
- **Habits and routines:** What the staff do and how they do it – including staff interactions
- **Stories:** What and how the organization chooses to memorialize past people and events.

By evaluating each statement, participants provide information regarding the various issues around the perceived cybersecurity culture. Examining information flows reveals:

- Cooperation and communication between work groups
- Treatment of people and ideas
- Responsibility.

The report for each theme includes sample questions to remediate or maintain identified issues. This idea is essential; the report captures the current instance of belief that is subject to change (positively or negatively) depending on the actions taken.

² A Likert scale is used to assess attitudes, behaviors, and views based on the responses to five or seven answer options to a statement or question.

Conduct of the survey

The more people who take the survey, the better the picture provided by analysis. Ideally, this should include people from multiple departments, regardless of their direct or immediate cybersecurity responsibility. This last idea is critical to improving the overall cybersecurity culture, which is only as good as the weakest link. The larger and more diverse the sample, the better the resulting conclusions and actions.

For each of the six culture themes, there are several statements. Respondents are asked to indicate the degree to which they agree or disagree with each one. If the statement is irrelevant to their responsibility or role, they should select N/A for "not applicable."

Each response provides a small window on the subject's perception of the current statement. The responses are then integrated with the questions for each theme to understand the current culture. Don't ask why somebody responded the way they did; accept this as someone's perception and work to understand the underlying basis for the response. Don't dismiss the outlier's responses, either. Consider the following as a mantra: "Perception is reality."

Results

It is essential to understand that the survey only reveals the existence of current "what is" perceptions. Encourage staff to retake the survey as you work to improve the organizational culture.

Respondents evaluate each statement on a six-point scale, where 1 means total disagreement, and 6 is complete agreement. For evaluation purposes, the responses are aggregated into three groups. The percentages shown represent the proportion of respondents who evaluated each statement.

- Response values of 1 or 2 are rated as high organizational risk
- Response values of 3 or 4 are rated as moderate risk
- Response values of 5 or 6 are rated as low risk.

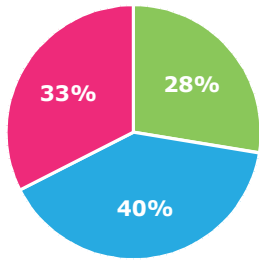
The vertical bar chart, ahead of the individual themes, shows the six themes arranged from the highest to lowest risk to help establish a remediation priority. The results for each culture theme statement are presented as a horizontal bar.

The results reveal the current set of beliefs and perceptions. To change the culture, organizational leaders must begin to extrapolate "why" by engaging in self-reflection and transparent and open conversations with each other and their staff.

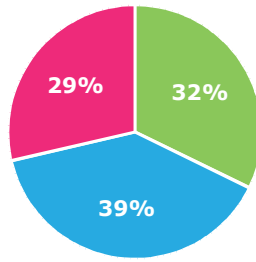
Summary of results

The charts below show the proportion of high, moderate and low cybersecurity risk responses for each topic.

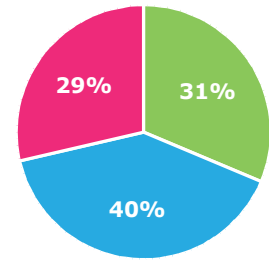
■ High risk
 ■ Moderate risk
 ■ Low risk



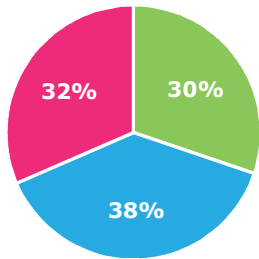
Symbols



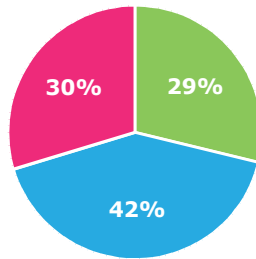
Power Structures



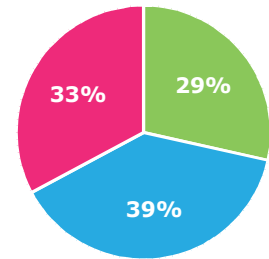
Organizational Structures



Control Systems

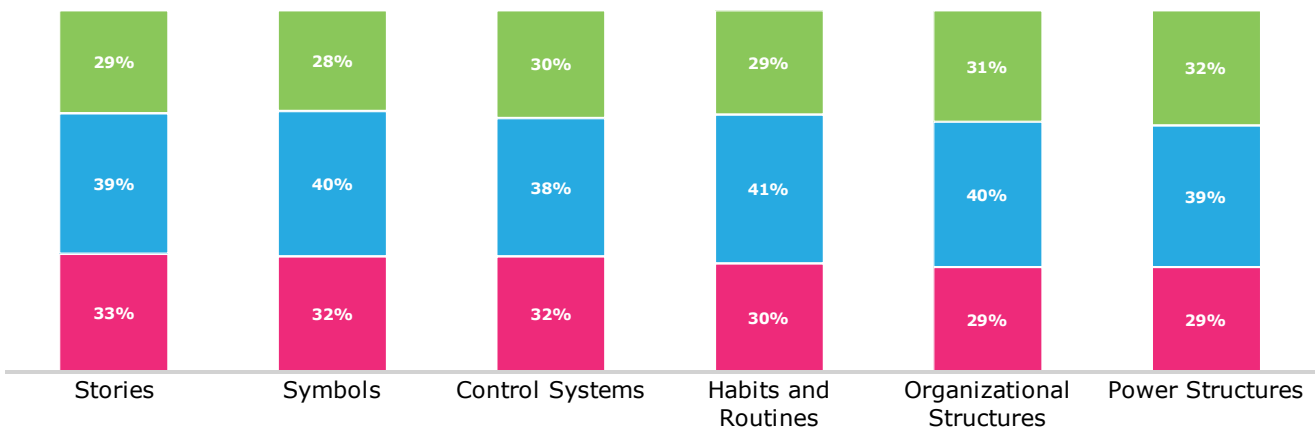


Habits & Routines



Stories

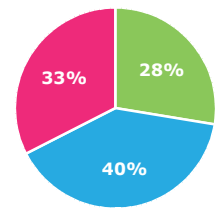
The chart below shows the same data, ordered from highest to lowest risk.



Symbols

The chart below shows the level of agreement and disagreement for questions about Symbols.

The visual representations of the organization, its brand (and logos) and how it's presented, the perks and benefits provided to staff, titles, what you see when you walk into the organization, and more that set the tone for the organization.



■ High risk
 ■ Moderate risk
 ■ Low risk

My organization provides clear symbols that represent(s) cybersecurity recognition.



Cybersecurity symbols are used consistently on our digital platforms and interfaces to promote awareness of and adherence to security protocols. If I demonstrate good cybersecurity practice, it will be viewed positively in terms of career promotion.



My organization uses cybersecurity symbols in its branding.



My organization uses cybersecurity symbols in its physical and digital environment.



Cybersecurity symbols are incorporated into the physical infrastructure of the organization to reinforce the importance of security and related risks.



My organization gives me visible recognition if I demonstrate good practice in cybersecurity risk management.



My organization displays cybersecurity symbols prominently in its official communications and materials.



My organization uses visual cues and icons to aid understanding of cybersecurity concepts, practices and risks.



My organization encourages employees to display cybersecurity symbols.



My organization rewards my department if we demonstrate good cybersecurity practices.



Next steps

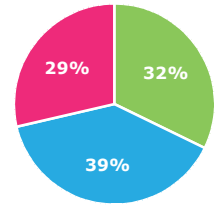
Symbols are tangible representations of culture, such as logos or office layouts. Employ leverage to change the culture by redefining or introducing new symbols that reflect the desired cultural paradigm. For instance, if innovation is a desired cultural focus, redesign office spaces to encourage creativity and display symbols of innovation.

Questions to consider:

- What are the organizational semantics of expression (visual and audible)?
- How widely is this "language" used and known?
- What is the outside view of the organizational symbols?
- What are the first impressions of visitors, based on what they see?

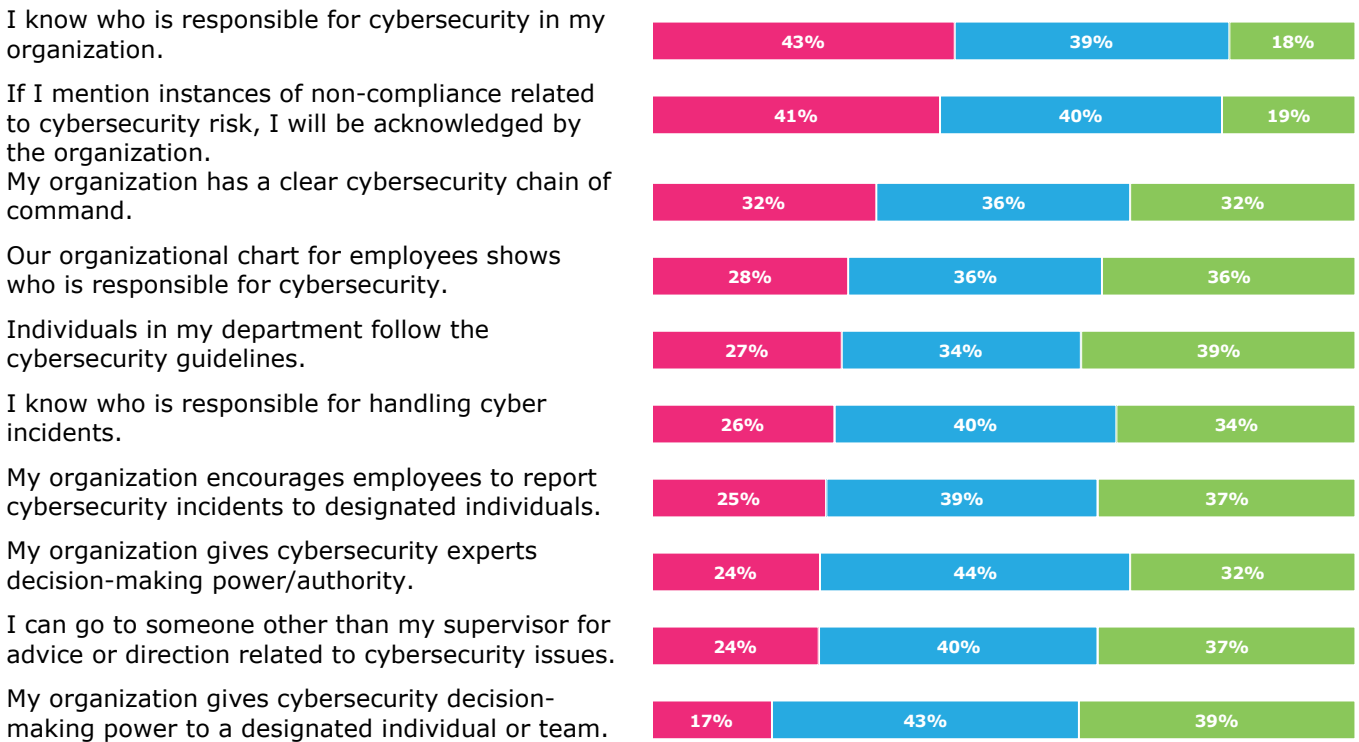
Power structures

The chart below shows the level of agreement and disagreement for questions about Power structures.



The formal (represented by the organization chart) and the informal (represented by internal networks within and around the visual chain of command presented by the organization chart) reveal how work is accomplished. Expressed differently, power structures reflect how formal and informal sources of influence impact decisions, operations, and strategic direction.

■ High risk
 ■ Moderate risk
 ■ Low risk



Next steps

Power structures within organizations define the decision-making authority. To initiate cultural change, it might be necessary to change the power structures. For example, decentralizing decision-making to give more autonomy to teams will foster a culture of responsiveness and innovation. This shift in power structures can be instrumental in altering the organizational paradigm.

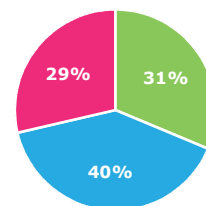
Questions to consider:

- Who has real power? How is this power used (or abused)?
- Who makes (influences) decisions?
- How do these people act and demonstrate the desired behaviors within the organization? Is this demonstration consistent (i.e., 24 by 7 by 365, in and out of the "office")?

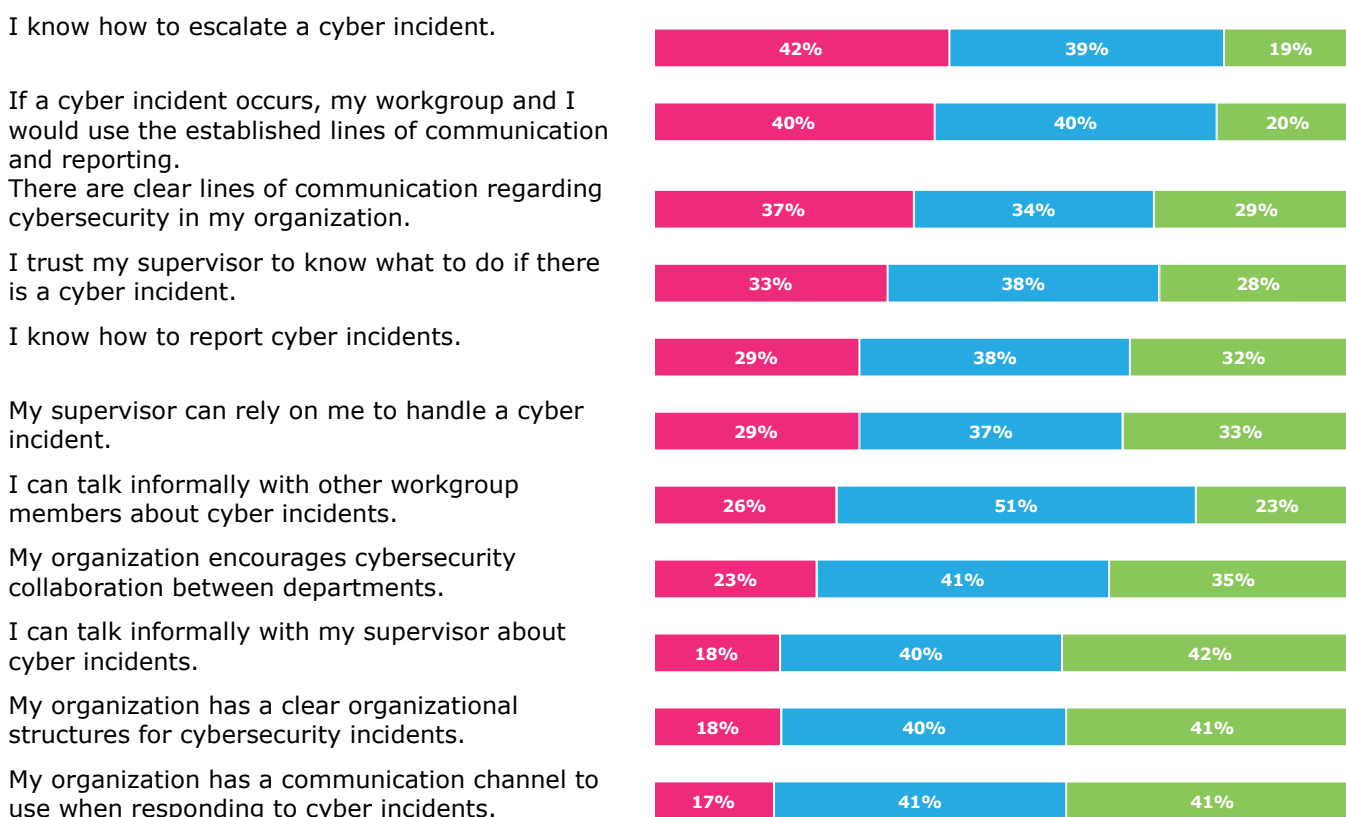
Organizational structures

The chart below shows the level of agreement and disagreement for questions about Organizational structures.

Organizational structures are the formal relationships related to the power structures described above. They describe how various organizational functions (hiring, budgeting, etc.) are carried out, potentially described in annual reports, and presented to customers and regulators.



■ High risk
 ■ Moderate risk
 ■ Low risk



Next steps

Organizational structures, including hierarchies and reporting lines, can be a powerful lever for cultural change. If the culture shift involves becoming more agile, adjust the organizational structure by flattening hierarchies and promoting cross-functional teams. These structural changes can facilitate the emergence of the desired cultural behaviors.

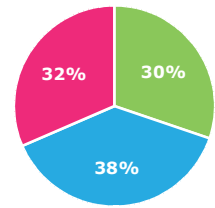
Questions to consider:

- How many formal management layers are there (i.e., how flat is the organization)?
- What are the formal lines of authority?
- What are the informal lines of authority?
- How do the formal lines of authority differ from those who actually make the decisions?

Control systems

The chart below shows the level of agreement and disagreement for questions about Control systems.

These describe what and how the organization monitors and measures performance and controls resources.



■ High risk
 ■ Moderate risk
 ■ Low risk

Executives and managers always demonstrate their commitment to cybersecurity risk management.	36%	35%	29%
My organization has clear policies and guidelines to manage cybersecurity risk.	37%	43%	21%
If I make a mistake when managing cybersecurity risk, I will receive additional training.	35%	45%	20%
My senior managers often discuss the role of my workgroup in managing cybersecurity risk.	35%	38%	28%
Expected responses related to cybersecurity risk management are formally documented, kept current, and available to all employees.	34%	33%	33%
My organization enforces cybersecurity policies and procedures.	33%	37%	30%
I have been provided with clear policies and guidelines regarding cybersecurity risk.	31%	38%	30%
My organization conducts debriefing sessions after a cyber incident.	29%	35%	36%
I understand my role in managing cybersecurity risk in my organization.	28%	38%	34%
My organization regularly holds cyber incident exercises for my workgroup.	17%	42%	41%

Next steps

Control systems encompass processes and measurement mechanisms that influence behavior. Consider introducing new control mechanisms that reinforce the desired culture to drive cultural change. For example, if a culture of sustainability is the goal, implement performance metrics and incentives tied to eco-friendly practices to encourage employees to adopt the desired behavior.

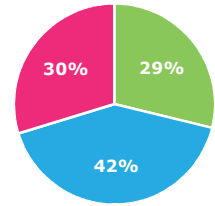
Questions to consider:

- Which processes maintain the strongest (or most rigorous) controls?
- Which processes have the weakest controls?
- How rigidly (loosely) is the organization controlled?
- Do reports support "knowing and understanding" what happens in each department (operations, HR, finance, etc.) or merely present sets of dashboard numbers?
- What rewards and penalties (if any) are meted out for good or poor work?

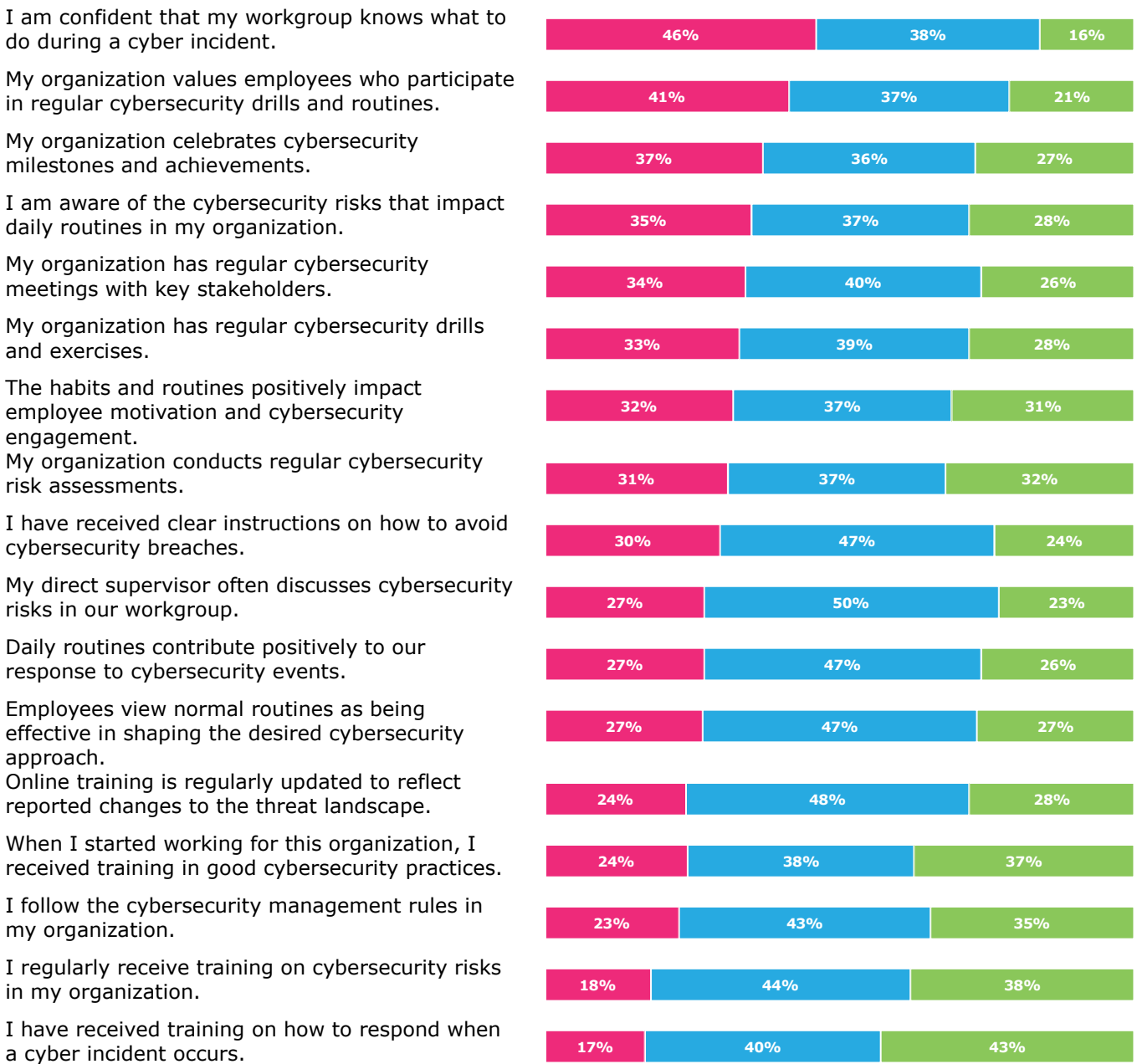
Habits and routines

The chart below shows the level of agreement and disagreement for questions about Habits and routines.

These represent what the staff does and how they do it. This aspect of the culture web includes activities, processes, and interactions.



■ High risk
 ■ Moderate risk
 ■ Low risk



Next steps

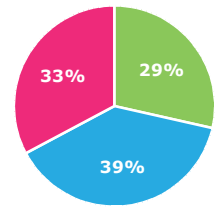
Habits and routines are the recurring practices that shape organizational culture. To shift the culture, introduce new rituals that promote the desired values and behaviors. For instance, if collaboration is a desired cultural shift, then leaders must establish regular team meetings or brainstorming sessions that encourage collaboration. Existing routines that do not align with the new culture must be reviewed and adjusted.

Questions to consider:

- What are the expectations of stakeholders (customers, suppliers, staff) when they enter the facility?
- When a challenge arises, what rules are applied? Are the rules documented and kept current? What happens if there is a new and unforeseen challenge; what rules are followed? Are there guidelines that address the unknown or unforeseen?
- What organizational core beliefs are reflected in these routines? What behaviors do they encourage?

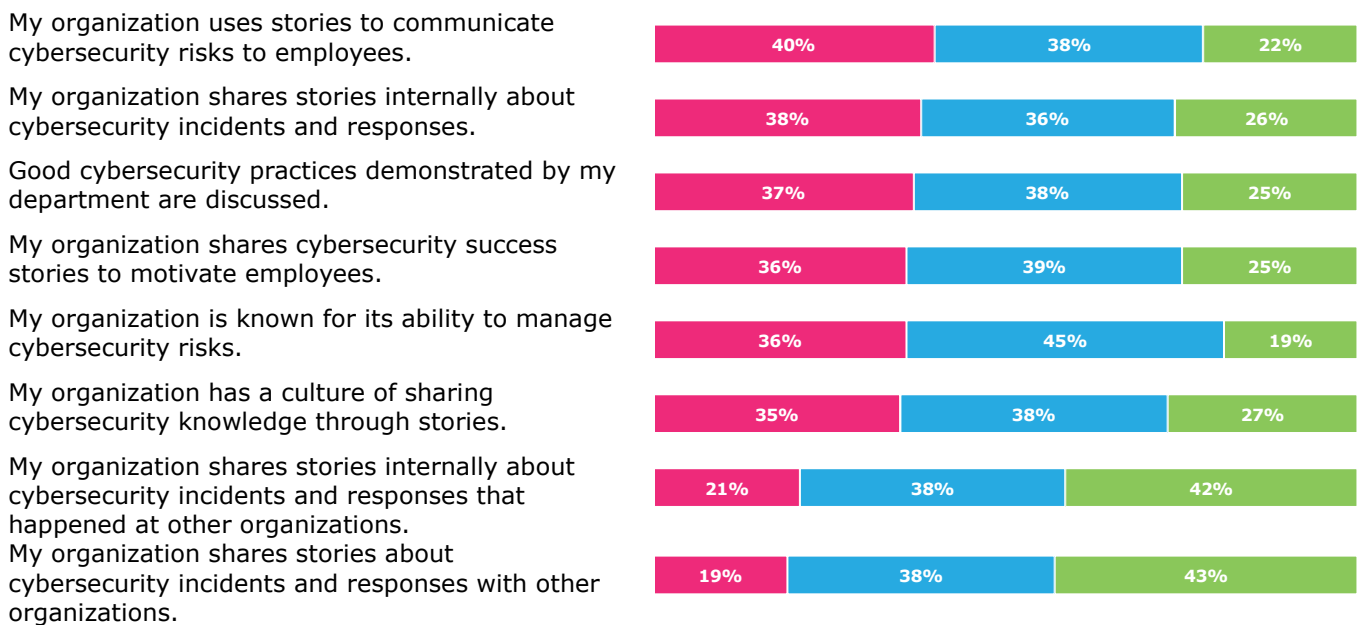
Stories

The chart below shows the level of agreement and disagreement for questions about Stories.



This is what and how the organization chooses to memorialize past people and events. This is an important consideration impacting attempts to change organizational culture. It requires understanding that yesterday's hero could be today's villain to morph the culture. Stories also serve to highlight lessons learned or not learned. If you ask people about their organization, they tell these stories.

■ High risk
 ■ Moderate risk
 ■ Low risk



Next steps

Stories are the organizational narrative history of successes and challenges. To influence culture change, apply leverage by fostering new stories that exemplify the desired cultural traits. Celebrating individuals or teams who provide living examples of the new culture is likely to inspire others to follow suit. Additionally, leaders should use storytelling to reinforce the importance of cultural change, encouraging employees to align with the new narrative.

Questions to consider:

- What stories about your organization do people tell (retell)? What reputation is communicated by these stories to stakeholders? What do these stories say about organizational beliefs?
- What heroes (and/or villains) appear in these stories?
- What stories are told to new hires?
- What stories will ex-employees tell about your organization?

Final thoughts

There are several reasons why it's essential to maintain a generative and supportive culture, including:

- **Cultural alignment:** Creating a cohesive culture within an organization is crucial to achieving strategic objectives and retaining top talent. This involves aligning the behaviors and actions of employees with the organizational mission and goals while fostering a sense of unity and shared values within the workforce
- **Employee engagement:** Employees are more motivated, productive, and committed when they resonate with a positive company culture
- **Adaptation to change:** Organizational culture affects its ability to adapt to change. A culture that embraces learning and innovation will be more likely to thrive in a rapidly changing world
- **Customer and stakeholder relations:** When organizational staff feel valued and respected, they are more likely to treat customers and other stakeholders in a manner that fosters brand loyalty
- **Ethical behavior:** Organizational culture dictates ethical standards within an organization.

Leaders curate culture

Leaders play a pivotal role in shaping and curating organizational culture. Leaders set the tone and ensure that all teams, groups, departments, and divisions operate harmoniously. Leaders accomplish this by influencing and curating culture in the following ways:

- **Setting an example:** Leaders are role models – period, full stop. Their behaviors and attitudes set the standard for what is acceptable within the organization. Employees follow the example set by leaders, not what leaders say. Actions within the organization define the values of the organization. For example, when a leader demonstrates integrity and transparency, it's easier to promote these values as crucial organizational foundations
- **Communication:** Leaders are responsible for communicating the desired cultural aspects and their importance. Through regular, clear communication and demonstrated action, leaders ensure employees understand the cultural expectations and why they matter
- **Hiring and development:** In the previous section, we discussed how a positive and supportive work culture can lead to a more engaged workforce and better talent retention. Leaders are responsible for hiring decisions, and part of that includes seeking candidates with the right skills who fit the company culture. Additionally, leaders should actively develop employees who embody the culture by providing training and mentorship opportunities
- **Adapting to change:** Culture isn't static. In a rapidly evolving world, leaders must continually guide the culture to adapt to new challenges and opportunities, especially in the face of potentially disruptive technological advances (e.g., artificial intelligence). This requires establishing a culture of learning and adaptability – a learning organization
- **Handling crises:** During difficult times or crises, a leader's response can reinforce or reshape the culture. Ethical leaders uphold organizational cultural values in challenging situations.

Leaders demonstrate (model) the behaviors they wish to pervade the organization. As the primary custodians of organizational culture, their actions, communications, and decisions are crucial. They profoundly influence how culture is expressed and adapted in practice.