



VAST Smart Community Benchmark Results

October 6, 2020

Introduction



Introduction

The Regional Transportation Council (RTC), in collaboration with Vancouver, WSDOT, Clark County, and C-TRAN has been engaging with IDC to help educate our partners on current trends in smart communities and mobility so that we are better able to create our next strategic roadmap.

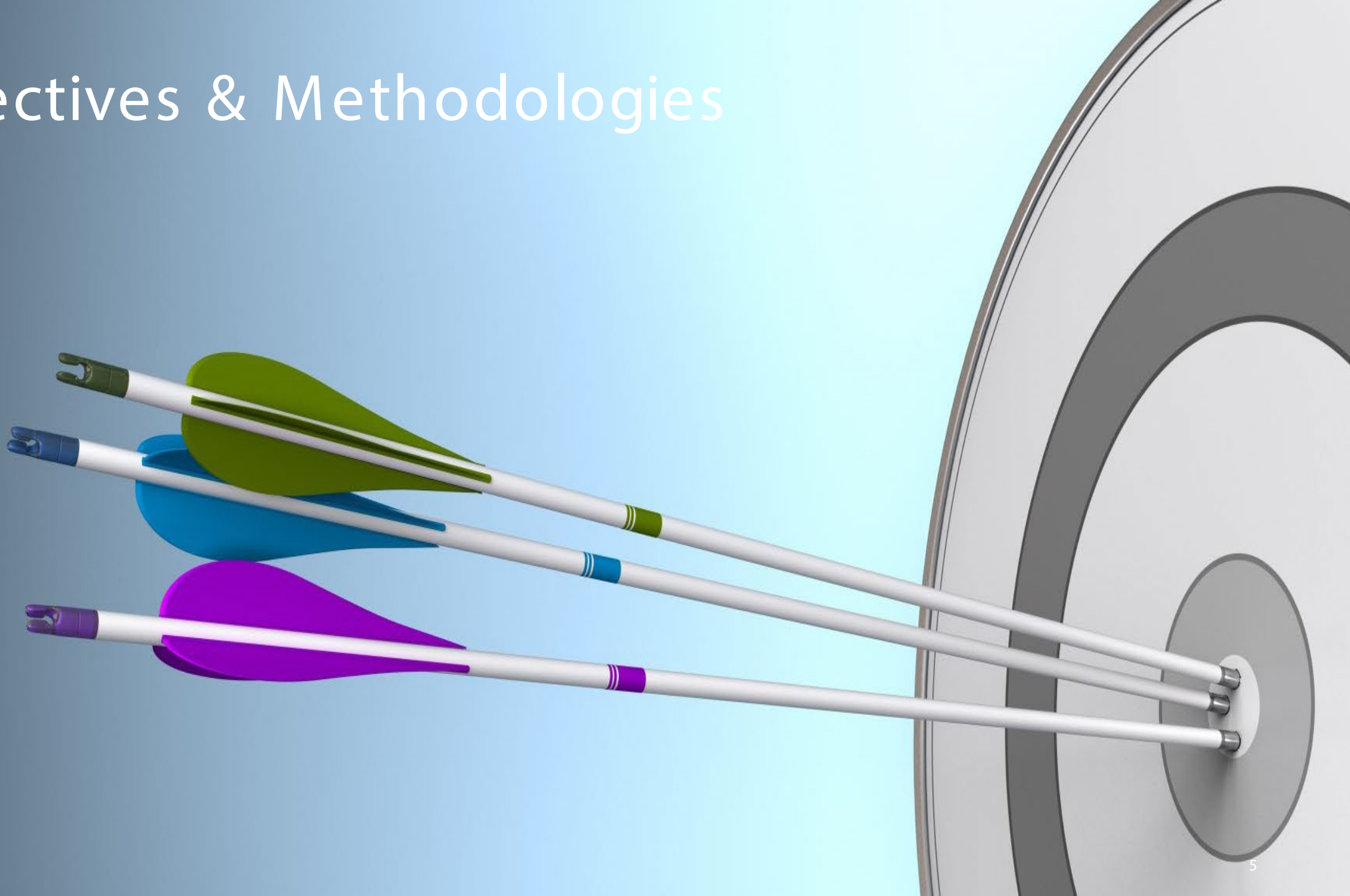
The Smart Community Assessment Project starts with a Maturity Benchmark. This allows the IDC Team to uncover the basic needs and requirements in advancing a smart community. The process of developing the Maturity Model requires the agency partners collaborate through interviews, strategy sessions and surveys to assess needs and benchmark our region to other US cities.

Summary of Findings

Throughout the survey results and benchmarking process, the region does fairly well across a number of areas with solid foundations present in network/connectivity, data privacy, cybersecurity, and a culture encouraging of innovation. Overall, the region is mostly aligned with its peers coming slightly ahead in some areas, such as cybersecurity, and slightly behind in others, such as formal processes and siloed progress.

To take these strengths and build upon them, attention should be given to formalizing and standardizing tools and processes, sharing data and best practices, and education about smart community practices/technologies. This will advance the region and put it on a maturity level with the leaders in the space and help to drive success in future initiatives.

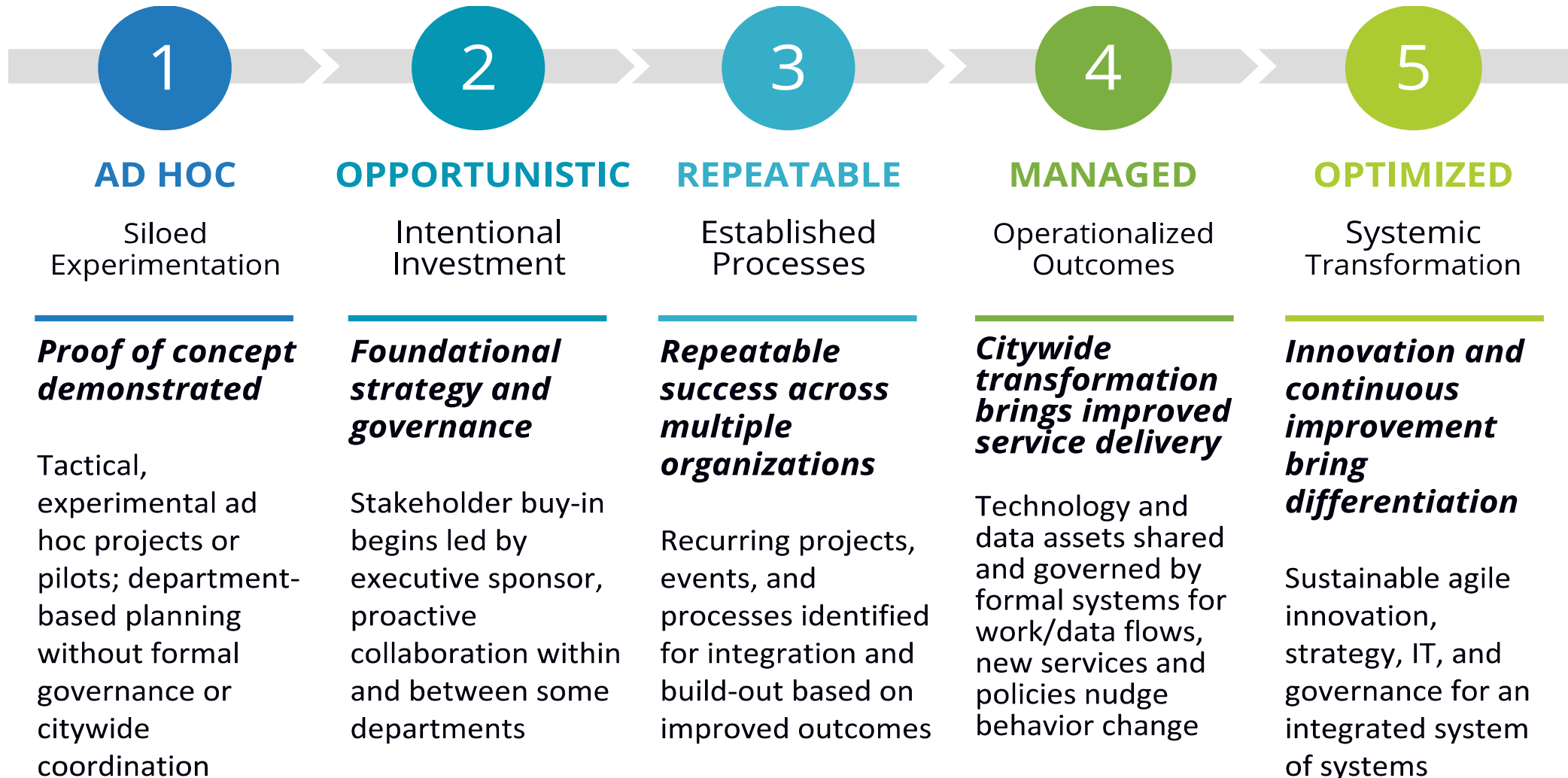
Objectives & Methodologies



Objectives & Methodology

- IDC conducted an online survey, using its Smart City Maturity benchmark questionnaire. It was sent to VAST member organization employees selected by the project management group.
- Data was collected via the 30 -minute online survey which was scored and weighted to provide an overall benchmark score.
- The objective was to collect data to provide an assessment of the current capabilities and readiness for Smart City & Community initiatives.
- The maturity model rates key areas from ‘ad hoc’ to ‘optimized’
- The Assessment was done across 5 dimensions (Vision, Culture, Process, Technology and Data).
- The region’s scores were then compared to out national benchmarking data.

The Maturity Model



Measuring the Critical Success Factors

Vision



- Strategy
- Leadership
- Business Case
- Budgeting

Culture



- Innovation
- Citizen Engagement
- Transparency

Process



- Governance/ Controls
- Partnerships
- Organization Structure
- Measurement

Technology



- IT Architecture
- Network Infrastructure
- Citizen Data Architecture
- Innovation Accelerators Adoption

Data



- Citizen Data Protection
- Open Data
- Data Discovery & Analysis
- Data Sharing

Preliminary and Custom Questions



Preliminary and Custom Questions

Included in the survey were both preliminary questions as well as some custom additions. These, while informative and valuable do not contribute to the overall maturity benchmarking.

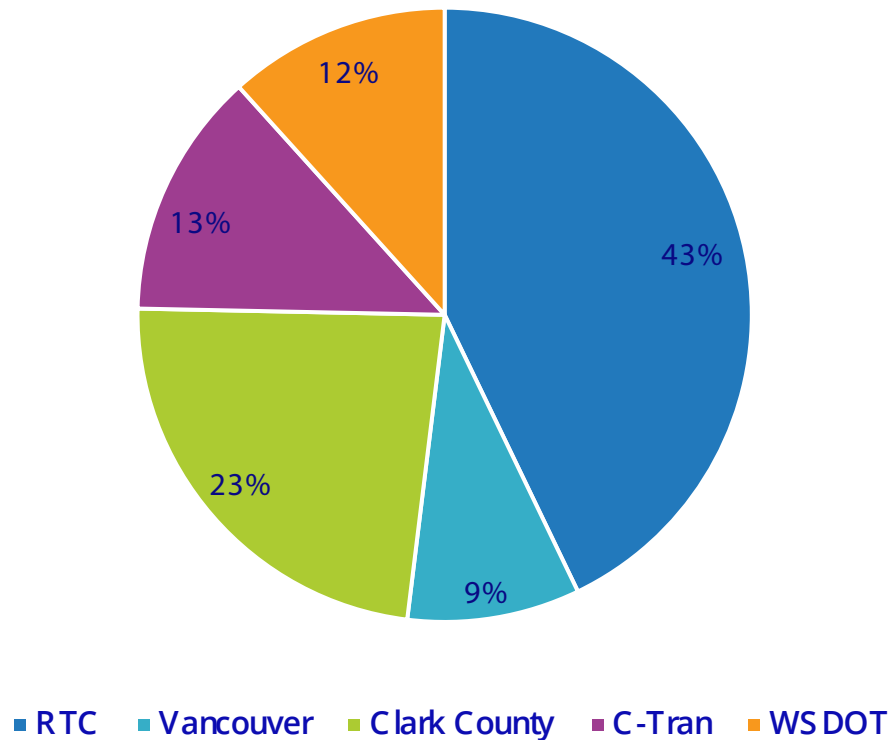
- Overall we had a good number of respondents across the member organizations, at different levels of knowledge and decision making, and from different areas of expertise.
- Both the knowledge of ‘smart cities’ concepts and the knowledge of what the VAST program is was lacking. This shows a real opportunity to communicate and educate across the region.
 - This fact is also reflected in responses that rated “identifying and coordinating areas of common interest” as the most important thing that could be done in the region.

Survey Respondents

Link #	Member	Completed	Invited	Percentage
1	RTC (Includes Onsite Session Attendees)	33	71	46%
2	City of Vancouver	7	26	27%
3	Clark County	18	42	43%
4	C-Tran	10	21	48%
5	WSDOT	9	21	43%
	TOTAL	77	181	43%

Survey Respondents

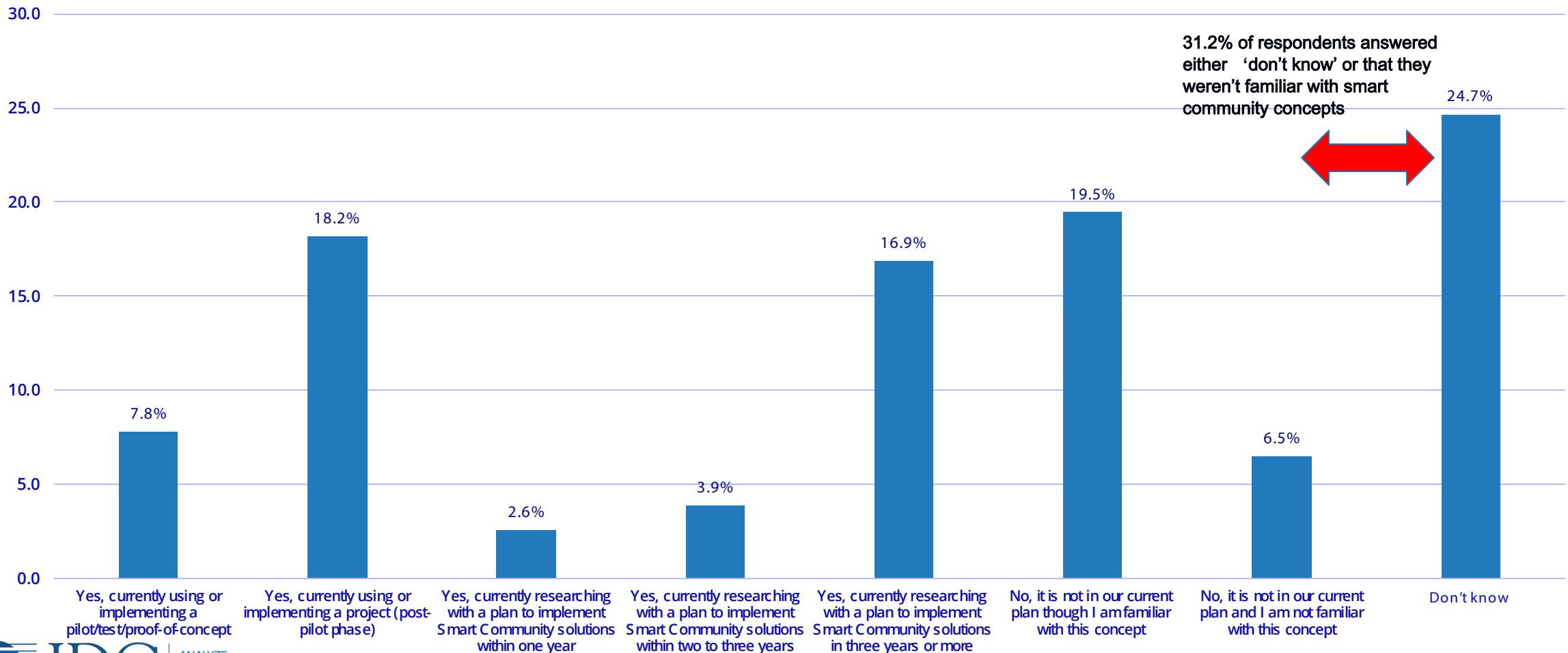
Percent of Total Completions (77 Total)



Member	Completed
RTC (Includes Onsite Session Attendees)	33
City of Vancouver	7
Clark County	18
C-Tran	10
WSDOT	9
TOTAL	77

Survey Respondents

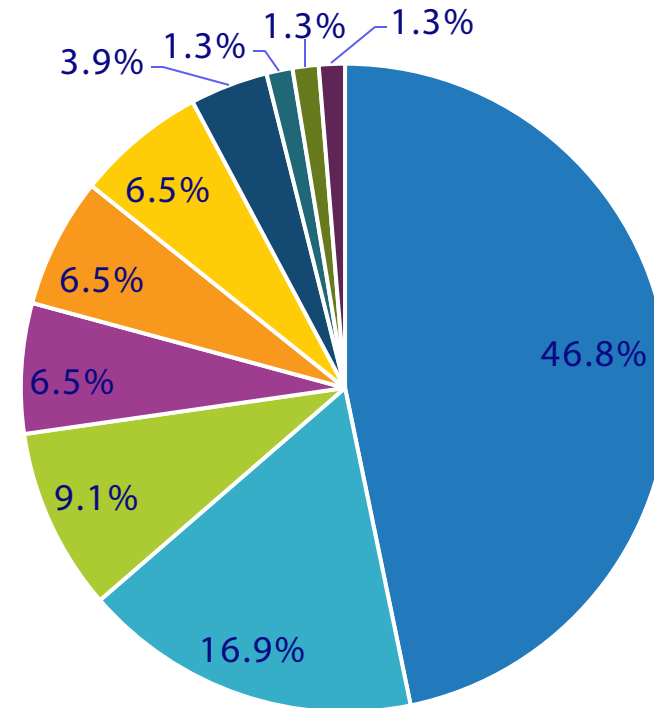
Are Smart Community initiatives currently on your department/organization's roadmap?



Survey Respondents

Which of the following best describes your department/organization's function?

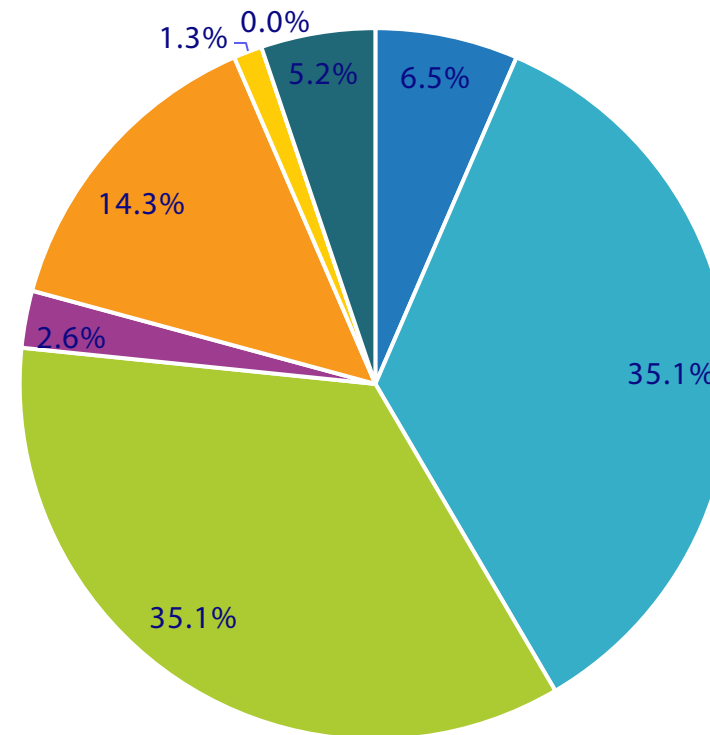
- Transportation (Traffic management, Traveler Information Systems, Transportation Planning, Parking)
- Other
- Economic Development, Urban Planning, Community Development
- Executive Offices, Government Administration
- Innovation, Technology, IT



Survey Respondents

Which of the following best describes your job title or role?

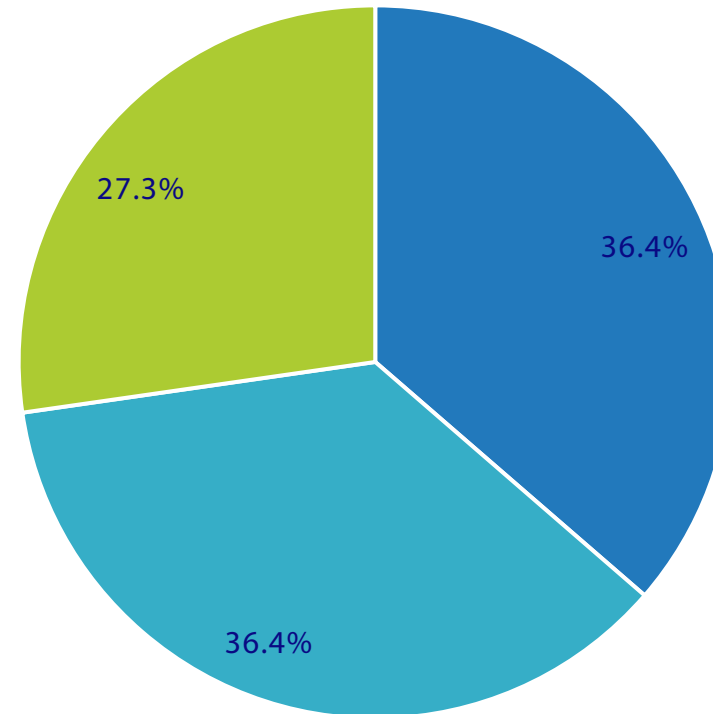
- Elected Officials or chief policymaker
- Department Head or Division Manager
- Supervisor or Manager, non-IT
- Supervisor or Manager, IT
- Non-supervisory, non-IT
- Non-supervisory, IT
- Public Safety
- Technician, Operator Specialist, Inspections, Field-Worker



Survey Respondents

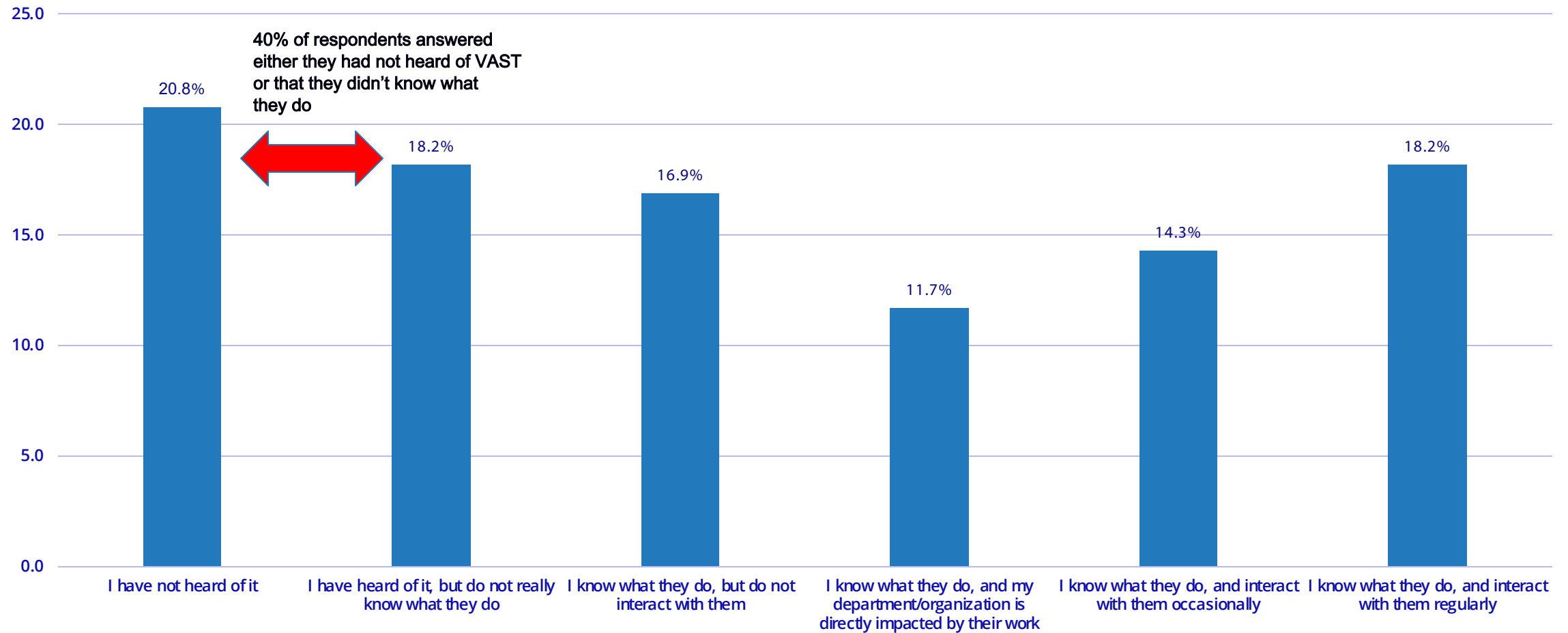
At what level of your organization are you most comfortable responding to questions?

- County, district, city or town-wide
- Line of business, agency or department level (i.e. City Police Department, Public Works Department)
- Program/ group level (i.e. Parking Enforcement within the Police Department)



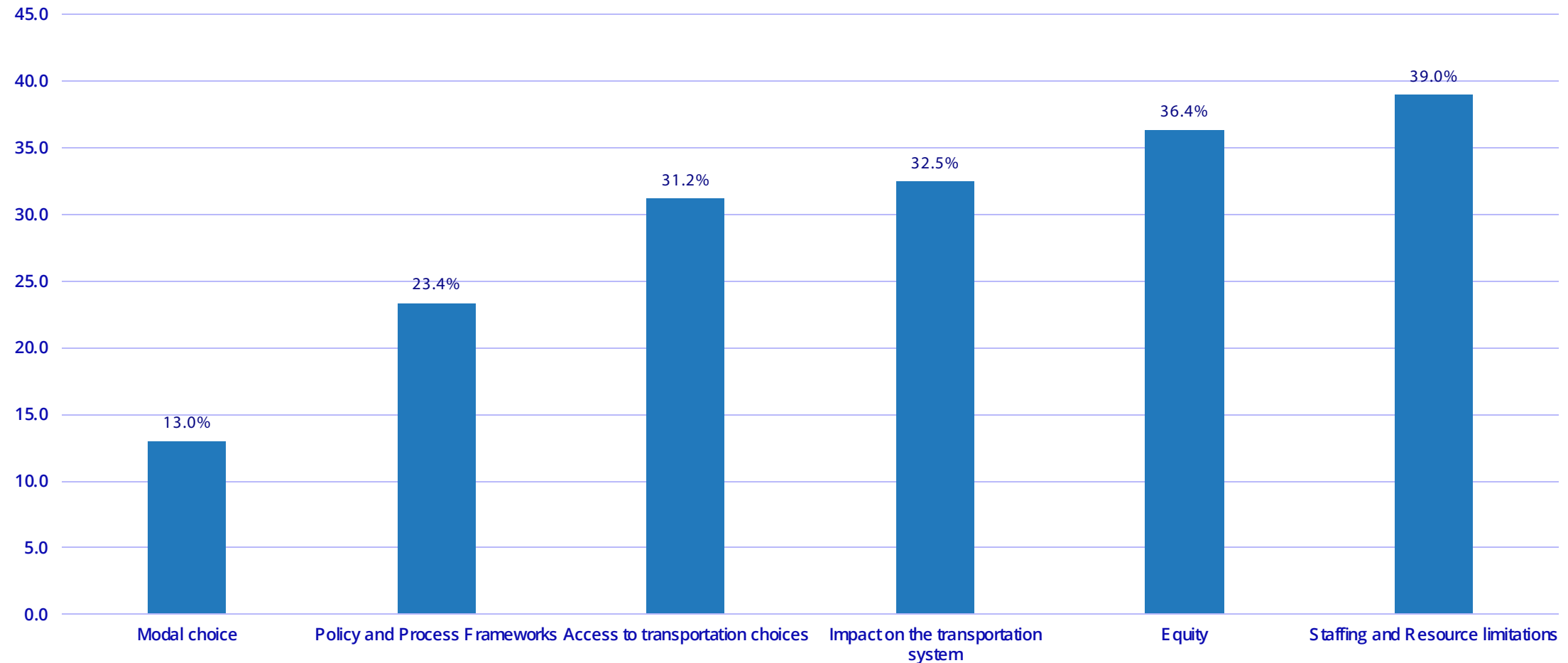
VAST Custom Questions

Which of the following best describes your knowledge of the VAST program?



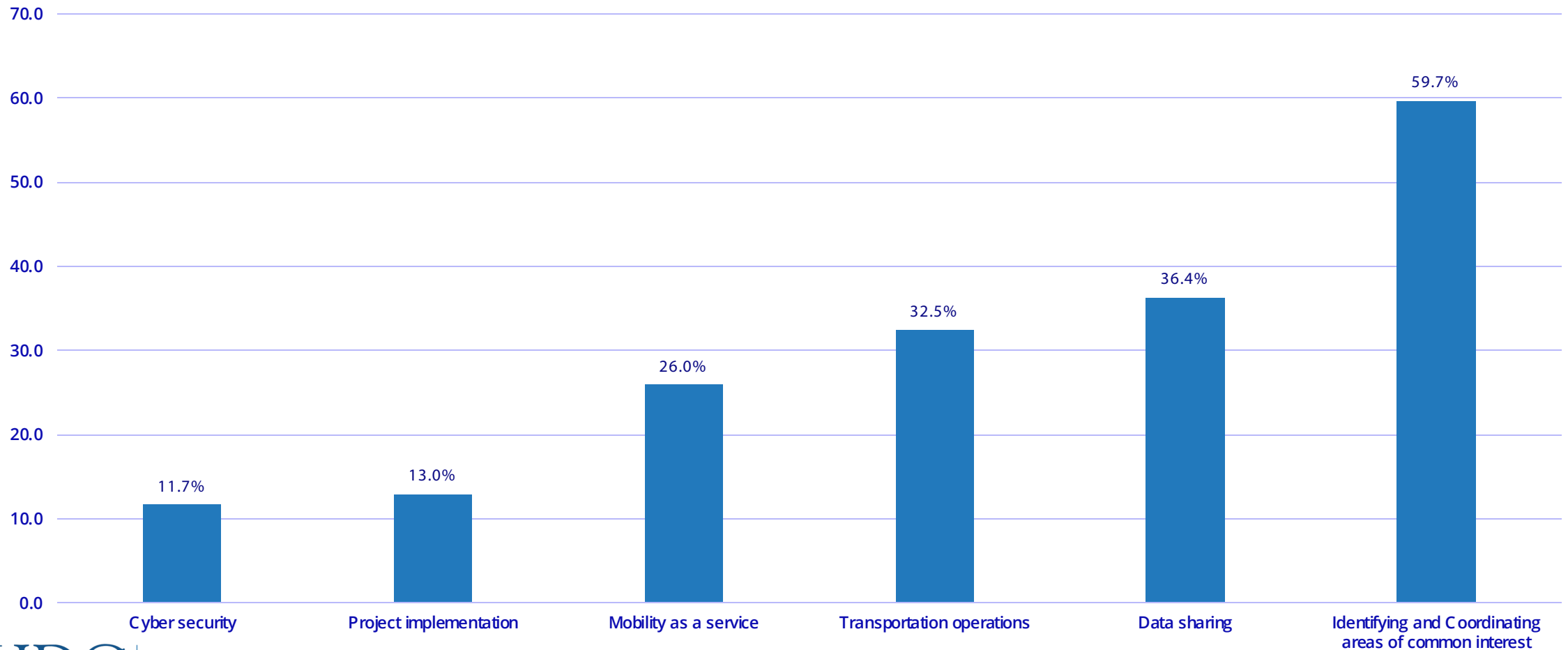
VAST Custom Questions

What factors are the most important for policy makers to consider in developing a regional smart communities' strategy for transportation? (multiple choices allowed).



VAST Custom Questions

Because of our unique situation as part of bi-state region with the Portland metropolitan area, what do you see as the key areas for coordination in developing a robust smart communities' vision? (multiple choices allowed).



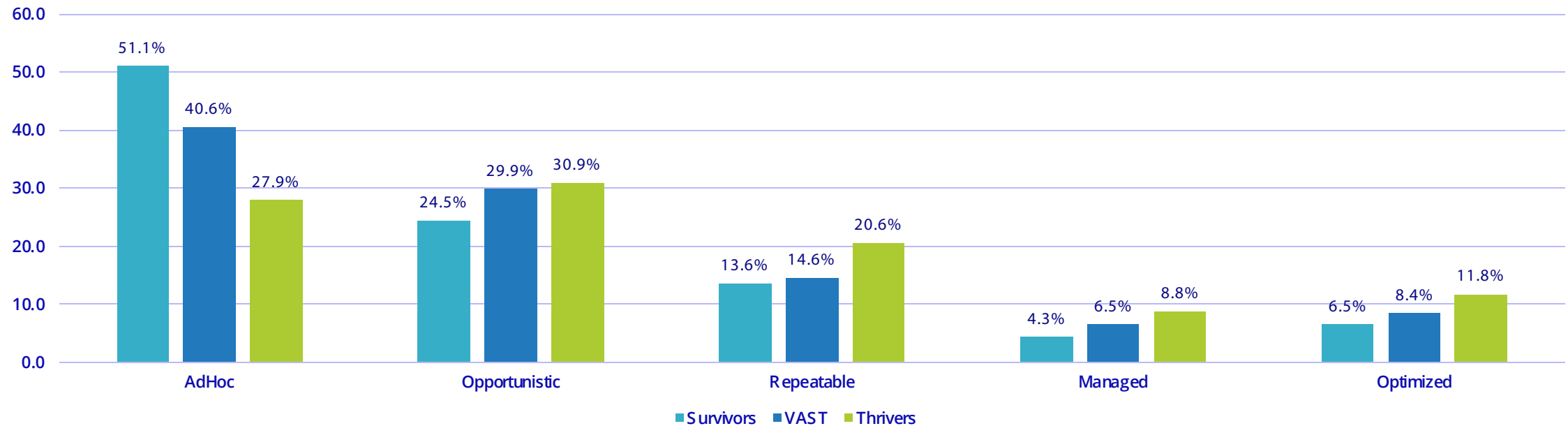
Maturity Benchmark Results



Dimension: Vision

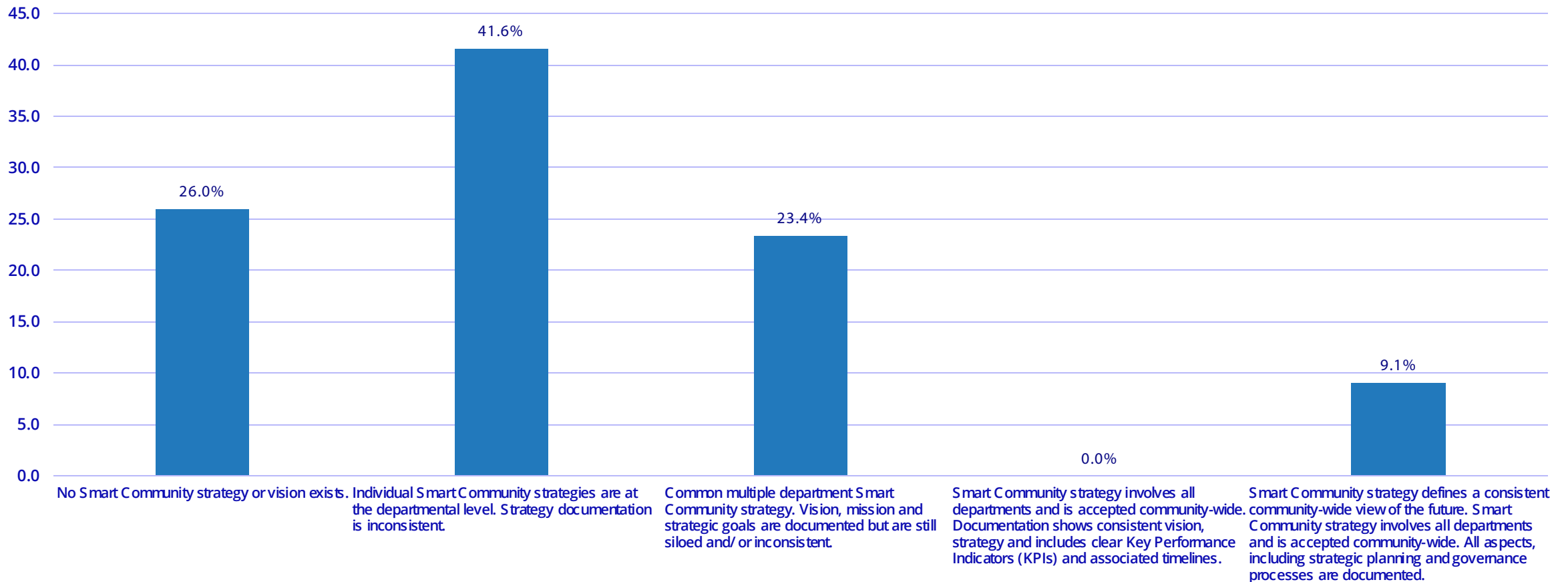
The VISION dimension includes strategy, leadership, business cases, and budget responses. As shown, the region is slightly behind the *thrivers* in the space and could advance by focusing on standardizing and centralizing core processes for budgeting and smart community leadership, moving it from isolated departments to a more prominent and visible place that can function across verticals and interact cross-jurisdictionally.

Vision



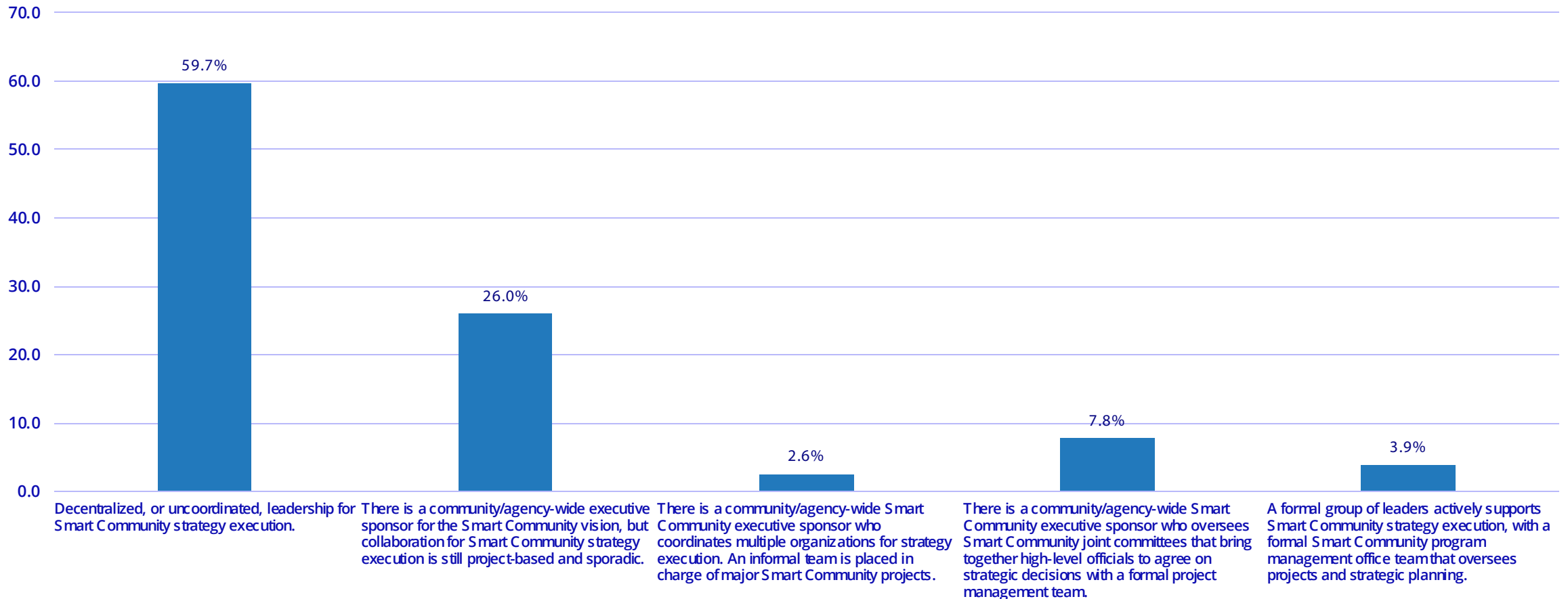
Dimension: Vision

Q3. Which of the following best describes your organization's approach to Smart Community STRATEGY?



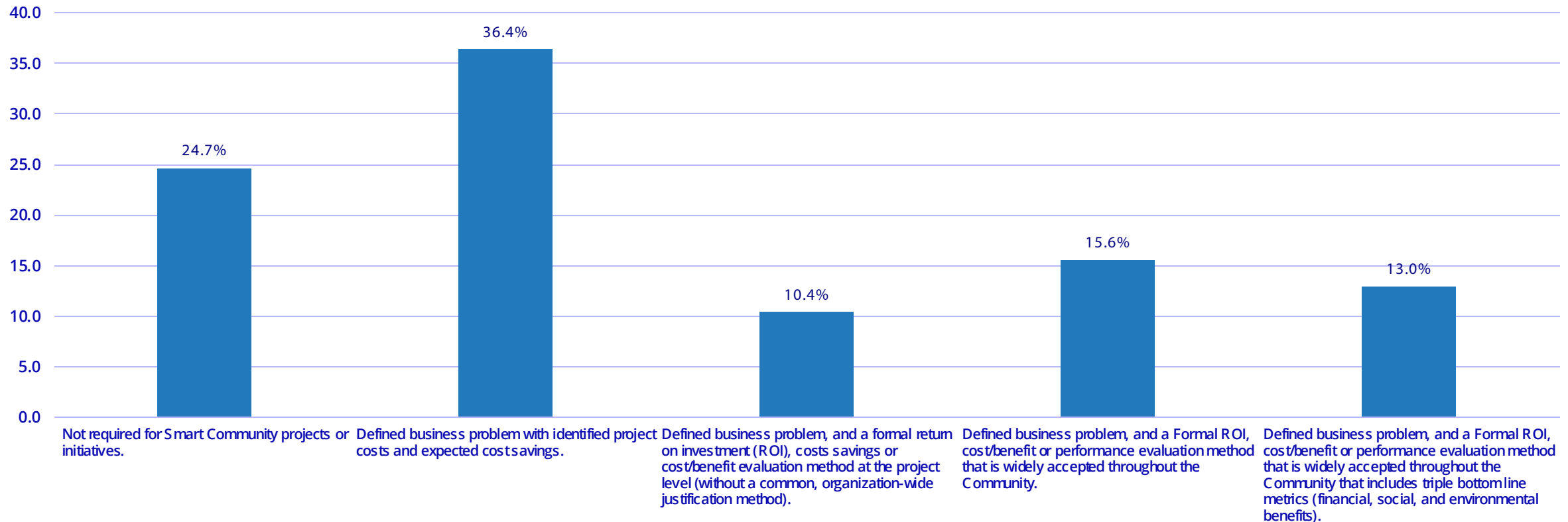
Dimension: Vision

Q4. Which statement best describes your organization's Smart Community LEADERSHIP?



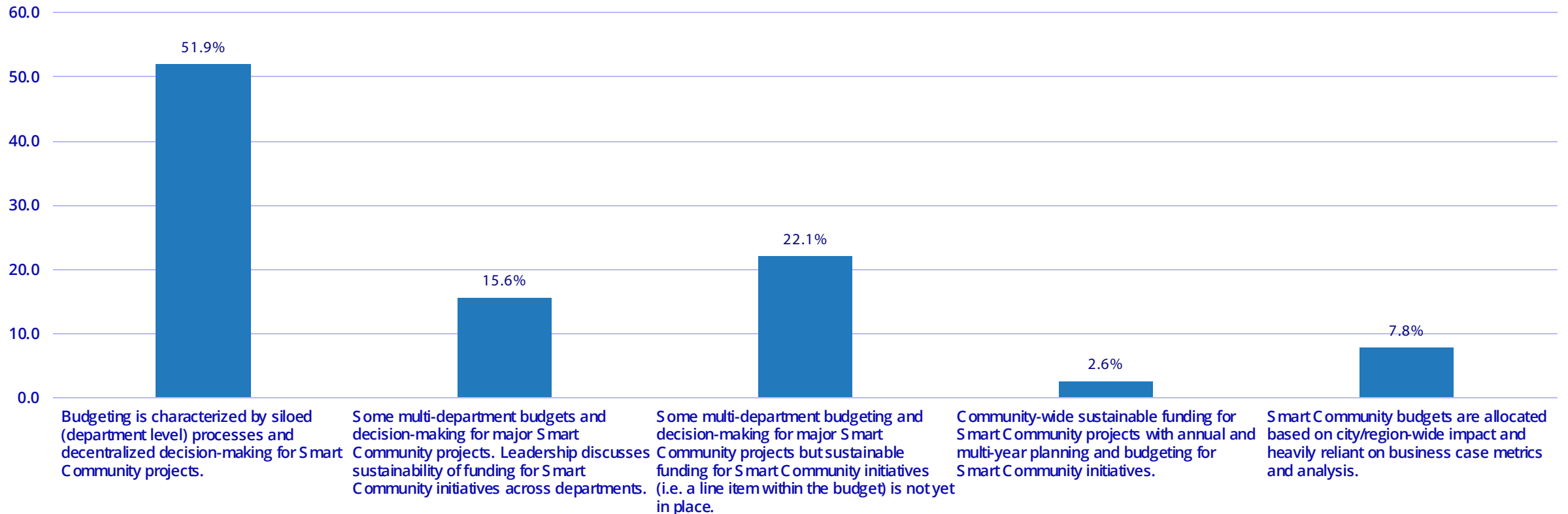
Dimension: Vision

Q5. When making the BUSINESS CASE for new Smart Community projects or initiatives, what type of justification is required for project approval?



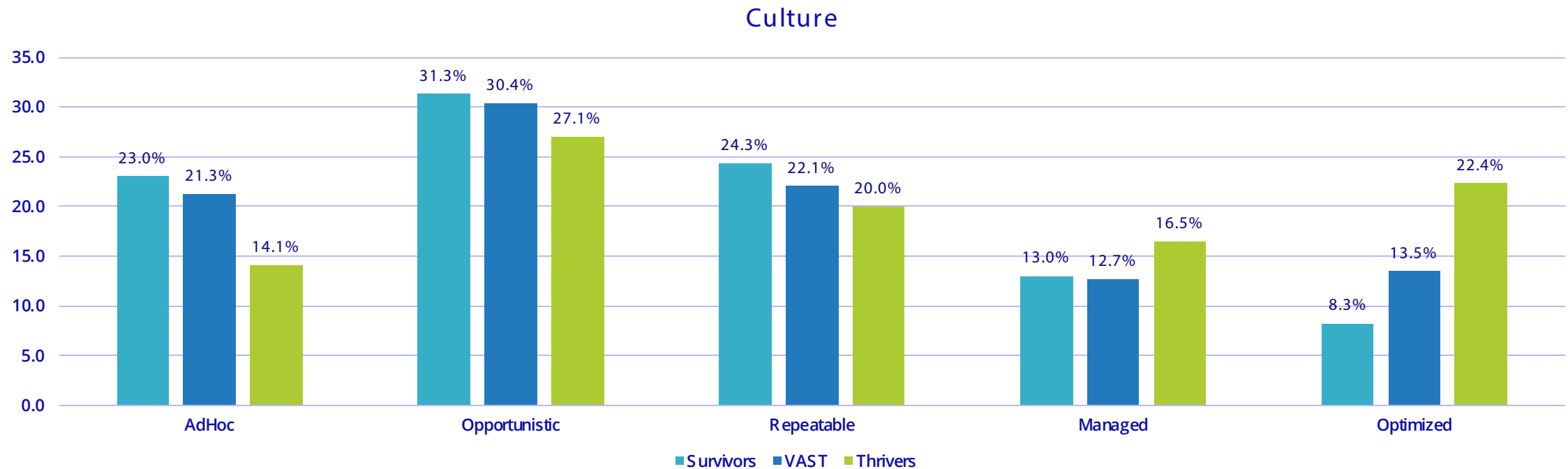
Dimension: Vision

Q6. Which best describes your organization's approach to BUDGETING for Smart Community initiatives?



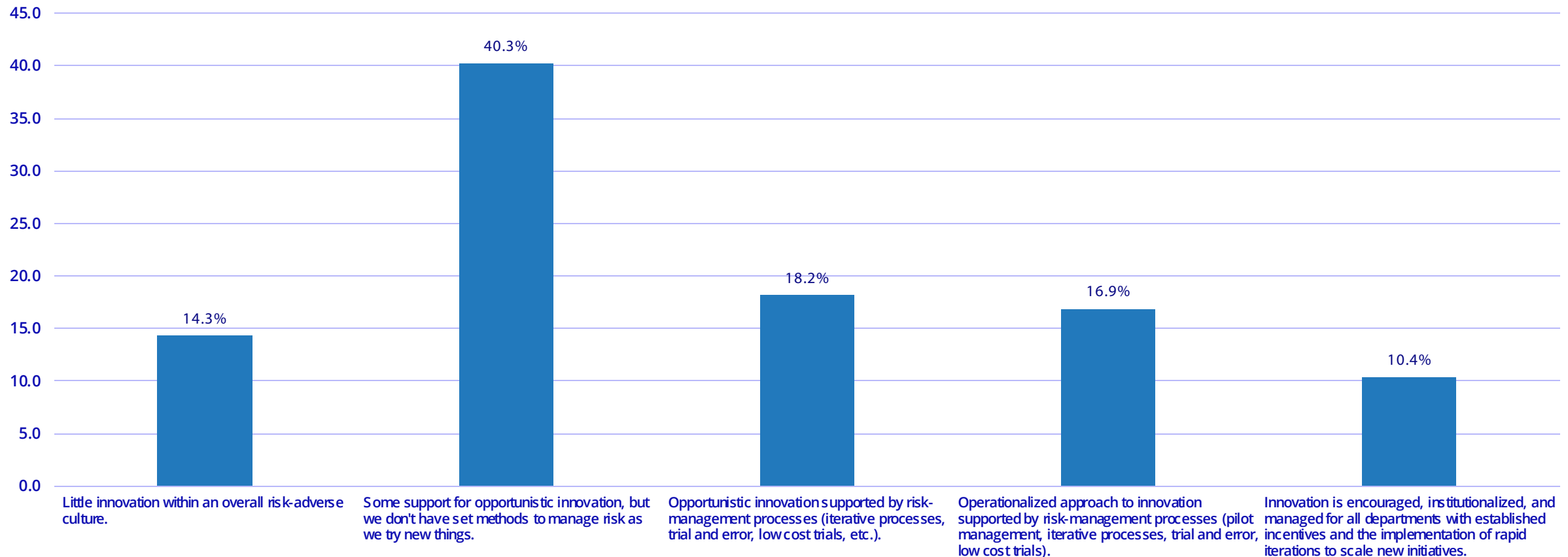
Dimension: Culture

The CULTURE dimension includes innovation, constituent engagement, transparency, workplace culture and digital inclusion culture responses. As shown, VAST agencies are fairly strong in this category but still slightly behind the *thrivers* in the space and could advance by focusing on creating methods to manage risk in innovation, being proactive in sharing info/data about projects, and broadening constituent engagement.



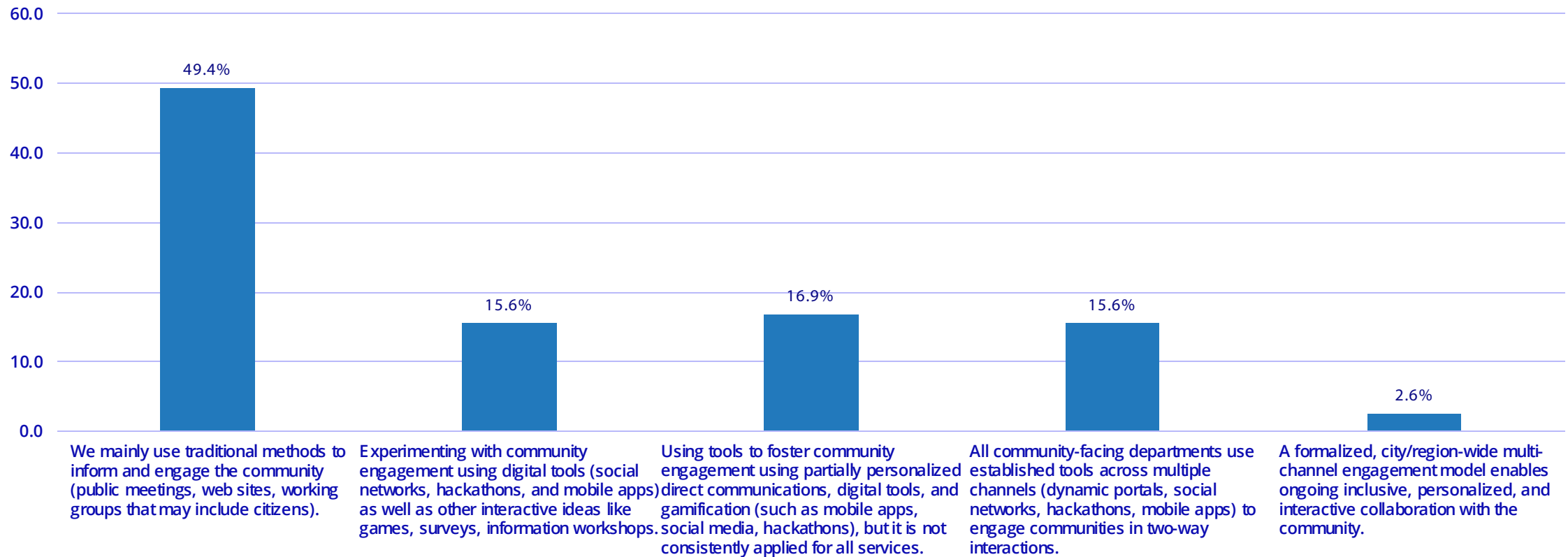
Dimension: Culture

Q7. Which of the following best describes your organization's approach to INNOVATION?



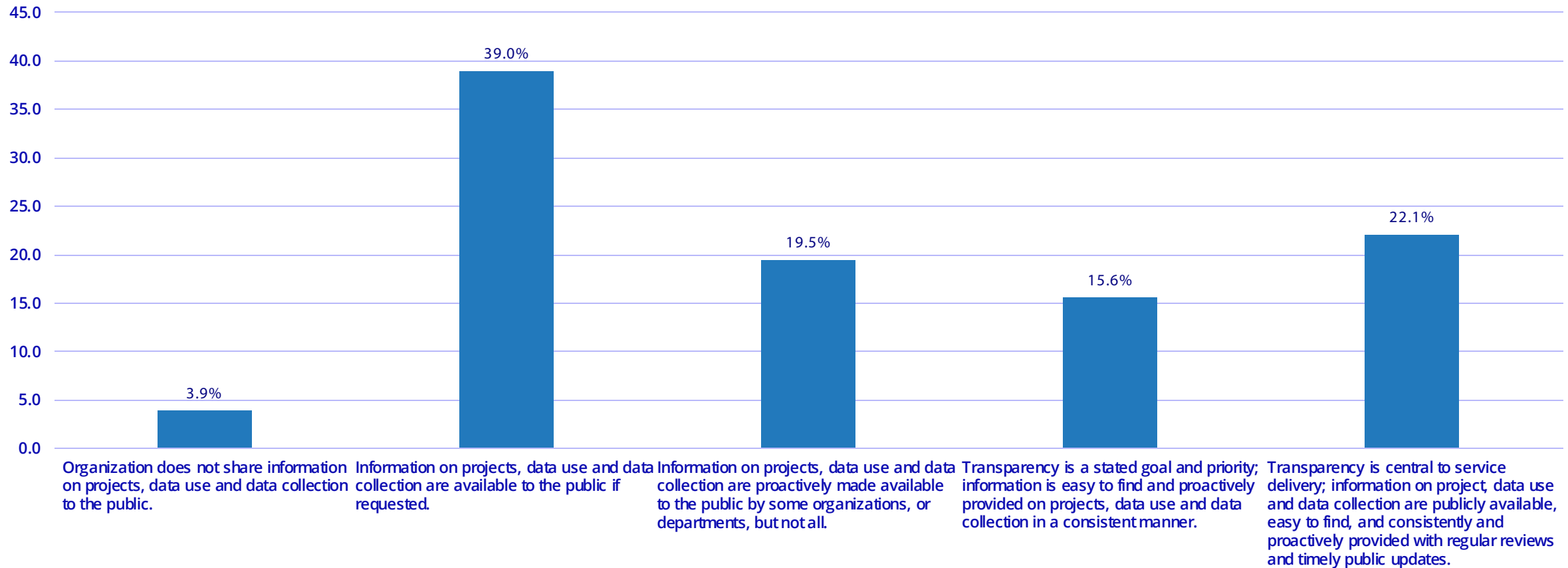
Dimension: Culture

Q8. Which statement best describes your organization's approach to CONSTITUENT ENGAGEMENT?



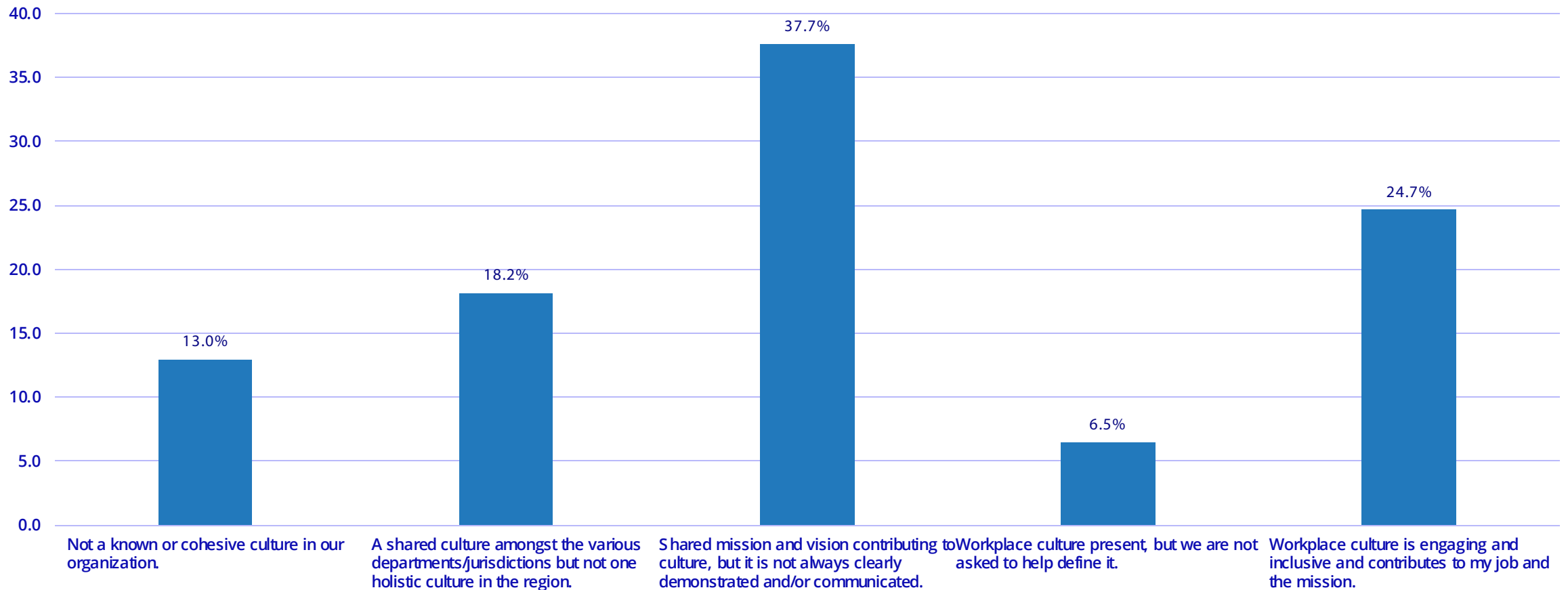
Dimension: Culture

Q9. Which statement best describes your organization's TRANSPARENCY?



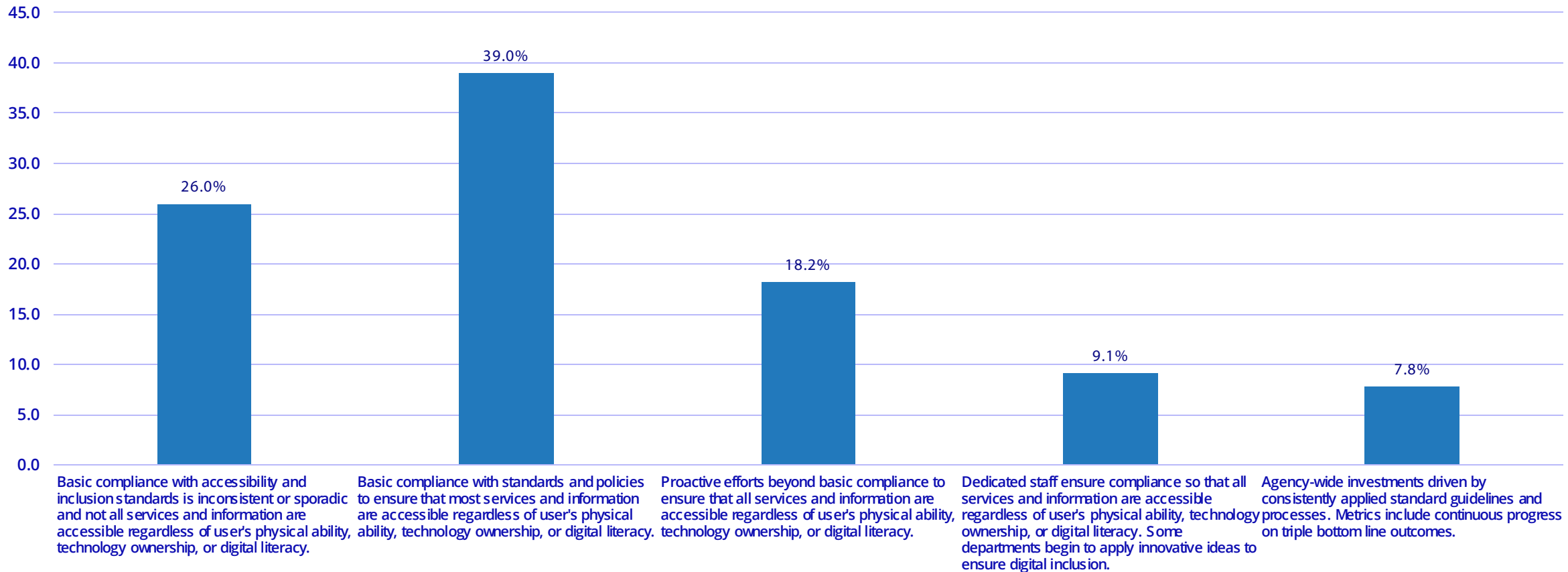
Dimension: Culture

Q10. Which statement best describes your organization's WORKPLACE CULTURE?



Dimension: Culture

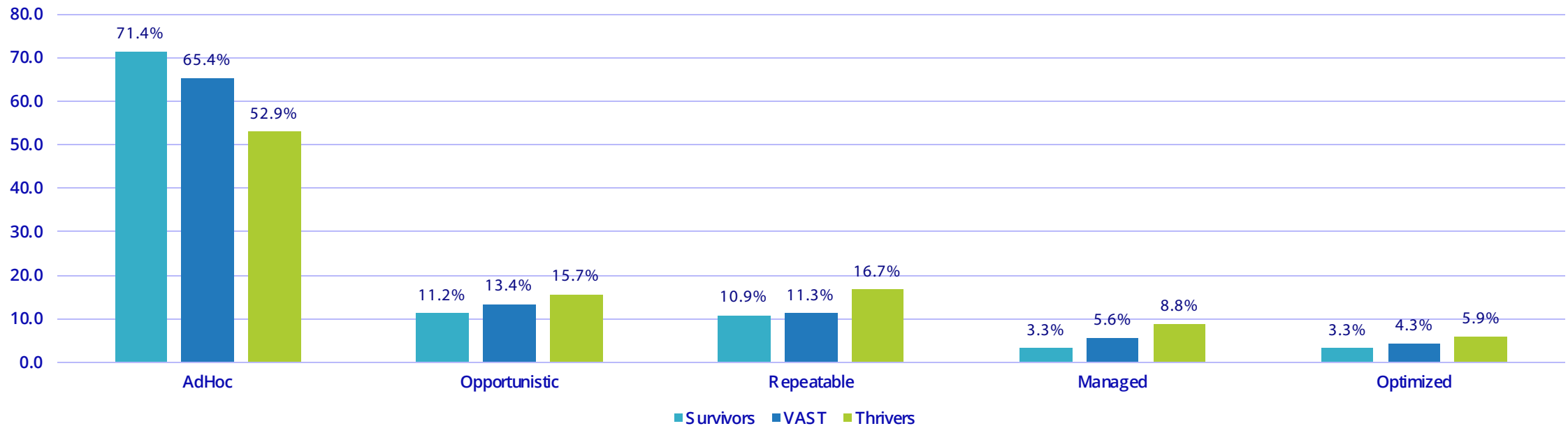
Q11. Which statement best describes your organization's DIGITAL INCLUSION CULTURE?



Dimension: Process

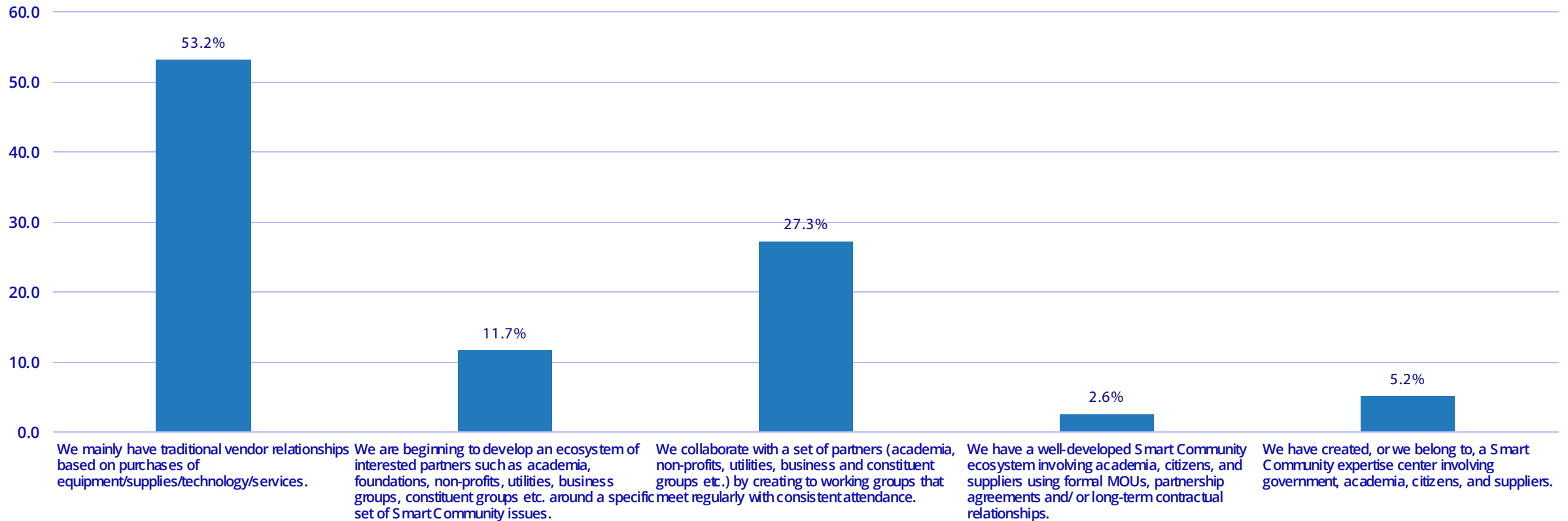
The PROCESS dimension includes partnerships, policy and governance, performance management, organizational structure and procurement responses. As shown, the region is behind the *thrivers* in the space and overall this is their weakest dimension. Progress can be made by standardizing and centralizing processes and innovation teams, creating formal policies and governance structures especially for procurement, and defining trackable key performance metrics.

Process



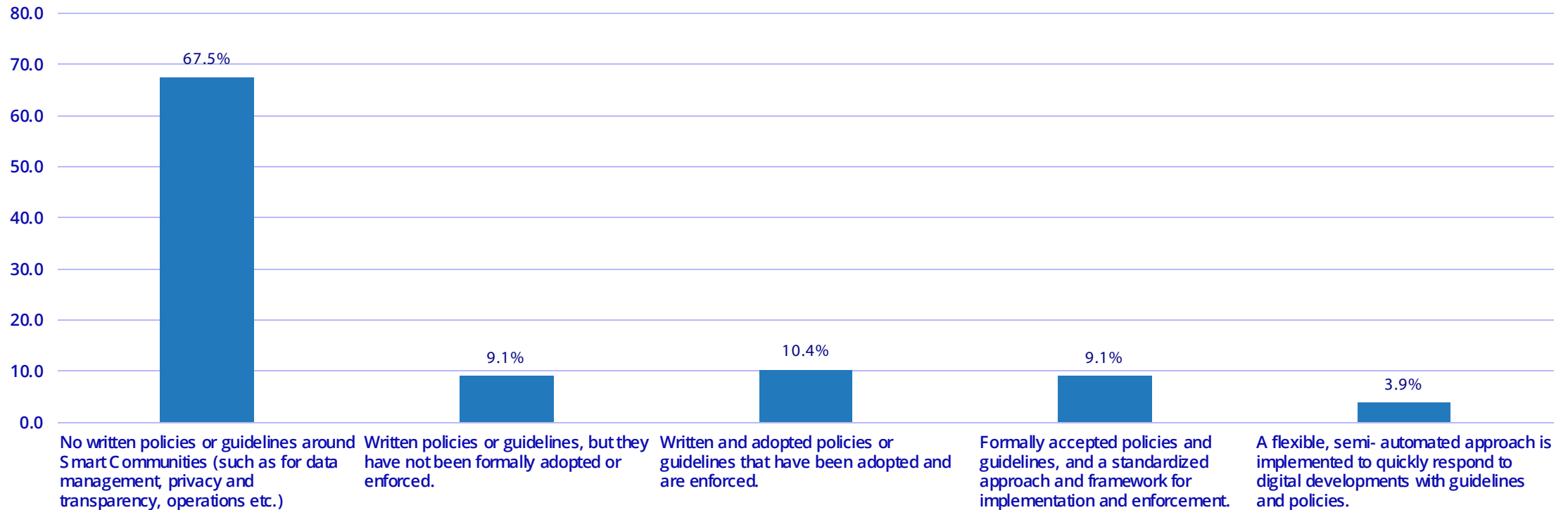
Dimension: Process

Q12. Which statement best describes your organization manages partnerships and external relationships?



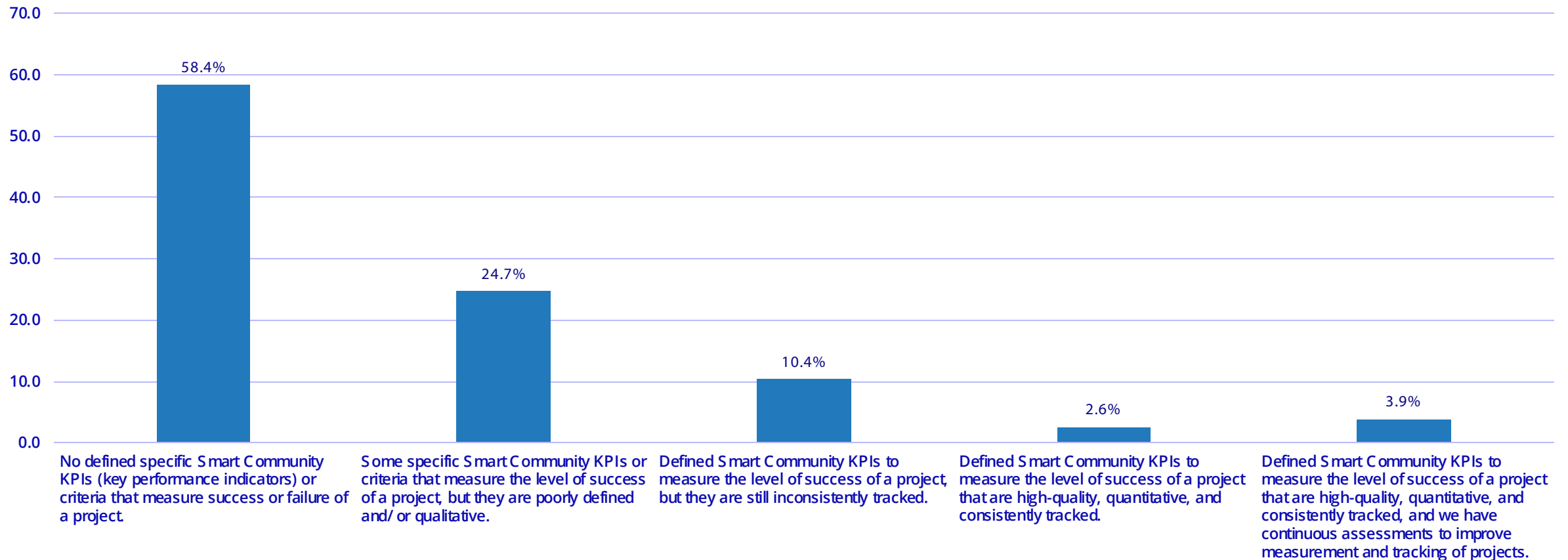
Dimension: Process

Q13. Which statement best describes your organization's smart community policy and governance?



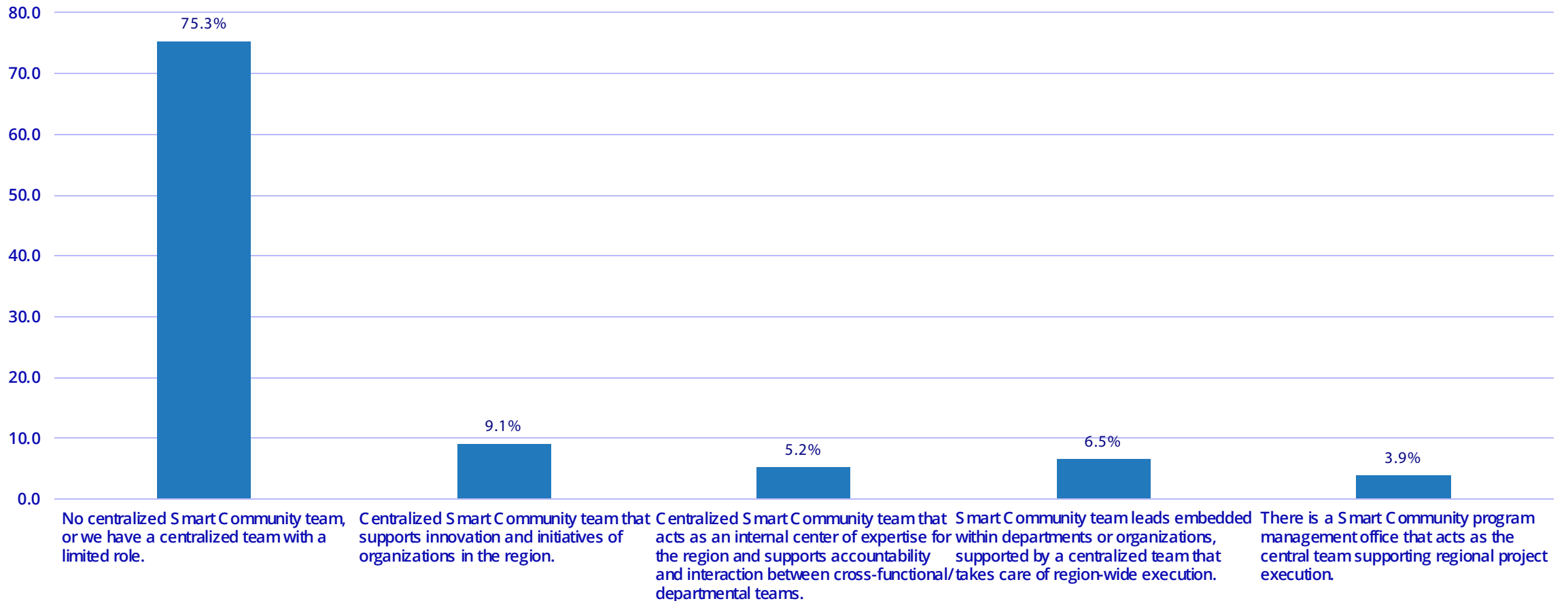
Dimension: Process

Q14. Which statement best describes your organization's methods of MEASURING THE PERFORMANCE of an initiative or project?



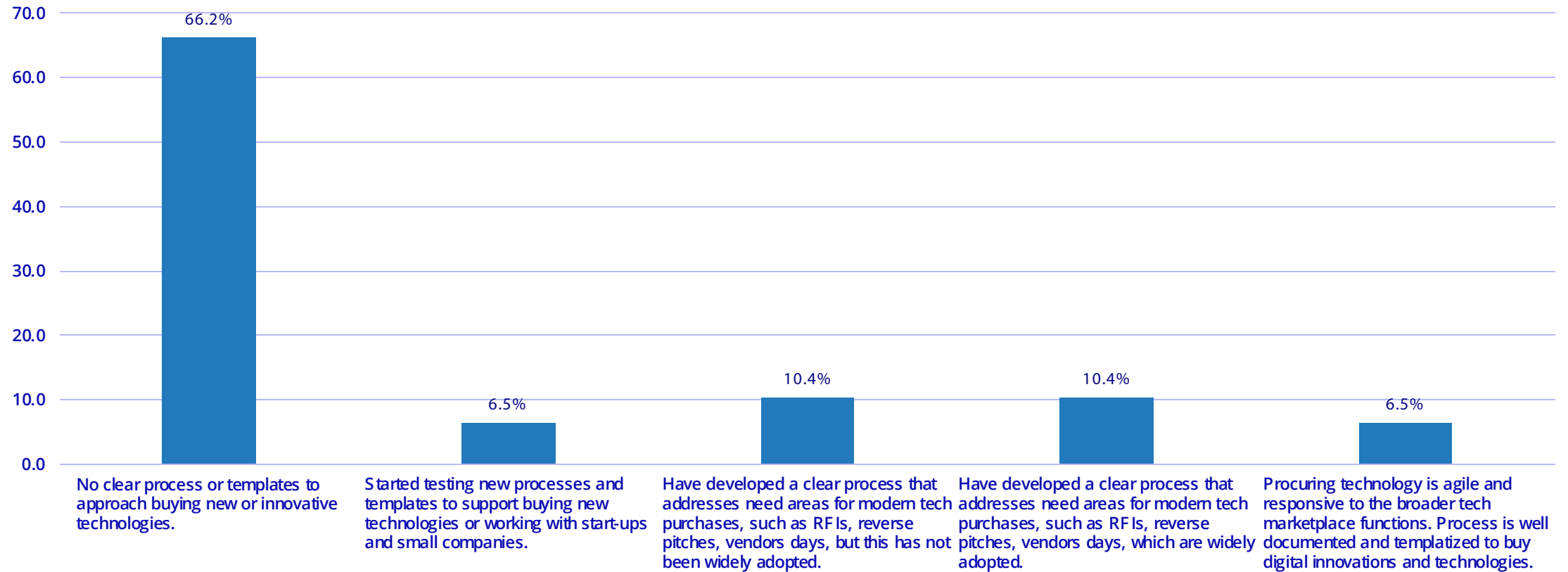
Dimension: Process

Q15. Which statement best describes your organization's ORGANIZATIONAL STRUCTURE?



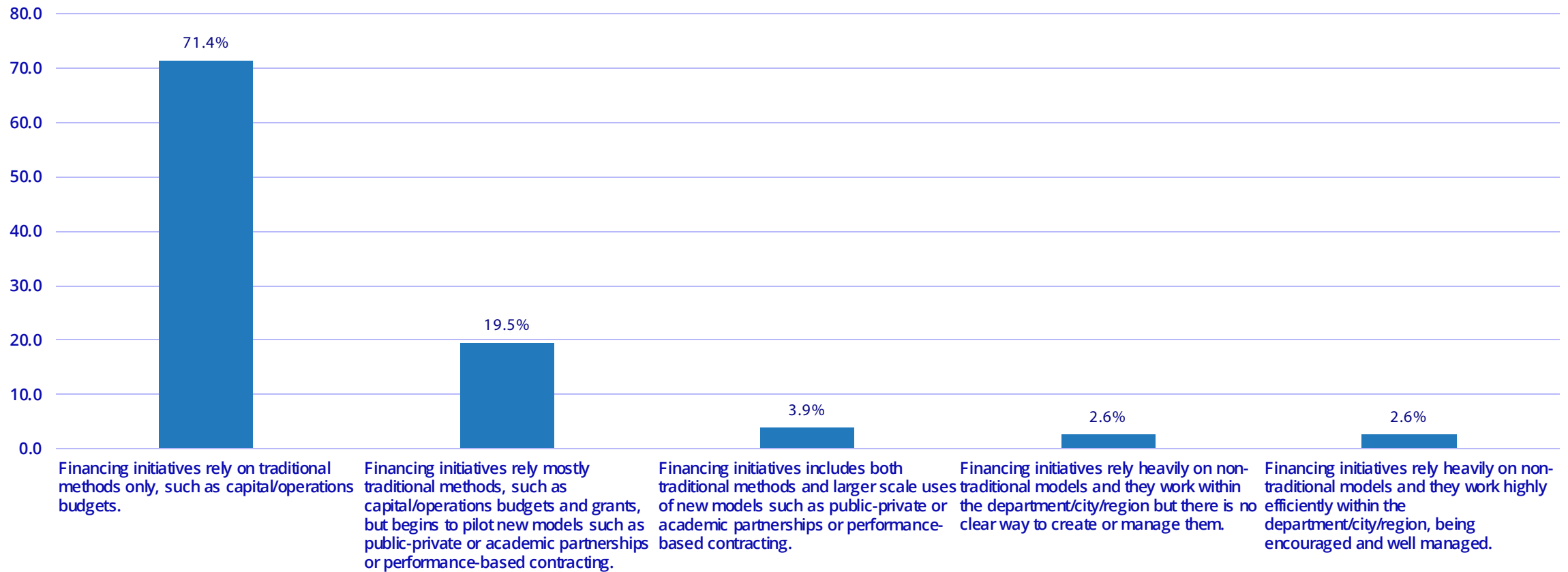
Dimension: Process

Q16. What statement best describes how your organization is PROCURING Smart Community technologies?



Dimension: Process

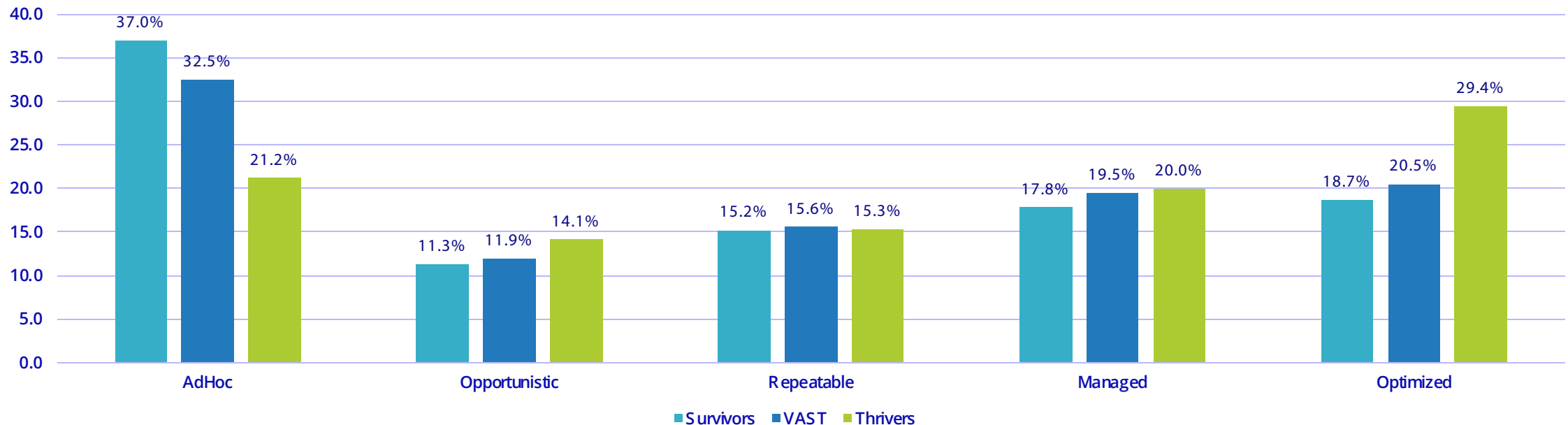
Q17. What statement best describes how your organization finances Smart Community technologies?



Dimension: Technology

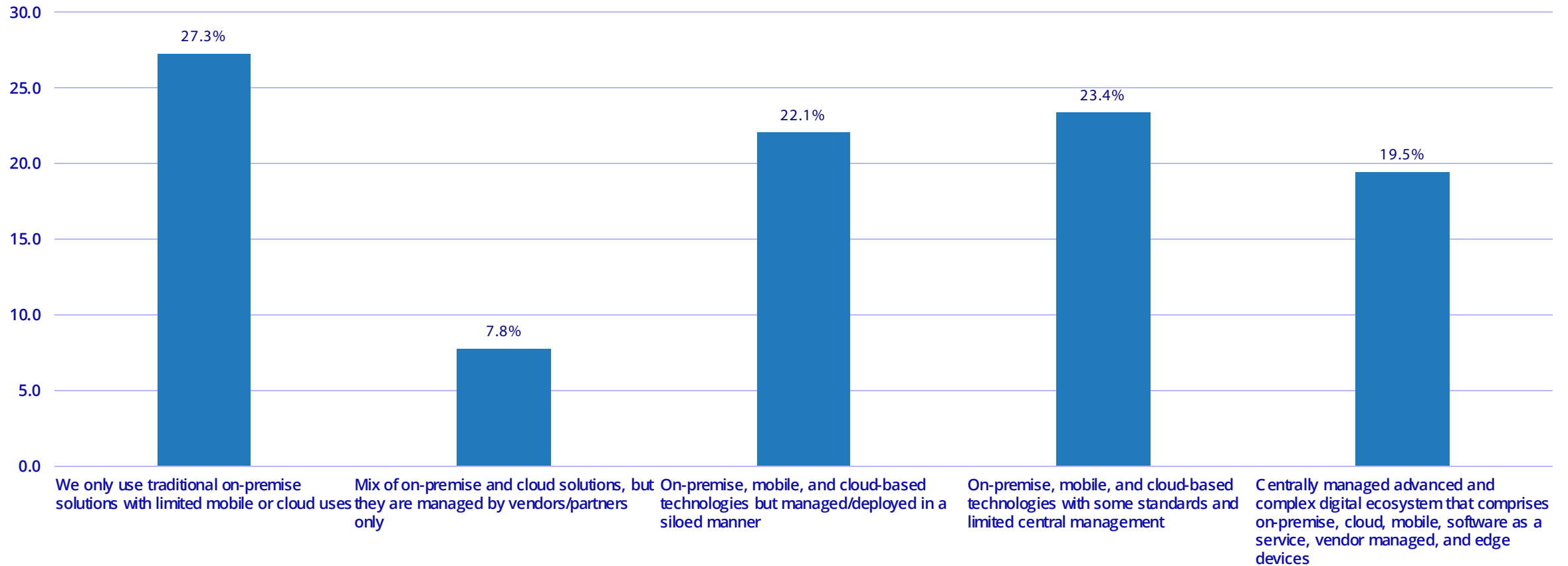
The TECHNOLOGY dimension includes platforms, IoT deployment, network connectivity, cybersecurity, and the use of disruptive technologies. As shown, the region again is only slightly behind the *thrivers* and even exceeds them in certain areas, with high marks for cybersecurity. Improvement can come by moving more applications to the cloud, deploying IoT/Sensors, and finding innovative disruptive technology projects to pilot.

Technology



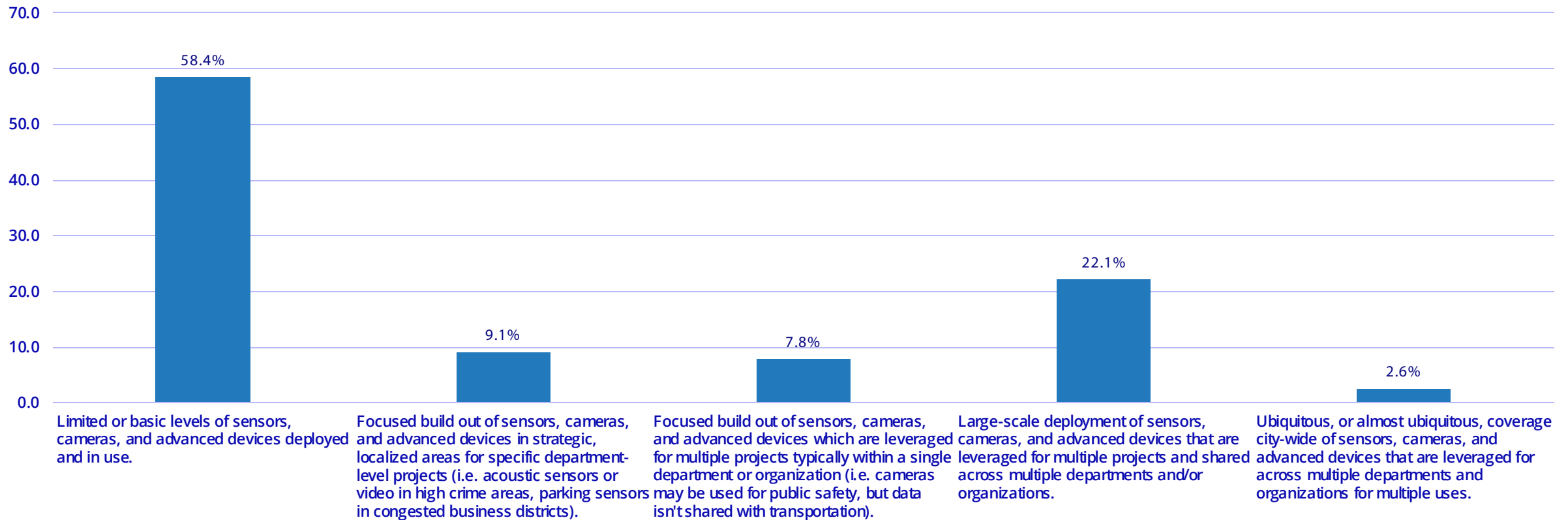
Dimension: Technology

Q18. Which statement best describes your organization's technology PLATFORMS?



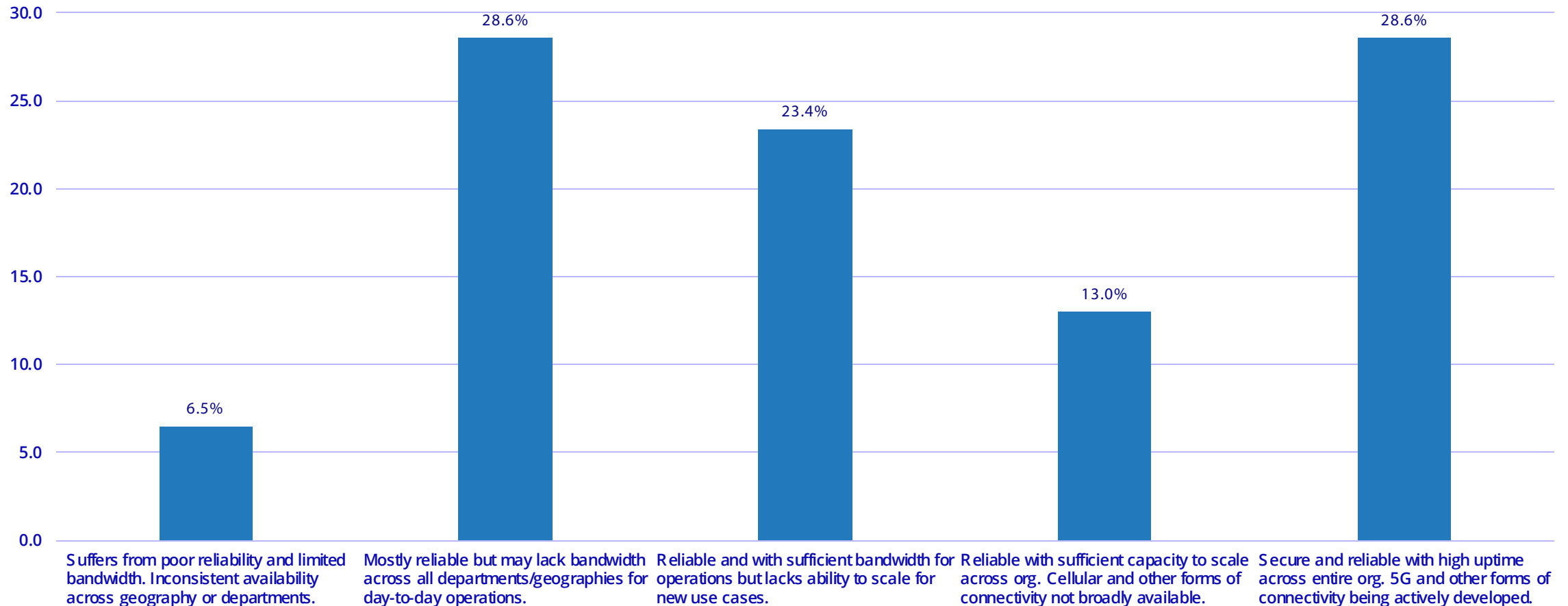
Dimension: Technology

Q19. Which statement best describes your organization's use and adoption of sensors/cameras deployed in the field and the INTERNET OF THINGS?



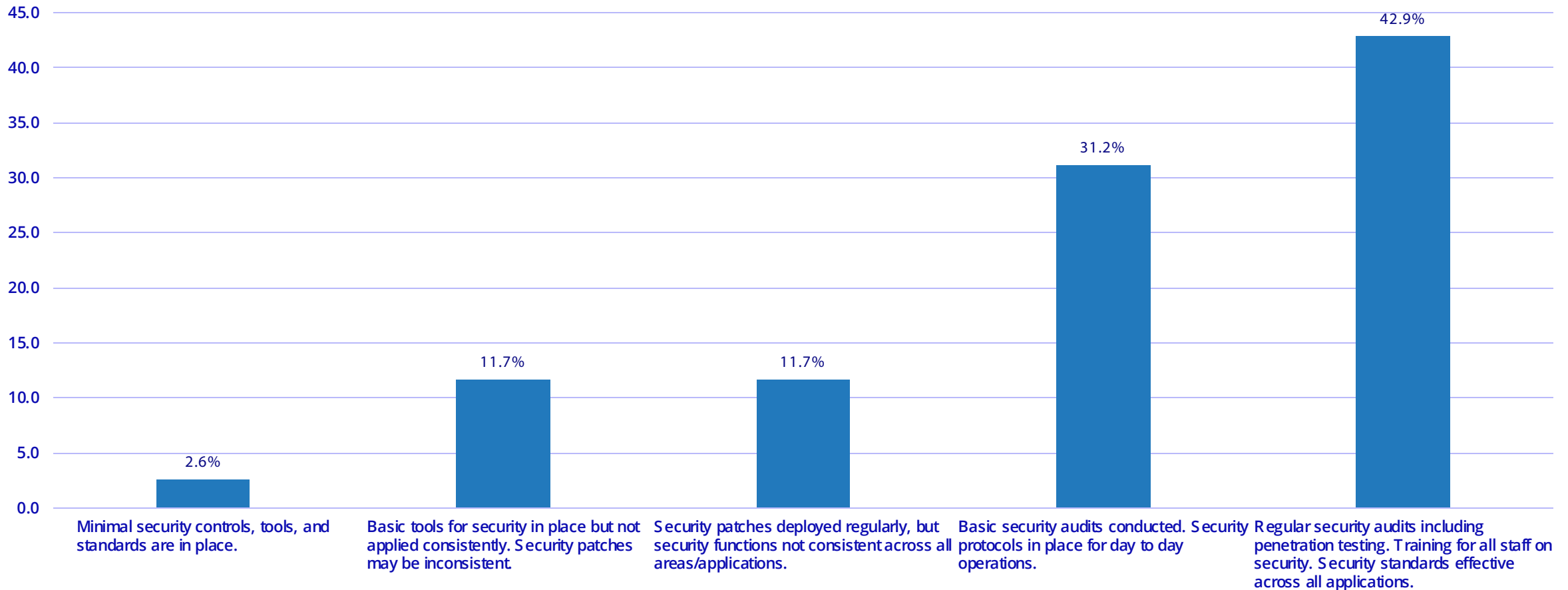
Dimension: Technology

Q20. Which statement best describes your organization's LEVEL OF NETWORK CONNECTIVITY?



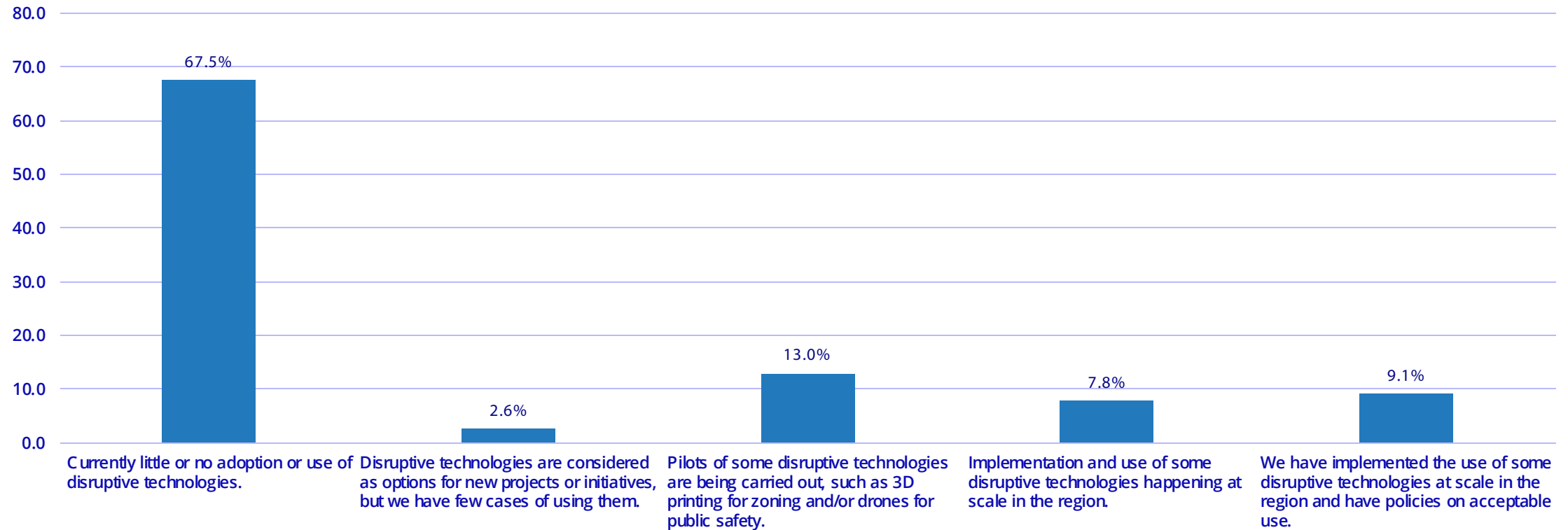
Dimension: Technology

Q21. Which statement best describes your organization's CYBERSECURITY?



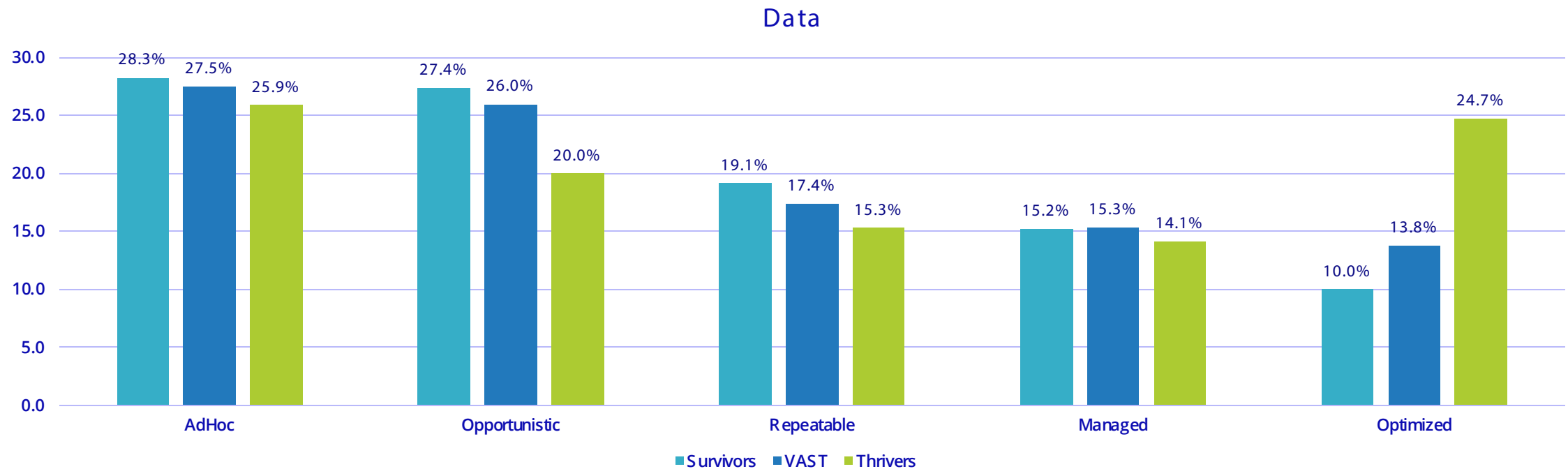
Dimension: Technology

Q22. Which statement best describes your organization's use and adoption of **DISTRUPTIVE TECHNOLOGIES**?



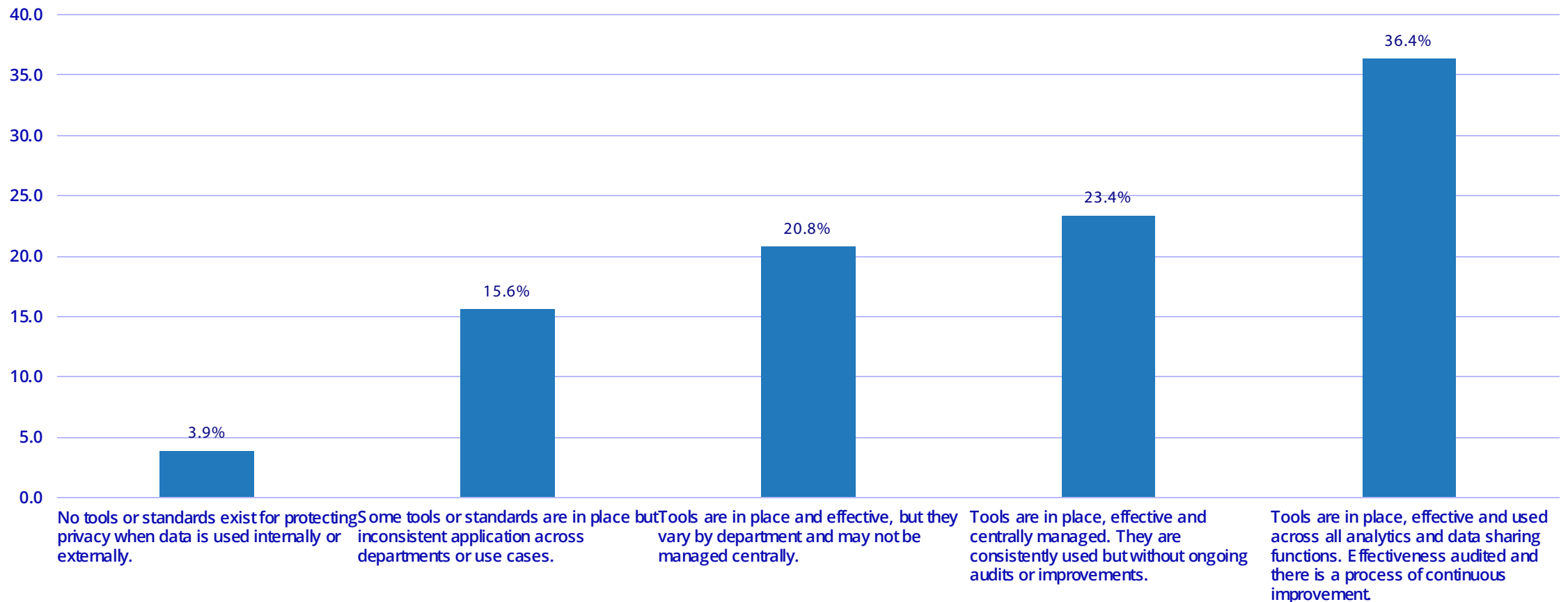
Dimension: Data

The DATA dimension includes privacy, use and analysis, discovery and quality, sharing, and advanced uses. VAST agencies are aligned with their peers for the most part, with opportunities for improvement being creating standard and universal data catalogs and documentation, sharing analysis tools/techniques and data across silos in a repeatable fashion, and innovating with advanced uses of data such as machine learning.



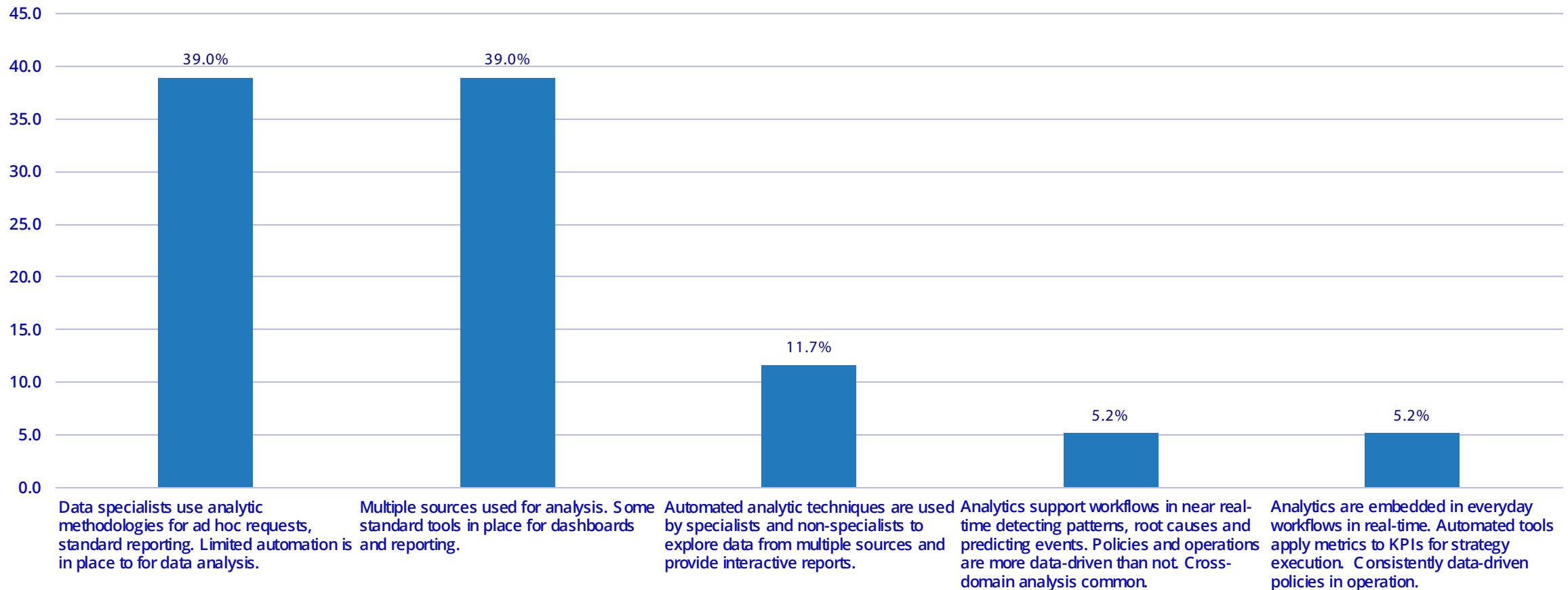
Dimension: Data

Q23. Which statement best describes your organization's approach to DATA PRIVACY?



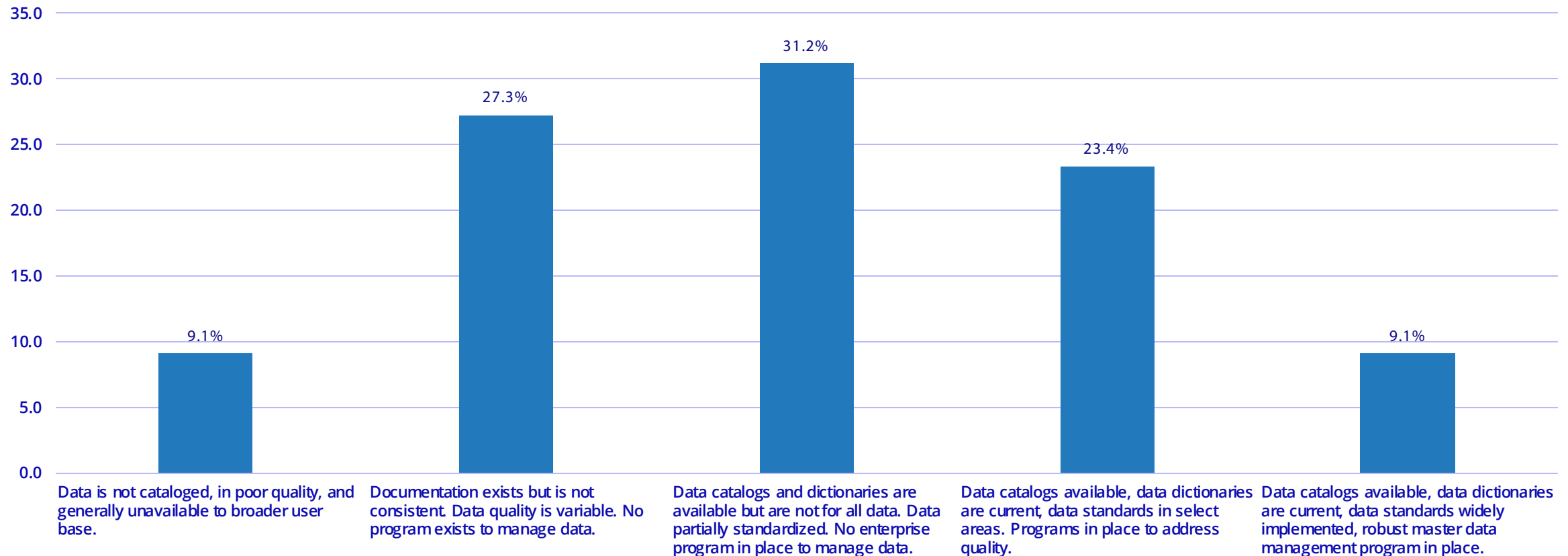
Dimension: Data

Q24. At what stage is your organization in terms of deploying and using analytics or business intelligence software for DATA USE AND ANALYSIS?



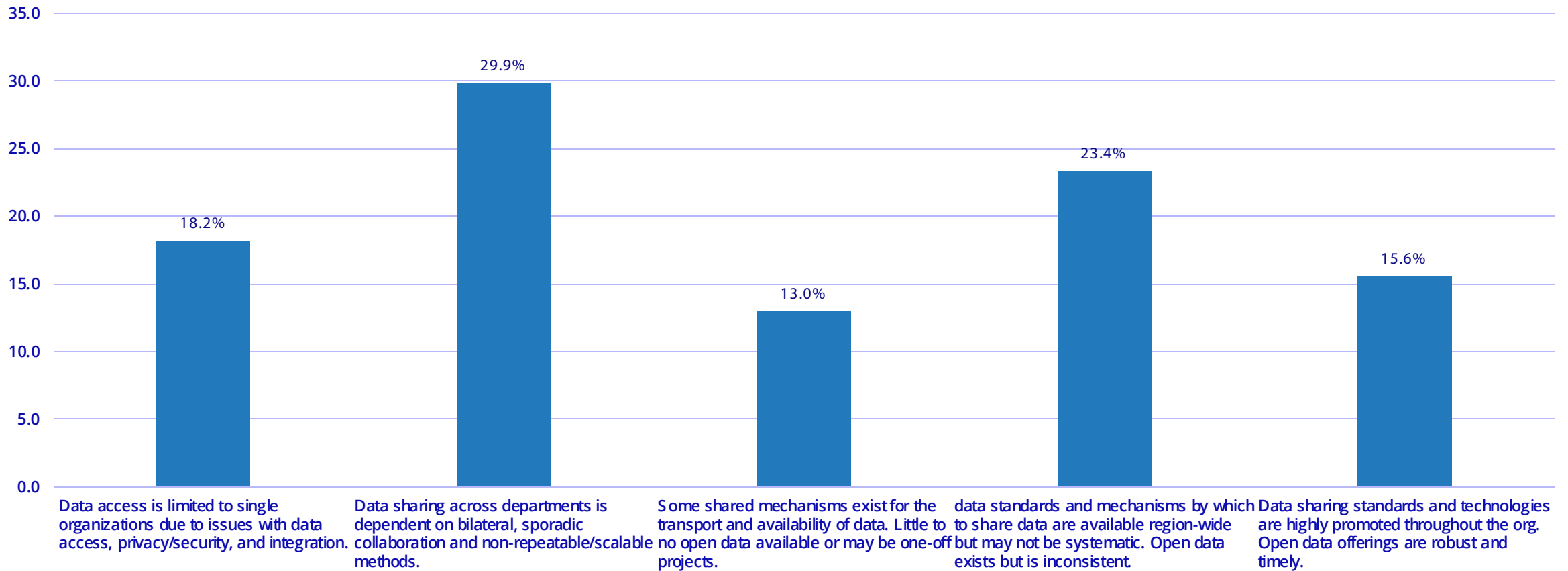
Dimension: Data

Q25. To what extent do you agree with the following as related to DATA DISCOVERY AND QUALITY to support decision making?



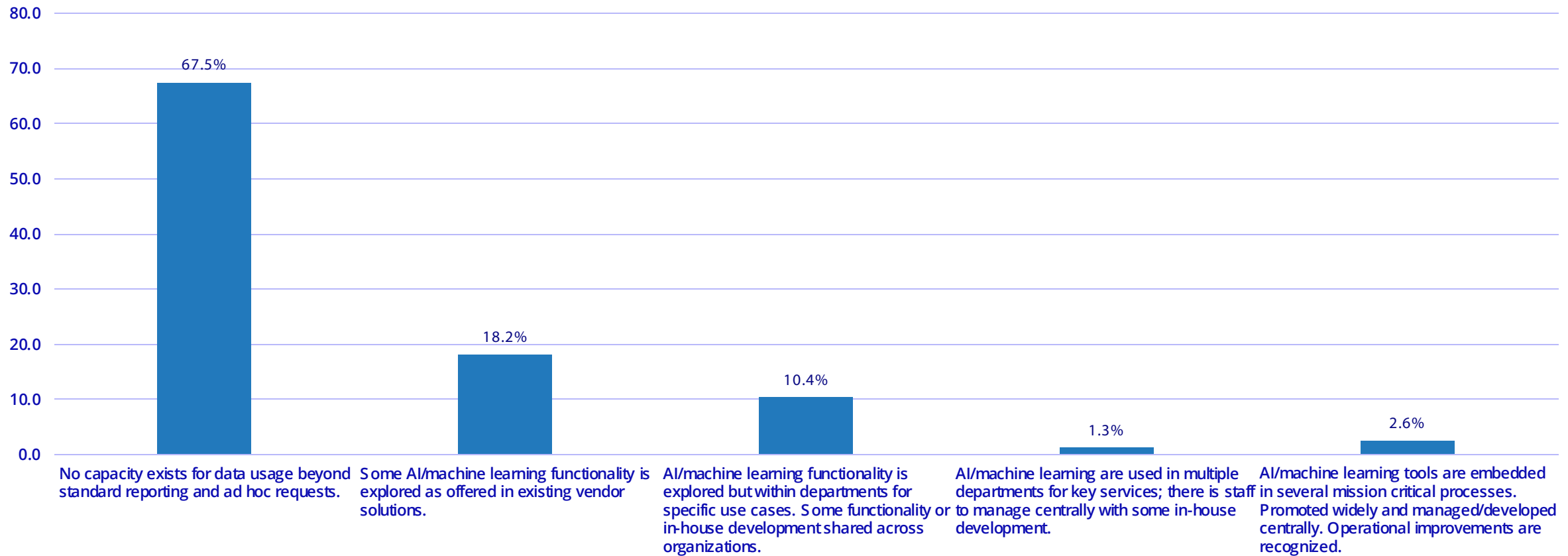
Dimension: Data

Q26. Which statement best describes your organization's approach to DATA SHARING between departments or organizations?



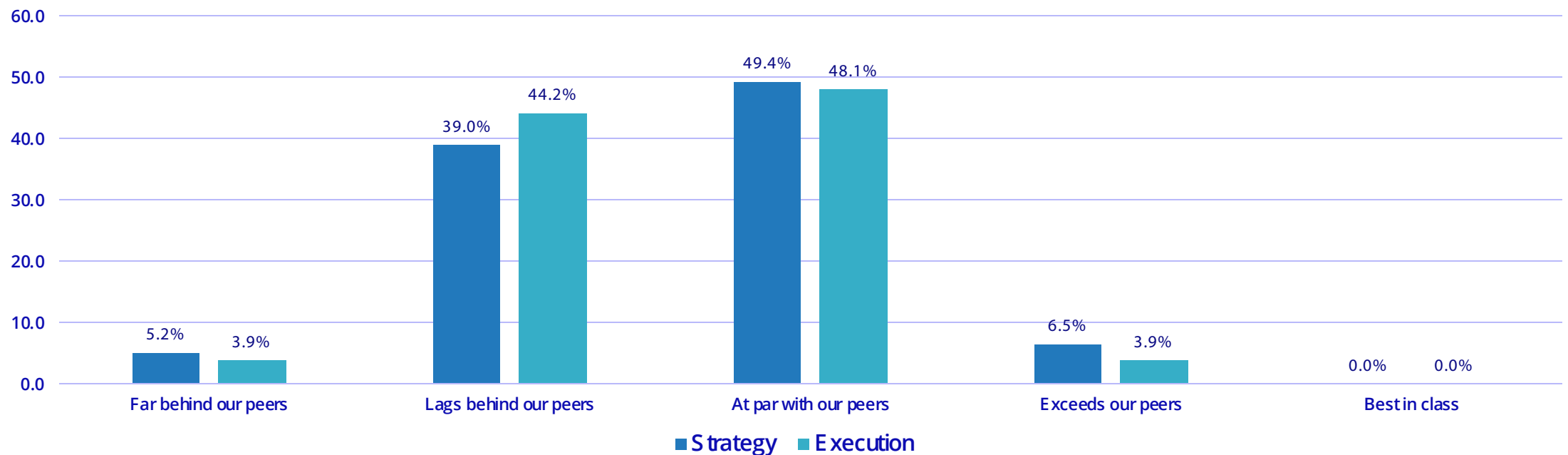
Dimension: Data

Q27. Which statement best describes your organization's approach to ADVANCED USES OF DATA?



VAST Overall Self-Assessments

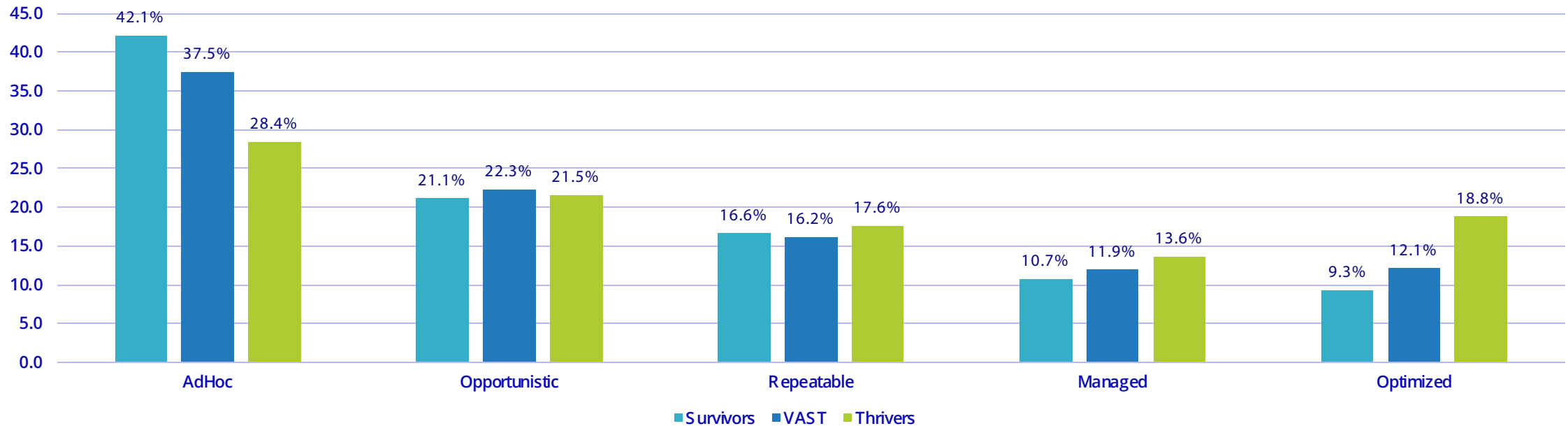
Overall, survey respondents overwhelmingly rank the region as 'at par' or 'lags behind' their peers when it comes to smart community strategy and execution. This is accurate with the 5 dimensions scores when compared to peers and shows that the survey takers have a good sense of where they are, including strengths and weaknesses.



VAST Overall Maturity Score

Overall VAST agencies ranks in the middle of their peers in maturity, ahead of regions that are lagging or just surviving but not quite at the level of thriving programs. This confirms respondents' views on where the area is, as well as gives clear direction on opportunities to grow and expand the initiatives VAST spearheads. Moving from the ad hoc to more formal/managed approaches and processes by breaking down silos and creating standards to do so will pay dividends.

Overall



VAST Overall Maturity Score

Strengths

- Inclusive and supportive workplace culture and vision
- Well managed Cybersecurity program
- Strong Data privacy principles
- Network / Connectivity
- Good overall support levels for innovation

Weaknesses

- Lack of formal policies
- Siloed innovation / budgeting / planning
- No standard KPIs to measure success
- Minimally proactive data/info sharing
- Communication / Education about VAST and Smart Communities

Conclusion & Recommendations



Conclusion & Recommendations

The Vancouver/Clark County region is one with a lot of strengths and a growing culture of innovation that shines through not only in the responses to the survey but also from the leadership of the various member organizations.

Next step in increasing their smart communities maturity will be to formalize and standardize processes, technologies, and metrics of success in order to break down silos and foster a more cohesive and consistent approach to smart communities and transportation.

Conclusion & Recommendations

IDC offers these recommendations on how the region can move their transportation and smart community initiatives forward with specific actions (next slide) designed to address each one of the 5 dimensions analyzed :

- Break down silos within and between jurisdictions
- Standardize how projects are planned, documented, and measured
- Help members find resources to meet the demands of innovation
- Increase communication/education opportunities at all levels
- Create channels for sharing of tools, data, information

Actions

Dimension	Action	Description
Vision	Launch Emerging Smart Leaders Program	Smart community initiatives are siloed and in departments, encourage member organizations to elevate these efforts and innovation to a higher centralized role/team within their jurisdictions to coordinate and align resources. Creating an initiative that can help define, fill, and train people for such a role will be an important step.
Culture	Build Innovation Network	Build a group around the VAST partnership model that can centralize innovation across members and create a model that members can use in their own jurisdictions. This will begin to break down the silos of innovation and elevate the good work being done at department levels to a higher and more coordinated place. By using a federated model it still keeps control local.
Process	Templatize Procurement / Budgeting / Tech Assessment / Performance Management tools and forms	It is difficult to do performance measurement without an easy ability to compare like processes. While many processes are similar due to legal compliance reasons the way they are executed often is not. Build a library of documents to be used by members to streamline the process for budgeting, buying, assessing, governing, sharing and measuring the success of data, transportation, and innovation projects across the region. It will help jump start the process, speed up time to implementation, and make results comparable.
Technology	Foster Disruptive Pilot Programs	Encourage the adoption of disruptive technologies including IoT by convening vendors, building partnerships, and working with academic and civic tech groups to aggressively pilot innovative new approaches in the area. By serving as a gateway to innovative projects and groups for the region, VAST can help these projects get off the ground with ability to equally serve the different membership.
Data	Launch Regional Data Program	Increase proactive sharing, both amongst agencies, departments, and with the public by creating a formal program, including both open and protected data, to both catalog/document information assets as well as maintain and share data to stakeholders, partners, and the community
Other	Develop and Implement VAST Engagement Plan	With so many respondents not knowing about what the VAST partnership is and can help with, there is a need to plan better communications to keep people informed and engaged with what is happening as well as what is possible.
Other	Create Smart Communities Education Plan	Implement a strategy to level-set a broad cross section of stakeholders around smart community strategies and technologies, i.e. "Scale up" the IDC onsite sessions.
Other	VAST @ Scale	The #1 reported concern for policy makers to consider was 'staff & resource limitations', consider how VAST can convene partnerships and opportunities to share talent and resources better across the area to help stakeholders achieve goals