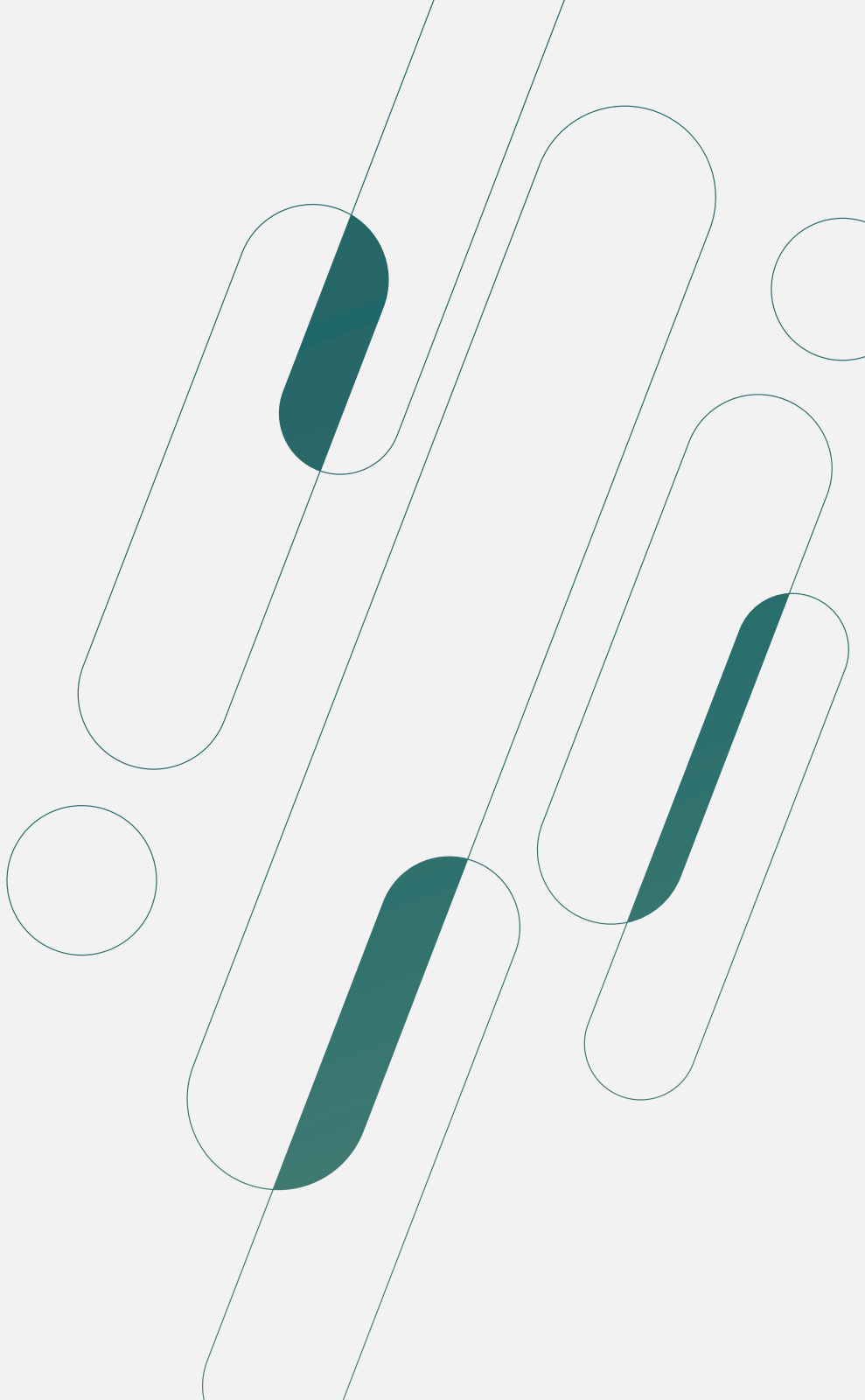
AHEAD

From Data to Insights with Smart Analytics

Today, organizations have access to a seemingly unlimited amount of data. And with that data—be it structured, unstructured, or semi-structured—comes a host of different technologies designed to help manage it. The problem, however, is that many organizations simply do not have the tools, skills, or operational processes in place to effectively harness that data and drive valuable insights. Below, we'll explore the current makeup of data communities, some of the core capabilities for moving from data to insight, and a brief look at what we might expect to see in the data space over the next 18 months.

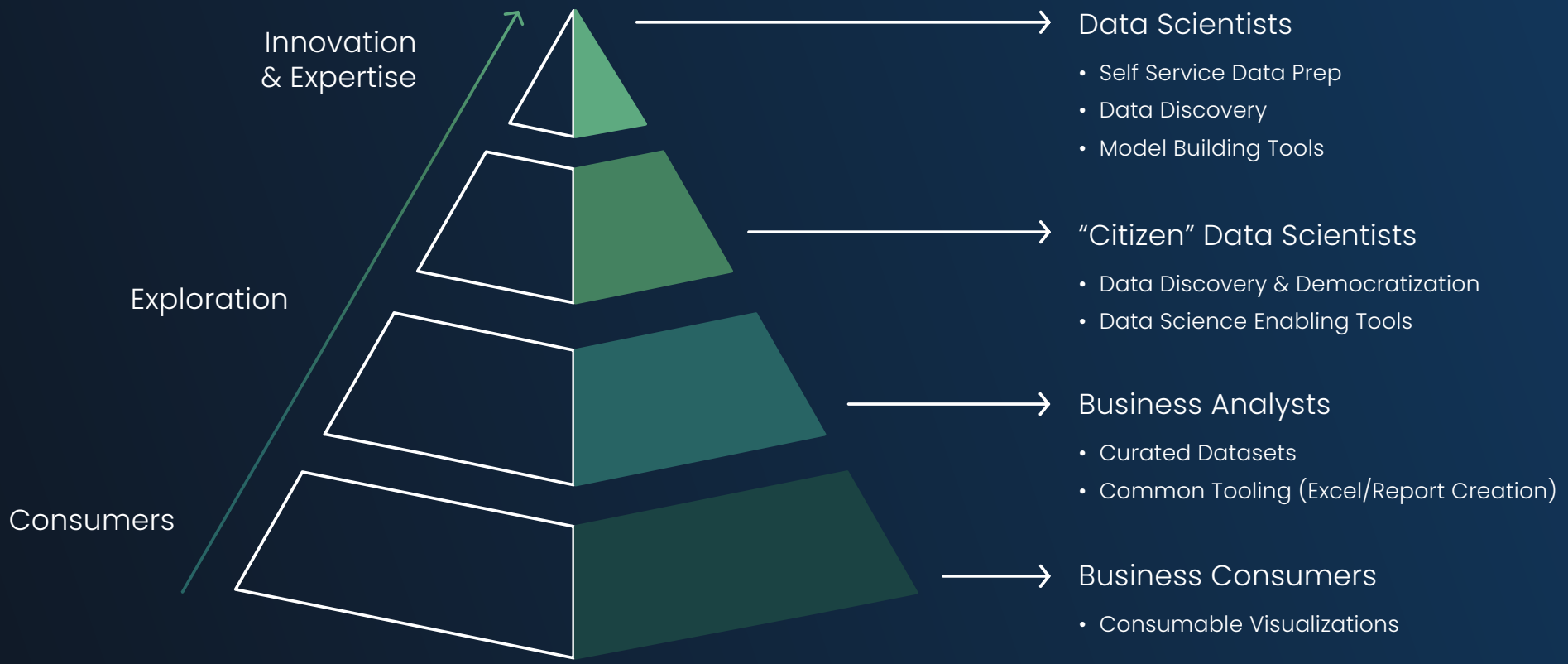


Enterprise Data User Communities

Over the last five years or so, we've seen the emergence of new user communities around data. In addition to the more traditional data roles like business analysts and business consumers, data scientists have become an integral part of the data-to-insight pipeline. The difference between these traditional roles and data scientists, however, is in the way that they interact with data.

On one hand, data scientists' roles are very exploratory and discovery-oriented in nature. They require access to as much of the organization's data as possible, using tools to help determine what is useful and what can be discarded. In the case of business analysts and consumers, what is required are curated datasets (provided by IT) that can be easily transformed into consumable spreadsheets, dashboards, etc. In other words, the data scientists and 'citizen' data scientists rely on the 'raw' data within the organization whereas analysts and consumers require what has already been isolated and deemed relevant.

While analysts and consumers of data within the organization may have been able to get by without the existence of data scientists in years past, the sheer amount of data held by enterprises today drastically changes this picture.



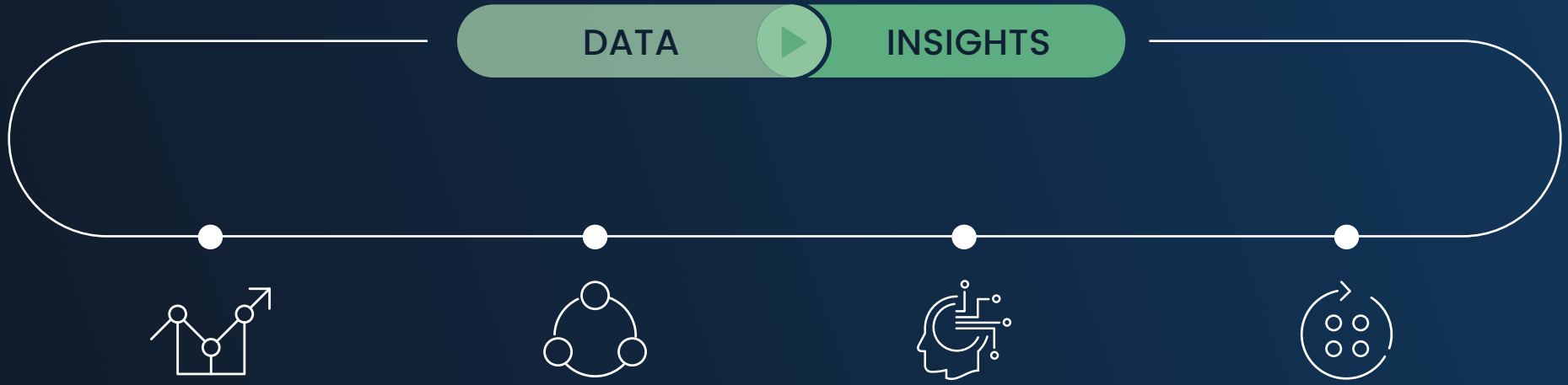
Supporting the Data Science Process to Drive Insights

For an organization to truly bring value through its data, it is vital that they work to remove bottlenecks that stifle their analytical capabilities. However, this is often easier said than done, as the organization must still ensure that the quality and integrity of the data is maintained. The challenge that organizations then face is finding ways to speed up and streamline these processes without ultimately losing control. So, how do we accomplish this?

The first step—which may be counterintuitive to some—is **to ensure that the organization has a strong governance and data quality practice.** By first understanding the data that we have, we can better evaluate what goes into our data production environment. Thankfully, there have been great advances in the tools and technologies that enable us to quickly impose data governance and quality controls. These tools allow us to automatically infer the content and structure of information as it comes in, which provides the organization with a more effective way to manage the data.

Next, we need to **enable data scientists to find the data they want, when they want it.** Once again, there has been an influx of technologies that can make this process simpler by clearly describing the data to users, making it easily available to them, and providing the necessary tools to evaluate its quality and usefulness. This democratization of data is particularly important for organizations who wish to fill their data teams without hiring strictly those with a PhD in data science. By leveraging tools that provide us with data science-like outcomes, we can empower more people within the organization to uncover advanced insights through data.

Finally, organizations must **ensure that they have a finely tuned data science development lifecycle.** Too often, businesses dive into the data science space without defining the ways in which they will evaluate the efficacy of their development processes around data. While the practice of data science is exploratory, we must still provide the appropriate guardrails and measure the progress being made. This will not only provide insight into whether something is production-ready, but also into whether our models have degraded over time.



Governance & Data Quality

Governance and quality are necessary to enable advanced analytics

Data Democratization

Making high-quality data available to non-technologists & technologists alike

Data Science Democratization

Harness organizational knowledge to uncover advanced new insights

Data Science Development Lifecycle

Managing data science process ≠ managing software development

What Comes Next: 18-Month Data Outlook

As we look toward the future, there are five areas within the data space that organizations can expect to encounter if their goal is to leverage better and more frequent insights:

01 GOVERNANCE

A significant number of organizations will begin their data governance journey

02 DATA SWAMPS

Organizations will focus on controlling data sprawl and addressing the data swamp

03 CLOUD MIGRATION

The cloud advantages of elasticity and operational benefits will continue to attract data science organizations

04 DATA SCIENCE

An increasing number of organizations will attempt to significantly improve their data science maturity and capabilities

05 PERVASIVE ANALYTICS

Organizations will start realizing the benefits from enabling the "citizen data scientist"

2022 AHEAD SPRING summit

For a more in-depth look at how to turn data into valuable insights using advanced analytics, check out the on-demand sessions from the 2022 AHEAD Spring Summit or get in touch with our data experts today.

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