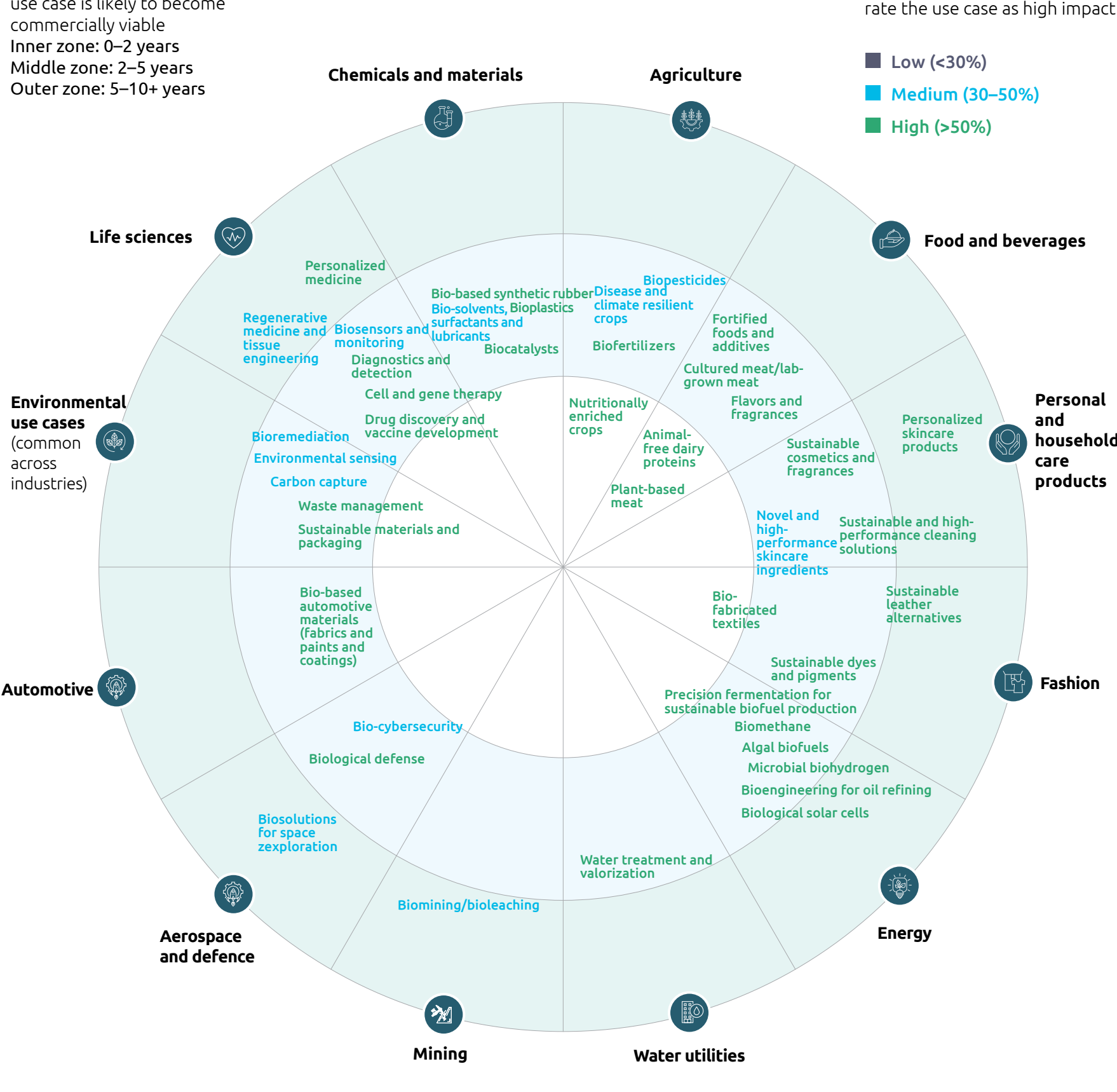


Unlocking the potential of engineering biology: The time is now

Engineering biology¹ has applications in virtually every industry

Impact and commercialization timelines for engineering biology use cases – by industry



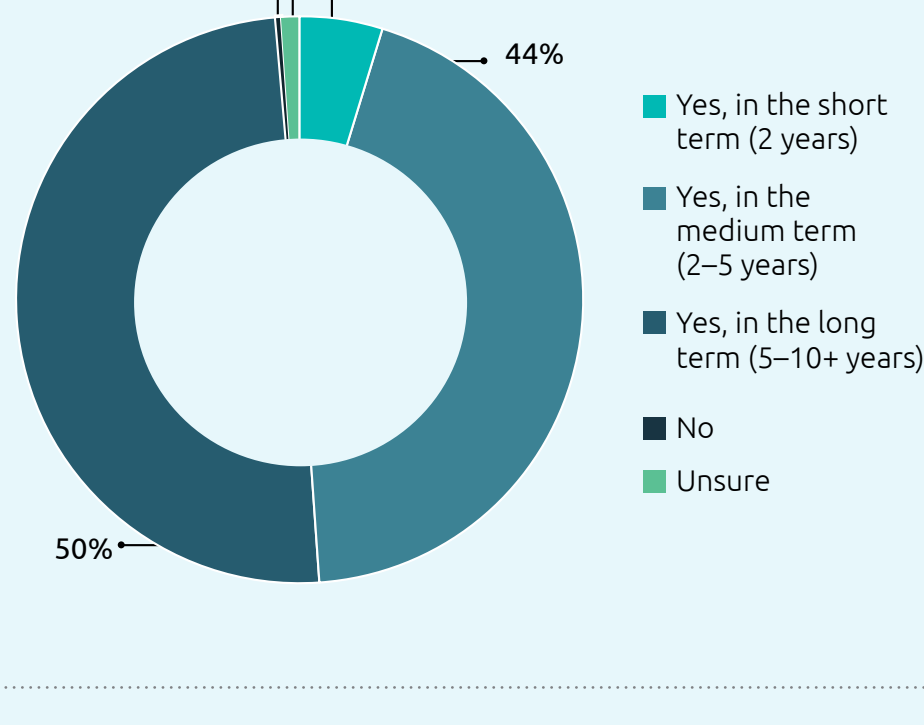
*Commercialization timelines are based on the assessment of surveyed executives and Cargemini experts.
 Source: Cargemini Research Institute analysis; Cargemini Research Institute, Engineering biology survey, April–May 2024, N=1,100 corporate organizations.

Engineering biology (also known as synthetic biology) involves the application of principles from biology and engineering, in conjunction with AI and data-driven computational techniques, to create new or redesigned biological systems for valuable purposes. Products, materials, or processes driven by engineering biology are referred to as **biosolutions** in this report.

Organizations view engineering biology as transformative

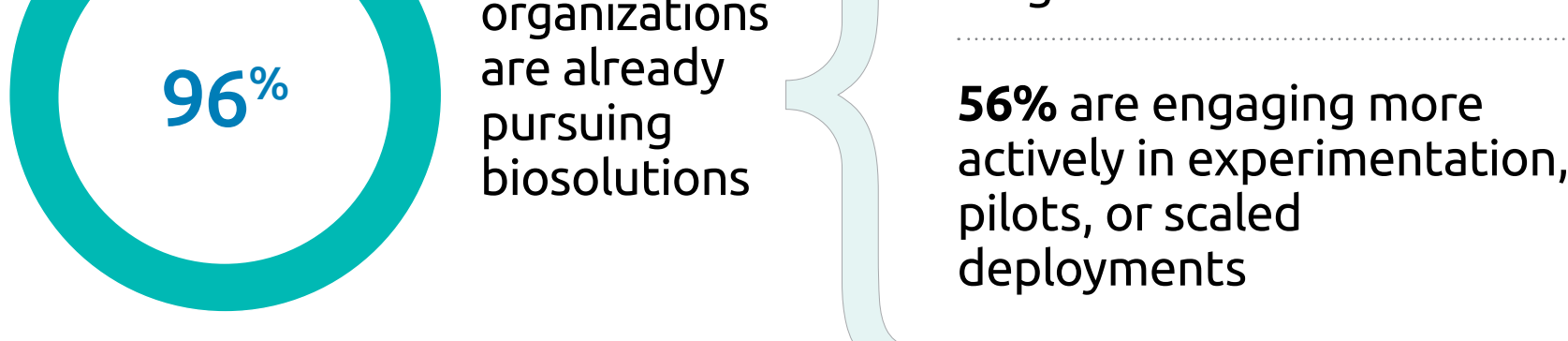
Almost every corporate executive agreed that biosolutions will significantly disrupt their industry – around half of respondents expect to see this disruption within **5 years**, and the rest in **5–10 years** or more.

In your opinion, will biosolutions create a major disruption in your industry?



Source: Cargemini Research Institute, Engineering biology survey, April–May 2024, N=1,100 corporate organizations.

Organizations are preparing for disruption



Source: Cargemini Research Institute, Engineering biology survey, April–May 2024, N=1,100 corporate organizations.

Biosolutions offer significant sustainability benefits, but only if correctly harnessed

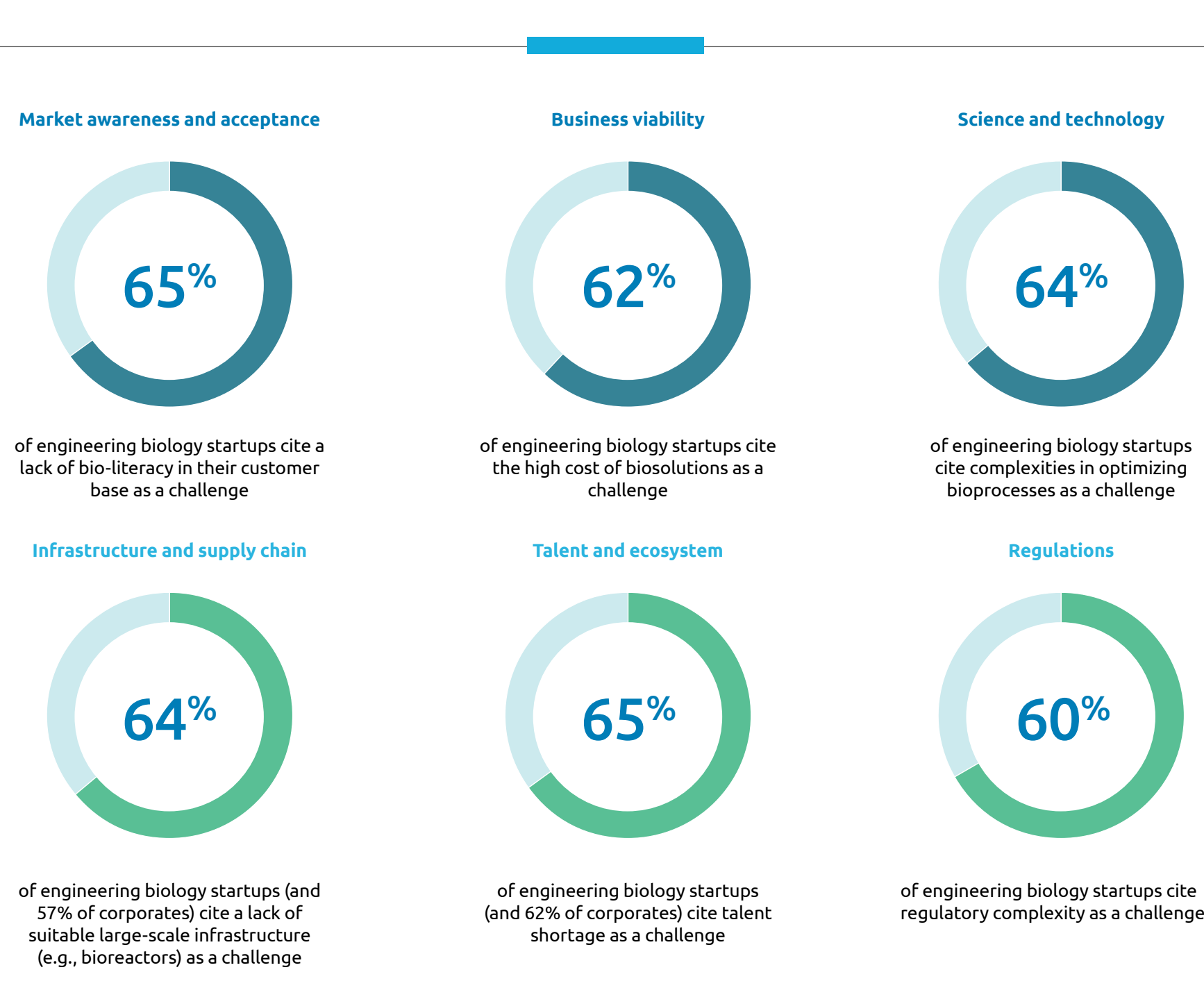
Sustainability is a major driver of corporate interest in biosolutions



However, unlocking their true potential for sustainability requires deliberate action, such as measuring the environmental and social impacts across the product lifecycle, and designing the lifecycle to avoid any unintended consequences.

Source: Cargemini Research Institute, Engineering biology survey, April–May 2024, N=1,100 corporate organizations.

Barriers to the accelerated adoption of biosolutions



Source: Cargemini Research Institute, Engineering biology survey, April–May 2024, N=1,100 corporate organizations and N=500 engineering biology startups.

Digital and engineering technologies will be instrumental in developing and deploying engineering biology

These are viewed as key drivers for reducing costs, optimizing bioprocesses, shortening time-to-market for biosolutions, and helping mitigate environmental and societal risks.



98% are using or planning to use AI to accelerate the adoption of biosolutions

Source: Cargemini Research Institute, Engineering biology survey, April–May 2024, N=1,100 corporate organizations.

[Download report](#)

[Subscribe to our research](#)