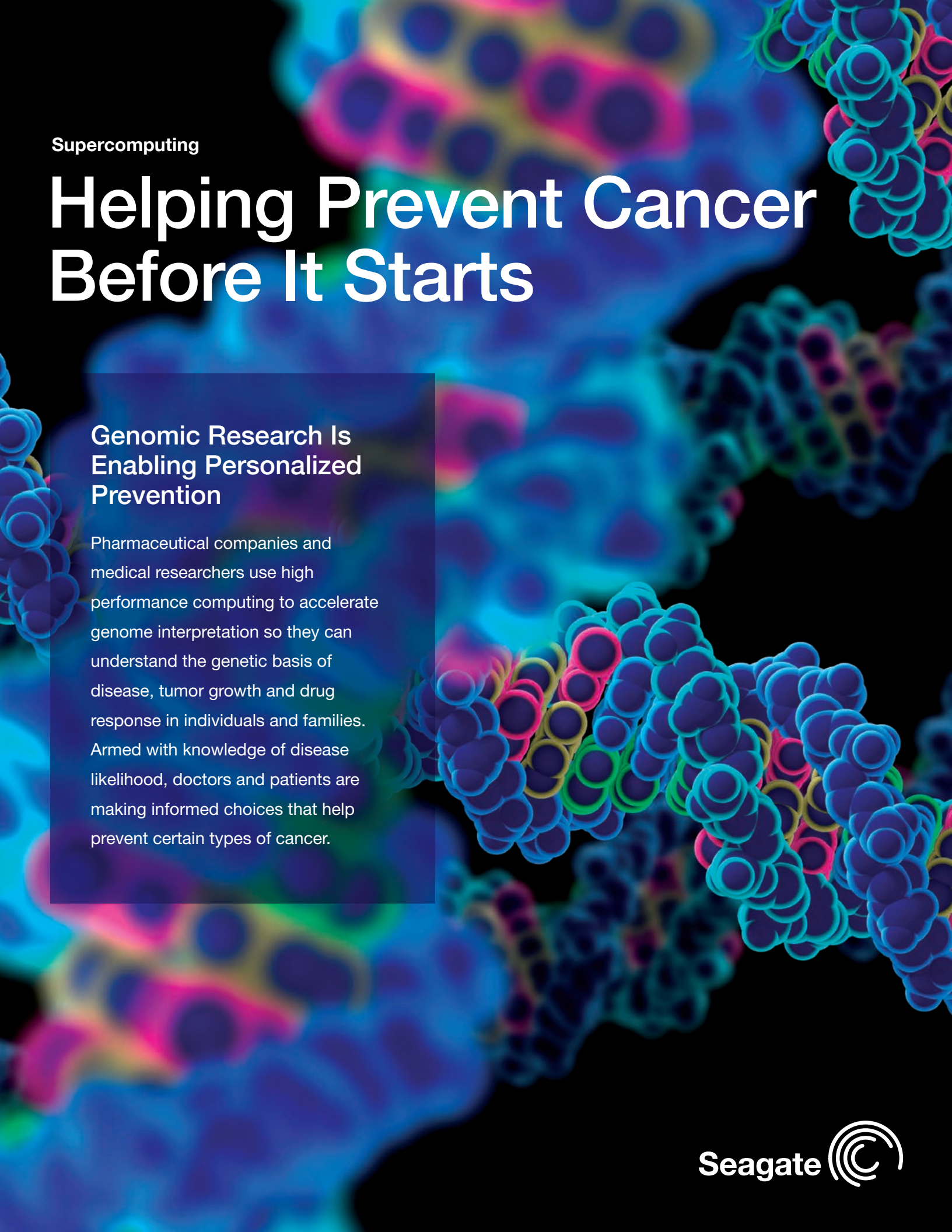


Supercomputing

Helping Prevent Cancer Before It Starts

Genomic Research Is Enabling Personalized Prevention

Pharmaceutical companies and medical researchers use high performance computing to accelerate genome interpretation so they can understand the genetic basis of disease, tumor growth and drug response in individuals and families. Armed with knowledge of disease likelihood, doctors and patients are making informed choices that help prevent certain types of cancer.

Seagate

Supercomputing

Illuminating The Darkest Secrets Of Deep Space

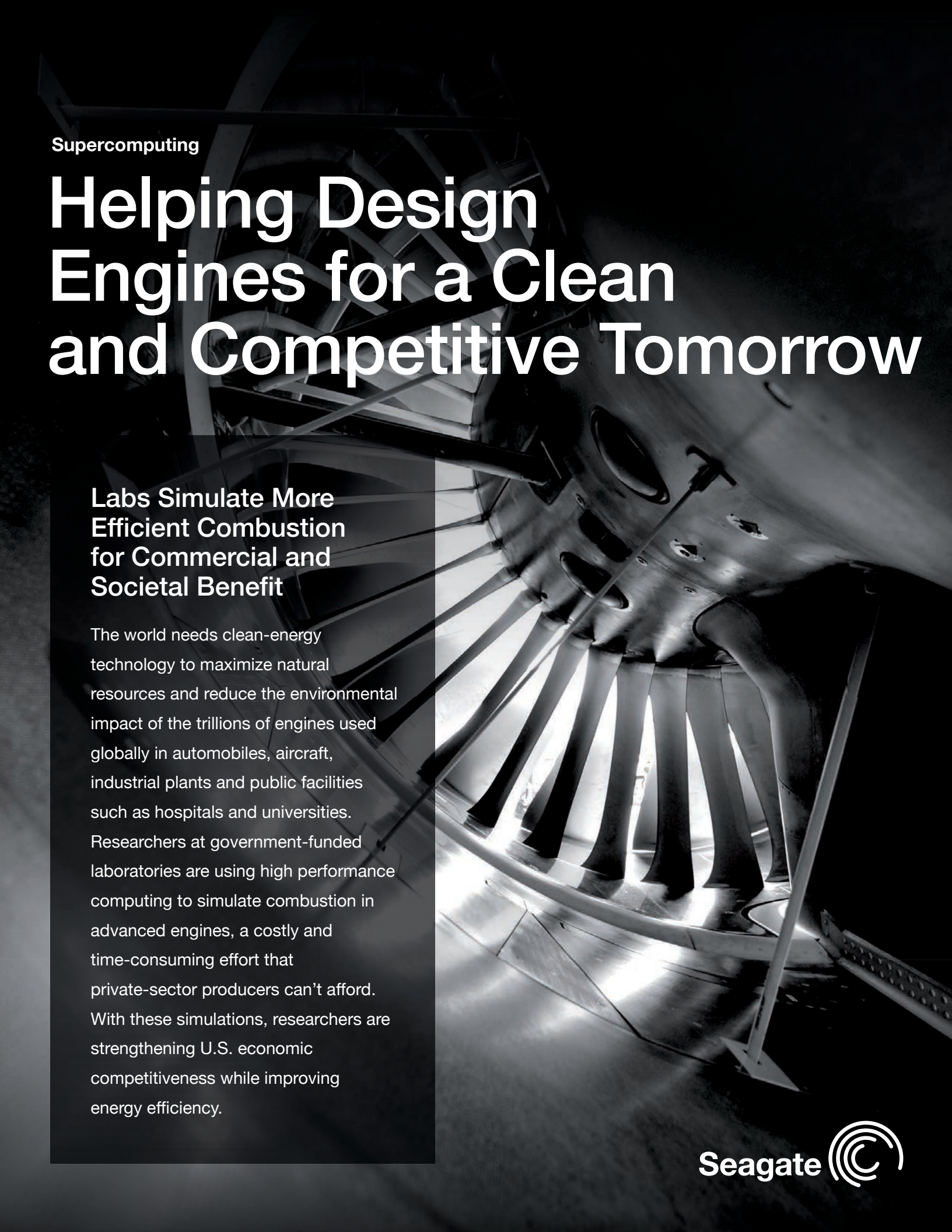
World’s Largest Radio Telescope Will Closely Examine Black Holes

Optical telescopes use light to observe space, but they can’t see through clouds and space dust. Radio telescopes, on the other hand, create images using radio waves emitted by our sun, the stars and distant galaxies, so obstructions don’t interfere with space debris. Using high performance computing to process data from the world's largest radio telescope, a global consortium of researchers is planning to closely examine the dynamics around black holes to gain insight into some of the most profound questions we have about the universe.

Seagate

Supercomputing

Helping Design Engines for a Clean and Competitive Tomorrow



Labs Simulate More Efficient Combustion for Commercial and Societal Benefit

The world needs clean-energy technology to maximize natural resources and reduce the environmental impact of the trillions of engines used globally in automobiles, aircraft, industrial plants and public facilities such as hospitals and universities. Researchers at government-funded laboratories are using high performance computing to simulate combustion in advanced engines, a costly and time-consuming effort that private-sector producers can't afford. With these simulations, researchers are strengthening U.S. economic competitiveness while improving energy efficiency.

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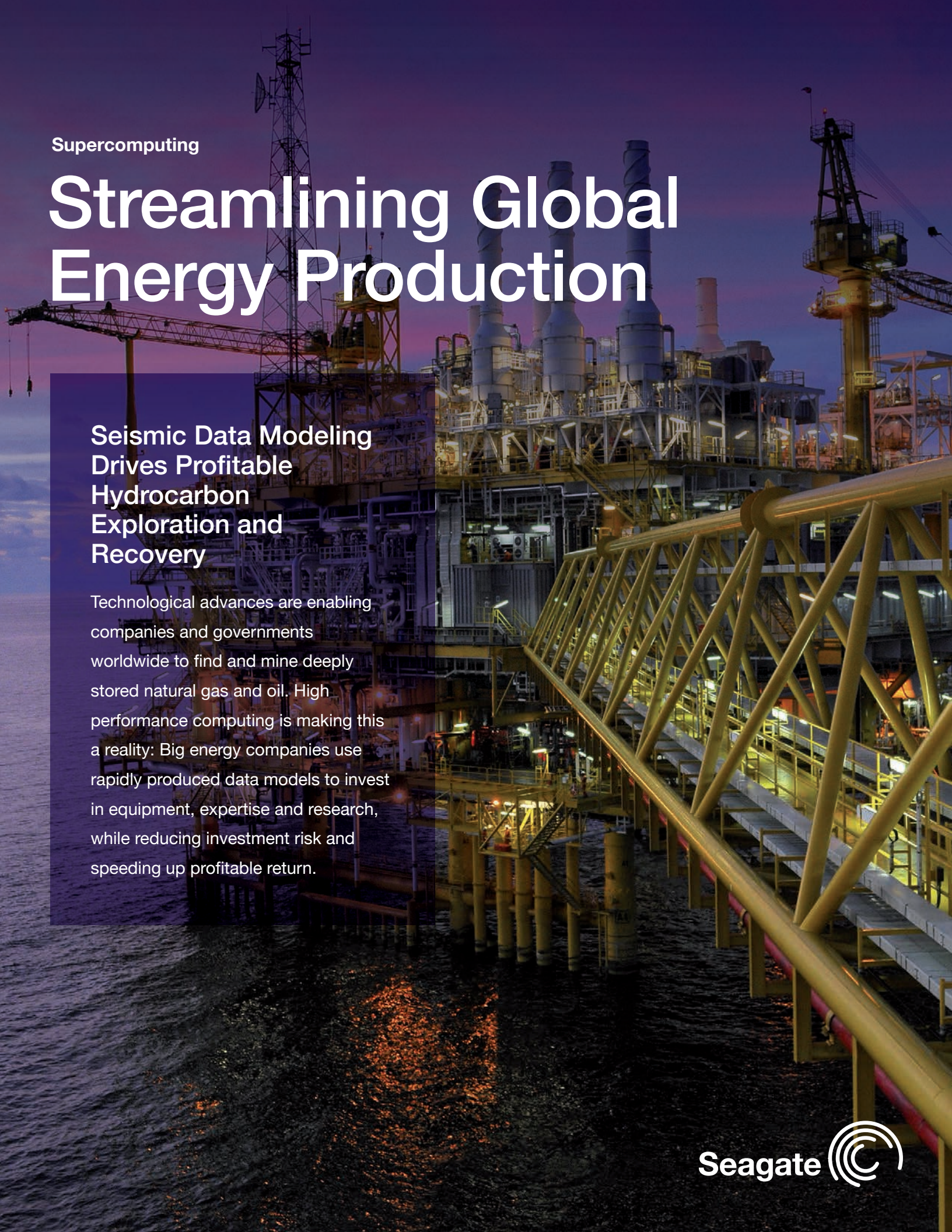


Supercomputing

Streamlining Global Energy Production

Seismic Data Modeling Drives Profitable Hydrocarbon Exploration and Recovery

Technological advances are enabling companies and governments worldwide to find and mine deeply stored natural gas and oil. High performance computing is making this a reality: Big energy companies use rapidly produced data models to invest in equipment, expertise and research, while reducing investment risk and speeding up profitable return.

Seagate

Supercomputing

Connecting The Periodic Table To Dying Stars

Scientists Study Supernovae Explosions To Understand The Origins Of Life

Exploding supernovae provide life-sustaining elements for humans, including oxygen and calcium. In fact, supernova explosions create and scatter the elements that compose the stars, planets and Earth—literally everything we interact with and see. High performance computing has helped astrophysicists model the complex action of a supernova core collapsing and releasing elements. Forming the basis of new understanding, this helps chemists and materials scientists develop new products and drug therapies to sustain life.

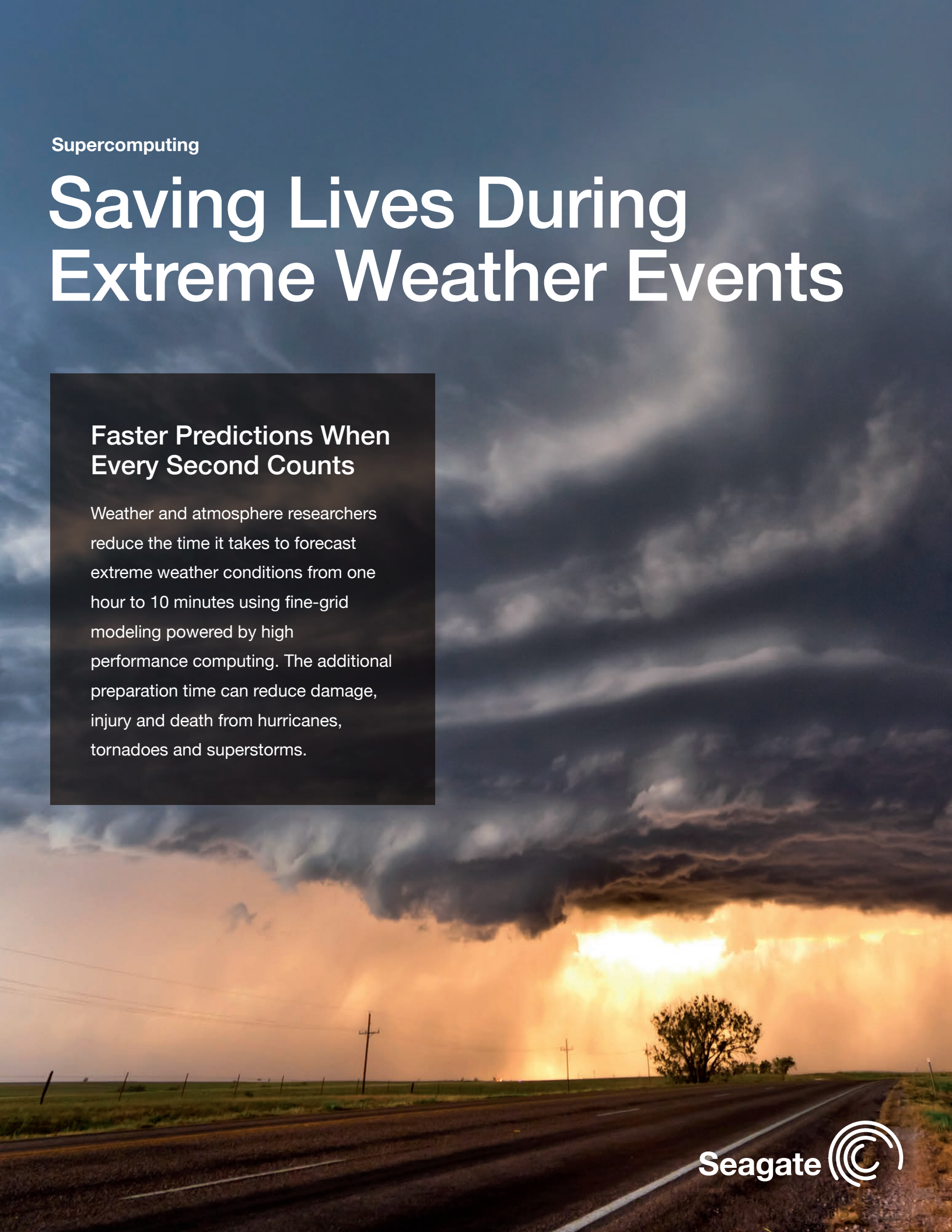
Seagate

Supercomputing

Saving Lives During Extreme Weather Events

Faster Predictions When Every Second Counts

Weather and atmosphere researchers reduce the time it takes to forecast extreme weather conditions from one hour to 10 minutes using fine-grid modeling powered by high performance computing. The additional preparation time can reduce damage, injury and death from hurricanes, tornadoes and superstorms.



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