

Intro Text:

Innovation is a topic of which I am very passionate. While innovation has been defined in numerous ways, at its core is it the translation of an [HYPERLINK "http://www.businessdictionary.com/definition/idea.html"] into a good or service that creates [HYPERLINK "http://www.businessdictionary.com/definition/value.html"]. As President of Upstream Research Company, our folks are innovating every day. People know ExxonMobil as a leading oil and natural gas company, but at a more fundamental level, we have always been a science and technology company, driven by innovation. Science and technology are at the heart of what we do.

Our industry relies deeply on technology advancements, and ExxonMobil has always relied on continuous innovation enabled by sound research to not only maintain an edge advantage in a highly competitive industry, but and to be as our fundamental social responsibility as a global leader.

Our growth and success for over more than a century can be attributed to identifying and innovatively meeting the challenges of the time. With a constancy of purpose toward technology research and development and a long-term outlook, have helped ExxonMobil has been able to do more with less, grow profitably, build capital efficiency, and maintain industry-leading performance. Today, we know that addressing the challenges and risks posed by globalization and climate change – while continuing to meet the world's growing energy demand – will require new and integrated technology solutions. We know that technology has the highest potential for advancing our energy and environmental objectives and for shaping our ability to respond to future demand. This industry has a long history of relentlessly pursuing and applying technologies that are designed to push the boundaries of possibility, but innovation comes with great uncertainty.

At ExxonMobil, our long-standing commitment to the development and application of high-impact technologies has shaped our story and added unique value through eras of recoverable resource scarcity and as well as eras of abundance. Through a unified approach to innovation and technology development across our integrated value chain, we are able to capitalize on our Upstream initiatives that search for and safely and in the identification and efficiently production of oil and natural gas and while also ensuring our Downstream and Chemicals initiatives products meet global customer demand that directly correspond to shifting global demands. While our industry's resource base and technical capabilities have changed over the years, the one constant has always been our innovation. Let me illustrate what I mean.

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Part 1: History and Resource Scarcity

In the early days of our industry, ExxonMobil innovations were born of a growing necessity and were developed to power an increasingly mobile society that was quickly beginning to see the benefits of oil and refined petroleum products. When WWII broke out, the petroleum refining process was nearing the summit of an evolution that had been in progress for some time. The industry was starting to be run by scientists and engineers who were developing chemically and mechanically complex processes and technologies that yielded more petrochemical products than ever before.

Several ExxonMobil pioneering products provided key support to the war effort and heralded an era of increasing growth. These products included high-octane aviation fuel enabled by ExxonMobil's

development of the alkylation process; toluene, a war-critical product developed by researchers at ExxonMobil's Baytown Refinery; and butyl rubber, developed in 1937 by William Sparks and Robert Thomas in our research laboratories in New Jersey, providing a superior synthetic alternative to the limited supply of natural rubber to meet the expanding demand for tires and inner tubes on the battle front and in the growing automobile industry on the home front. Butyl rubber, by the way, is a good example of our integrated approach to research and development, as it relies upon a chemical reaction involving Vistanex, an adhesive also invented by company scientists.

As demand for a broadening range of petroleum products grew throughout the following decades, focus on locating and accessing oil and natural gas increased. Technologies invented at ExxonMobil became key industry enablers for locating and delineating large accumulations of oil and natural gas once thought to be non-existent or put-of-reach technologically stranded.

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ExxonMobil became a pioneer in reservoir simulation in the 1950's, continuing to expand and integrate reservoir modeling and simulation capabilities through to today. The invention of 3D seismic imaging in the 1960's allowed for more holistic visualization of the subsurface. It led to Dr. Peter Vail's discovery of seismic stratigraphy, now a widely adopted industrial practice whereby seismic images are used to assess the age of rocks, not just their composition, to more accurately determine where oil and gas deposits could reside.

Through the 1970's, ExxonMobil introduced specialized offshore and drilling technologies to help access commercial accumulations and bring product to market. Examples range, from diverless subsea template innovation, to drilling the first horizontal wells in the 1970's, to leveraging our modern physics-based drilling approach to drill 26 of the 30 longest extended reach wells in the world. From there, we have leveraged our advances in LNG, shipping optimization, and even high-strength steel used in pipelines to efficiently deliver product to high-demand markets around the world.

This integrated, technology-driven approach represents a commitment to innovation that has pushed the envelope and relentlessly fueled business growth. In some cases, our unique and additive approach to research has led to enhancement of earlier inventions that continue to bring wide utility to our products. Previously, I mentioned butyl rubber. 80 years after its invention, ExxonMobil remains the global leader in producing butyl rubber and the more advanced halobutyl rubber, which, when used in automobile tire innerliners, helps to save about 1 billion gallons of fuel and reduce emissions by 8 million tonnes of CO2 per year. That's equivalent to fuel used by about 2.5 million cars worldwide. Our steadfast approach to research and pursuit of innovative technologies have provided the edge to enter new markets faster, create customer loyalty, and maintain competitive advantage.

Part 2: Era of Abundance

Over the last few decades, industry leaders have sought competitive advantage through technology advancement and deployment to more efficiently capitalize on large discovered volumes and a maturing global energy infrastructure. The diversity of ExxonMobil's resource portfolio is supported in large part by the strength of our integrated technology research and development, into which ExxonMobil invests about one billion dollars annually. New demand for oil, gas, and petrochemical products stemming from globalization and the growth of emerging economies – that will account for 30% of the projected growth

in energy demand through 2040 – has forced the industry to look beyond the conventional opportunity space for more remote and diverse supplies. For example, the rise of hydro fracking has transformed the industry and given rise to the unconventional opportunity space. Emerging technologies with applications spanning ExxonMobil's global portfolio are driving down the cost of supply and increasing profitability and capital efficiency in the current market.

We continue to pursue and enhance our next-generation subsurface imaging technology, Full Wavefield Inversion (FWI), to significantly improve subsurface imaging, prediction, and resource characterization. Our pioneering reservoir modeling and simulation capabilities have come a long way over 75 years, recently leveraging record-setting high-performance computing to model reservoirs for improved exploration and production. Our Fast Drill technology suite combines high-end modeling of drilling physics with structured well planning and design in an approach that has improved ExxonMobil drilling rates by more than 80 percent compared to a decade ago and has grossed over two billion dollars in cost savings since its inception. Recently, this technology has spawned an automated Drilling Advisory System tool that provides real-time operational guidance to the driller, resulting in a step change in drilling performance, cost savings, and reduced environmental impact.

More efficient gas processing technologies, such as cMIST™ result in natural gas treating and processing facilities that are significantly smaller, lighter, simpler, and cheaper to operate. Data sciences and data analytics are helping to incorporate workflow efficiencies that are fast becoming differentiating capabilities with applicability across our integrated value chain, from our global energy outlook to EMBark™ ship scheduling optimization. These pursuits allow us to meet the increased demand we experience now and position us for the demand we predict in the future. They can also translate into less fuel needed for our operations and a proportionate decrease in air emissions.

Part 3: Energy Outlook

Technology has the highest potential to deliver breakthroughs in efficiency to do more with less, transform the industry status quo, and tap available resources. That is why ExxonMobil's business strategy faithfully relies in part on our technological capabilities, and why a long-term view of supply and demand informs our investment plans. We forecast energy demand to increase 25% by 2040, driven by a growing middle class, improved standards of living, and emerging markets. Without efficiency gains, global demand growth could be four times the projected amount.

Innovation in energy efficiency can be thought of as a large source of energy for the future. Over time, the technology advances that support energy growth are also powerful tools for reducing environmental impact. With strong gains in energy efficiency and significant changes in the world's energy mix – driven by economics and climate policies – we expect that by 2040, 40% of global energy demand growth will be met by natural gas and the CO2 intensity of the global economy to be cut in half. While technologies can and do improve and change over time, one thing stays the same: ExxonMobil's belief that such advances will be key to reaching new sources of energy in the years ahead while improving our operational and environmental performance.

Part 4: Social License and Technological Responsibility

With industry leadership, additive technologies, increased reach, and globalization comes greater awareness of and participation in expectations of ExxonMobil's corporate social license and environmental responsibility. The market demands energy with a reduced environmental footprint.

Good corporate citizenship demands that we pursue innovations in environmental stewardship to justify our license to operate and to be recognized as a partner of choice.

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That is why we proudly pursue breakthroughs in more efficient resource development with reduced environmental impact. From using induced seismicity software developed in collaboration with the Stanford Center for Induced and Triggered Seismicity to evaluate the risks associated with subsurface waste injection to reduce the risk of earthquakes deep underground, to developing Flexicoking technology to thermally convert heavy oils to lighter products and flexigas to generate electric power, to partnering with FuelCell Energy to test a novel research concept that uses fuel cell technology to cost-effectively capture carbon dioxide, to using the bi-products of algae grown in saltwater as next-generation bio-fuel to potentially transform how we power cars, planes, and anything else using an internal combustion engine, automobiles, to broadening the applications of petroleum-based polymers for lighter, more fuel efficient cars.

Closing Statement:

As you can see, innovation is the common thread through our long history of providing the energy needed to improve our global standard of living. We must continue to innovate to produce and deliver the highest value energy products at the lowest cost to compete and succeed in any market, regardless of conditions or price. Through sustained investment and commitment to fundamental scientific research, the development and deployment of significant value-add technologies will fuel the future.

Thank you....