# Title: {Innovations}

Duration: {03:39} minutes

## **Description:**

**{Highlighting Shell’s Technological Innovations In Response To Rising Energy Demands}**

[Background music plays]

{The Sound of Shell. Atmospheric, builds gradually, bright and positive}

[Animated sequence]

{Fade in from white, a globe turns centre-screen then fades out to reveal a broken, revolving circle with text in the centre – the broken circle becomes complete}

[Text displays]

{The World’s Population Is Rising}

[Voiceover]

{“Our world’s population is rising”}

[Animated sequence]

{Zoom out from text, circle becomes a numeric ‘9’}

[Text displays]

{9 Billion People by 2050}

[Voiceover]

{“- set to reach nine billion people by 2050”}

[Animated sequence]

{Zoom back into numeric ‘9’, which morphs into a globe with a quarter missing from its top-right section}

[Text displays in top-right]

{3 quarters living in cities}

[Voiceover]

{“Three quarters of us will live in cities, and we will all need energy”}

[Animated sequence]

{The globe revolves toward camera; the back of it is revealed to be flat, and there is a small cityscape on top of this flat section. After a brief pause, the camera zooms in. Resolve into centre of a city, camera is oriented toward a man’s silhouette in an apartment window}

[Text displays below window, moving left to right]

{To Live}

[Voiceover]

{To Live}

[Animated sequence]

{Camera moves right and down, the doors to an office building open}

[Text in 3D moves through the now open office doors]

{To work}

[Voiceover]

{To work}

[Animated sequence]

{Camera pulls back and tracks a moving car driving from right to left of screen, camera matches movement of car so it becomes centre of screen}

[Text displays above car]

{To move around}

[Voiceover]

{To move around}

[Animated sequence]

{Car, city and everything in shot fades out leaving only the back left wheel of car revolving centre-right of screen. Wheel becomes globe, globe in turn becomes the ‘0’ of ’50’}

[Text displays]

{GROWING ENERGY DEMAND}

 [Voiceover]

{Meeting that demand will require a radical change in the global energy system}

[Animated sequence]

{camera moves away from arrow to the right, where letters unscramble to create the words ‘A RADICAL CHANGE’: these letters exit the screen and are replaced with the text ‘GLOBAL ENERGY SYSTEM’, to the left of which are three symbols representing nuclear energy, coal and oil. The letters and symbols drop away, are replaced with the text ‘NEW ENERGY SOURCES’ alongside 3 symbols/ icons representing methane, renewables and wind energy}

[Animated sequence]

{camera pulls through ‘ NEW ENERGY SOURCES’ text and settles on an unlit lightbulb, the filament of which spells out the text ‘INNOVATION’}

[Voiceover]

{Innovation and technology are vital to achieving these}

[Animated sequence]

{camera pulls back, a light cord is pulled and the bulb lights with an audible ‘click’. Text ‘TECHNOLOGY’ is revealed beneath the bulb and the word’s shadow reveals as the bulb switches on.}

[Animated sequence]

{Camera spins clockwise 90 degrees and pulls back to reveal the text **‘$1bn’**. **‘$1bn’** is replaced by a rubber chemistry bung. Camera pulls out to reveal bung is in neck of glass tubing that looks like laboratory equipment. This tubing spells out the text **‘RESEARCH & DEVELOPMENT’**. Camera turns through 90 degrees to reveal new text: **‘NEW ENERGY PRODUCTS & TECHNOLOGIES’**. Camera pulls back from this slowly. The following statements appear around this centralised text and orbit it: **‘CARBON CAPTURE AND STORAGE’, ‘GAS-TO-LIQUIDS’, ‘LIQUEFIED NATURAL GAS’, LUBRICANTS’, ‘ENHANCED OIL RECOVERY’, & ‘BIOFUELS’**}

[Voiceover]

{At Shell, we invest more than $1 billion in research and development every year and lead the way in developing new energy products and technologies, from biofuels and liquefied natural gas, to more efficient fuels and lubricants.}

[Animated sequence]

{Globe comes in from behind camera and clears screen. Globe fills screen centre. As it rotates, Bangalore, Houston and Amsterdam are marked in red text on the globe}

[Voiceover]

{Scientists at our technology hubs in Amsterdam, Bangalore and Houston, and at our technical centres around the world, work across time zones to ensure research never stops.}

[Animated sequence]

{Yellow longitudinal lines animate in one after the next indicating ‘time zones’. These are replaced by the hands of a clock, which are sweeping around, before camera pulls in fully to globe’s ocean which fill the screen entirely, effectively clearing the screen}

[Screen clears]

[Animated sequence]

{We see the gas-to-liquid plant ‘Pearl’ fade in from white. Camera pulls in slowly to the centre of this complex}

[Voiceover]

{Pearl, the world’s largest gas-to-liquids plant, processes around 1.6 billion cubic feet of wellhead gas every day.}

[Text displays]

{PEARL GTL}

 [Animated sequence]

{Camera pulls slowly backwards, as it does so the phrases “Cleaner-burning diesel and aviation fuel”, “Naphtha for plastics”, “Paraffin for detergents” & “Oils for advanced lubricants” recede into the distance}

[Voiceover]

{The plant makes enough synthetic oil each year to produce lubricants for more than 225 million cars.}

[Animated sequence]

{Camera moves rapidly to the right, settles on some out-buildings and a yellow car}

[Text displays]

{225 million cars}

[Voiceover]

{Whilst Prelude, the first ever floating liquefied natural gas project, will open up previously hard-to-reach natural gas fields at sea.}

[Animated sequence]

{Camera moves rapidly to the right and turns through 180 degrees, settling on the Prelude ship/ facility centre of screen. Beneath it are waves slowly undulating against the hull.}

[Text displays above Prelude]

{Prelude}

[Voiceover]

{The facility is expected to produce enough liquefied natural gas, liquefied petroleum gas and condensate each year to meet the annual gas demand for a city the size of Hong Kong.}

[Animated sequence]

{Camera pulls in and moves to the right of the Prelude}

[Text displays to the right of Prelude’s hull]

{1st ever floating LNG project}

[Animated sequence]

{Text clears and 3 pipes animate in from left to right. One blue, one green, one yellow, camera follows their course.}

[Text displays above the pipes]

{Condensate, LPG, LNG}

[Animated sequence]

{Camera pulls through 90 degrees to the right and follows the 3 pipes. They terminate at the edge of a large Metropolitan looking city. After a second or two, the camera pulls up and resolves on the sky above the city}

[Screen clears]

[Voiceover]

{In Canada, Shell’s Quest project will create the world’s first commercial-scale facility at an oil sands operation to capture and store CO2 safely underground.}

[Animated sequence]

{Camera tracks in from empty screen downwards to a green extruded map of Canada: Quest is marked on the map. Camera pulls into this location and the Quest facility enlarges as camera gets close. A cutaway of the ground in front of the facility animates away revealing a cross section of the ground as a light brown, dark brown & dark grey series of bands. A yellow arrow animates in going into the ground cutaway. Above it is the text ‘CO2’}

[Voiceover]

{And Raizen, our joint venture in Brazil is a leading producer of ethanol from sugarcane.}

[Animated sequence]

{Camera moves up & away from this facility, out of the map and down to a map of South America. The map has various Raizen location markers dotted around, and the text ‘Raizen’ is clearly marked on the lower right of Brazil itself. Camera pulls in toward Brazil and the map becomes horizontal in frame. From the ‘ground’ sugarcane plants quickly shoot up, and arrow animates in pointing to the right of the screen. A large model of an ethanol molecule scales up and gently rotates from where the arrow is pointing}

[Voiceover]

{This biofuel emits around 70% fewer CO2 emissions than gasoline.}

[Animated sequence]

{Camera moves to the right to an empty area where the text ‘70% fewer CO2 emissions’ rises from the ground, hangs there for a moment, then rises and is gone}

[Screen clears]

[Voiceover]

{We work with governments, world-class academics and industry specialists to help meet the world’s growing energy needs.}

[Animated sequence]

{Camera moves down: we resolve on three figures, a man in a grey suit - a man in a hard-hat and a woman in a mortar-board - standing atop a hemisphere with a flat top. Countries are mapped out on the hemisphere and slowly revolve. The hemisphere completes becoming a full globe, engulfing the three figures.}

[Voiceover]

{Our collaborations range from developing advanced fuels to improving data processing within the IT industry.}

[Animated sequence]

{Camera pulls back to reveal globe was a ‘stop’ in a test tube with an amber liquid inside it. Camera holds for a moment, then zooms into the test tube. The screen is now filled with the amber colour. Camera pulls back out and electronic circuitry spells out the text ‘IMPROVING DATA PROCESSING’. Small components – resistors, capacitors and processors – scale up on the surface of the circuitry.}

[Voiceover]

{We share ideas and expertise with partners inside and beyond the energy sector to drive innovation forward.}

[Animated sequence]

{Camera tracks a red wire coming from the back of the circuitry and follows it right, where it spells out the text “IDEAS & EXPERTISE”. The wire continues, and becomes an arrow on the right hand side of the screen, where it points to the word ‘INNOVATION’. Camera accelerates and moves past the word ‘INNOVATION’}

[Screen clears]

[Voiceover]

{We know some of the best ideas begin outside our business.}

[Animated sequence]

{Camera moves from left to right and green ‘ground’ appears with many lightbulbs suspended in the air above. Camera stops in front of a small hole in the ground and pulls toward it}

[Voiceover]

{Through programmes like Shell GameChanger, we find and nurture unproven concepts that could transform the energy industry.}

[Animated sequence]

{One of the lightbulbs comes down from above and ‘plants’ itself in the hole. A plant quickly grows out of this hole, with branches either side spelling out the text ‘UNPROVEN CONCEPTS’. Camera holds for a moment, then pans right}

[Voiceover]

{ - and our Shell Livewire and Shell Ideas360 programmes are inspiring the next wave of scientists, engineers and entrepreneurs to turn their innovative ideas into exciting reality.}

[Animated sequence]

{Camera continues to pan right: many figures are seen – men, women, and young people in various colours. Camera pulls back slowly as a swarm of rotating lightbulbs bring in text}

[Text, centred in top half of screen]

{Shell LiveWIRE and Shell Ideas360}

[Animated sequence]

{Camera continues to pull slowly back. Another swarm of lightbulbs bring in the following text in succession}

[Text, centred in top half of screen]

{Innovative Ideas}

[Text, centred in top half of screen]

{Exciting Reality}

[Animated sequence]

{Camera pans swiftly right}

[Screen clears]

 [Animated sequence]

{Globe moves to a central position in frame}

[Voiceover]

{The world’s energy system will not transform overnight, but for the three billion people without access to modern energy sources, change cannot come soon enough.}

[Animated sequence]

{A sphere of figures animate in and orbit the globe, some grey, some white: the grey figures representing those without access to modern energy sources}

[Text, either side of globe]

{3 BILLION PEOPLE WITHOUT ACCESS TO MODERN ENERGY SOURCES}

[Voiceover]

{At Shell, we will continue to push the limits of technology, embrace human ingenuity and tackle these complex challenges, shaping our energy future through innovation.}

[Animated sequence]

{Figures and text fades out, camera pulls in slightly toward globe. Four arrows facing north, south, east and west push out from centre of globe. As they push outward, they deform the globe as if stretching it in outward in their respective directions until it approximately resembles a diamond or ‘kite’ shape. The word ‘TECHNOLOGY’ appears in the shape’s centre. After a moment this fades away, revealing the outline of a human head. The brain is visible as a simple line drawing. The text ‘HUMAN INGENUITY’ fades up underneath this. The camera holds for a moment, then pulls in, goes through the brain where we see a series of cogs. Camera resolves on 3 intermeshed cogs, with the text ‘COMPLEX CHALLENGES’ surrounding them. Camera holds briefly, and a globe engulfs the cogs and text. When it re-opens they are gone and in their place the word ‘ENERGY’ is seen, sparking with lightning/ electricity. Finally the camera pulls through the word ‘ENERGY’ and the word ‘INNOVATION’ is revealed behind it.}

[Screen clears]

[Animated sequence]

{Shell pectin fades in with accompanying audio fanfare}