**ARTEMIS I - READY FOR LAUNCH**

**CUE:** ESA and NASA’s Artemis I mission is cleared for launch after a series of final tests at the US Kennedy Space Center in Florida. ESA’s European Service Module (ESM) will provide electrical power and propel the uncrewed Orion capsule in an extended orbit around the Moon, setting the scene for future crewed missions. ESA has already delivered its second ESM for Artemis II and is currently building its third ESM. Eventually, Artemis III will return astronauts to the lunar surface for the first time in 50 years with the ESM supplying their life support in the form of water, food and oxygen.

ESA is also making a major contribution to the Gateway including refuelling and habitation modules and enhanced lunar communications. The Gateway will act as a permanently crewed space station in orbit around the Moon, a thousand times further away than the International Space Station from Earth, ushering in a new era of lunar exploration.

The film includes soundbites from ESA’s Director of Exploration, David Parker, and ESA astronaut Andreas Mogensen.

**[KENNEDY SPACE CENTER GVS]**

ESA and NASA’s return to the Moon, as part of the Artemis programme, is an important step closer to launch after tests at the Kennedy Space Center in the United States. There’s a good reason this crawler transporter has a slow cruising speed of just over 1 kilometre per hour. NASA’s heavy launch vehicle, the SLS, is almost 100 metres high and weighs 5,000 tonnes.

A successful wet dress rehearsal involved loading the SLS with propellants and a practice countdown to within seconds of lift off. Artemis I is now cleared for a future launch - which will involve an expanded orbit of its Orion capsule around the Moon.

**[EUROPEAN SERVICE MODULE ANIMATION - CREDIT ESA]**

After a second crewed mission around the Moon, called Artemis II, astronauts will finally return the lunar surface after a long absence.

**[INSET CLIP: ANDREAS MOGENSEN, ESA Astronaut]**

*“The future of space exploration is incredibly exciting. Not only are we working every day on board the ISS, but also preparing to send to humans back to the Moon for the first time since Apollo 17 in December 1972.”*

**[EUROPEAN SERVICE MODULE ANIMATION - CREDIT ESA]**

ESA’s contribution to Artemis I is the European Service Module or ESM. This four metre long cylindrical spacecraft behind the Orion capsule has four solar arrays, three types of engines for manoeuvrability and avionics with over 11 kilometres of cables that send commands and receive information from sensors. It’s a crucial part of the mission.

**[INSET CLIP: DAVID PARKER, Director of Exploration, ESA]**

*"The European Service Module provides the power, electrical power, the propulsion for the Orion capsule, but also it will provide - when there are astronauts onboard - the oxygen and the water as well. So it’s really the life support, the power and propulsion for our lunar explorers."*

**[EUROPEAN SERVICE MODULE ANIMATION - CREDIT ESA]**

ESA has already delivered their second service module to power astronauts around the Moon for Artemis II with Artemis III under construction. This mission will return astronauts to the lunar surface.

**[ESA GATEWAY ANIMATION - CREDIT ESA]**

ESA is also playing a major role in building the Gateway space station, a permanent spaceport around the Moon - as well as providing habitation and refuelling modules and enhanced lunar communications. The Gateway will be a thousand times further out in space than the space station and will act as a long-term base for astronauts to visit the lunar surface for science and exploration.

**[INSET CLIP: ANDREAS MOGENSEN]**

*“The surface of the Moon has about the same area as Africa and we only visited the Moon six times in the 1960s and 1970s and if you think about landing in six different spots in Africa you quickly realise that there’s so much more left to learn and understand about the Moon formed and how it’s evolved over the last 4.5 billion years.”*

**[EUROPEAN SERVICE MODULE ANIMATION - CREDIT ESA]**

Three ESA astronauts will fly on missions on Orion to the lunar Gateway. We don’t know who they will be yet but what’s clear is that a new era of lunar discovery awaits that will also lay down important ground work for future missions to Mars.