

| | |
|---|--|
| ESOcass Episode 45: Reaching Out Special 50th anniversary episode #5 | |
| 00:00 [Visuals start] | Images: |
| 00:46 [Narrator] 1. Stephane Guisard loves the stars. No wonder he loves northern Chile, too. Here, the view of the Universe is among the best in the world. And no wonder he loves the European Southern Observatory — Europe’s eye on the sky. | Closeup of Guisard looking up to the sky. Zoom out to reveal him with camera equipment in the Chilean desert. |
| 01:05 [Narrator] 2. Stephane is a prize-winning French photographer and author. He is also one of ESO’s Photo Ambassadors. | Footage of Guisard setting up his equipment and/or taking images. Then pan to reveal the VLT, with Milky Way arching overhead. |
| 01:19 [Narrator] 3. In breathtaking pictures, he captures the solitude of the Atacama desert, the high-tech perfection of giant telescopes, and the magnificence of the night sky. | Series of images of Atacama scenery, ESO telescopes, and night sky. |
| 01:39 [Narrator] 4. Like his fellow photo ambassadors from all over the world, Stephane helps in spreading ESO’s message. | VLT, night sky. |
| 01:48 [Narrator] 5. A message of curiosity, wonder and inspiration. Proclaimed through cooperation and outreach. | Night sky images. |
| 01:58 [Dr J] | Image of world map. Dr J in front. |

| | | |
|---|--|--|
| 6. Cooperation has always been the basis for ESO's success. | | |
| 02:01 [Dr J] 7. Fifty years ago, the European Southern Observatory started out with five founding member states: Belgium, France, Germany, the Netherlands and Sweden. | | Zooming in the five first member states in the map. |
| 02:12 [Dr J] 8. Soon, other European countries followed. Denmark in 1967. Italy and Switzerland in 1982. Portugal in 2001. The United Kingdom in 2002. | | Show the new member states in the map. |
| 02:24 [Dr J] 9. Over the past decade, Finland, Spain, the Czech Republic and Austria also joined Europe's largest astronomy organisation. | | Show the new member states in the map. |
| 02:33 [Dr J] 10. Most recently, Brazil became ESO's 15th Member State, and the first non-European country to join. Who knows what the future will bring? | | Pan and show Brazil. |
| 02:43 [Dr J] 11. Together, the Member States enable the best possible astronomical science at the world's largest observatories. | | ESO Headquarters. Science meetings. |
| 02:55 [Narrator] 12. It's good for their economies, too. ESO closely cooperates with industry, in both Europe and Chile. | | Construction activities at OSF. Workers in action. |
| 03:14 [Narrator] 13. Access roads had to be constructed. Mountain tops had to be levelled. | | Historical footage of construction of La Silla access road. If available: historical footage of levelling of Paranal. |
| 03:15 [Narrator] 14. The Italian industrial consortium AES built the main | | Footage of UT structure. Close-ups of VLT enclosure(s). |

| | | |
|---|--|---|
| <p>structure of the four VLT telescopes. Each telescope weighs in at some 430 tons. They also constructed the giant enclosures, each as high as a ten-storey building.</p> | | |
| <p>03:43 [Narrator] 15. The German glass company Schott produced the delicate VLT mirrors — over 8 metres wide and just twenty centimetres thick.</p> | | Footage of spin-casting of VLT mirror. |
| <p>03:54 [Narrator] 16. At REOSC in France, the mirrors were polished to a precision of a millionth of a millimetre, before they made the long journey to Paranal.</p> | | Footage of polishing of VLT mirror. Footage of VLT mirror transport (boat / truck). |
| <p>04:08 [Narrator] 17. Meanwhile, universities and research institutes across Europe developed sensitive cameras and spectrometers.</p> | | Lab work on large detectors. |
| <p>04:17 [Dr J] 18. ESO's telescopes are built with taxpayer's money. Your money. And so you can take part in the excitement.</p> | | Dr J, again outside ESO Headquarters. |
| <p>04:26 [Narrator] 19. For example, ESO's website is a rich source of astronomical information, including thousands of beautiful pictures and videos.</p> | | Dr J, browsing ESO website. |
| <p>04:36 [Narrator] 20. Also, ESO produces magazines, press releases, and video documentaries such as the one you're watching right now.</p> | | Variety of outreach materials? People at ePOD office, working on graphics, photography, etc. |
| <p>04:59 [Narrator] 21. And throughout the world, the European Southern Observatory contributes to exhibitions and science fairs.</p> | | People at ESO exhibit and Open House Day. |
| <p>03:54 [Narrator] 22. Countless ways to participate in the discovery of the cosmos!</p> | | Zooming in on face of child observing the Sun through the telescope during ESO's Open House Day. |

| | |
|--|---|
| 05:06 [Dr J] 23. Did you know that the names of the four VLT telescopes were thought up by a young Chilean girl? | Dr J at VLT platform. |
| 05:13 [Dr J] 24. 17-year old Jorssy Albanez Castilla suggested the names Antu, Kueyen, Melipal, and Yepun – meaning Sun, Moon, Southern Cross and Venus in the Mapuche language. | Dr J at the VLT platform. |
| 05:27 [Narrator] 25. Involving school children and students like Jorssy is important. | Enthusiastic school children |
| 05:33 [Narrator] 26. That's where ESO's educational activities come in, like student exercises and school lectures. | Student/teacher working with one of the Exercises. Astronomer lecturing at school. |
| 05:42 [Narrator] 27. When the planet Venus passed in front of the Sun in 2004, a special programme was aimed at European students and teachers. | Footage of groups of school children watching the Venus Transit. |
| 05:54 [Narrator] 28. And in 2009, during the International Year of Astronomy, ESO reached millions of school children and students all over the world. After all, today's children are tomorrow's astronomers. | IYA2009 activities. |
| 06:12 [Narrator] 29. But in terms of outreach, nothing beats the Universe itself. | Cosmic imagery. |
| 06:24 [Narrator] 30. Astronomy is a visual science. Images of galaxies, star clusters and stellar nurseries fire our imagination. | Crossfades / zoom-ins / pans over astronomical images. |
| 06:38 [Narrator] | Cosmic Gems Programme images. |

| | | |
|---|--|--|
| 31. When not doing science, ESO's telescopes are sometimes used for the Cosmic Gems Programme – taking pictures just for the purpose of education and public outreach. | | |
| 06:58 [Narrator] 32. After all, a picture is worth a thousand words. | | Lagoon Nebula |
| 07:04 [Narrator] 33. The general public can even take part in creating these staggering images, through the Hidden Treasures competitions. | | ESO Twitter web page and Hidden Treasures web pages. |
| 07:15 [Narrator] 34. Russian astronomy enthusiast Igor Chekalin won the competition in 2010. His marvellous images are based on real science data. | | Igor Chekalin and a few of his winning entries. |
| 07:32 [Narrator] 35. Member states, industry and universities - by cooperating on all possible levels, ESO has become one of the most successful astronomy organisations in the world. | | Dr J walking across VLT platform, around sunset. |
| 07:44 [Narrator] 36. And through its engagement with the public, you are invited to join the adventure. The Universe is yours to discover. | | Dr J walking across VLT platform, around sunset, maybe changing in cosmic animation (flight into the cosmos) |
| 07:56 | | [Outro] |

08:09 END