New President of Council

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Last year, the delegates to ESO Council elected me as Council President for 2015, following the completion of Xavier Barcon's three-year term of office. This is both a great honour and a daunting challenge for me, made all the greater by Xavier's exemplary performance in the role of President. Xavier showed enormous commitment, investing large fractions of his time and energy, together with cheerful and wise leadership. I am particularly pleased that at his final meeting as President in December 2014, Council approved the start of construction of the European Extremely Large Telescope (E-ELT), bringing the long years of studies, refinements, proposals and diplomacy to the point where ESO now embarks on the challenging task of building the next astronomical and technological jewel. This is a very fitting conclusion to Xavier's presidency.

Brief biography

I am a Professor of Physics at the University of Oxford and a Fellow of Hertford College, one of the constituent colleges of the University. Like most university faculty, my main roles include teaching undergraduate and graduate students, and conducting research in astrophysics, but in Oxford nothing is quite as simple as it seems. I only found out when I joined the College that I would inherit the position of senior member of the Hertford College Boat Club. I also oversee the College investments, which has provided a useful background for the periodic council discussions on the state of the CERN Pension Fund. In the Physics Department, I chair the Workshop Committee and am part of the Astrophysics Sub-department of Physics.

Before I started university, I worked for a year as an engineering technician in transistor production at Texas Instruments. This experience was valuable in providing me with hands-on contact with industrial manufacturing processes and semiconductor fabrication. It also enabled me to save enough money to buy a motorbike! I have had one ever since, although do not get to use it very often these days. My current bike is 22 years old, and owning old machinery certainly prompts one's appreciation of the need for regular mechanical repairs and maintenance, and the ever-present possibilities of obsolescence.

My PhD thesis project at University College London was to develop and exploit a mid-infrared spectrometer, under the supervision of Dave Aitken. The instrument was deployed at telescopes in Australia, Hawaii, California and Tenerife, and even on the original Isaac Newton Telescope in the marshes of Herstmonceaux before it was moved to La Palma. For more than a decade, it was the most sensitive instrument of its kind in the world and it characterised the mid-infrared spectra of a wide range of astronomical objects from planets in the Solar System to star-forming galaxies and active galactic nuclei. A polarimetric upgrade allowed the first detailed investigations of the 10 and 20 μm polarisation properties. The requirements for the assembly and dismantling of this instrument for the campaigns at different telescopes emphasised the virtues of reliability and good engineering. I have retained an abiding interest in astronomical instrumentation and the development of observational techniques throughout my career, and have been involved with several infrared instruments, and led the construction of William Herschel Infra-Red Camera (WHIRCAM) for the William Herschel Telescope (WHT) and United Kingdom Infra-Red Telescope (UKIRT) Fast-Track Imager (UFTI).

I have been privileged to chair several telescope boards and advisory committees, including the Anglo Australian Telescope (AAT) and UKIRT Boards, and the NOVA (Nederlandse Onderzoekschool voor de Astronomie) Instrument Steering Committee, and was UK Gemini project scientist for the last six years of the construction project. I have had close associations with ESO since the UK accession process started, serving on the Scientific Technical Committee (STC) and Council, and chairing the STC and the Very Large Telescope Interferometer (VLTI) subcommittee. I have also served on the Atacama Large Millimeter/submillimeter Array (ALMA) Board. I am hugely grateful for the opportunities that have been given to me to work closely with the dedicated staff at these observatories. Many of the remarkable discoveries and developments in astronomy over the last few decades have arisen through the deployment of innovative instruments, supported by close interactions between the astronomical community and observatory staff.

To the future

ESO is an outstanding example of what can be achieved through collaboration and shared vision. I list a few examples: the second generation VLT instruments are the most ambitious and powerful capabilities available anywhere on optical/infrared telescopes and will doubtless provide a stream of high-profile results in the coming years; the results from ALMA over the last few months have demonstrated its enormous potential, and there is more to come as the number of antennas in use increases and the observatory moves towards full operations; and the first instruments for the E-ELT are moving towards approval for construction. At the same time, further VLT and VLTI instruments are in the pipeline and upgrades to current capabilities will maintain their power.

ESO is a remarkably powerful and capable organisation, with very strong support from its Council delegates and the community. ESO is seen as a model for other communities to follow and I am both proud of this and eager to contribute to future developments. At a time when many funding agencies have had to make very difficult decisions about funding priorities within their national programmes, they have provided a ringing endorsement of ESO's programme by not only maintaining their investments, but ramping up their contributions to ensure that the E-ELT can be built and operated at the level needed to sustain the programme.

The last couple of years have seen some very important anniversaries marking ESO's early years, and reflecting on those gives a very real sense of the way that it has developed from initial ideas to the world-leading organisation that we see today. There will doubtless be substantial challenges in the next few years as the current facilities are consolidated and the E-ELT construction programme pushes ahead, but these will come at a time when the capabilities and productivity of ESO's facilities have established us at the forefront of astronomy.

I look forward to the exciting times ahead!

Fellows at ESO

Bernd Husemann

I was born 1981 in the small village of Amelunxen, located almost at the centre of Germany between Paderborn and Göttingen, or Kassel and Hannover. When I was about nine years old *Star Trek — The Next Generation* started on German TV and became my obsession. I admired the enthusiasm with which the *Enterprise* crew explored the huge and vastly unknown Universe, and their curiosity for new civilisations. I dreamt of being a part of their Universe and exploring it when I grew up. Thus, I read a lot of children's books about the Solar System, the Galaxy and the history of the Universe. Given my never-ending desire to understand how the world around me really works, it was a natural choice for me to become a scientist.

Although I had not yet seen a telescope, I had already decided two years before finishing school that I wanted to study astronomy. Checking the available universities in Germany left me with just a few options. I chose the University of Potsdam for two basic reasons: it is a small university with good contacts among the students and lecturers; and, the Leibniz-Institute for Astrophysics (AIP) is nearby and I was already thinking about doing a PhD there. Indeed it was the best choice I could have made and the best time of my life. We were a group of only 20 young and motivated physics students locked together in a room each day solving maths exercises, hunting down the lecturers for questions and complaining about our exams being far too difficult.

An important milestone for my personal development, education and career was to study for one year abroad in Southampton (UK) in 2003. It was a coincidence that the University of Southampton offers one week of training at the Teide Observatory (Tenerife, Spain) each year for their astronomy students. Although I was only a short-term visiting student, Phil Charles and Christian Knigge decided that I could attend the training course without additional cost. Visiting a remote observatory for the first time allowed me to see the night sky in its full beauty. The star sign Scorpio became my favorite and I realised that looking deep into the Universe with big telescopes at amazing locations is a true privilege. This was the job I really wanted to do!

Bernd Husemann