# INTRODUCTION

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The year 2000 started on the island of La Palma as in most other places in the world with magnificent fireworks. The main 'fireworks' of the year at the Isaac Newton Group were the commissioning of our new IR camera and the first phase of the technical commissioning of the adaptive optics system. Both these developments took place at the 4.2-m William Herschel Telescope, showing clearly where the focus of ING's efforts lies.

The state-of-the-art infra-red camera, INGRID, is based around a 1024 by 1024 pixel HgCdTl Hawaii array from Rockwell. Its relatively large 4 arc-minute field of view has proven to be an important attraction for many astronomers rendering this instrument the second most popular instrument at the telescope.

The second big event at the William Herschel Telescope was the technical commissioning of a common-user adaptive optics system. Adaptive Optics (AO) is central to the development plans of the telescope. Adaptive optics experience at the ING is still limited, but we're learning fast. The often excellent seeing conditions combined with the quality of the telescope open up exciting new scientific prospects, in particular once the AO-corrected focus can be exploited with state-of-the-art instruments. Adaptive optics is often seen as the playing ground for the 8-m class telescopes but there are very good reasons to exploit AO also on medium size telescopes. Above all, there are important scientific gains to be achieved with the much better spatial sampling offered by Adaptive Optics. Laser guide star deployment will open AO techniques to many fields of astronomy. It is becoming ever clearer that adaptive optics will become an integral part of the future large telescopes, which is another reason why the astronomical community must invest time and effort in this field. The 4-m class telescopes are the ideal proving ground for AO techniques.

In recent years ING has actively pursued building strong relationships with universities. This initiative has been successful in itself and the positive effects are clearly sensed on La Palma. Stronger emphasis at the ING on in-house research activities lies at the heart of this as it underpins collaborations with universities such as the scheme of placement students that has been adopted. All in all, a very positive enterprise.

Also during the year talks have progressed very well on a formal participation of the Instituto de Astrofísica de Canarias in the ING. This development emphasizes the key role of the IAC at the observatory on La Palma. It is anticipated that a formal collaboration will be initiated in 2002.

During the year 2000 Benn and Sánchez completed their study on the scientific productivity of telescopes. It compares scientific impact of many facilities by means of the 1000 top-cited papers published over eight years during the previous decade. One of the results from this study is that the William Herschel Telescope belongs to one of the most productive observing facilities in the world. This not only is a pleasing result for the telescope, but above all is a tribute to the scientists using this facility. Even though still sizable, 4-m class telescopes are now considered of medium size. The study by Benn and Sánchez indicates that these telescopes will remain important facilities for top quality science for many years to come.