

## INTRODUCTION

In 2005, Royal NIOZ experienced quite a few memorable moments, including a sad event which shocked the NIOZ-population. This event concerns the death of Henk Postma, one of the founding founders of modern NIOZ. He died on July 19 at the age of almost 84. NIOZ acknowledged the request of Henk's family to say formally goodbye during a ceremony attended by a great number of friends in the great lecture hall of the institute. An obituary on the intensive involvement of Henk Postma with this institute between 1947 and 1986 has been written by Gerhard Cadee for this annual report.

A sequence of happy moments for young scientists, as well as for the institute, were the defences of altogether ten PhD theses at the universities of Groningen, Utrecht, Amsterdam, Wageningen and at the Vrije Universiteit Amsterdam.

Two NIOZ-scientists received prestigious awards: Jaap Sinninghe Damsté was granted the Treibs Medal from the geochemical Society of America. This is considered the highest international award in organic geochemistry. Jaap also became a member of the Royal Netherlands Academy of Arts and Sciences (KNAW). His close collaborator Stefan Schouten was awarded with the Vici grant of the Netherlands Organisation of Scientific Research (NWO). This is the most prestigious one in the Veni, Vidi, Vici series of NWO and is meant to facilitate very promising young scientists to develop their own field of expertise., Stefan will use the Vici-grant to develop new methods using chemical fossils (proxies) for the determination of sea surface and air temperatures for past periods in which the earth also had a climate as warm as we expect the planet to become in the future due to fossil fuel burning. Knowledge of the important regulatory processes in the past is a key-factor for the improvement of our current climate models.

Again, the crew of the Research Vessel Pelagia was to be congratulated with the prolongation of the award on weather observation programme VOSCLIM (Voluntary Observing Ship Climate Project).

The year 2005 was also remarkable because NIOZ faced a formal evaluation by an international Peer Review panel. This panel visited the institute for two days by the end of May and subsequently submitted a written report to the General Board of the Netherlands Organisation of Scientific Research (NWO). The findings of the peers were very positive with respect to the scientific quality of the individual departments, ranging from very good to excellent. The institute as a whole was rated as "very good". It is needless to say that, prior to the visit of the peers, NIOZ went through a hectic time in order to prepare the self evaluation (documents) properly and in due time.

The report was accompanied by a set of recommendations concerning the anticipated progress of science at NIOZ, including also critical remarks with respect to certain aspects of the management and internal communication. These remarks contributed to an atmosphere which led to the resignation of all but one members of the Board of Royal NIOZ. As from December 15, 2005, we have a new Board with prof. dr. ir. P. (Pier) Vellinga as chairman and prof. dr. E.A. (Eduard)



The new Board members.

Koster and prof. dr. J. (Jack) Middelburg as members. Prof. Middelburg was already a member of our previous board. In order to help NIOZ to solve its management problems, NWO decided to support the institute through the appointment of its director organization and planning dr. ir. B. (Bert) Geerken, as managing director of NIOZ on a part-time basis until the summer of 2006. Of major importance concerning the institute's financial affairs was the appointment of Tjerk Vos as controller in the spring.

The above developments had hardly any influence on the spirit of the NIOZ-employees, which allows concluding that business was almost as usual. Altogether, 162 papers were published in reviewed international scientific journals and chapters in books. Two papers with contributions from NIOZ scientists appeared in the highly prestigious Scientific Journal 'Nature'. One paper with Stefan Schouten as co-author describes the influence of the East Atlantic Ocean on the climate on part of the African continent; the other one with Jaap Sinninghe Damsté, Irene Rijpstra and again Stefan Schouten as co-authors describes the uptake of methane in cells of methanotrophic bacteria. In addition, six reports were issued in the NIOZ report series. One report concerned the development of the populations of different bird species on the Dutch Wadden Sea on request of the Dutch Society for the Protection of Birds. Other reports included various subjects of biotic and abiotic aspects of ecosystems of North and Wadden Sea, and the influence of human activities. These reports were commissioned by the Directorate Nature of the Ministry of LNV and the National Institute for Coastal and Marine Management (RIKZ) and the North Sea Directorate of the Ministry of V&W. The report of the effects of beam-trawl fishery on the benthic fauna of the North Sea was jointly issued with Alterra-Texel (WUR). The report on the benthos and shorebirds in Western Australia (WA) was written in cooperation with the WA Department of Conservation and Land Management, Environs Kimberley, Broome, and the Central Washington University, U.S.A. Most of the more recent NIOZ reports and our annual reports from 2002 onwards can now be downloaded from the library section on our web-site [www.nioz.nl](http://www.nioz.nl).

Our Marine Technology department made a great step forward in the development of the deep-sea sampler, where the microbial activity can be measured on board while maintaining the pressure of several hundreds bar and the low temperature occurring at the sea-floor. This piece of equipment was extensively tested during the ARCHIMEDES cruise in the subtropical North Atlantic Ocean in the autumn. NIOZ and Kongsberg Maritime AS signed a contract for delivery and installation of a Kongsberg multi-beam echo sounder for the RV Pelagia in 2006. New technology will make the new equipment capable of producing a swath of 4000m at 5 km water depth, increasing the possibilities of the Pelagia as a research vessel for both the research community and third industrial parties. The acquisition of the entire system was made possible through an investment subsidy from the NWO Large programme.

A start was made with the renovation of our former guest-house 'De Potvis' (the sperm whale). After having sold the buildings and premises to the 'Stichting Wonen Texel' (SWT) already earlier, the first part of the old buildings was torn down in 2005. The new facility will be ready in 2007. In the mean time, SWT will make housing capacity on the island available for our students, temporary personnel and guest-scientists. The workshop of the MT-electronics department was also completely renovated and newly furnished. In the NIOZ harbour, a new floating jetty was constructed to provide shelter for our smaller research ships against incoming high waves from strong south-easterly winds.

In 2005, NIOZ organised two symposia. 'Challenges in Marine Sciences' focused on the development of the more fundamentally oriented marine science field in the Netherlands. 140 participants took part in this symposium. In October, NIOZ and Alterra-Texel jointly organized the North Sea days. This two-day symposium is organized annually to promote the exchange of knowledge and opinions between 160

scientists, policy-makers and stake-holders using the North Sea for their own professional purposes. A summary of the highlights is given in the central part of this annual report. Both symposia were financially supported by NWO. The fourth International Algal Virus Workshop (AVW4) was organised by Corina Brussaard in collaboration with Dr. H. Gons of the Netherlands Institute for Ecological Research (NIOO-KNAW). The meeting was held from 17-21 April at the 'Trippenhuys' in Amsterdam, being the home of the KNAW. Forty participants took part in a successful workshop in this very dynamic research field which is highly relevant in aquatic ecology, since it is one of the key-factors in the regulation of algal blooms.

NIOZ-collaborators continued their activities in a number of international scientific organisations, including those pertaining to shipping. Jan W. de Leeuw, who still acts as a consultant of Royal NIOZ, initiated his term as chairman of POGO (Partnership for Observation of the Global Oceans), while Royal NIOZ' communications and PR-officer Jan Boon became chairman of the news and information group.

The Core Project Office of the IGBP project LOICZ (Land Ocean Interactions in the Coastal Zone) had to move from NIOZ to the GKSS institute in Geesthacht near Hamburg, Germany. LOICZ has been hosted by NIOZ since 1 November 1993 and has been very successful in assembling the knowledge of scientific and social processes of great relevance in models for coastal environments.

After all, 2005 was a good year for the institute and the same holds hopefully for 2006, when the anticipated nomination of a 'permanent' general director will initiate a new era in Royal NIOZ' history.

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