

Characterising 2007:

The first year of the new strategy period

Ambition for 2008:

Added value of the public-private knowledge organisation

TNO Annual Ro	eview 2007
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In matters of interpretation the more extensive Dutch version of the Annual Review will prevail.

(in EUR x million)

	2007	2006	2005
THE (THE CONTROL OF THE CONTROL OF T			
TNO: (TNO Organisation including group companies)			
Government funding turnover	196.4	195.8	195.8
Market turnover	382.5	373.8	366.1
Turnover	578.9	569.6	561.9
Net turnover 1)	501.9	497.8	495.3
Added value 2)	401.8	390.7	398.8
Nuueu value -/	401.8	390.7	396.6
Operating result before impairment of (in)tangible fixed assets	8.1	10.5	10.0
Impairment of tangible fixed assets	-	-	-2.6
Operating result	8.1	10.5	7.4
Result	12.3	13.1	7.9
Result as % of the market turnover	3.2%	3.5%	2.2%
Number of employees (effective average)	4,634	4,600	4,746
Number of employees (effective average at the end of the year)	4,658	4,590	4,648
Net turnover per employee (effective average) in thousands of euros	108.3	108.2	104.4
Added value per employee (effective average) in thousands of euros	86,7	84,9	84,0
Personnel costs per employee (effective average) in thousands of euros	78,2	75,8	75,4
Personnel expenses excluding additional pension payments	362.5	348.9	357.7
Operating capital	33.3	47.5	38.0
Equity	206.7	194.1	181.3
Cash flow 3)	56.5	62.2	42.9
Investments TNO Organisation	53.9	40.2	27.3
Investments group companies	6.5	7.5	6.6
Current ratio	1.22	1.28	1.27
Solvency	0.48	0.44	0.47

 $^{^{1)}}$ Net turnover = turnover - direct project costs

 $^{^{2)}\,\}mbox{Added}$ value = net turnover + other operating income - other operating costs

 $^{^{3)} \} Cash \ flow = result + depreciations + disinvestments + mutation \ of \ equalization \ account \ for \ investment \ funds$

	2007	2006	2005
TNO Organisation			
Government funding turnover	196.4	195.8	195.8
Market turnover	307.7	303.9	305.1
Turnover	504.1	499.7	500.9
Operating result before impairment of (in)tangible fixed assets	5.0	6.6	6.8
Impairment of tangible fixed assets	-	-	-2.6
Operating result	5.0	6.6	4.2
Result (excluding result for group companies)	9.1	9.4	5.6
Operating result TNO Core areas	7.5	15.7	8.7
Result TNO Core areas	10.2	17.7	9.6
Number of employees (effective average)	4,003	4,027	4,216
Number of employees (effective average at the end of the year)	4,033	4,024	4,108
Average term of work in progress and debtors in months (TNO Core areas)	2.0	2.2	2.8
Solvency	0.51	0.47	0.50
Group companies			
Turnover	79.7	73.7	65.2
Operating result	3.1	3.9	3.2
Result	3.2	3.6	2.3
Number of employees (effective average)	631	573	530
Number of employees (effective average at the end of the year)	625	566	540

Supervisory Board as of 1 April 20		Oliver Coll Death Her State College College
J.M. Leemhuis-Stout, M.Sc., chairman	Since 01-03-2001	Chairman of the Dutch Hospitals Association (NVZ) plus various executive and
		supervisory positions, including chairmanship of the Police Academy Supervisory Board
Ms. Prof. M.C.E. van Dam-Mieras, PhD.	Since 01-05-2000	Vice-chancellor University of Leiden
H.W. Broeders	Since 01-07-2006	Managing Director of Capgemini's Northern Europe and Asia Pacific Strategic
		Business Unit, Member of Capgemini S.A. Executive Committee, Chairman ICT-Office
Prof. L. Koopmans, PhD.	Since 01-02-1999	Emeritus professor of the University of Groningen and non-executive director of
		Eureko Achmea, NUON and other companies, chairman of the Board of Directors
		at Rabobank Nederland
G-J. Kramer, M.Sc.	Since 01-09-2003	Former President of Fugro, various executive positions and commissionerships,
		including chairman of the Supervisory Board of the Delft university of Technology
J.G.F. Veldhuis, M.A.	Since 01-09-2003	Former Chairman of the Board of Governors of Utrecht University,
		various executive positions and commissionerships
E. Veltkamp, PhD.	Since 01-05-2002	Former Senior Vice President Research and Development at Unilever N.V.,
		various executive positions and commissionership.
H.P. Drop, M.A., secretary		
Board of Management as of 1 April	1 2008	
J.C. Huis in 't Veld, M.Sc., chairman	until 01-04-2008	Member of Board of Supervisors of Ballast Nedam N.V., Member of Advisory Board
		of Allseas B.V., Member of Supervisory Board of Deltares, Member of Knowledge ar
		Innovation Policy Board for Mobility and Water (Dept. Transport), Member of
		Zuidvleugel Programme Committee, Member of EARTO Board, Member of the Board
		of EUROTECH, Supervisory Board of Joanneum Research (Austria)
Ms. C.M. Colijn-Hooymans, PhD.	since 1-10-2002	Deputy Crown/appointed member of the Social Economic Council (SER), Member of
		Advisory Council for Science and Technology Policy (AWT), Member of the Board
		of Radboud Foundation (Radboud University and Radboud University Medical
		Centre), Member of Supervisory Board of Royal KPN NV, Member of Supervisory
		Board Rabobank Vallei en Rijn
C. van Duyvendijk	since 01-07-2003	Member of the Board Netherlands Defence Manufacturers Association (NIID),
		Member of the Advisory Board for Netherlands Agency for Aerospace Programmes
		(NIVR), Chairman Supervisory Board Royal Netherlands Sea Rescue Institution
		(KNRM), Member of the Board Nederland Maritiem Land (NML), Member of the
		International Advisory Board for Ocean Security Initiative (OSI)
J.H.J. Mengelers, M.Sc.	since 01-04-2008	Member of the Eindhoven Manufacturers Community, Member of the Supervisory
		Board of the Netherlands Institute of Metal Research, Member of the Supervisory
		Board of Rabobank Eindhoven-Veldhoven, Chairman of the Board of the Sports and
		Technology Foundation, Member of the Board of the InnoSportNL Foundation,
		Member of the ITER-NL Council
Composition of the Defence Rese	earch Council as of	1 April 2008
C. van Duyvendijk, chairman	since 01-07-2003	TNO, Member of the Board of Management with responsibility for Defence
Rear Admiral K. Visser (deputy chairman)	since 01-01-2008	Ministry of Defence, Director of Weapons Systems
Rear Admiral M. Borsboom	since 01-10-2007	Ministry of Defence, Director of Operational Policy, Requirements and Plans
Brigadier-General, R. van der Meer, MD	since 01-01-2008	Ministry of Defence, Director of Military Health
Rear Admiral J.W. Ort	since 01-04-2007	Ministry of Defence, Director of Information and Organisation
P.J. Keuning, M.Sc.	since 01-04-2006	Ministry of Defence, Sub/departmental Head of Defence Research & Development
L. le Duc, M.A.	since 01-08-2004	Ministry of Education, Culture and Science, Head of Science, OWB Board
Major General (retired) G.J.C. Roozendaal	since 01-04-2006	Chairman of the Strategic Advisory Council
Major General Marine Corps (retired)	since 01-12-2006	
F.E. van Kappen		
P.A.O.G. Korting, M.Sc., expert	since 01-04-2006	TNO Defence, Security and Safety, Managing Director
C. Eberwijn, M.Sc., expert	since 01-04-2006	TNO Defence, Security and Safety, Director of Operations
or Esseringin, innosin, empore		

In 2007 total consolidated turnover rose by 9 million euros to 579 million euros (see graph 1). A third of this - 196 million euros - was made available via government funding for the development of new knowledge. This happened for the first time in 2007 via the demand-driven programmes within the twelve social and economic themes. Only 26 million euros of this is available for 'knowledge as assets across the themes'. This is knowledge development that is not directly linked to demand from society or the departments. The distribution of knowledge development via the demand-driven programmes across the departments is shown in graph 2. The market turnover of 383 million euros comprises 309 million euros from the contract assignments of the five core areas: this application of knowledge is based on the distinctive position the five core areas have been able to build up in the twelve themes via the aforementioned demand-driven research (the knowledge development).

Graph 3 shows how the market turnover is distributed by Dutch industry (42 per cent), International (33 per cent) and Dutch authorities (25 per cent). The other 80 million euros of market turnover derives from the commercialisation of knowledge by the 50 or so companies of TNO Companies B.V. This is the consolidated turnover of the group companies in which TNO has a stake of more than 50 per cent. There are also 36 companies that have developed to such an extent that TNO now has a minority stake in them. Such commercialisation of knowledge has no government funding and is therefore incorporated in a separate private limited company structure. These companies are normally 'spin-offs' or 'spin-outs' of activities within the five core areas. The total international turnover from the core areas and TNO Companies B.V. has risen to 126 million euros in 2007.

Graph 1

incl. turnover of TNO Group companies Consolidated group companies (>50% stake) 2007 = EUR 80 million

Commercialisation of knowledge by TNO Group companies 80 m.

Application of knowledge
Contract assignments 303 m. 1)
Knowledge development

Government funding 196 m.

1) Adjusted for internal turnover

OCW 76 m., of which 26 m. KAVOT

Graph 2

Knowledge as assets within themes (KAV)
Knowledge as assets across the themes (KAVOT)
Policy and application geared knowledge investments (BTK)
ministries:

DEF 50 m.
LNV 4 m.
SZW 5 m.

VWS 7 m.
VROM 7 m.

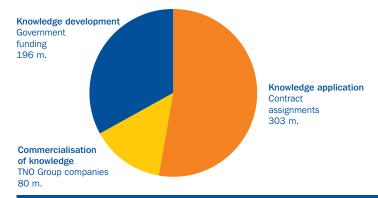
V&W 3 m.

EZ 44 m., of which DINO 15 m.

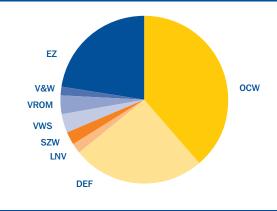
Graph 3

2007 2006

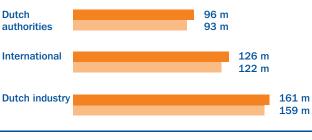
Consolidated turnover TNO 2007 (EUR 579 million)



TNO government funding 2007 (EUR 196 million)



Consolidated market turnover 2007 (EUR 383 million)



Allied through innovation: that is the title of our strategic plan 2007-2010. This alliance has also been expressed in the first year of the plan through the many new and existing alliances both inside and outside TNO. TNO is a key player in a growing international network of scientific top institutes, companies with an ambitious development profile, universities and other partners in knowledge development. We need this network along with our knowledge to realise our mission, which is to make scientific knowledge accessible to boost the capacity of industry and government to innovate.

These networks are indispensable in creating meeting points where we can make and exchange knowledge.

Strategic relationships and new alliances

In the year under review we have broadened, deepened and supplemented our strategic relationships with new combinations in various fields. These networks are indispensable in creating meeting points where we can make and exchange knowledge. To this end we also need our stakeholders. Each year we invite them to round-table talks in which we check our notions about strategic issues against those of our relations from industry, government and knowledge institutions.

Since a good, direct relationship with leading political and civil service officials from the ministries is important to ensuring that the work of TNO fits in with the strategic framework, contact was made with the new Dutch Cabinet team and their civil service advisors immediately after the new government took office in 2007. This resulted in a large number of visits and discussions with various ministers.

Since 2007 TNO has been collaborating with the Vrije University (VU), Wageningen University and Research Centre, the KNMI (meteorological institute) and the University of Utrecht in the new Climate Centre that has a budget of 50 million euros. In 2007 two new knowledge centres were founded, namely the Utrecht Centre for Geosciences (UCG), a joint cooperation between TNO and the University of Utrecht, and the Integrated Basin Tectonics knowledge centre, set up by TNO and the VU Amsterdam. The existing Centre on Performance and Quality of Service of TNO and the University of Twente was

expanded to include the Delft and Eindhoven universities of technology, thereby making it the first 3TU Federation knowledge centre. TNO is participating via the Biomedical Materials Foundation and the Centre for Translational Molecular Medicine in the new Life Sciences and Health innovation programme sponsored by the Ministry of Economic Affairs.

The past year saw the emergence of the Deltares knowledge institute in which TNO is a partner. At the end of November 2007 the official opening of the Holst Centre, in which TNO and the Belgian knowledge institute IMEC are collaborating, took place in Eindhoven. It was also announced at the beginning of December 2007 that the Cologne-based TÜV Rheinland would be working together with TNO in the field of crash testing, with the activities centred in the southern Dutch city of Helmond. In 2008 a new expertise centre sponsored by the Ministry of Health, Welfare and Sport, the Centre for Health Assets, is being incorporated within TNO.

Knowledge

In 2007 TNO worked on the basis of formally established demand-driven programmes for the first time. These research programmes are a series of studies that link up with umbrella themes that are not randomly chosen but are based on public issues, contemporary topics that are highly interesting and relevant from a policy standpoint and which demand new answers. Sustainability and competitiveness for industry and government are the central thread for these research themes (which are highlighted later in this review).

TNO participates in a large number of open innovation networks.

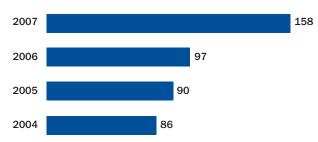
European framework programmes

December 2006 saw the official launch of the Seventh European Framework Programme for research and development. This is of great significance to TNO since it offers a unique opportunity for participation and joint knowledge development in international networks. By offering top niche expertise and facilities of international allure, TNO acquires access to key knowledge pools, something that supports its grassroots. In the year under review the impact of FP6 was unveiled. TNO had been involved in some 215 projects, having initiated and coordinated 33. TNO was mainly active in the themes of 'informatics', 'nanotechnology, production technology and material', 'energy', 'surface transport', and 'climate and ecosystems'. In addition, TNO was involved in thirty or so projects that aimed to support technological innovation in the SME domain and industrial sectors.

IP position

A large number of patent registrations were realised among our strategic partners thanks to the knowledge exchange that occurs during cooperation.

Patent registrations



Technology position audits

The year under review saw the auditing of the technology position of TNO Information and Communication
Technology as well as two business units of TNO Quality of Life and two of TNO Science and Industry. In general, the audits resulted in 'good' to 'very good' scores. The general recommendation of the audits was that TNO should benchmark itself more internationally against comparable institutes.

Market

Turnover for the TNO organisation

The Dutch market in 2007 reveals a picture of diversity. Growth in revenue from government assignments for

the TNO organisation rose by almost 5 per cent (up to approx. 78 million euros), which was largely attributable to assignments from the ministries of Economic Affairs, Transport, Public Works and Water Management, and Housing, Spatial Planning and the Environment while there were substantially fewer assignments from the ministries of Social Affairs and Employment as well as Defence, the latter partly due to the costs of the mission to Uruzgan. Income from local authorities (provinces, municipalities and such like) remained stable. Market turnover from Dutch industry fell by five million euros to 133 million euros, the result of a fall in the telecom, food and health sectors while there was a perceptible rise in the energy market and engineering firms. The largest private customers were ASML, KPN and Shell. The fall in market turnover from Dutch industry can also be explained in part by the privatisation of several TNO entities in 2007.

Collaboration with Dutch industry occurred increasingly through separate foundations, as referred to above. TNO participated in a large number of open innovation networks, mainly the FES initiatives sponsored by the Ministry of Economic Affairs for whom assignments grew by 88 per cent to 11.6 million euros.

The TNO strategic plan for 2007-2010 makes provision for growth mainly through international assignments of 30 per cent up to 2010. In this first year of the new strategy period we lay on course as growth in international turnover in the core areas registered almost 7 per cent. Turnover from European countries rose by 8.4 per cent to exceed 54 million euros while income from the rest of the world remained stable at around 19 million euros. Revenues from international organisations increased by 6.4 per cent to 23.8 million euros, a portion of which derived from EU Framework programme assignments that rose by 5.5 per cent to 18.2 million euros. For this EU Framework programme work TNO looks to major international alliances with industry, fellow research and technology organisations (RTOs) and universities. Of these RTOs, TNO is among the most internationally oriented.

Turnover from TNO group companies

Market turnover from TNO group companies rose by 8 per cent from 74 million euros in 2006 to 80 million euros in 2007. This relates to the consolidated turnover of some 50 companies in which TNO has more than a 50 per cent stake



from left to right C.M. Colijn-Hooymans, PhD., J.C. Huis in 't Veld, M.Sc. (chairman until 1 April 2008),

and a further 36 companies in which TNO Companies B.V. has a minority stake.

SMEs

Collaboration between TNO and the SME sector takes many different forms. In addition to making TNO knowledge applicable in customised form for small and medium sized enterprises, testing, approving and certifying for customers remain three key activities. This also means that TNO reaches a significant portion of the target group in the SME domain.

Collaboration between TNO and SMEs remains an important feature in the co-funding programme in which TNO ensures a basic knowledge that ties in with the needs in the SME domain. This co-funding programme is predominantly aimed at knowledge development with SME forerunners, though in 2007 TNO also served the needs of thousands of SME followers and users with state-of-the-art knowledge. TNO is clearly the preferred SME knowledge institution when it comes to spending innovation vouchers, both individual and 'stacked' vouchers.

The SBIR programme undertaken by TNO is intended for SME leaders and is geared to developing a product concept into a commercial product. In 2007 28 product concepts were put on offer to SMEs to take up the challenge with the help of TNO.

Relationships with higher vocational education were further strengthened in 2007, which resulted in more TNO lecturers featuring in this professional education field, from six to eight. This is also a way in which TNO supports innovation in the SME domain.

A number of tangible examples of the impact of the work of TNO can be found in the 'Knowledge for Business' section of this review. In September 2007 a second edition of the 'SME and TNO' book also appeared featuring 21 successful examples of collaboration between SMEs and TNO.

Spin-offs

In 2007 six new companies emerged from TNO, largely on the basis of the knowledge developed in the TNO organisation and so helping to activate this knowledge in the marketplace. TNO Companies B.V. also stimulates the independence of the limited companies under its wing. A total of some 8 million euros (80 fte) was generated in 2007 through independence gained from the core areas in the shape of new companies. One of these independent TNO entities concerns the Products and Materials department of the Science and Technology core area that was acquired at the beginning of 2007 by TNO Quality.

In 2007 TNO Companies B.V. disposed of more participations than it founded, including Lightweight Structure B.V., Lactrys Patents B.V. and O2View B.V.



C. van Duyvendijk, J.H.J. Mengelers, M.Sc. (chairman from April 1 2008)

Finance and Operations

In 2007 consolidated turnover had risen by 9.3 million euros to 578.9 million euros (+1.6 per cent) with a positive result of 12.3 million euros, 0.8 million euros above the target for 2007 and more or less in line with the result in 2006 (13.1 million euros).

Turnover

The turnover of TNO – the TNO organisation including its group companies – was 578.9 million euros, with the public organisation accounting for 504.1 million euros, an increase of 4.4 million euros, though 8 million euros of the turnover was privatised to TNO Companies B.V. The turnover of the group companies that are whole TNO subsidiaries rose from 73.7 million euros in 2006 to 79.7 million euros in 2007. This increase can be attributed to revenues from privatisation (spin-offs) in 2006 and 2007 from the public organisation. Government funded turnover remained at 196.4 million euros at par with 2006 (195.8 million euros). Market turnover rose by 8.7 million euros to 382.5 million euros (2006: 373.8 million euros), equivalent to 66 per cent of the total turnover.

Domestic turnover (industry and government) rose by 4.9 million euros on 2006 to 256.8 million euros. What is noticeable about this figure is the rise in turnover from government assignments by 3.2 million euros despite a fall in the number of assignments from the Ministry of Defence by 7.3 million euros, as a result of modified priorities, a shift

that had a powerful negative impact on both the turnover and result of the Defence, Security and Safety core area. This loss was more than compensated by the increase from other ministries, especially Economic Affairs (+5.4 million euros). Foreign turnover, including TNO group companies, increased by a good 3 per cent to 125.8 million euros.

Operating expenses

Personnel expenses rose by 13.6 million euros, an increase largely due to the higher numbers of personnel hired in at around 6.1 million euros and the effects of the autonomous salary increments of around 5 million euros. The other operating expenses declined compared to 2006 by some 2 million euros as a result of a lower mutation within the claims and miscellaneous provisions (5.2 million euros) partly compensated by higher general management costs (+2.1 million euros), use of technical resources (+1.5 million euros) and outsourcing (+1.2 million euros).

Cash assets

At the end of 2007 cash assets stood at 112.2 million euros, 31.8 million euros less than at the end of 2006 and caused by an outgoing cash flow from investment activities of 58.9 million euros as opposed to an incoming cash flow from operations of 27.5 million euros. Investment in 2007 related to 25.7 million euros in buildings, land and permanent technical installations, including 7 million euros for the purchase of land in Cromstrijen in relation to the move there of the TNO Defence, Security and Safety laboratories

Report of the TNO Board of Management

The internationalisation of demand and supply makes it more imperative for institutes like tno to acquire dominant and distinctive positions.

from Rijswijk and Ypenburg. Furthermore, 34.7 million euros were invested in technical resources, stock and intangible fixed assets.

Demand-driven programmes 2007-2010

The year under review saw demand-driven programmes implemented for the first time. These programmes develop out of the twelve social and economic themes of the strategic plan for 2007-2010. In reviewing the implementation of these programmes, it has become evident that certain aspects require differentiated work agreements with and between the funding departments and TNO. In the spring of 2007 further agreements were made with the Ministry of Education, Culture and Science on the planning and control relating to 2008 adjustments and 2007 accounts. A letter of 7 September 2007 announced cuts averaging 6 percent were levied by the Ministry of Education, Culture and Science on TNO for the period 2008-2012. Upon receipt of this letter, discussions began within TNO on distributing the budgets for 2008, a process that was completed in October with the budgetary adjustments for 2008 being passed on to the respective administrators.

Relocation at TNO

In 2007 the relocation plans for certain TNO entities were substantiated, with agreement being reached with the Cromstrijen local authorities on moving the activities of TNO Defence, Security and Safety from Rijswijk and Ypenburg to the municipality in the Hoekse Waard. Environment activities have also been transferred from Apeldoorn to Utrecht, creating a powerful concentration of this research work.

The year of fascination

In 2007 TNO celebrated its seventy-five year anniversary under the slogan 'fascination'. Throughout the year the notion of fascination was shaped in a variety of ways. One of the highlights was the official opening of the anniversary year on 25 April at the *Grote Kerk* in Delft in the presence of Her Majesty, Queen Beatrix. Everyone involved at TNO or in the work of TNO was able to share in our fascinating world of innovation throughout the year.

Personnel

Our personnel are vital to achieving our mission, their professionalism and social responsibility key assets. In the year under review new initiatives were taken to encourage their commitment and fascination. In the context of 'employability' a career support centre was developed along with other instruments intended to enable personnel to steer their own careers. In the area of management development an educational programme for top personnel was implemented and a TNO-broad 'talent development' programme got under way.

In the year under review a new market-based pension scheme was introduced at TNO. The transition from a final salary to an averaged salary scheme was linked to a new salary system that was modified to account for the growing shortage in the labour market. This could only be made possible through intensive and constructive dialogue with the central works council, both formally and informally.

The fruits of these labours appear to be paying off in the light of the employee satisfaction survey of 2007 that showed, after a decline in 2005 and 2006, a more positive trend. Pride and commitment are clearly evident in the higher scores for collegiality and contact with superiors according to an external survey in *InCompany* journal for image research. An external survey by the *Intermediair* personnel journal also showed a significant improvement in work satisfaction. In 2008 TNO will be undertaking another employee satisfaction survey.

TNO personnel are also valued outside of their own organisation, with this year being no exception in the number of awards and acknowledgements they have received. A list of these is contained on page 15.

In 2007 the number of personnel in the TNO organisation fell to 4,331 (4,033 fte) at the end of the year, with 588 new people joining the organisation and 613 leaving, many of whom joined TNO group companies at one of the six new companies that were founded. At the TNO consolidated group companies 694 people (625 fte) were employed in 2007 and 58 TNO staff held professorships, with a further eight lectureships.

Communication

TNO positions itself as a multidisciplinary knowledge company that has an impact on society. Our strong brand based on reliability, integrity and innovation helps us to achieve this. The TNO communication strategy supports this positioning, and indications are that this strategy is succeeding. Our image continues to be good though it is changing intrinsically. We are stable in terms of 'reliability'

but we are gaining points in the 'social' and 'dynamic' aspects. This has been enhanced by the activities of our anniversary year and in the entirely renewed websites *TNO.nl* and *werkenbijTNO.nl*. The children's book 'Snap jij het? Ik wel!' ('Do you get it? I do!') fits in with our efforts to be innovative in our communication. The children's book that was published in our anniversary year and was delivered to all 9,000 primary schools in the Netherlands helps transfer knowledge to children in a colourful way.

Finally

In our anniversary book 'Toen.Nu.TNO' ('Then.Now. TNO') published in 2007 we not only looked back at the organisation's illustrious past but focused on our current and future position in the international knowledge infrastructure. The internationalisation of demand and supply makes it more imperative for institutes like TNO to acquire dominant and distinctive positions. TNO's knowledge development and application agendas ensure that this will happen. TNO has the very best expertise in a whole range of fields. TNO's knowledge development agenda generates innovative products, services and processes, which are customised for industry and government. Much can happen in a human life of 75 years or so. That has certainly been the case for an organisation like TNO that has been around for threequarters of a century. Since 1932 we have grown into the largest research organisation in the Netherlands and one of Europe's top three research and technology organisations. Much credit for this has to go to the enthusiasm and expertise of the TNO personnel themselves as well as to our knowledge partners and, of course, our industry and government customers that have put their confidence in our organisation.

Delft, 18 March 2008 J.C. Huis in 't Veld, M.Sc., *chairman* C.M. Colijn-Hooymans, PhD. C. van Duyvendijk TNO is a statutory legal entity whose core task is to make applied scientific research subservient to the public interest. This is contained in the TNO Act that also determines the structure of the organisation and its relationship with the Minister of Education, Culture and Science (OCW). TNO operates under the ministerial responsibility of the Minister of OCW but performs its task as an organisation independently.

In 2007 the TNO Supervisory Board comprised seven members. Dr E. Veltkamp was recommended to serve a second period as member of the Supervisory Board that met five times as normal in 2007 and a few members attended a further two meetings with the Central Works Council. The remuneration committee met twice, the selection and appointments committee several times.

During 2007 no significant amendments occurred in the policy of TNO in the area of corporate governance. The TNO Organisation Regulation that governs the management and structure of TNO was once again established by the Board of Management and approved by the Supervisory Board in its meeting of 18 December 2007. In respect of transparent operations, a start is being made at the beginning of 2008 on completing the internal and external publication of all organisation regulations.

Corporate governance within TNO is also characterised by self-regulation. In addition to the organisation regulations, TNO has a code of conduct, a whistle-blower regulation and a complaints procedure based on the General Administrative Law Act.

With a view to uniformity of the regulations in the area of financial control, personnel and accountability, the framework act on independent governing bodies took effect on 1 February 2007. The Minister of OCW informed the Dutch Lower House that he was of the opinion that this framework act did not apply to TNO since TNO had no public authorisation.

In 2007 a study was initiated upon an initiative of the Ministry of OCW into remuneration practice in this sector, the aim of which was to arrive at a code of conduct on upper incomes for this sector together with NWO, KNAW, KB and TNO. TNO cooperated in this survey.

The financial accounting occurs in part by the Board of Management sending each year the annual review and annual accounts to the Minister of OCW. The annual accounts as approved by the Supervisory Board are complemented by an accountant's statement. KPMG has,

as in previous years, been designated accountant by the Supervisory Board. The accountant also undertakes a separate audit concerning the rightful spending of the base funding according to the TNO audit protocol as agreed between the OCW, the accountant and TNO. In the absence of the Board of Management, the Supervisory Board discussed the report with the accountant.

In March 2007 the Board of Management was discharged. In view of the opinion of the Minister of OCW who is unable to discharge the Supervisory Board by the TNO Act, the Supervisory Board forewent alternatives for discharging the Supervisory Board itself.

The Board of Management comprises three members that are, as the Supervisory Board members, appointed by Royal Decree for an unlimited period. Deliberation took place once in 2007 between the Minister of OCW and the Board of Management. In 2007 intensive and scrupulous discussions were held on the matter of the successor to the chairman of the Board of Management. Following a positive recommendation by the Central Works Council, the Supervisory Board made its initial recommendation in September 2007 in line with the TNO Act. The crown appointment follows the recommendation of the candidate by the Minister of OCW in the Cabinet meeting.

Delft, 18 March 2008 J.M. Leemhuis-Stout, M.Sc, *chairman* Each year a number of TNO staff receive an award, recognition or a commendable appointment from an external party, often an international association or organisation. The TNO Toppers of 2007 are:

Name

Award – Awarding organisation

Elke Rabé

Best Masters thesis - Shell prize for sustainable energy

Maud Koek, Bas Muilwijk and Mariët van der Werf

A'Most Cited Article' - ACS Publications

Peter Essens

Excellence Award - from the Human Factors and Medicine Panel

Marc Steen

Best research topic for 'Future research in Freeband' - Eindhoven

Wim Bles

Kent K. Gillingham Award – Annual scientific conference of the Aerospace Medical Association

Jan van Erp, Eric Groen, Jelte Bos, Hendrik-Jan van Veen, Wim Bles

'Best Paper Award' - Annual scientific conference of the Aerospace Medical Association

Marcel van Berlo

'Best Paper Award' - International Emergency Management Society

Anthonie van Lieburg, Peter Petiet and Nanne le Grand

'Best Paper Award' - 8th Asia-Pacific Complex Systems Conference

Jan-Willem Streefkerk

Fulbright doctorate fair - Virginia Polytechnic and State University in Blacksburg, USA

Pauline Verloove-Vanhorick

Made the prestigious Health Council speech 2007 for the Health Council, entitled 'Youth, health and course of life'.

Pauline has advised the ministers and parliament on the state of science regarding public health

Ernst Koningsveld

'Fellow' – the International Ergonomics Association

Irek Karkowski

Nomination for 'Most innovative home care project of 2007' at the 'Power of innovation in Hosuing and care' congress by minister Vogelaar and secretary of state Bussemaker

Oskar van Deventer, Victor Klos, Hiddo Hut, Arnoud de Jong, Liliane Kuiper, Jan Burgmeijer and Rob Kooij

Grand Prix and the Most Innovative Game Award of the International Mobile Gaming Awards – awarded by an international jury

Sanne Heesmans

'Best contribution paper award' - the 24th ISMOR (International Symposium on Military Operational Research)

Judith Kessens and David van Leeuwen

Best Paper Prize 2007 – COCOSDA ('The International Committee for the Co-ordination and Standardisation of Speech Databases and Assessment Techniques'.)

Wouter Lotens

Official recognition for his contribution to various NATO groups involved in Soldier Systems - NATO

Nicolette Theunissen

'Sustainable Growth Excellence Awards' - DuPont

Every year TNO establishes new research programmes that link up with an umbrella theme. These are not topics we choose at random; they are social themes set by the Dutch government, current subjects and issues that are both interesting and relevant from a policy perspective. And they raise questions that need new answers. After four years of research the ministries responsible make an evaluation, making adjustments to the research programmes where necessary. The current themes are:

Public safety

Safety is a hot issue. For good reason. Criminals are working on an even broader scale, terrorism has an international arena, petty crime is also on the increase and vital facilities are vulnerable. The threat of natural disasters is also growing. But we want people in the Netherlands to be and feel safe – without compromising their privacy and freedom of movement. TNO contributes to these goals by combining its research efforts on various fronts, like intelligence, ICT and behavioural science. Our focus lies on three key areas: effective and safe intervention, operating through intelligence and information, and a systematic approach to safety and infrastructures.



Defence

The Dutch armed forces take a significant part in international operations, whether peace missions or active intervention in military conflicts. To keep our armed forces effective and affordable, the Ministry of Defence needs scientific and technological knowledge and expertise. Which is why TNO acts as a knowledge partner for the ministry. Not only do we develop clever technologies and materials for the army, air force and navy, we also advise on optimum organisation and operational command processes. In such a way, we help the ministry to defend Dutch and allied territory, maintain international order and support national and international authorities in keeping the law, combating disasters and offering humanitarian aid.



Healthy living

Life in the Netherlands is getting unhealthier by the day. Younger people in particular hardly exercise and prefer to eat fast/food snacks to a good meal. Moreover, the population is ageing, and with ageing comes deficiency. It means that our healthcare system can hardly cope with demand. Creative solutions for these problems are absolutely vital. TNO is putting its knowledge and expertise into the task of alleviating the problem. Our focus lies on youth and health, exercise and health, and innovation in healthcare.



Food

Good food: in a prosperous country like the Netherlands that may seem self apparent. But it's not. With more and more Dutch people struggling to contain overweight and other health problems, more emphasis is being put on what we eat. It should be both palatable and suit our lifestyle but it must not lead to us putting on weight. Preferably it should be food that is healthy for us. Moreover, what we eat has to be safe, and stay that way even in the wake of new dangers such as new infections and pathogens, or resistance to antibiotics.

TNO is helping generate solutions to such food issues through its fan of scientific disciplines, from chemistry to ICT.



Work participation and ageing

Young, healthy and enterprising. Many an employer would like to be able to place a red sticker on his vacancies. But he would then be fishing in a small pond because it is the older group that is growing faster than the younger group. The employer can consider himself pleased to find suitable personnel, especially with the continual fall in the number of people working.

To prevent labour productivity falling even further, more people have to remain healthy and in work for longer. Those not currently active have to be stimulated to work in the near future. TNO's knowledge and expertise help keep labour productivity in check.



Accessibility

The Dutch and traffic jams are companions. The roads used to silt up in the past due to heavy snowfall but now congestion, and additional travel time, has become a way of life for the road user. And it is not just the road that is suffering. Travel and transport by water, rail and air travel are close to capacity. More growth in transport and traffic will lead to such problems for society throughout Europe that massive investment will be needed to lay and maintain infrastructure and terminals, with all the impact that will have on the habitat. Classical solutions, like more asphalt, can no longer be considered suitable to deal with the increasing transport need. Innovative and smart solutions are vital. And TNO is contributing a significant share of those.



Construction and spatial development

The Netherlands is a small country, and the art of living there is to design the space such that the various stakeholders, from residents and companies to road users and environmental groups, can live in harmony. So that the country can be developed sustainably. Sustainable for the people that live there, for the environment and for the economy. TNO examines how the various interests can best be weighed up against each other and served. More importantly, how you can use the input to improve policy.



Living with water

In the Netherlands we are quite used to it: living below sea level. However, our delta is becoming increasingly more densely populated, and climate change is causing sea levels to rise. This has generated water targets, both national and international. Examples include the Dutch targets set by the National Governing Agreement on Water, the European Framework Directive on Water and the Millennium Development Goals of the UN. To achieve these targets is a crucial social task we face: action is the order, innovation the necessity. TNO is a supplier of the innovation.



Energy (management)

We are using increasingly more energy. An excessive amount of home appliances are pushing up energy consumption and flights to far/off destinations are commonplace. The result is that our energy sources are becoming depleted and exhausted. And yet we want our children to be able to skate and ski in the winter when they grow older. This means that we will have to change the way we manage our energy needs – but how? TNO is investigating by studying the exploration and production of oil and gas as well as sustainable (geo-)energy.



Natural and built environment

Our habitat is coming under pressure by more and more people that want to be more mobile and active as well as consume more. The space that exists is therefore being used to a much more intensive and multiple extent. TNO wants to help reduce the strain on the natural and built environment by developing knowledge for policymakers, among others, and by focusing on two areas: the quality of the habitat and the sustainable use and management of the subsurface.



High-tech systems, processes and materials

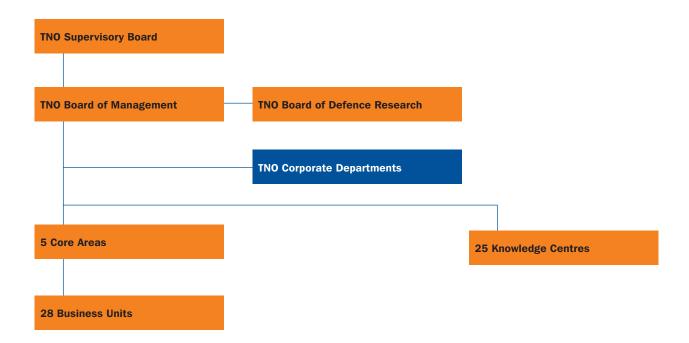
These days it seems matter of fact that hearing aids are a third of the size they previously were and yet have many more options. Or that a mobile phone is hardly larger than the hand of an infant but is perfectly suited for phoning, mailing, internetting and taking photos. Faster and smaller products continue to come on to the market and with greater functionality. To manufacture these microsystems requires special high-tech instruments and production equipment able to work on micro, nano and even pico scale. Such systems are developed not only in Japan and America but also in the Netherlands. Dutch industry wants to hold on to its competitive edge through the innovative use of hightech materials. TNO is helping them with its knowledge and expertise.



Optimum use of ICT

We communicate the whole day long. ICT has taken on an indispensable role in this. More and more people are accepting that our real physical world lives side by side with a virtual reality. From the comfort of our sofa we can visit the bank, order a DVD or pick up information from the town hall. The use of ICT in our society is enormous, and we have not even begun to exhaust the possibilities. How can we use ICT even better in our society? What services and networks can you develop to improve the communication and information exchange between people in home and work situations? And what is an appropriate strategy for this? TNO is working to answer these questions.





TNO was established by law in 1932 in order to support companies and government that did not have their own R&D capacity. TNO is an organisation that is able to give an objective scientific assessment, independent of private or public interests.

In most cases TNO's customers exercise the option to exploit themselves the knowledge developed by TNO. But TNO also is commercially active with the knowledge it develops, putting this knowledge directly into the marketplace. This commercialisation is in the hands of TNO Companies B.V., an entity separate from the public TNO organisation. Shareholdership by the public TNO organisation enables knowledge to be channelled to the private domain. This public-private organisational structure of TNO is also a response to the very latest market and government insight.

TNO in figures

Consolidated balance sheet as at 31 December 2007

after appropriation of result					(in EUR x thousan
			31-12-2007		31-12-2006
Fixed assets					
Intangible fixed assets	1	3,523		4,238	
Tangible fixed assets	2	242,023		214,736	
Financial fixed assets	3	4,946		4,715	
			250,492		223,689
Current assets					
Stocks and work in progress	4	-17,820		-17,256	
Receivables	5	87,856		89,722	
Cash	6	112,173		143,960	
			182,209		216,426
Total			432,701		440,115
iotai			402,101		440,110
Financed as follows:					
Equity:					
- General reserves	7	153,691		138,968	
Appropriated reserves	8	53,040		55,162	
			206,731		194,130
Third-party interests			361		293
Investment funds equalisation account	9		33,655		23,337
Provisions	10		31,689		41,699
Long-term debt	11		11,376		11,763
Short-term debt	12		148,889		168,893

(in EUR x thousand)

			2007		2006
Turnover	13	578,906		569,579	
Other operating income	14	14,048		9,134	
orici operating moonie	17	14,040		3,134	
Operating income			592,954		578,713
Direct project costs	15		-77,026	-71,814	
Personnel costs	16		-362,463	-348,898	
Depreciation intangible fixed assets			-1,145	-753	
Depreciation tangible fixed assets	17		-30,081	-30,557	
Other operating costs	18		-114,151	-116,187	
Operating costs			-584,866		-568,209
			0.000		40.504
Operating result			8,088		10,504
nterest received			5,203		3,659
nterest paid			-706		-894
Result on ordinary operations before taxation			12,585		13,269
Faxation			-36		-746
ncome from financial fixed assets			-310		506
Result on ordinary operations after taxation			12,239		13,029
Third-party interests			54		22
Result			12,293		13,051
Appropriation of result:					
Result			12,293		13,051
Additions to:					
appropriation reserve for civil operating risks		-		-	
appropriation reserve for defence operating risks		-299		-182	
appropriation reserve for development cooperation		-1,150		-1,560	
appropriation reserve for new defence buildings		-5,374		-6,903	
			-6,823		-8,645
Vithdrawals from:					
appropriation reserve for civil operating risks		-		-	
appropriation reserve for defence operating risks		455		-	
appropriation reserve for development cooperation		1,003		-	
appropriation reserve for new defence buildings		7,487	8,945	3,507	3,507
Result after movements in appropriated reserves			14,415		7,913
Change in general reserve			-14,415		-7,913



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TNO Quality of Life

from left to right N.J. Snoeij, PhD., N. Harize, C.L. Ekkers, PhD.

Healthy food, good working conditions, healthcare, sport - these are all major influences on the quality of our daily life. That's why they are attacting increasing attention. From TNO, too: we research ways of safeguarding and improving people's health and performance.

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TNO Defense, Security and Safety

from left to right prof. P.J. Werkhoven, PhD., G.D. Klein Baltink, C. Eberwijn, M.Sc., P.A.O.G Korting, M.Sc.

Public safety is becoming an increasingly important theme both inside and outside national borders. TNO's research contributes to efficient and effective armed forces, and a safer society.

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TNO Science and Industry

from left to right J.V. Elsendoorn, M.Eng., R.A.C. Groothedde, M.Sc., E.J. Sol, PhD., J.H.J. Mengelers, M.Sc.

To be competitive internationally, industry has to innovate: with new products, new materials, new design and development methods. TNO helps industry take on this challenge.

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TNO Built Environment and Geosciences

from left to right M.J. van Bracht, PhD., D.Ph. Schmidt, M.Sc., H.M.E. Miedema, PhD., W.A.J. Mandersloot, M.A.

How can we optimise and sustain use of the space that is available to us in such a densely populated country? TNO examines how that space and the built environment can be best planned, used and managed, and how to make optimal use of the natural subsurface resources.

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TNO Information and Communication Technology

from left to right G. Bosveld, M.Sc., G. van Oortmerssen, PhD., L. Hoedemaker, M.Sc.

Make smarter use of ICT so that business and government get more of a return on their investments. TNO's research generates innovative ICT applications for operational processes

and information management.

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Statement of the TNO Board of Management

The consolidated balance sheet and profit and loss account have been derived from the financial statements of TNO for the year 2007. Our auditors issued an unqualified opinion on these financial statements in their auditors' report, dated March 18, 2008. This auditors' report, as part of the Dutch Annual Review, can be obtained from TNO.

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Are you seeking a solution to a knotty problem? Would you like to know if TNO can help you? If so, get in touch with the TNO Infodesk. The TNO Infodesk will put you in touch with the right person at TNO to help you. That will also give you the opportunity to experience at first hand our expertise, our enthusiasm and our dedication.

Would you like to know more? Click on tno.nl. You can request our quarterly magazine, TNO magazine, via the website. We are also happy to send you our brochures.

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