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Cover: Odense Vandselskab constructs a new foul water system with a diameter of up to 2½ metres at Odense harbour in a partnering project between COWI and Ove Arkil

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COWI is a leading northern European consulting group. We provide state-of-the-art services within the fields of engineering, environmental science and economics with due consideration for the environment and society. COWI is a leader within its fields because COWI's 3400 employees are leaders within theirs.

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Content

Nine trends
We have singled out nine current trends with great significance for the consulting sector—and society in general.

Annual Report 2004

Best financial results for several years

COWI aims to use its positive financial position to invest in business development in Denmark, Central and Eastern Europe and China

COWI A/S achieved the highest profit in the Group's history in 2004. Operating profit amounted to DKK 90.8 million compared with DKK 32.9 million for the previous year.

Klaus H. Ostenfeld, President and CEO of the COWI Group, states that the Company's financial strength will be used to invest in business development, primarily in Denmark, Central and Eastern Europe and China. He expects COWI's positive financial development to continue in 2005.

Growth in Denmark and Norway

"There has been marked socio-economic growth in our large domestic markets, Denmark and Norway. On this basis, we expect the demand for our services to increase in 2005," says Klaus H. Ostenfeld.

"In the Danish market, we need to exploit the emerging trend for investment in industry and construction, and we aim to gain market share as a result of our many distinctive projects. The experience we have gained will be offered to new clients", he says.

Even though it is difficult to form a comprehensive overview of the consequences of the recent municipal structural reform in Denmark, there is no doubt that there will be demand for COWI's skills, according to Klaus H. Ostenfeld.

"I foresee us being asked to help with analyses, planning, processes and technical solutions to ensure effective amalgamation and a good start for the new local authority units.

Our professional competencies, multi-disciplinary skills, references and knowledge of the municipalities will make us a leading player in the coming years", he stresses.

Based on expectations for socio-economic expansion on the two important domestic markets and growth prospects in a number of the international markets in which COWI promotes its specialist services, the Company expects increased turnover in 2005, greater profitability and consequently a higher operating margin.

Start-ups in Central and Eastern Europe

COWI achieves 60 per cent of its turnover outside Denmark, and the Group will develop its international presence over the coming years.

Klaus H. Ostenfeld states COWI's aim of achieving growth in selected markets in Central and Eastern Europe and China. All the selected markets have above-average socio-economic growth. COWI wishes to expand through organic growth, new start-ups and acquisitions. In Central and Eastern Europe, COWI wants to develop as local, broad-based multi-disciplinary consultants, while in China the emphasis is on consultancy within sustainable energy and transport infrastructure, notably bridges and tunnels.

"We are competitive in the new markets, because we have a local presence combined with access to the Group's international expertise and transfer of the latest technology within, for example, digital mapping and geographical information systems", emphasises Klaus H. Ostenfeld.

Increasing operating margin

COWI improved the operating profit of its core business areas in 2004, both at home and abroad and is now reaping the return on investments in the two companies acquired, Kampsax and the Norwegian COWI AS (formerly Interconsult). In Denmark, COWI has made progress, particularly within the areas of Nature and Environment, and Utilities and Energy. Market share has been retained within the major Buildings area. Internationally, there has been growth within roads, marine engineering, tunnels, airports and bridges, as well as within Industry and Nature and Environment consultancy services.

In 2004, COWI achieved a turnover of DKK 2,594 million, which is on a par with the preceding year. The operating margin has been increased to 3.5 per cent compared with 1.3 per cent in 2003.

"This is a step towards our targeted operating margin of 5-6 per cent", concludes Klaus H. Ostenfeld.

Key figures for the COWI Group	2000 DKKm	2001 DKKm	2002 DKKm	2003 DKKm	2004 DKKm	2004 EURm
Net turnover	1,443,3	1,632,0	2,016,4	2,605,3	2,594,3	348,8
Operating profit before amortisation, depreciation and impairment losses	56,2	103,3	108,3	113,6	156,1	21,0
Profit on ordinary activities before tax	30,1	60,9	53,8	40,4	96,7	13,0
Balance sheet total	999,7	1.044,6	1.415,7	1.519,4	1.562,7	210,2
Shareholders' funds	343,7	383,2	385,1	390,3	446,1	60,0
Free cash flow	75,3	3,7	-84,9	-15,5	129,4	17,5
Operating margin	1.4%	3.8%	2.7%	1.3%	3.5%	3.5%
Equity ratio	34.4%	36.7%	27.2%	25.7%	28.5%	28.5%
Return on equity	5.1%	12.7%	6.5%	5.7%	14.5%	14.5%

EUR/DKK rate, 31 December 2004 743,81

COWI expects growth in turnover in 2005 and increased profitability and consequently a higher operating margin, says President, CEO, Klaus H. Ostenfeld.

“Planners have taken to 3D technology in a big way”

“3D urban models put the focus on some core issues,” says municipal architect Ole Østergaard, pictured beside the river in Århus.

Rebuilding the city in 3D

Present-day planners have taken to 3D technology in a big way. Planners, politicians and private citizens all need to see buildings visualised before they are realised

You can stand on the street corner and see the flow of the river through the city of Århus. Fly above the rooftops and view the city from the air. Or swoop down to street level and almost sense the atmosphere by the water—even before work has commenced on clearing the course of the river through the city. Because we are in virtual Århus, where digging up the asphalt or moving whole buildings without dislodging a single brick is done with ease.

Previously 3D images served primarily to depict a bridge or a building, but today they are increasingly being used for landscape and urban models in which you can move around. As decision-making processes in the construction sector become more and more complex, 3D models provide a good perspective for politicians, architects, private citizens, builders and other involved parties.

3D helps resolve complex decision-making processes better than architectural drawings, makes a greater impact and improves communication between professional experts and private citizens on the changes being planned.

Today visualisation is receiving high priority on the political agenda.

Part of Århus as it looks in an electronic 3D urban model.

Since 1 January 2005, urban planners have been legally required to show how their plans will affect the surroundings. Århus City Council has decided to do this with the help of an electronic 3D urban model, Virtual Assessment of Planning (VAP), which covers all buildings within the city's Ring Road. Århus is growing fast and there is considerable interest in constructing new buildings and infrastructure in the city centre.

"Society is becoming increasingly complex," comments municipal architect Ole Østergaard from Århus City Council, "especially where planning and community involvement are concerned, which are growing factors in the political system. This is where VAP and other computer-animated visualisations are important tools for presenting to private citizens a comprehensible picture of the future. The widespread use of 3D is attributable to the considerable strength of the picture medium. The new generation has grown up focused on visual images and computer screens. They find it natural to relate to the digital world."

Technology now has the capability

COWI is consultant for Århus City Council on implementing VAP together with Cad-people and the Centre for Advanced Visualisation and Interaction (CAVI) with support from the municipal business fund. The municipal authorities began working with electronic urban models 15 years ago. But only in recent years has the technology become capable of processing the large amount of data necessary to depict a whole city in 3D. VAP is built up over a terrain-high demo model and registration of every single building in 3D. Aerial photos taken from different angles are then laid over it and when two pictures are put together it gives a 3D effect with precision down to ten centimetres. Visible detail includes shadows of buildings, roof tiles, doors and windows.

Århus City Council uses VAP for municipal and local planning, as well as urban renewal such as clearing the course of the river through the city, which will be carried out in stages. VAP will also be used to visualise tall buildings, harbours close to urban areas and freight yards. Functionality includes viewing different outline proposals for the same project. Visualisations are also a feature of public hearings and as an extra service proposals are also available for public viewing on the Internet, fulfilling the wish of the city council to give the public a better opportunity to assess future construction.

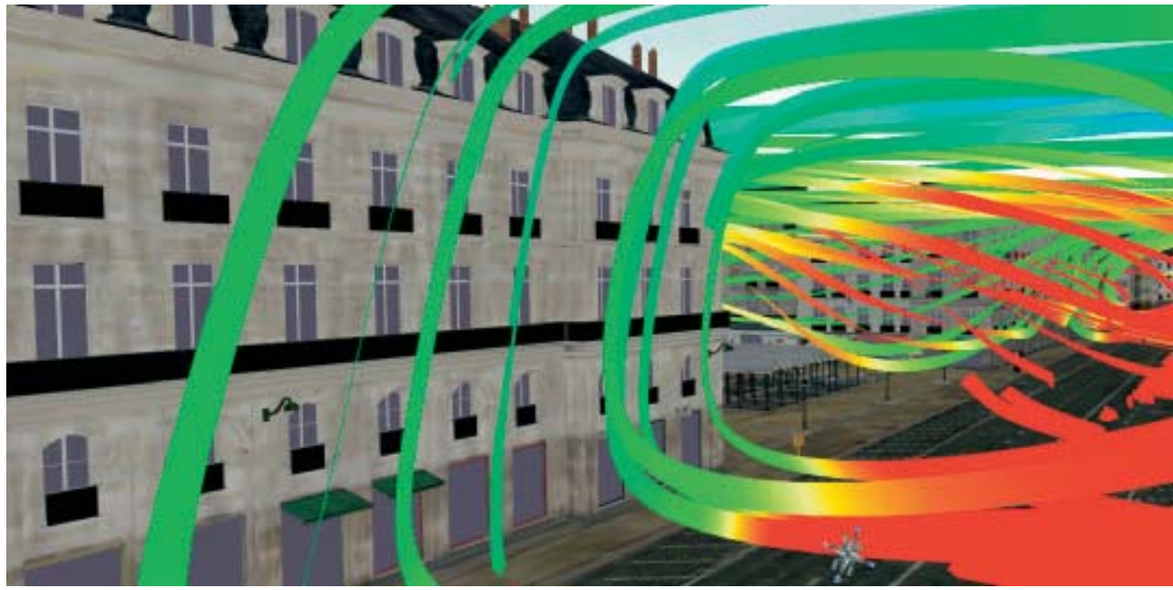
Like opening new doors

"These days it is virtually impossible to make mistakes with VAP," says Ole Østergaard. "You might give a house the wrong façade or colour, but the height and size will be realistically shown." However, he is not convinced that visualisations save time in the office.

"Working in 3D is like opening new doors. Each door opened reveals more work to be done. Visualisations in themselves do not create agreement or a common footing. But they do afford the opportunity for a common visual perception and remove layers of uncertainty which we might otherwise spend time discussing."

According to COWI head of department Jørgen Pedersen, one of the biggest challenges in the virtual world is to learn how to use and understand the tool. Today COWI is acting as consultant for several municipalities that plan to start working in 3D. To date the technology is best known in the construction sector. But 3D models are also gaining ground in other areas including infrastructure, plant facilities and environment. This will strengthen multidisciplinary collaboration between professional specialists and private and public partners.

One of the biggest challenges in the virtual world will be to use and understand the tool, says COWI head of department Jørgen Pedersen.



A new EU project shows the consequences of noise and pollution in urban areas.

The trend is spreading

Elsewhere, Aalborg City Council's new 3D model of the city centre provides a good overview for architects, urban planners, politicians and private citizens. It is expected that the model will initially be used to show different solutions for Aalborg harbour prior to building anything new—not least the planned Music House, which will occupy a prime site on the waterfront.

COWI is also consultant for Copenhagen County, providing visualisations of selected crossings for the proposed new light railway that will run west of Copenhagen. A 3D visualisation of a stretch of road is combined with EDP-based traffic simulations.

3D is also making inroads abroad, including Kuwait City where the Subiyah Causeway has been visualised in a landscape model to give an idea of how the new road and bridge will fit into the surroundings. And a new EU development project—Intel-Cities - shows the consequences of noise and pollution in urban areas. Joint tools are also under development that will combine IT, planning and analysis in a common IT environment. 3D will also be of great importance in connection with the pending municipal structural reform in Denmark, where newly formed municipalities are to be combined into one joint digital administration.

Århus City Council and COWI have joined forces on the EU project to further develop the use of 3D urban models in urban development.

"You cannot help being a little philosophical when you think about the opportunities the future holds," concludes municipal architect Ole Østergaard. "But we have to tread carefully: the closer we get to reality, with leaves on the trees and roof tiles on the houses, the more critical the observer will be towards the product. It is important to find the right level of detail so that the models do not end up looking like a dolls' town."

“Large, complex infrastructure projects will be managed by a single consultant”

The so-called one-stop-shopping model, where all required services are supplied by the same consultant, is becoming increasingly common in large, complex infrastructure projects.

Multidisciplinary consulting paves the way for one of the world’s longest bridges

In the future large, complex infrastructure projects will be managed by a single consultant

Managing major infrastructure projects requires good planning. In the 1970s and 1980s assignments were typically divided up into different areas of expertise, each of which was assigned to a different consultant specialised in a particular field within environment, traffic, planning etc. Today, professional disciplines are commonly combined into one package. The trend is increasingly towards single-consultancy package solutions the more strategic and complex the project. Consequently the so-called one-stop-shopping model, where all required services are supplied by the same consultant, is becoming increasingly common.

The consultant coordinates the numerous professional disciplines involved and assumes responsibility for on-time completion and delivery of the project within the agreed economic framework. This gives a more goal-oriented, well-managed process and also makes it easier to adjust and modify the project to incorporate any changes as it progresses.

The project to construct one of the world’s longest bridges, linking Kuwait City with the development area of Subiyah across the Bay of Kuwait, is just such a project. The 36 km bridge connection—the biggest infra-

The new bridge in Kuwait will afford locals convenient access to an entirely new residential development area.

structure project ever in Kuwait—will significantly contribute to the development of the northern shore of the Bay of Kuwait, which hitherto has been largely desert. A new urban development project aims to ease population pressure in Kuwait City, which within a few years will reach the limits of expansion.

Gives peace of mind

"Having only one consultant to turn to for advice gives us peace of mind," says a source in the Ministry of Public Works in Kuwait. "Therefore we have gone to great lengths to appoint a consultant who can deal with every aspect of such a large project."

For the Kuwait project, COWI is responsible for project management and completion of preliminary surveys and tender design for the bridge link. This involves COWI coordinating all disciplines including environment, traffic planning, economics, financing and risk analyses alongside the traditional technical disciplines such as design of roads, bridge, marine structures etc. The tender, for which COWI is responsible, will be a so-called turnkey Design & Build model where a contractor will take over responsibility for the detailed design and construction of the bridge link.

In addition, COWI is working on different solutions as to how the bridge will span the bay between Kuwait City and Subiyah. Here consideration must be given to price, planning aspects, traffic costs, environment, aesthetics, risk etc. Given the complex layout analyses involved, it is a distinct advantage that overall management responsibility rests with COWI in its dealings with the Ministry of Public Works in Kuwait.

"The great advantage of having the entire project under one umbrella is that we can more easily incorporate adjustments and modifications to the project as we progress, in accordance with the wishes and demands of the client and the political climate," explains COWI project manager Jes Bojsen Abild, who has been stationed in Kuwait for three years. "This means that we can provide the optimal decision-taking models. In addition, we can target our efforts and communicate important messages and consequences in direct dialogue with the client, which makes for a more streamlined process."

Communication must function

Seeing major infrastructure projects through to completion requires the consultant to have all the requisite professional disciplines under one roof and for there to be close, direct dialogue between all involved. But above all it requires good planning. To coordinate the multiplicity of disciplines involved in the project, COWI has stationed four staff at its offices in Kuwait City. They are in daily contact with head office in Lyngby, where a 40-man-strong team has been assigned to the project. There are also regular meetings with the Ministry of Public Works in Kuwait and monthly progress reports.

Jes Bojsen Abild continues: "It is important that communication functions well from the outset and that everyone is aware of what is expected of them. This means that the project framework is established early on, enabling the project to be implemented with minimal internal disruption. Also, as the manager responsible for the project you must have a basic knowledge of all the disciplines involved. Otherwise you will encounter difficulties, as you will not be speaking the same language."

COWI project manager Jes Bojsen Abild: "It is important that communication functions well from the outset and that everyone is aware of what is expected of them."

For technical advice and expertise Jes Bojsen Abild can draw on COWI's extensive infrastructure project network, which usually has previous experience of the challenges faced in terms of layout, financing and form of tender. He also has previous experience of managing major projects from similar bridge projects including the Qatar-Bahrain link and the Limerick bridge in Ireland. He was also involved in preliminary studies to assess the feasibility of a bridge link over the Fehmern Belt between Denmark and Germany.

Witness to development

Jes Bojsen Abild adds: "Since working as project coordinator on the Fehmern Belt link in the late 1990s, I have witnessed how major infrastructure projects have developed. The Fehmern project involved a political decision to carry out extensive preliminary surveys that would form the basis for the final political decision on the project. Separate consultancy packages were tendered in technology, environment, traffic, geotechnology and coordination. COWI won three of the five packages and thus was in a position to adopt a more coordinated approach. This was the first time that I was involved in integrating a range of professional disciplines and ensuring that everything ran together smoothly. But it was not until the beginning of 2000, when COWI landed major bridge projects in the Middle East such as Qatar-Bahrain and Kuwait, that the coordination package formally became a management responsibility."

One of the greatest challenges in Kuwait is to achieve smooth coordination with local plans and to nurture good relations in political and administrative circles - although communication and presentation are also important in the Middle East.

"We have realised that you do not get very far by communicating your message with lengthy, detailed reports. Things have to be brief, decision-oriented and visualised—preferably with animation and 3D," explains Jes Bojsen Abild.

Projects with wide-ranging services

COWI is also involved in other major infrastructure projects where the company is required to embrace multiple disciplines. At present COWI is working on a number of road rehabilitation or road upgrade projects in Tanzania that call for traditional engineering disciplines such as detailed design, supervision and materials investigations. But some projects, such as the upgrade and traffic safety improvement of the 250 km Chalinze-Segera-Tanga road or the 120 km stretch of road between Kyamyorwa and Buziaymbo south-west of Lake Victoria, demand additional services as an integral part of the project: social and environmental impact studies, traffic safety audits, an understanding of HIV and AIDS, and campaigns for migration from rural to urban areas.

"As a direct consequence of the need for such wide-ranging services, our project teams are no longer solely made up of engineers and technicians," comments director Jens Christoffersen from COWI's subsidiary in Dar es Salaam in Tanzania. "Today we also need professionals such as environmentalists, sociologists and public health specialists."

At present COWI is working on a number of road rehabilitation or road upgrade projects in Tanzania.

“Socio-economics again in vogue”

Transport and welfare systems are among the socio-economic challenges that preoccupy people.

Analyses give us more for our money

Discussing socio-economics as we did in the 1980s is again in vogue. The advantage is that the social debate can be more qualified

Globalisation, environmental and climate changes, and transport and welfare systems are among the socio-economic challenges that preoccupy people. At the global level the spread of AIDS and HIV is another preoccupation, as are trade barriers and clean drinking water for much of the world’s population. Malaria, democracy and corruption are also high on the list.

Socio-economic analyses are increasingly being used to cast light on these major challenges. The trend is for both planners and politicians to again employ analyses as support tools in the decision-making and prioritisation processes. Socio-economic assessments are not simply a calculation with a result and double underlining: they are a tool where you weigh the pros and cons and examine the uncertainties. In the context of socio-economics, you do not consider the issues in isolation or separately. You look at the larger picture. According to Peter Møllgaard, professor in judicial

COWI has used socio-economic analyses to asses SAS' existence.

economics and head of the Department of Economics at Copenhagen Business School, it is becoming especially popular among the young, who are increasingly willing to view society holistically and weigh the costs and benefits.

More qualified debate

"The advantage of socio-economic analyses is that social debate can be more qualified and less polarised, with less likelihood of the various groups in society digging in and waging trench warfare in defence of their own narrow self-interests," says Peter Møllgaard. "Ultimately it can facilitate taking the necessary political decisions, which politicians have had a tendency to put off in deference to the middle voters."

He feels that socio-economics has developed strongly in the last 10-20 years. The core remains the same, but the presentation has been modernised. Economists have become better at explaining the relevancy of the contribution they have to make without it ending up lying around and collecting dust.

"This trend is being driven by the ever tighter confrontation between economic theory and experience." says Peter Møllgaard. "At the same time, economic theory has also developed. For example, political economy has undergone a rebirth with a new understanding that politicians, civil servants and regulators are people who can be influenced. Thus we gain a new insight into the way in which, for instance, corruption and lobbyism can influence society."

Visibility in decision-making

The trend in socio-economic analyses is that the more effects assessed, the more robust the analysis will be. In the transport sector we have come a long way and can now assess things like time savings, cartage and air pollution. In combination with a financial analysis, the analyses are useful in direct discussion of priorities. Good examples in Denmark are motorway expansions and the increased capacity and quality of collective transport, such as the new metro ring in Copenhagen and the expansion of railway capacity between Copenhagen and the town of Ringsted. Socio-economic analyses also form a natural part of the decision-making basis for establishing major transport projects such as the proposed Fehmarn Belt bridge link.

For this type of assignment COWI utilises a user-friendly spreadsheet to take into account uncertainties such as the cost of construction, volume of traffic and operating costs not known in advance. In other countries, too, COWI carries out socio-economic analyses that often form the basis of applications for funds to upgrade the infrastructure in the country in question.

In another project, COWI in collaboration with Copenhagen City Council, the Greater Copenhagen Authority, the Road Directorate, the Department of Economics at Copenhagen University and the Centre for Traffic and Transport at the Technical University of Denmark have developed methods to analyse crowding on the roads and calculating the socio-economic costs.

This forms part of a major research project which for the first time combines automatic and manual counts with speed measurements from GPS receivers. The methods were tried on three test stretches of road in the Copenhagen area prior to calculating the total delays for cars and buses throughout the metropolitan area. The calculations show that traffic jams cause delays totalling 100,000 hours per 24-hour period, equal to total annual costs of DKK 5.5 billion. COWI is also involved in developing common European guidelines for assessing and comparing the socio-economic advantages and disadvantages of transport infrastructure projects.

Advantages and disadvantages

In the waste sector the analyses are used to elucidate issues and better clarify points to be aware of in any move to liberalise the sector. To cast light on the consequences of liberalising the waste sector, COWI has developed an economic model for the Danish Environmental Protection Agency. The model simulates the volume of waste from households and businesses to Danish incineration plants and refuse dumps over the next 20 years. The project shows that the sector can save money by concentrating waste disposal at fewer and bigger incineration plants and refuse dumps.

"Liberalisation enables benefit achievement in the form of an efficiency yield," says COWI project manager Mette Bøgelund, "although this must be balanced against the increased risk of higher costs arising when ownership of waste and disposal facilities are distinct from one another."

Getting more for their money

SAS is one example of the way in which COWI has used methods from socio-economic analyses to assess what difference the existence of a private company makes. The aim of the survey is to determine how passengers would prefer to travel if SAS did not exist, how much competition there would be and the significance of ticket costs and time factors to passengers. The conclusion is that if the biggest Scandinavian airline did not exist, the extensive route network built up by the company would most likely not be maintained by anyone else. Consequently the Danes would be worse off without SAS.

"In general you can say that socio-economic analyses mean that decisions are somewhat more factually substantiated and a little less politicised," says Mette Bøgelund. "Ultimately I would hope that this means better decisions being taken to the benefit of private citizens. Or to put it another way: citizens are getting more for their money."

Socio-economic analyses mean that decisions are more factually substantiated , says Mette Bøgelund, COWI.

According to Peter Møllgaard, professor in judicial economics and head of the Department of Economics at Copenhagen Business School, socio-economics are becoming popular among the young.

“Traceability from producer to end-user is a growing trend”

Danish Crown is one company that considers traceability important.

Traceability in the foodstuff industry

Confidence and trust are key considerations when buying meat. Therefore it is important to be able to trace foodstuffs back to their origins

The halved pigs hang by two legs in long rows waiting their turn in the production process to be made into hams, loins, streaky bacon and other choice cuts. The moment the pigs arrive at Danish Crown’s new bacon factory in Horsens, their point of origin is registered. Later, details such as meat percentage, weight, veterinary data and the processing plant where it is produced are also noted.

With 15,000 pigs slaughtered daily, there is an enormous amount of data to be dealt with in what is the biggest bacon factory in Europe. But with a state-of-the-art electronic traceability system, Danish Crown can quickly trace where any given consignment of meat comes from in the event of anything necessitating a product recall.

Safety and quality are the paramount parameters in the foodstuff industry and substantial resources are spent on a wide range of initiatives towards this end, such as effective measures to combat salmonella. Following the outbreak of ‘mad cow’ disease in the UK in the mid-1990s, traceability has been a particularly hot topic. The trend has therefore been towards comprehensive traceability from producer to end-user. In accordance with a recent EU foodstuffs directive,

Traceability is a big issue in the meat industry, says Danish Crown director Svend Erik Sørensen.

with effect from 1 January 2005 all companies are required to implement traceability measures to enable consumers to identify where the food comes from and production facilities to identify where it was shipped. COWI is helping the industry meet these requirements and is also providing consultancy assistance to companies working on traceability projects at the planning or implementation stage.

"Traceability is a big issue in the meat industry," says Danish Crown director Svend Erik Sørensen. "Consumer safety is the most important quality characteristic in Denmark and worldwide. Confidence and trust are therefore the key considerations when buying meat. Because once the customer loses confidence, it can be very difficult to regain it. Fully 90% of our turnover comes from exports and we are the only company in the world with such a high export percentage. Therefore we must show the wider world that they can have as much confidence in us as in those just around the corner—and that constitutes a major challenge. We must keep ahead of the pack because we always have to be that bit better. Which in turn requires absolute infallibility in the systems and the traceability that we implement."

IT systems must interplay

Together with Danish Crown, COWI in its capacity as IT consultant has helped develop new IT systems to manage traceability data based on previously registered information. The data is collated in a factory database that serves as the integrated link between the bacon factory's overall IT systems and the databases, robots and other processing equipment used to manage each separate processing department. COWI is also responsible for preparing the requirement specification and tender. In testing the systems COWI was responsible for planning and coordinating system activities in a test centre where staff from Danish Crown, suppliers and SAP tested the system at the blueprint stage. Thus all the processes could be simulated, which gave extensive and invaluable experience.

"The challenge in the new bacon factory is to get all the IT systems and involved parties, from SAP to the factory database and processing suppliers, to interplay," explains COWI project manager Mogens Dahl Pallesen. "This requires a well-coordinated overview in order for this interplay to go well. Fortunately we have got to know each other very well since COWI moved in with Danish Crown in 2001. It means a lot to know each other and be able to engage in direct dialogue."

All data must also interplay

The new bacon factory is in the middle of one of its busiest periods and it is important to run-in the traceability system and ensure that all data interplays. Danish Crown is employing the latest technology using Radio Frequency Identification (RFID) tags, each of which contains a microchip with an antenna. Compared to bar codes, the tags do not become damaged or worn down. This renders them safer on their way through the bacon factory and out to the customers. The electronic tags follow the pig from the hanger until it is cut into smaller pieces that are hung on a 'Christmas tree' with hooks or placed in trays and finally packed into containers. Svend Erik Sørensen continues: "You could say that we do the reverse of a car factory. Instead of an assembly line, we operate a 'de-assembly' line. The difference between us and a car factory is that all the 'models' and 'colours' enter the de-assembly line randomly. After we have taken off the spare parts, we sort them according to their biological variation, in other words what they are best suited for: small, fatty or lean hams.

"This offers substantial inherent value. Not only do we get precisely the product we need for, say, further refining, but also we use the product where we can best utilise it. Thus traceability gives us a double bonus. Instead of using the information passively to register traceability, we use it actively to manage the product."

Traceability is spreading

Documentation requirements tracing the route of food from producer to end-user have markedly increased in recent years. Documented traceability requirements are relevant to both the production of animal feed and the processing of foodstuffs for human consumption.

Therefore the subject is also receiving considerable attention at foodstuffs group Cerealia, which develops, produces and markets flour, oats, pasta and bread products. In connection with Cerealia's plans to relocate its Danish milling activities to Vejle Port, production capacity at the existing facility there is currently being expanded to 250,000 tons of flour annually. COWI is drawing up guidelines for collating and structuring data so that any error attributable to primary produce, additives or processing equipment can be traced.

Traceability is now also found in other sectors. Danish tobacco company House of Prince employs traceability to improve the quality of its tobacco products, while Post Danmark's Taulov Parcel Centre uses traceability to identify parcels and ensure error-free sorting. In foreign airports non-reusable RFID is used to compare passenger and luggage lists to thwart any attempts to get a bomb on board a plane. For many years traceability has been an essential requirement in the pharmaceutical industry, and today this trend is increasingly being seen in the foodstuffs industry.

Concludes COWI project manager Allan Kjær: "We have always had a need to know where our food comes from. Normally we relate to ourselves and our surroundings through what we eat. This is one of the ways by which we know our history. I believe it is a trait that lies deep within us."

The pig is sorted into smaller cuts that are hung on a 'Christmas tree' with hooks.

“Structural reform means that municipalities will need external consultants”

Project manager Vilhelm Halgreen (left) and regional director Torben Søgaard Jensen wish to play a part in redrawing the municipal map of Denmark.

Municipal map of Denmark to be redrawn

269 municipalities are to be reduced to 99, and 14 counties are to be formed into 5 regions. In connection with Denmark’s coming structural reform, the municipalities will need external consultants

The amalgamated municipality of Viborg is well under way towards gaining a comprehensive overview and analysing operations in the six municipalities that form the amalgamated entity. The work is aimed at ensuring that the future amalgamated municipality can maintain the service level for its citizens on implementation of the structural reform on 1 January 2007, when Denmark’s 269 municipalities will be reduced to 99 and the 14 counties will be formed into 5 regions.

“At present, we do not have a clear picture of where we may need help, which is the situation among the majority of municipalities,” says Peter Henrik Worsøe, head of the project secretariat of the amalgamated municipality of Viborg. “But when we get

There are marked differences in the ways in which individual municipalities are approaching the structural reform.

more involved, I can well imagine that there will be a need for consultants. There will most likely be a number of special assignments in connection with the actual process. IT is a large field and everyone is a little concerned at the prospect of combining different systems into one."

External consultancy

Most of the structural reform is at the municipal level. The municipalities already make use of external consultants for a variety of assignments and this need is in all probability not going to ease off. COWI is well aware that possible future assignments cannot be defined with any finality at present.

Torben Søgaard Jensen, regional director with COWI in northern Jutland, adds: "The structural reform clearly represents a challenge for us, as there is the opportunity for new assignments. But we also know that there is a risk of putting off investments in physical facilities, which can result in our assignments being delayed. So it's a case of holding firmly to our present position while seeking to gain a foothold elsewhere. We know that the municipalities will not receive more money and right now they are spending energy and money on the internal process, which may mean no money left for new projects. It is however also likely that the municipalities will not have sufficient resources for the many new processes and will therefore opt to hire consultants."

Business card

COWI has identified and differentiated the services the company can offer to the municipalities. This has resulted in a so-called business card in regard to the structural reform that is handed out at dialogue meetings.

"The process and the assignments are perfectly matched to our expertise. The municipalities are facing a wide variety of tasks, from vision processes to design, from transferring environmental tasks to assessing the new municipalities' building stock, from method assignments in individual administrative areas to trimming and strategic reorganisation. These assignments are well suited to COWI's multidisciplinary competences. It is in our extensive scope and expertise that we differentiate ourselves from our competitors," explains COWI's project manager for the structural reform, Vilhelm Halgreen, and continues: "The municipalities are just starting out—at present attention is focused in particular on merging individual administrative areas and on how the municipality can terminate the agreements and contracts it is currently bound by."

Personal network

Torben Søgaard Jensen considers that COWI is well equipped for the coming work.

"First, we have a personal network in the municipalities, as we have previously carried out projects for them. At the same time, we have a good knowledge of the local areas. Next, we have the cross-sectoral expertise to carry out many different types of assignments. And not least, we have ourselves been through the merger process, for instance with Kampsax two years ago, and this gives us a wealth of experience to draw on."

The structural reform is already creating uncertainty among county and municipal staff. Many people are unsure if they will have to relocate and what their future jobs will be.

"Some staff have already begun seeking work elsewhere, which is causing gaps in work terms," says Torben Søgaard Jensen. "For instance, in some cases the counties did not have the capacity to complete their work in the last 1½ year. We may make available a joint resource pool for the remaining period of time, instead of the counties having to employ new people. And, of course, the same applies for the municipalities."

Peter Henrik Worsøe head of the project secretariat in the amalgamated municipality of Viborg.

Finger on the pulse

According to Torben Søgaard Jensen, the biggest challenge is not knowing how the municipalities will tackle the reform.

"The municipalities are managing the reform in very different ways. And there are still many things awaiting clarification. So there are no 'correct solutions' as such. Therefore we must have our finger on the pulse so that we retain our credibility in the eyes of our customers."

Traditionally COWI gets hired by the municipalities' technical administrations, although in recent years there have also been projects at the more general municipal level as well as assessments of service levels in care for the elderly, kitchen services etc.

"The structure reform gives us the opportunity to be the sparring partner for the municipal management. In the past, we have not been particularly visible at this level, but now there is a good chance that we will find ourselves across the table from the chief executives, and that is a very exciting prospect."

Ready with the right team

Already last year COWI employed a number of new staff with municipal backgrounds in order to have employees with the best possible municipal and consultancy experience. This has given us a team with combined competences that can take on the tasks the new municipalities are facing.

Vice President of Economics and Management Stig P. Christensen explains: "We know that there will be projects to be resolved in close collaboration with the municipal organisations. These will include analyses, planning and process implementation, which together will ensure a smooth and efficient amalgamation and start for the new organisations. At relatively short notice we can put together a team of experienced consultants with a municipal background or extensive experience of providing consultancy services to the municipal sector."

COWI is ready with competences in planning, communication, organisation, law, economics and financing, which are available together with COWI's expertise in environment and engineering technology.

"Clearly we expect the municipalities to be seeking many of these competences when the reform is to be rolled out for both the staff and the public. So we believe that we will find ourselves in demand, as there is no doubt that the need is there," concludes Stig P. Christensen.

“Process consultancy has a good hold in the building trade”

Project manager Helle Løkke, Danish Armed Forces Building Services, and behind her one of the old tanks which saw active service with units of the Danish Armed Forces.

Process consultancy encourages creativity

Process consultancy has a good hold in the building trade. New creative methods encourage architects, contractors, building owners and consultants to get to know each other better so they can set common goals

Volleys of gunfire resound in the distance, tank tread tracks can be seen and the green military uniform is obligatory at Oksbøllejren west of the Danish town of Esbjerg. On Panzer Street, the past and the present meet in Denmark’s largest gunnery practice range. Behind the old tanks, which saw active service with units of the Danish Armed Forces after the Second World War, 120 new billeting facilities will be built this the summer to house course participants and army staff.

The new facilities are the result of more than just traditional engineering calculations and well thought out architecture. Workshops with lectures, group exercises and events were very much part of making the project so successfully effective. The trend is, through dialogue and play, to get to know each other better, strengthen the collaboration, create a joint image of the project and establish a model for use in resolving any conflicts that may occur. This is known as process

Exercises can be a good experience and a common point of reference, says head of department Steffen Gøth.

consultancy. Traditionally, the building trade has been plagued by disagreements in which engineers, owners and architects have had a reputation for bringing lawsuits against one another. Process consultancy involves working to make the project something special and to get those involved to work for the project and not just for their own companies.

False professionalism

This is also the case at Oksbøllejren. As process consultant, COWI arranges workshops for the project owners, users, engineers, architects and contractors. Together the group defines how it will live up to its common goals. According to COWI, we are seeing this trend because we live in a value society where we also think of the 'soft' values.

"The building trade has traditionally been characterised by false professionalism," says COWI head of department Steffen Gøth. "It is considered a sign of weakness to ask a question. Everyone is supposed to look as if they are the world champions and have done this many times before. It is hardly necessary to discuss how to complete the project, because everyone already knows. It is understood that problems are not to be discussed. But I believe it is much more fruitful to start by defining the goals of the project and how to achieve them. This is how you do in other sectors."

Done through dialogue

Process consultancy stems from partnering and other new ways of collaboration and began to surface in the building trade about five years ago. In process consultancy COWI combines profession and process with the emphasis on the project being created through a dialogue. The customer is involved in the project and takes part in formulating wants and requirements. COWI works with different methods such as dialogue cafes, where participants sit at round tables under subdued lighting and discuss. There can also be questionnaires or creativity exercises, ball games or small assignments to be completed together. At Oksbøllejren, those involved in the project are given a presentation of the facility and hear about its history from the second-in-command. There is a presentation on the subject of confidence and personality development, and an event is arranged where those involved go out shooting and driving tank simulators. Common goals are also set, and through group and plenum discussions a way to work together on the project is arrived at.

"During traditional project meetings it can take long to get to know one another. Here the exercises help us to get to know each other better," says architect and project manager Helle Løkke from the Danish Armed Forces Building Services. "This, together with the early inclusion of contractor know-how and a common understanding and common goals, will hopefully culminate in a better and more thoroughly prepared project where the right solutions are found with input from the contractors. The aim for the owner is a better and more thoroughly prepared project basis, developed as the result of a positive process, which together results in fewer errors and deficiencies during completion and ultimately a more operations and maintenance-friendly construction."

The Danish Ministry of the Environment is currently engaged in dialogue projects concerning regional agricultural strategies.

West Jutlanders shall not only live from fish. Four municipalities are collaborating to launch a number of projects aimed at ensuring the future.

The trend is spreading

Process consultancy is also spreading to other sectors. Environmental consultancy in industry now has new packaging: projects are implemented because either they are of strategic importance to the company or they offer significant savings.

Additionally, COWI has for many years worked with so-called growth group courses, where companies take part in a series of seminars on a given subject interspersed with 'homework' assignments and sparring with the other companies. The courses take as their starting point the participants' own situation.

Another example is a collaborative growth venture in western Jutland, where four municipalities are joining forces to launch a number of projects aimed at ensuring the future. The municipalities involved plan to develop and refine fish products and establish a development centre for the future of the fishing industry. COWI is designing and implementing a series of seminars for the four municipalities, which are initiating the development projects themselves.

Dialogue projects

Based on a preproject, COWI is assisting the Ministry of the Environment with a process course involving five dialogue projects on the subject of regional agricultural strategies. Experience gained from the projects will be applied to the work of developing regional agricultural strategies in the new regions of Denmark following planned municipal and county reforms.
In the municipality of Frederiksberg, where work is under way on contract management in relation to the entire organisation, the key words are also process and sparring. In autumn 2004, COWI carried out an assignment for the municipality that basically dealt with contract management, but which also embraced process consultancy.

In this context, COWI took part in working group meetings and generally acted as sparring partner in the work of the group. Much of the work involved being in close dialogue with the Tender and Contract Secretariat concerning the process for getting the project under way and maintaining the focus on how the contract work could in part be applied locally in developing the individual company - and in part incorporated as an effective tool for centrally creating management information.

Takes time

"Working with process consultancy places demands on resources," concludes Helle Løkke. "It takes time and costs money. Therefore the project needs to be of a certain size to make it worthwhile. But I hope that our efforts will ultimately be rewarded. And I am looking forward to using process consultancy again in the future to help create a better process."

“Partnering is gaining ground in the civil engineering sector”

Odense Water Supply project manager Linne Lauesen and COWI senior project manager Vilmer Johannes Jensen in one of the big discharge pipes that will help solve the city’s waste water problems.

Stop to trench warfare

Trust and openness are the key words in the collaborative model known as partnering. To date, the model has been used mostly in construction, but now it is gaining ground in the civil engineering sector

A big hole in the ground, a mound of earth and a barrier. At first glance, it appears a modest project that the excavator on an anonymous street corner in Odense is working on. But approach to the edge of the hole and you will gain an idea of the dimensions of the project at hand: an average-size car could easily drive through the discharge pipe protruding into the hole five metres below the surface.

The construction of a major new sewage works at Odense Port in the centre of the city is the biggest, most complex project that Odense Water Company has ever been involved in.

The project is so technically complicated that Odense Water Company decided to engage an experienced contractor and consultant already in the planning stage. Thus was born one of the biggest civil engineering partnering projects in Denmark.

Partnering is a form of collaboration that to date has been used mostly in construction, but now it is spreading to other types of projects, including civil engineering projects. In a partnering collaboration the involved parties - usually owner, consultant, architect and contractor - enter into an agreement to work on the project as equal parties. The project is developed jointly, with common goals and equal profit/loss sharing. All parties operate with open accounts. The collaboration usually commences with a joint workshop and a predefined conflict-solving model.

“This type of collaboration stands in strong contrast to the situation we have seen in the construction sector in recent years,” says development manager Sune From, who heads COWI’s

The new discharge pipes at Odense Port have an inner diameter of 2½ metres. They are so big that they can serve as storm water basins during heavy downpours of rain.

partnering network. “Price competition is keen, which means that everyone must stand firm if they are to ensure black ink on the bottom line. This has engendered a very bad working atmosphere on many projects. In some instances, it has deteriorated into virtual trench warfare and many disputes have ended in court. You need a substantial armoury for that.”

By the end of the 1990s, the parties in the construction sector had enough and were ready to try something new. Out of efforts to develop alternative collaboration models arose the partnering model, which is based on trust and openness between the parties.

Saved money on the budget

Odense City Council is transforming the port area from a traditional commercial port into a modern development with homes and offices.

Against this background Odense Water Company is rectifying some problems with the existing waste water network. The problems arise during heavy downpours of rain and the excess water runs out into the port due to lack of capacity. The project involves laying almost three kilometres of new discharge piping up to 2½ metres in diameter, which can also serve as storm water basins.

Partners in the project are Odense Water Company, contractor Ove Arkil and COWI as engineering consultant. None of the group had much previous experience of partnering in major civil engineering projects, but the owner has not been disappointed.

Odense Water Company project manager Linne Lauesen reports: “The expectations we had of partnering have certainly been fulfilled. If we had opted to work along traditional lines, we would have had to work out most of the details in advance, leaving only price and timetable to be negotiated. Instead, we actually saved money by taking advantage of the contractor’s prior experience of project design. Drawing on that experience, we chose to lay bigger pipes than originally planned. Today we suffer overflows of waste water 70-80 times a year. At first, the goal was to reduce that figure to about 10, but by installing bigger pipes we are right down to only 1-3 overflows a year.” In the Evaluation Centre for the Building Sector, a theme group on partnering has concluded a big survey of almost 100 Danish partnering projects and the conclusion is clear: projects are not cheaper and are not necessarily completed quicker as a result of partnering—but the owner is typically more satisfied with the end result.

“It means a great deal to have the owner involved throughout the process, including decision-making, because this way he gets a tailored project,” explains COWI development manager Sune From, who is also in the Assessment Centre’s theme group. “However, partnering is not an easy solution. It demands a tremendous readjustment on the part of the company and the individual member of staff. The fact that the parties are under a moral obligation to one another is very demanding. So it is crucial that the right people are chosen for a partnering project, otherwise it will simply not function.”

“By being involved throughout the entire process, the owner gets a tailored solution,” explains COWI development manager Sune From.

Partnering demands commitment

In the Faeroe Islands, the director of the national telecom company, Føroya Tele, Andras Róin, readily agrees that partnering demands great commitment and a lot of energy. Construction of the company’s new head office, for which COWI was consultant together with several Faeroese consultants, was the first partnering project in the Faeroe Islands. The norm in the Faeroe Islands—and the starting point of the partnering project—is that construction traditionally costs more and takes more time than planned.

“We had some hard-fought battles during the course of the project,” says Andras Róin, “but the advantage was that we could sit down and talk things out. The will to make this succeed was very strong among all parties. And the incentive agreement, whereby it was agreed that we would all share any profit/loss, meant a lot. We are very pleased with the end result - at the price agreed and completed four months ahead of schedule. This is unheard of in the Faeroe Islands.”

In Denmark, partnering is seen particularly in the construction of new schools and nursing homes. Some more recent major construction projects, such as Radio Denmark’s new premises and the Playhouse in Copenhagen, also opted for partnering. Since the late 1990s, COWI has been involved in about 30 small and large partnering projects. Among the latest projects is a four kilometre district heating tunnel for Copenhagen Energy that runs under the capital. In order to avoid timetable and financial problems, COWI, which is designing and inspecting the tunnel construction, is partnering with the owner and contractors.

“The civil engineering sector is taking notice of the model, as it is well suited to this type of project,” adds Sune From. “But in the longer term, I feel that partnering may be a transitional phenomenon. The future will be more of the nature of developing different collaboration models each suited to different types of projects. For instance, small projects would find it difficult to bear all the administration incumbent on a full partnering model, but could advantageously use some of the elements. We must work to develop more flexible models in the future.”

The massive discharge pipes are placed in position by tunnelling and slowly pushing the pipes in through the earth.

“The hospital of the future will establish a continuous course of treatment for the patient”

The patient will be in the centre in the hospital of the future.

The hospital will be built up around the patient

Modern hospital construction is a demanding discipline where planning and design place great demands on consultants. The hospital of the future will establish a continuous course of treatment for the patient

The hospital of the future will be all about establishing a continuous course of treatment for the patient, who will receive all treatment in the same place. Modern hospitals demand a high level of functionality and advanced equipment in order to treat patients effectively and with care. At the same time, hospitals must be sufficiently flexible to be able to carry out many different types of treatment in the same place so that the physical surroundings can be better utilised. And finally, there is a focus on minimising operating costs. Whereas previously, a course of treatment would be curtailed in order to remain within budget, now the aim is to treat more patients without increasing the capacity associated with floorage, personnel and equipment. Modern hospital construction is a demanding discipline where planning and design place major new demands on consultants. In Norway, COWI is involved in the two biggest hospital construction projects—Nye Ahus in Oslo and

St. Olav's Hospital in Trondheim—where the patient is in the centre. In Denmark, COWI is involved in the new construction and modernisation of Aabenraa Hospital and is responsible for planning the new hospital in Gentofte. Common to these four projects is that the consultants are planning and designing buildings that will optimally utilise floorage, operating functions and technological innovations. At the same time, it is a general requirement that both patients and relatives have as optimally qualitative an experience as possible throughout the period of hospitalisation.

Demands multi-professionalism

Hospital construction has many challenges. In recent years, major construction projects in both Norway and Denmark have tended towards new collaboration models and assignments that involve partnering. According to the managing director of Helsebygg Midt-Norge, Johan Arnt Vatnan, it means that consultants must take a bigger responsibility for the entire course of the project if the supplier link is not to take it over. It is no longer a question of just designing large hospitals, but to detail functions that apply to the project—including economic aspects.

Today, to a great extent, detailed planning is carried out together with the contractor and often during project implementation. To work with such complex hospital constructions demands experience and multi-professionalism—competences that are found at COWI, which is currently involved in a hospital construction measuring more than 350,000 m^2. Multi-professionalism enables the consultants to think in terms of the whole and develop good processes in regard to both the actual solutions and methods of collaboration.

Patient in the middle of research

One example is St. Olav's University Hospital, which will be extended by 190,000 m^2 while the existing hospital remains in use. The desire is—without losing focus on the patient—to develop a hospital with exceptional professional expertise and extremely broad medical and surgical competences.

On completion by 2014, the hospital will be divided into patient centres. This will ensure continuous patient treatment with the patient remaining in the same complex throughout hospitalisation. The challenge for COWI is to complete a flexible construction and ensure that logistics and building physics allow for expansion and reduction of the staff quota according to the number of patients in a centre. The expectation is to develop a hospital model with decentralised operations and improved courses of treatment for patients and relatives without the costs exceeding those of present-day large-scale hospitals.

The project is being carried out for the Norwegian University of Science and Technology (NTNU) and Helsebygg Midt-Norge (Hospital Development Project for Central Norway).

Nye Ahus in Norway is experimenting with the latest IT technology for possible incorporation into the hospital.

When St. Olav's Hospital in Norway is completed by 2014, it will be divided into patient centres.

COWI heads the project group and is responsible for plumbing and heating installations, electronics, fireproofing, acoustics, indoor climate and facility management. Construction of the new hospital combined with continued operation of the existing hospital means a lengthy period of construction and major coordination requirements.

"While we had great faith in the organisation, nevertheless we were keen to see how the project group would function," says Helsebygg Midt-Norge's Managing Director Johan Arnt Vatnan. "So we are pleased to report that the collaboration between engineers, architects and the hospital's operating organisation works very well."

Fully digital hospital

Contrary to St. Olav's Hospital, the new Akershus University Hospital—known as Nye Ahus—will be built within a very short period of time with all the challenges that presents in terms of planning and implementation. Nye Ahus, which will be a fully digital hospital, measuring 134,000 m^2, is experimenting with the latest IT technology for possible incorporation into the hospital, including the use of electronic patient journals and tele-medical treatment whereby in a matter of minutes doctors can send X-rays and pass on information to other departments and other countries. The electrical and automatics installations constitute the biggest ever contract of its kind in Norway. COWI is responsible for IT, the Central Operations Control Centre and the tender specification for the fireproofing contract.

According to COWI project manager Bjørn Dehlin, the short planning time requires great flexibility from highly qualified staff throughout the project design period. COWI's staff in Oslo and Trondheim can draw on one another's competences and exchange experiences from the St. Olav's Hospital and Nye Ahus Hospital projects.

Patient in focus—all the time

In Denmark, COWI is involved in the extension to Aabenraa Hospital in collaboration with architects from the Danish company, CUBO Arkitekter, and the Norwegian company, Med Plan AS Arkitekter. With a construction budget of almost DKK 200 million, the hospital is establishing a number of new departments that are due for completion in 2006. A central feature throughout the project is to always have the patient in focus.

For Gentofte County Hospital, COWI is currently planning a new building that will contain state-of-the-art treatment facilities.

With the Norwegian company, Arstads Arkitektkontor AS, as sub-consultant, COWI is responsible for schedule development and client consultancy services. The new building is an important element in improving the overall logistics of the hospital, where optimal and multifunctional conditions for safe, high-quality patient treatment form a central aspect.

"Building a hospital today is one of the most complicated tasks," says Pernille Weiss Terkildsen, COWI's special health sector consultant, "in part because developments in medico-technology are taking quantum leaps these years, which increases the demand for socio-economically secure and flexible solutions. COWI's current hospital projects conclusively show that we are competent to take on these challenges."

“Developing countries decentralise public administration”

In Uganda, limited powers have been devolved to rural areas as the result of a comprehensive decentralisation reform. Many give the reform credit for a radical fall in the nation’s poverty level.

The long road to local participation in decision-making

Decentralisation of public administration in developing countries over the last 15 years has become a steadily stronger mantra. But devolving power to rural areas is a difficult exercise

The poverty level has fallen drastically in the course of the last 15-20 years. Significantly more children are attending school. At district level, local councils are active and speaking out openly and critically. Not for nothing has Uganda for many years been considered a pioneer among the countries of Africa.

A comprehensive decentralisation reform, which Uganda under president Yoweri Museveni began implementing in 1986, takes much of the credit for this development. Planning and administration of sectors such as local health and water supply have been devolved to district councils, and aid donors have backed the moves with training and capacity build-up. Uganda is one of the developing countries that has gone very far in decentralising public administration.

In the last 15 years, governments and donors all over the world have gradually increased the focus on decentralising public administration in developing countries. The methods

Farmers working the land in Uganda. The philosophy behind decentralisation is that government officials and politicians will pay more attention to the needs of local people by moving closer to them.

adopted have differed from country to country, but common to all processes is that it has proved difficult due to political circumstances or lack of capacity. Extremely difficult.

Power and money

"The public sector in the developing countries has historically been very centralised," explains COWI project manager Thomas Juel Thomsen.

"The ministries decide what is to happen far out in the districts, and this is partly because there were so few well-educated people. Regardless of how a decentralisation reform looks, what really matters is altering the power structure and the money that follows it. And there will always be some who resist, such as the ministries and centrally placed politicians who will have to relinquish power."

Decentralisation cuts across virtually all the projects in developing countries that COWI is involved in. Some projects directly support a process of devolving power to local authorities; others are more technically oriented projects that are only indirectly affected by it. This places demands on the competences of consultants and whether they can work with processes.

"We find ourselves plunged into an highly political context—and that requires of us that we can understand all the political, economic and cultural considerations and mediate between them. What counts is to find a solution that all parties can agree on, because then you can move on a step and the entire process does not become blocked," says Thomas Juel Thomsen.

Less poverty

Pressure from donors alone cannot lead to decentralisation; there has to be real political will within the country to implement such a far-reaching reform. This is clear in Uganda, where the president's support has to date carried the reform quite a long way. However, a change in the domestic political climate can quickly alter the situation. Museveni now feels under pressure from the people to hold democratic elections to decide the presidency, and most recently the president's signals have changed: now he is saying that local municipal directors will in future be appointed from a central team.

Despite the difficult processes, in donor circles decentralisation has become a paradigm that you cannot ignore.

"Decentralisation can cover many types of reforms, from so-called deconcentration, where sector ministry staff are relocated locally to be closer to the rural population, to real democratisation with politically elected councils that take over part of the decision-making competence. Regardless of the model chosen, the philosophy is that decision-makers and government officials will be more sensitive towards the needs of local people by moving closer to them," says senior Danida consultant Mogens Blom.

He continues: "The donors provide support in the hope that it will encourage increased efficiency in the provision of services such as water supply, health and infrastructure. If you have the possibility to decide locally where to focus efforts, services can be targeted much better. Which in turn can lead to increased efforts to alleviate poverty. At the same time, the population can more easily hold the authorities responsible for prioritisation when they are close at hand."

Kick-started local democracy

One of the most frequent problems within decentralisation is when a government implements the necessary reforms in law but does not follow it up with real power or money, so that it only has a façade of reform. In Bolivia a radical model was adopted in 1994, whereby the country was divided into more than 300 municipalities each of which elected a local council and mayor.

The municipalities receive 20 per cent of the nation's tax revenues in the form of a block grant without any 'earmarking' of funds.

COWI project manager Tom Dahl-Østergaard adds: "It was known that there would be a big risk of misuse and allocation of funds to prestige projects. But a degree of transparency was a prerequisite, and the money gave real influence and responsibility to the local councils. It captured the interest of the local population and today the local councils reflect the population make-up. Spending now reflects local needs such as improving the quality of the land and drinking water. If we had hesitated to send the money, the project would never have succeeded in kick-starting local democracy to this extent."

Whether decentralisation has directly led to less poverty in the country is a moot point, because many other factors also play a role. And this is a general problem.

"We lack good studies to show the relationship between different types of decentralisation reforms and reductions in the level of poverty. In general, we believe that democratisation and poverty eradication are linked, but of course the result is very dependent on the local context," says Mogens Blom, Danida.

"We find ourselves plunged into a highly political context—and that requires of us that we can understand all the political, economic and cultural considerations and mediate between them." says Thomas Juel Thomsen, COWI.

Worldwide trend

Decentralisation is not limited to developing countries, but is a general worldwide trend. In the former planned-economy East bloc countries that are now EU members, access to the EU's Regional Development Fund (ERDF) is hastening the pace of reform. In Hungary, COWI is heading a consortium that is helping 100 municipalities to plan and apply to the fund for support for municipal investment projects.

For donors and developing countries, the future challenge lies in decentralisation in greater harmony with donor efforts. Even if there is agreement on the premises, different donors have adopted different approaches which in many places have created confusion. In Uganda, COWI has just embarked on a project that entails revising the Ministry of Local Government's guidelines for how to plan in a district. This should give donors and local players alike common rules of conduct.

According to Mogens Blom, the real question within development is no longer between decentralisation or non-decentralisation: "Rather, the task is to find the right mix and the right project and competence divide between central sector ministries and local councils. That one or another type of decentralisation is necessary is no longer the issue."

Statements on the Annual Report

Statement by the Board of Directors and Executive Management

Today, the Board of Directors and the Executive Management considered and approved the Annual Report for the financial year 1 January – 31 December 2004 of COWI A/S.

The Annual Report has been prepared in accordance with the Danish Financial Statements Act. In our opinion, the accounting policies applied are appropriate and the accounting estimates made are adequate. Furthermore, we find the overall presentation of the Annual Report to be true and fair. In our opinion, the Annual Report give a true and fair view of the Group's and the Parent Company's assets, liabilities, financial position and results of the Group's and the Parent Company's activities and the Group's cash flows.

The Annual Report is recommended for approval by the Annual General Meeting.

Kongens Lyngby, 1 March 2005

Direktion:

Klaus H. Ostenfeld
President, CEO

Keld Sørensen
Executive Vice President, Finance

Lars-Peter Søbye
Executive Vice President, COO Denmark

Henning H. Therkelsen
Executive Vice President, COO International

Board of Directors:

Ole Steen Andersen
Chairman

Knud E. Østergaard Hansen
Vice Chairman

Berit Bankel*
Anders Thyge Egeberg
Niels Christian Nielsen

Henriette R. Bundgaard*
Henrik Gürtler
Lars Rosholm*

** Staff representatives*

Auditors' Report

To the shareholders of COWI A/S

We have audited the Annual Report of COWI A/S for the financial year 1 January 2004 to 31 December 2004, prepared in accordance with the Danish Financial Statements Act.

The Annual Report is the responsibility of Company Management. Our responsibility is to express an opinion on the Annual Report based on our audit.

Basis of Opinion

We conducted our audit in accordance with Danish Auditing Standards. Those standards require that we plan and perform the audit to obtain reasonable assurance that the Annual Report is free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the Annual Report. An audit also includes assessing the accounting policies applied and significant estimates made by Management, as well as evaluating the overall annual report presentation. We believe that our audit provides a reasonable basis for our opinion.

Our audit has not resulted in any qualification.

Opinion

In our opinion, the Annual Report gives a true and fair view of the financial position at 31 December 2004 of the Group and the Parent Company and of the results of the Group and Parent Company operations and consolidated cash flows for the financial year 1 January 2004 - 31 December 2004 in accordance with the Danish Financial Statements Act.

Kongens Lyngby, 1 March 2005

PricewaterhouseCoopers

Torben Haaning
State Authorised Public Accountant

Jacob F Christiansen
State Authorised Public Accountant

Management's report

Company information

Board of Directors

Ole Steen Andersen, *Chairman*
Knud E. Østergaard Hansen, *Vice Chairman*
Berit Bankel
Henriette R. Bundgaard
Anders Thyge Egeberg
Henrik Gürtler
Niels Christian Nielsen
Lars Rosholm

Executive Management

Klaus H. Ostenfeld,
President, CEO
Keld Sørensen,
Executive Vice President, Finance
Lars-Peter Søbye,
Executive Vice President, COO Denmark
Henning H. Therkelsen,
Excutive Vice President, COO International

Auditors

PricewaterhouseCoopers
Strandvejen 44
DK-2900 Hellerup
Torben Haaning and Jacob F Christiansen

Annual General Meeting

The Annual General Meeting will be held on 2 May 2005 at the Company address.

Mission

COWI focuses on supplying consultancy services within engineering, environmental science and economics and activities that are naturally associated with these areas. The Company's objective is to supply consultancy services of the highest quality according to an international benchmark.

Vision

The overall objective of the COWI Group is to be recognised as a leading consultancy group in Northern Europe, at the same time as being the international market leader within selected services.

Ownership

The share capital amounts to DKK 34.75 million, consisting of DKK 20 million A shares and DKK 14.75 million B shares. The A shares carry 10 votes for each DKK 100 share, whereas the B shares carry 1 vote for each DKK 100 share. All A shares are owned by the COWI Foundation, which supports research and development within Danish engineering.

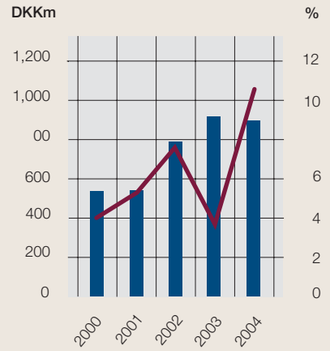
The insurance companies SEB Trygg and Danica each owns DKK 4 million B shares, the employees own DKK 5.74 million, while the COWI Foundation owns the remaining DKK 1.01 million B shares.

Group key figures and financial ratios

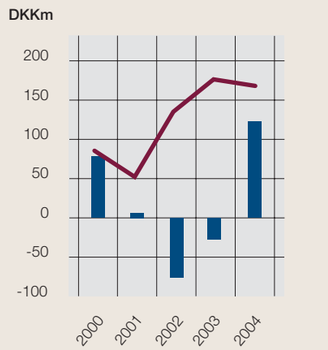
	2000 mio.DKK	2001 mio.DKK	2002 mio.DKK	2003 mio.DKK	2004 mio.DKK	2004 mio. EUR
Key figures						
Amounts in DKK million						
EUR/DKK rate, 31 December 2004						743.81
Net turnover	**1,443.3**	**1,632.0**	**2,016.4**	**2,605.3**	**2,594.3**	**348.8**
Operating profit before amortisation, depreciation and impairment losses	56.2	103.3	108.3	113.6	156.1	21.0
Operating profit on ordinary activities	25.0	60.6	59.6	33.9	91.3	12.3
Operating profit	19.4	61.6	54.2	32.9	90.8	12.2
Net financials	10.6	(0.7)	(0.5)	7.6	5.9	0.8
Profit on ordinary activities before tax	30.1	60.9	53.8	40.4	96.7	13.0
Profit on ordinary activities after tax	17.9	49.2	28.0	24.7	62.4	8.4
COWI's share of profit for the year	**17.4**	**46.1**	**25.1**	**22.0**	**60.6**	**8.1**
Group goodwill	-	13.0	147.7	242.6	228.9	30.8
Other fixed assets	125.4	113.2	140.1	158.6	144.2	19.4
Current assets	874.3	918.4	1,127.9	1,118.2	1,189.8	160.0
Total assets	**999.7**	**1,044.6**	**1,415.7**	**1,519.4**	**1,562.9**	**210.2**
Share capital	34.8	34.8	34.8	34.8	34.8	4.7
Shareholders' funds	**343.7**	**383.2**	**385.1**	**390.3**	**446.1**	**60.0**
Provisions	155.5	171.6	218.2	221.1	245.4	33.0
Long-term debt	21.9	3.3	20.3	24.9	14.4	1.9
Short-term debt	475.2	478.5	776.5	867.7	846.1	113.8
Cash flows from operating activities	88.8	46.4	130.6	174.5	167.1	22.5
Investment in tangible fixed assets, net	(7.1)	(11.5)	(64.7)	(39.4)	(25.5)	(3.4)
Other investments, net	(6.4)	(31.2)	(150.8)	(150.6)	(12.2)	(1.6)
Cash flows from investing activities, net	(13.5)	(42.8)	(215.5)	(190.0)	(37.7)	(5.1)
Free cash flow	**75.3**	**3.7**	**(84.9)**	**(15.5)**	**129.4**	**17.5**
Cash flows from financing activities	(49.8)	7.9	58.1	(30.2)	(58.8)	(7.9)
Total cash flows	**25.5**	**11.6**	**(26.8)**	**(45.7)**	**70.7**	**9.6**
Financial ratios						
EBITDA margin	3.9%	6.3%	5.4%	4.4%	6.0%	
Operating margin	1.4%	3.8%	2.7%	1.3%	3.5%	
Return on invested capital	3.7%	5.1%	7.6%	3.6%	10.5%	
Equity ratio	34.4%	36.7%	27.2%	25.7%	28.5%	
Return on equity	5.1%	12.7%	6.5%	5.7%	14.5%	
Average number of employees	**2,077**	**2,175**	**2,850**	**3,448**	**3,364**	

Development in net turnover, operating margin and EBITDA margin

Development in return on invested capital and invested capital end-of-year

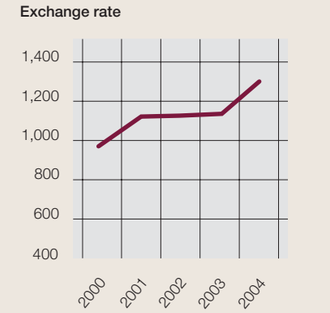


Development in cash flow



Development in shareholders' funds and equity ratio

Development in equity value



Development in operating profit and number of employees

Management's Review

Results for the year

In 2004, the COWI Group's turnover amounted to DKK 2,594.3 million, on a par with the previous year. Operating profit was DKK 90.8 million, which constitutes a marked improvement compared with last year's DKK 32.9 million. Profit before tax was doubled at DKK 96.7 million compared with the DKK 40.4 million achieved for 2003. The results, which we consider to be satisfactory, exceeded our expectations.

In 2004, COWI significantly increased its earnings to achieve the highest level in the Group's history. The earnings improvement was attributable to the completed integration of our two major acquisitions, Interconsult and Kampsax, which meant that we could begin to reap a return on our investments. In addition, we have continued to focus on cost management and strengthened our business areas with the largest earnings potential as well as intensified the collaboration between the Group's business units.

In 2004, we increased our operating margin to 3.5 per cent from 1.3 per cent in 2003, a major step towards achieving our goal of an operating margin of 5-6 per cent. At the same time, it is satisfactory to see that we have improved the Company's free cash flow to DKK 129 million over the period.

The development in the Group's turnover in 2004 was the result of growth in a number of markets. In particular, turnover increased within Nature and Environment, and also within Utilities and Energy in the Danish market. Internationally, we have seen marked growth within Nature and Environment as well as Transport Infrastructure. Turnover has been negatively affected by continued strong competition and by a decline in the Norwegian and German markets. In Norway, the decline in turnover is the result of the discontinuation of unprofitable business areas, while the downturn experienced by our German subsidiary, ETC, is attributable to a severe decline in procurements.

The Board recommends the payment of a dividend of 15 per cent, with the remainder of the profit being carried forward to next year. For recent years, the dividend has been 10 per cent.

At the end of the financial year, the COWI Group employed a staff of 3,294 employees, as against 3,433 the previous year.

We are experiencing increased demand for project management—one of our core areas of consultancy.

Key events

New subsidiary in China
At the turn of the year 2004-05, COWI established a wholly owned subsidiary in China—the first Danish consultancy company to be set up in China. At the same time, activities in COWI's Chinese joint venture, Yan Dan, were closed down.

The subsidiary, COWI Consulting (Beijing) Co. Ltd., will initially focus on the energy sector, but will, in the longer term, also provide services within waste management and the environment. In addition, we wish to redouble our efforts to help Danish industrial companies to establish production in China.

Branching out in Eastern Europe
In line with our strategy, we are expanding our activities in Eastern Europe. We will continue to expand in places where we are already represented by subsidiaries, while also establishing ourselves in new markets. Growth will be generated organically and through the acquisition of new companies. Seven countries will form the backbone of our development in Central and Eastern Europe: Bulgaria, Latvia, Lithuania, Russia, Serbia, Turkey and Hungary. Concurrently, we are also following other markets that have the potential, in the longer term, to form part of our expansion strategy. COWI is already established in three of the seven countries, namely Hungary (COWI Hungary), Russia (COWI Moscow) and Lithuania (COWI Baltic). Our objective is to be a leading consultant in the selected countries. The Central and Eastern European markets currently generate eight per cent of the Group's turnover.

COWI's Executive Management lined up at the company's head office in Lyngby. From left: Klaus H. Ostenfeld, President CEO; Lars-Peter Søbye, Executive Vice President, COO Denmark; Henning Therkelsen, Executive Vice President, COO International; and Keld Sørensen, Executive Vice President, Finance.

Major airport contract in Oman
Many years of groundwork finally came to fruition at the turn of the year 2004-05, when COWI won its biggest single international contract to date as the main consultant for two new international airports in Oman. COWI is heading a joint venture with Larsen Architects in Oman in collaboration with Copenhagen Airports International, Aviaplan and Hanscomb. The new contract is our sixth involving major airport projects, and it gives us a major boost up the ranks of the biggest international airport consultants. We are already strongly positioned in Oman, where we have been involved in a number of landmark projects including commercial and hotel development, the Central Bank, restoration projects and ports.

Corporate governance
Throughout its history, COWI has been committed to corporate governance. The Nørby Committee's set of recommendations for corporate governance has been a welcome contribution to COWI's efforts.

Although the Nørby Committee's recommendations are aimed primarily at listed companies, COWI's Board of Directors and Executive Management have chosen to heed their guidelines. As a result, our Management has implemented a number of changes to the Company's Articles of Association and rules of procedure, and taken initiatives to enhance corporate communication, transparency and responsibility in relation to the Company's clients, staff and shareholders. A comparison of COWI's practices and the Nørby Committee's recommenda-

Work is under way on the world's longest cable-stayed bridge, Sutong Bridge in China, which is due for completion in 2008.

tions for corporate governance can be found on COWI's website.

Among the most important items in COWI's rules for corporate governance are management assessment, efforts towards increased transparency, determining the share class system and the Company's risk policy framework. COWI's communication practices ensure that all information of significance to the Company's partners is made publicly available. Such information includes business objectives, strategies, policies and results.

Companies brought closer together
At the turn of the year, we took another step in the process of bringing our companies closer together within a strong, integrated consultancy group with shared values and goals and a common mission statement.

The COWI Group's operations are now managed by nine business units —eight in Denmark and COWI AS in Norway—and by four major subsidiaries: Hjellnes COWI AS (Norway), COWI Almoayed Gulf (Bahrain), ETC (Germany) and COWI Baltic (Lithuania). Most of the Group's specialised subsidiaries in North America, Africa, Asia and Eastern and Western Europe form part of the nine business units.

The reason for transforming COWI from a group of companies into an integrated consultancy group lies in the desire to give our clients access to the Group's combined expertise, while reaping the benefits of large-scale operations. Close corporate integration will make it easier for us always to be able to put together the strongest team of consultants across country and company borders.

Market development

Market evolution Denmark
Activities in the knowledge service sectors in Denmark generally experienced strong growth trends in 2004, while the consulting engineers' sector showed a somewhat more moderate increase. These increases are rooted in part in the Government's advanced investments, and COWI's Danish business has followed this development.

Overall, COWI has maintained its market shares in Denmark. Our market shares within Nature and Environment, as well as Utilities and Energy, have increased. We have maintained our market share within Buildings, while the market share in Industry has declined. Turnover figures in the Danish market segments are as follows:

Market segment	2002/2003 [DKKm]	2003* [DKKm]	2004 [DKKm]
Nature and environment	125	139	159
Society and economics	117	128	132
Transport	217	184	187
Building and construction	211	236	234
Industry	145	134	116
Utilities and energy	86	78	107
GIS and mapping	54	83	62
Other	-3	-7	11
Total	953	973	1,008

Turnover per market segment.
*1 Note: Figures for 2003 have been extrapolated from 8 months to 12 months due to the change in the accounting year.
*2 Note: Turnover figures show less deviation compared to previous years in consequence of the introduction of different methods of registration.

Significant projects in Denmark
Also this year, we have been working on a number of major Danish projects. Among the year's assignments the following are worthy of note:

- We have acted as consultants for five municipalities on the island of Bornholm, that were to be merged to form a new regional municipality, on how best to build up GIS competencies across the old professional dividing lines and municipal boundaries. One of the first visible results is a joint Web-GIS portal that gives private individuals and companies access to geographical information and a digital map of the whole island. We have developed the solution and supplied the digital orthophotos.
- Over the next four years, we will develop and operate the new national utility owner register (LER), which was passed into law in 2004. All contractors and utility owners with supply lines in public road areas are subject to the new law. Via the LER secretariat, we will provide consultancy services to Danish utility owners and contractors about reporting of areas of interest and digging enquiries. We have developed the underlying GIS technology.
- With a budget in the order of DKK 200 million, Aabenraa Hospital has embarked on the realisation of several new departments with completion schedule date of 2006. The hospital extension is the first step in the implementation of Sønderjylland County's new structural reform. The project encompasses the establishment of accident and emergency and radiotherapy departments, a day surgery unit and an obstetrics and gynaecology department that will serve as the county's birthing centre. The project consultants are COWI, Cubo Arkitekter A/S, Medplan AS Arkitekter, and COWI Norway.
- In 2004-2005, the Danish National Rail Authority will be conducting a strategy analysis for the stretch of railway linking Copenhagen and

The new Seeb Airport in Oman is situated at the capital, Muscat. The contract is the sixth involving major airport projects.

Ringsted. The strategy analysis will compare four alternative solutions with regard to capacity, regularity, environment, construction costs and socio-economics. COWI is the lead party in a joint venture, which is responsible for carrying out the technical studies related to the strategy analysis. In addition, we are assisting the Danish National Rail Authority with the socio-economic calculations.

- With a view to strengthening the service level and efficiency and so the public perception, Hillerød Municipality is gathering all its administrative functions in one new town hall centre. Today the administrative functions are located at four different addresses in Hillerød. On completion of the Town Hall in 2007, this former research farm building—which is currently undergoing extensive rebuilding and modernisation—will house about 400 staff. COWI is the client adviser responsible for both project and process management all in close collaboration with the Municipality.
- How much is bus and bicycle traffic delayed compared to private cars in the Copenhagen area? COWI is currently researching the subject for the Greater Copenhagen Authority. The study is a follow-on from a major research project on Congestion which looked at the total delays experienced by cars and buses. The Congestion project was carried out by COWI, the City of Copenhagen, the Greater Copenhagen Authority, the Road Directorate, the Institute of Economics at the University of Copenhagen and the Technical University of Denmark's Centre for Traffic and Transport.
- The Danish Ministry of the Environment is implementing seven pilot projects for the establishment of national parks in Denmark, and the Danish Outdoor Council is currently working on a further four pilot projects. COWI is involved in three of the projects: for the Møn National Park pilot project, we are mapping key nature sites and providing recommendations for nature restoration. For the Lille Vildmose pilot project, we are working on nature restoration, scenarios for a future national park, economic analyses and the final report. And for the Kulturhistoriske Landskab (Cultural-Historical Landscape) pilot project near Roskilde we are the main consultant for the secretariat responsible for the website, GIS, public involvement, economic analyses and the final report.
- For the Municipality of Aarhus, COWI is analysing the structure of the wastewater sector, i.e. wastewater treatment plants and the main sewerage system. The objective is to create the framework for the future structural design, so that an optimal result can be achieved economically, technically and environmentally. One of the means applied is an optimisation model whereby the construction and operating costs and the key figures for various scenarios can be calculated. The structural analysis assesses strengths and weaknesses in the present structure and compares it with an ideal situation. On this basis, the most cost-effective measures are identified with the purpose of gradually bringing the sewerage infrastructure of the municipality as close to the ideal situation as possible. Focus points in the analysis are: investment and operational costs, environmental impact, sludge handling, operational stability and organisational issues. The work is being carried out in close cooperation with the Environmental Department of the Municipality of Aarhus and decisions concerning assumptions and prioritisation are being taken regularly throughout the process.
- Danish Crown's new slaughterhouse in Horsens is till now one of the greatest industrial projects in Denmark carried out in one phase. The weekly capacity of the slaughterhouse is 75,000 pigs, and the total built-up area is 76,000 m^2. COWI was the main consultant responsible for the engineering disciplines, whereas the architectural work and processing plants were designed by sub-consultants. The main tasks were project management, planning, design, technical supervision, construction management, energy-conscious design and environmental consultancy. In addition, COWI was—in close cooperation with Danish Crown—responsible for development of new IT systems. Among these tasks were identification of requirements, requirement specifications, basis for contract, follow-up on suppliers and test coordination. The design was initiated at the beginning of 2001, and groundbreaking took place in August 2002. In the autumn of 2004, the complete processing plant was commissioned.

We are currently working on a project to register and verify property rights in three provinces in El Salvador.

For the Mon National Park pilot project we are involved in nature planning, in other words mapping the nature values and recommendations for nature restoration and area administration.

Norway

COWI AS is one of the leading multidisciplinary consultancy companies in Norway. The company has around 550 staff working on Norwegian and international activities and enjoys a prominent profile on the domestic market where it operates 20 local offices throughout the country.

2004 was marked by change. The company reaped the fruits of a major restructuring programme that commenced in 2003. At the same time the company adopted a new strategy which also involved changing the company's name and corporate structure from Interconsult ASA to COWI AS, to signal its affiliation to the COWI Group and give a clearer profile and greater penetration power on the market. Financial growth in 2004 was very positive, outperforming the budget. The positive performance reflects a year with good, stable operations. The strengthened equity ratio enables the company to focus on long-term operations and to acquire a greater share in a market which is showing a slightly positive trend.

During the same period, Hjellnes COWI achieved a turnover equal to that of the previous year. Due to amortisation on certain projects, the company's turnover declined in 2004. The company's most important markets are building and construction, particularly of hospitals, schools and university buildings, as well as infrastructure and the environment.

International profile

International business from Denmark
COWI's international turnover has increased by more than five per cent, with the most significant growth shown in projects associated with Nature and Environment and Transport.

The Parent Company's turnover outside Denmark (export) is as follows:

Specialist services
The global market for consultancy traditionally follows the general economic trends. The Far East, in particular, offered attractive business opportunities in 2004. COWI's international business focuses on providing services within six selected areas:

Market segment	2002/2003 [DKKm]	2003* [DKKm]	2004 [DKKm]
Nature and environment	112	153	177
Society and economics	150	164	165
Transport	178	197	220
Building and construction	7	7	8
Industry	16	26	20
Utilities and energy	128	131	127
GIS and mapping	50	119	112
Other	3	2	15
Total	644	799	844

*Note: Figures for 2003 have been extrapolated from 8 months to 12 months due to the change in the accounting year.

One of the longest road bridges in the world, measuring 36 kilometres, will connect Kuwait City with the Subiyah development area.

large bridges, tunnels, marine engineering, environmental due diligence, development planning, mapping and cadastre and land registration. Within these areas, our business is based on specialist competencies. All areas of commitment report high levels of success.

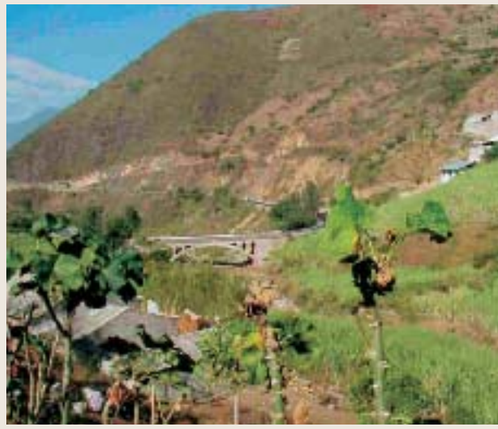
Bridges
We have maintained our position as one of the three leading bridge consultants in the world and we are enjoying continuing positive development. In the domestic Danish market and Scandinavia, the bridge market has been characterised by upgrading of the infrastructure, including the Copenhagen area where we have carried out a project for the Road Directorate involving the design of all constructions for the Ring Road 3 motorway expansion. At the same time, there is an increased demand for consultancy in connection with operation management and maintenance of the existing bridges. A part of the expertise, that has been built up from major Danish bridge projects, has been applied to large operation and maintenance assignments abroad, especially Sweden.

On the international market, focus has been primarily on the growth areas in Asia and the Middle East. In Bahrain, we have completed a detailed design for the Sitra Causeway. In Kuwait, we are in charge of planning and tendering for a more than 30 kilometre long bridge connection across Kuwait Bay. A similar project is being implemented in Thailand, involving a 47 kilometre long bridge connection across the Bay of Thailand; here we are responsible for the coastal part of the project and our special expertise in the construction of long bridges in the open sea is of great importance for developing the optimum project. We have succeeded in establishing a foothold in Korea and China, where we are recognised as one of the leading international bridge consultants and our subsidiary, COWI-Korea, has also enjoyed a positive trend in 2004. We continue to be heavily involved in the construction of the world's longest cable-stayed bridge, the Sutong Bridge in China, and we have also won a number of construction engineering assignments for contractors. Our subsidiary, Buckland & Taylor (B&T) in Canada, which is engaged primarily in the bridge sector, has experienced a very positive trend and expectations for the coming years are also positive. Many international assignments are completed in collaboration between B&T and COWI Denmark, including tender preparation for a contractor consortium of the Messina Bridge in Italy—a rather unusual type of suspension bridge with a span of 3.3 kilometres. Construction is expected to commence in 2005.

Marine engineering
Within marine engineering, the positive growth and development seen in previous years has continued, with a special focus on the markets in Europe, the Middle East and North America. Our objective to be among the five leading consultants in marine engineering in the world in terms of international turnover was achieved in 2004. There has been a flow of new projects for Liquid Natural Gas Terminals as well as projects for large, artificial islands with coastal protection constructions in Qatar and Dubai. Developments in the design of foundations for offshore windmills and large bridge and tunnel constructions are going in a positive direction. The big Irish railway project, involving design and supervision of coastal protection, was successfully completed in 2004. Numerical modelling with MIKE 21 of several major marine projects have been undertaken, including the major link projects in Korea and the Middle East. The North American market, where our subsidiary, Ben C. Gerwick, is the lead player, has had a challenging year, although the second half of 2004 has shown positive signs. The company is an integrated part of our business.

Tunnels
The market for tunnels is enjoying continued growth and we have successfully followed this development. At international level, we have maintained our leading position in the immersed tunnel sector with key roles in major immersed tunnel projects in Busan in Korea, Limerick in Ireland, Thessaloniki in Greece, Palm Island in Dubai and Bjørvika in Norway. In Scandinavia, we have built on our leading position within bored tunnels with increasing involvement in the Hallandsåsen tunnel project, as well as our ongoing work on the Malmø City tunnel. On the Danish market, we have a unique position as the leading consultant for a district heating tunnel, the Svanemølle tunnel, and the Harbour tunnel in Copenhagen.

We have embarked on three major new road projects in Pakistan, China and Tanzania. Pictured is the Western Yunnan project in China.



Environmental due diligence
CAT Alliance Ltd., which in addition to COWI comprises the British company Enviros, and the Dutch company, Tauw, continues to grow its turnover within environmental due diligence. This has positioned CAT Alliance as one of the global leaders in consultancy in relation to environmental responsibility and possible financial risks to the buyer associated with corporate trading. CAT Alliance has expanded its activities to also cover other transactional services, such as social/ethical considerations and building and production engineering conditions. The company is also now working with risk assessment and value creation in connection with

ongoing company operations and assets. In 2004, CAT Alliance has worked for CVC Capital, Bridgepoint Capital, Chr. Hansen and a great many major multinational companies with global acquisition activities.

Mapping and cadastre

With the acquisition of Kampsax, we have placed ourselves among the leading international suppliers within mapping and cadastre (property registration). In El Salvador, we are registering and verifying private property rights in three provinces. In this way, we are helping to establish one of the basic requirements for economic growth. We are carrying out similar assignments in a number of other countries. One comparative advantage we have is access to a range of international subsuppliers who enable us to undertake large-scale production of maps and data at competitive prices. These competencies, in combination with our capacity within 3D models and visualisation, will support and differentiate our services within area planning and major infrastructure projects. Kampsax India Private Ltd. (KIL) is part of our business concept where units in Denmark and Spain (Caribersa) are responsible for sales, management and development, while the Indian company is responsible for volume production of digital maps.

Development planning

Development planning is a strong business area for COWI. We have succeeded in expanding our activities despite the tight market. This sector has undergone pronounced changes and our work has moved from being based on natural sciences and technology to being increasingly concerned with administration, capacity building and process support. There are four main trends in the market: untying of aid and liberalisation of the donor market, a decentralization of decision-making competencies concerning assignments from donor headquarters to embassies, strengthening collaboration between donors in individual countries and closer correlation between foreign policy, security policy and aid policy. By following these new trends, we have secured a framework agreement with Norad for consultancy services in regard to good government conduct worldwide. We have taken on assignments for many Danish embassies in countries where Denmark has aid and development assistance programmes. We have provided consultancy services on the implementation of donor harmonization in Zambia and have supported Danida in the development of the Africa Programme for Peace.

Major projects abroad

This has been another year characterised by many distinctive international projects, amongst which may be highlighted:

- Work is well under way on the foundations for the 300 metre high pylons of the Sutong Bridge in China, scheduled to be in place by May 2005. On completion, the Sutong Bridge will be the longest cable-stayed bridge in the world. The 1,088 metre span of the bridge exceeds that of Hong Kong's Stonecutters Bridge by 70 metres. The Sutong Bridge will span the mouth of the Yangtze River not far from Shanghai. Serving one of China's most important provinces, Jiangsu with 74 million inhabitants, it will contribute significantly to the industrial development of the province. COWI is providing consultancy services to Jiangsu Sutong Bridge Construction Commanding Department covering concept, design and construction management. In the coming years, COWI's assistance will be concentrated on technical consultancy in connection with completion of the pylons and superstructure. The 8.2 kilometre long bridge is expected to be due for completion in 2008.
- The railway is one of the most important sources of income for Lithuania, particularly freight transportation via Lithuania from the East European Eastern countries bordering the Baltic Sea ports. Lithuania has therefore found it necessary to implement a ten-year plan for its central stretches of railway, which are in need of repair and modernisation, in order to develop a safe, efficient and environmentally friendly transport system. COWI has performed infrastructure analysis, evaluated traffic prognoses, assessed the railway's core business area and identified 25 potential projects for the railway sector in the Republic of Lithuania. COWI has recommended the modernisation of tracks, safety installations, stations and bridges in the specified transport corridors to enable increased goods traffic as well as passenger traffic between the two major cities of Vilnius and Kaunas. The project is being partially financed by the EU.
- This year, construction will commence on the two cable-stayed bridges and the immersed tunnel, which eventually will become part of a new motorway connection between Busan and Geoje Island on the southern tip of Korean peninsula. The first visible work at the site will be the placing of the caisson foundation structures for the bridges. With a length of four kilometres, the immersed tunnel will be one of the longest ever constructed, and in particular the difficult foundation conditions and the large water depths require highly advanced solutions. Furthermore, the location of the fixed link, directly exposed to the open sea with up to 13 metres high waves, underlines the technical challenges for the design and construction. COWI is the main consultant for Daewoo Engineering and Construction Co. Ltd. for both the tunnel and the bridge design.
- One of the longest road bridges in the world - Sheikh Jaber Al Ahmed Al Sabah Causeway—36 km in length, will eventually connect Kuwait City with the Subiyah development area across Kuwait Bay. The biggest ever infrastructure project in Kuwait, the bridge connection will give key impetus to the planned urban development of the northern shore of Kuwait Bay, which until now has been largely sandy desert. The development project is aimed at alleviating population pressure on Kuwait City, which within the next few years is expected to reach the limits of its growth potential. For this project, COWI is responsible for project management as well as for carrying out preliminary surveys and tender design. This entails COWI coordinating all disciplines, including environment, traffic planning, socio-economics, financing and risk analyses, involving the classic technical disciplines: the design of road, bridge and marine constructions. In addition, COWI is working on various solutions to determine how the bridge connection can best traverse the bay between Kuwait City and Subiyah.
- COWI has long experience in working with climate issues and is at present providing assistance to countries in central and eastern Europe, South Africa and China. The assistance is directed at helping them meet their political, economic and financial obligations under the terms of the Kyoto

Project Congestion is assessing the delays to bus and bicycle traffic compared to private cars in the Copenhagen area.

Accord. We are also providing assistance in the administration of the Kyoto Accord in Russia, Rumania and elsewhere, our main input being capacity building at government level with assistance from the Danish Environmental Protection Agency.

- During the last year, COWI has embarked on three major new road projects in developing countries. In Pakistan's Sindh province, we are assisting with the design, tender and supervision of the reconstruction and improvement of 164 kilometres of provincial highways and 1,200 kilometres of secondary roads. The work is part of a bigger programme of reform for the road sector being financed by the Asian Development Bank, ADB. In China, the ADB is also behind a large motorway construction between Baoshan and Longling in Yunnan province, where we are providing consultancy services in connection with project management, highway, tunnel and bridge design, reviews, traffic safety improvements and supervision of construction work. The project also includes training of a large number of Chinese engineers. In Tanzania, we are continuing our almost 40 year long involvement in the country with a contract for detailed design, tender and supervision in connection with improvements to the road between Chalinze, Segera and Tanga. The project is being financed by Danida.
- The first stage of Hydro Aluminium's factory in Suzhou near Shanghai is almost completed. When the 13,000 m² factory is finished in mid-2005, it will produce aluminium pipes for the Chinese car industry. COWI is responsible for the factory design, supervision and overall construction management, while the design was the work of a local partner. In the last ten years, COWI has assisted more than 20 companies in establishing production in China. The majority of the industrial projects are located in the city of Suzhou, although some have also been established in southern China.
- An 80 metre high dam is under construction in Iran's northern Alborz Mountains. The Iranian government, which is behind the dam project, wishes to use a large loan from the World Bank to finance an extensive project below the dam with the aim of introducing sustainable administration of natural resources. In 2003-2004 on behalf of the World Bank we assisted the Iranian authorities' preparatory work while ensuring that the project met the World Bank's social and environmental safety requirements.
- The rural population of Ghana knows better than anybody else where the important roads are located and which ones to upgrade or maintain. This is the philosophy behind a pilot project aimed at shifting responsibility for secondary roads in Ghana from central government to local district authorities. The project is part of Danida's road sector programme in Ghana and is in line with the general decentralisation process currently taking place in the country. We are assisting with training and capacity building, as well as technical support during maintenance and improvement of the rural roads. The project will run until 2008.
- Global environmental ideas should be utilised locally. This is the thinking behind a development project in the town of Walvis Bay in western Namibia. The project is based on the UN agenda that deals with how to establish a sustainable environment at local community level. Since 2001 COWI has been consultant for the project, which is financed by Walvis Bay Town Council and Danida. The project has culminated in the preparation of an environmental strategy and a plan of action for the town council aimed at achieving a realistic balance between the environment and the desire to advance social and economic development.

The climate sector is currently in political favour. We are helping a number of countries around the world to live up to the Kyoto Accord.

COWI is the main consultant on both the tunnel and bridge projects for the Busan-Geoje link in Korea.

- In recent years, we have registered and verified property rights in three provinces in El Salvador. The client is the National Centre of Registries (CNR). The purpose of the project is to establish an up-to-date cadastral map that physically localises properties and at the same time assures the associated legal property rights. More than 400 national and international experts have taken part in the project.
- The Rumanian government is presently implementing the SAMTID investment programme within water and wastewater in small and medium-sized towns. In collaboration with Halcrow, we are assisting the Rumanian government with the first phase. In 14 regions the government selected a group of municipalities and after carrying out feasibility studies five municipal groups were chosen to implement the first phase of the programme. This included detailed masterplan guidelines, tender documentation and contracting to improve the reliability and quality of the water supply. The technical assistance is being financed by the EU Phare programme and the Rumanian government, and everything is to be completed within one year. Project implementation is being financed by the EU, the Rumanian government, EIB and EBRD.
- The EU's vision is sustainable development for a sustainable future. In co-operation with two other enterprises, COWI assessed the EU's strategy for sustainable develop-

BMW's new showrooms
in Muscat, Oman.

ment. The strategy is targeted at creating equilibrium among three key factors, i.e. social development, economic growth and protection of the environment.
COWI studied the EU's approach to sustainable development so far, and analysed the political and institutional anchorage of the strategy. One of the prerequisites for achieving the strategy is the application of common criteria when assessing relevant policy initiatives. To do this the Commission has introduced the Impact Assessment method. COWI has carried out several impact analyses, including means for promoting bio-treatment of biodegradable waste and public procurement of environmentally friendly clean road vehicles.

- Dublin City Council is set to sign a contract in the near future with ELSAM Ireland, a Public Private Partnership Company, to build and operate a waste-fired combined heat and power plant serving the Dublin Region. In a joint venture with Irish consultants RPS Group, COWI has been responsible for prequalification of service providers, for project procurement, and is now close to concluding contract negotiations. According to plan the combined heat and power plant should be completed in 6-7 years, and when fully operational will have the capacity to treat about 500,000 tons of combustible waste from households, offices and industry annually. The energy from the waste will be used to produce 58 MW electricity, although serious consideration is also given to establishing Ireland's first district heating system in Dublin. The combined heat and power plant forms part of an integrated waste management plan for the Dublin Region developed by COWI in collaboration with RPS Group.
- The local authorities in the town of Harbin, in Heilongjiang Province in north-east China, are to introduce large, energy-efficient district heating boilers to meet the goal of supplying the entire town with district heating by the end of 2010. Harbin is among the most polluted urban conurbations in China and much of the pollution is caused by emissions from the numerous small, coal-fired boilers currently in use. COWI is helping to establish a modern district heating plant and system to meet the heating needs of about 225,000 households. Most of the heat produced will be supplied to housing estates, with the remainder serving public institutions and commercial and office buildings. The 985 coal-fired boilers currently in use will be replaced by about 156 new substations. These will be supplied from one large and four smaller boiler stations, principally via a 70 km long district heating pipeline.

COWI's subsidiaries

The following is a review of the activities of COWI's largest international subsidiaries:

Buckland & Taylor Ltd. - Canada
The company, whose head office is located in Vancouver, is an international company specialising in large bridges and forms an integral part of COWI's worldwide commitment to bridge building. The company has prospered in many areas. Turnover has significantly increased and earnings show a marked improvement compared with the previous year. The company is engaged in substantial activity on local bridge projects, and expectations are high in regard to new bridge projects in North America in the coming years. The company has a workforce of 60.

Ben C. Gerwick Inc. - USA
The company, whose head office is located in San Francisco, is an international company specialising in marine engineering. Ben C. Gerwick is an integral part of COWI's worldwide commitment to marine engineering. At the beginning of the year, the company experienced a dramatic decline in demand from public sector clients attributable to the national and state budget deficits. The company underwent a turnaround to accommodate the lower volume. Ben C. Gerwick was again profitable at the end of the year, and with increasing demand, expectations for 2005 are positive. The company has a workforce of 30.

European Transport Consultants, GmbH (ETC) - Germany
The company, whose head office is in Berlin, specialises in public transport and transport consultancy with the principal emphasis on rail transport. At the beginning of the year, ETC was hard hit when the company's biggest clients cancelled two major projects at short notice due to cutbacks in public spending. The ETC management embarked on a comprehensive restructuring exercise, which included a reduction in the number of staff. As a consequence, ETC's turnover and earnings declined significantly compared with the previous year. At the end of the year, the company was again profitable and expectations for 2005 are positive. The company has a workforce of 80.

UAB COWI Baltic - Lithuania
COWI's company in Lithuania is experiencing a positive trend with excellent growth in turnover and earnings. The company works primarily for local private clients such as investors and industries, either independently or in collaboration with COWI in Denmark, as in the case of a current project to design a large aqua-park and health spa in Druskininkai. The core business is construction, in particular project management and the design of installations. New areas such as the environment, water and wastewater, energy and railways have developed well and contributed significantly to the company's growth. The company has a workforce of 42.

COWI Almoayed Gulf (CAG)
COWI Almoayed Gulf operates in Bahrain and Oman and has a small office in Dubai. Turnover overall has increased.

COWI Almoayed Gulf W.W.L. in Bahrain has increased performance. Earnings are relatively low due to provisions being higher than normal. A significant part of turnover was achieved in collaboration with COWI in Denmark, working on projects such as the Sitra Causeway. The core business of the Bahrain office is construction and infrastructure. We are currently working on a number of projects on the island, including a tower building in the new Financial Harbour commercial district. The company has a workforce of 28.

COWI & Partners LLC, Oman has had a good year and seen significant growth in activities. The company's turnover and earnings are as per budget. The core activities are architecture and construction for both private and public sector clients. Towards the end of the year we won a large number of orders; enough, in fact, to keep the company going for some years. Large projects include the planning and design of Nizwa New University, which will be a highly prestigious building once completed. Architecture and the design of eye-catching car showrooms—most recently BMW's new showroom in Muscat—have developed into a niche activity for which the company is renowned. COWI Oman is also taking part in the planning, design and supervision of the airport development projects in Seeb and Salalah. The company has a workforce of 36.

Market knowledge, clients and organisation

We create value for our clients through projects. The value is rooted in staff know-how and knowledge, built up over the years through the Company's many previous projects. This knowledge is stored in our business system.

We aim to grow into an integrated international company, with the companies that make up the Group working together as a single unit. Knowledge sharing, communication and shared tools are important parts of the process of realising this strategy. Value creation is founded on our core competencies: the development of professional standards, the provision of multi-disciplinary services and project management in close collaboration with clients and working on a solid business basis.

For the seventh year in a row, we are publishing an intellectual capital report for the Parent Company, structured to reflect the most important stakeholders for value creation: clients, staff and the Company itself.

Clients and market
Following the acquisitions of recent years, and the subsequent client influx and outflow, we can now report overall growth in the number of clients. The proportion of private clients has remained constant. The proportion of semi-public clients has fallen and the number of public clients has risen. We aim to gain more private clients in order to ensure a broader-based total client portfolio. The share of projects completed for clients outside Denmark has risen from 15 to 18 per cent in recent years.

In the annual ranking of companies based on annual turnover and published by the respected international magazine Engineering News Records, COWI is listed as number 41 in the world in 2004 among top global design firms, compared with number 47 in the previous year, and as number 29 in the annual ranking of top international design firms.

Growth in development activities
Externally financed development activities are showing growth. We are satisfied with this trend, as development thrives best in the interplay between consultant and client.

COWI has a long tradition of development, and we strive to work innovatively in all our projects. The following major development projects are worthy of note:

- Lotwater. Full-scale development and testing of new methods of purifying overflow water. The results are demonstrated in the plant and in the recipients, and comparison is made with traditional methods. Collaboration between six Danish municipalities and counties.
- Participation in The Digital Building, a project for increased productivity through improved use of IT technology. Client: National Agency for Enterprise and Construction.
- Heat and cold storage in thermo-active structures for the new Copenhagen Playhouse. Client: The Royal Danish Theatre. With EU support.
- Development of full-scale plant and process for breaking down and reusing PVC for RGS 90 and EU.
- Development of methods for measuring pore air for the purposes of surveying polluted earth, and concept analysis of results for the Danish Environmental Protection Agency and Funen County.

COWI aims to establish itself in more markets in Central and Eastern Europe. The picture shows Budapest, Hungary, where we already have a company.

- Development of analytically/empirically based dimensioning methods for cement-stabilised, semi-rigid surfacing for use both nationally and internationally. Client: The Danish Road Directorate.
- Development of concepts for strategic environmental assessment of plans, e.g. regional plans, sector plans and local plans. Client: Danish municipalities (including the Municipality of Aarhus) and counties.

Demand for project management
We deliver our consultancy services in different ways, according to the client's requirements and the nature of the assignment. Different types of consultancy services include project management, expert assistance, analysis, design, invitations to tender, supervision, training, research, product delivery etc. Project management is one area where we are seeing an increase in demand.

In 2003 and 2004 the most important types of consultancy were (figures in brackets show share of turnover):

- Project management (2003: 23 per cent - 2004: 27 per cent)
- Design, invitations to tender and supervision (2003: 35 per cent - 2004: 32 per cent)
- Expert assistance, planning and analysis (2003: 23 per cent - 2004: 25 per cent)
- Products and delivery (2003: 8 per cent - 2004: 5 per cent)
- Other (2003: 11 per cent - 2004: 11 per cent)

Staff
The permanent workforce fell slightly but COWI is overall a bigger group today than it has ever been. This is attributable to a significant increase in the number of local project staff abroad (see figures in table below):

Number of employees

Permanent	Denmark	Group
00/01	1,581	2,148
01/02	1,643	2,282
02/03	1,972	3,501
2003	1,960	3,433
2004	1,923	3,294

In addition, in 2004 there were about 1,000 local project staff.

The proportion of staff, who hold an M.Sc. or B.Sc. degree, has increased by about 2 per cent to 73 per cent of the staff of COWI A/S

Increased project management capacity
The project management capacity at COWI A/S has increased as a result of changes to the composition of the staff and an expansion of internal courses for project managers. The proportion of staff with management experience gained from heading big projects has increased from 36 per cent to 39 per cent. We consider this to be a unique knowledge resource for future business.

Unique composition
COWI's business is based on the three E's: Engineering, Environmental science and Economics. While engineering remains the main element in many of our services, environmental science and economics are now of such importance to our business as to be unique in the Danish consulting engineering sector.

In 2004, turnover based on these three areas of expertise was as follows:

- Engineering 46 per cent
- Environmental science 14 per cent
- Economics 16 per cent

The remaining 24 per cent share covers areas such as project management, quality management, information management and communication, all of which supports the three areas of expertise.

Enhanced communication with the students
According to a survey by Universum, our image among engineering and natural science students has slipped to seventh place—the first time we have finished outside the top five. This is unsatisfactory, even though we still hold a top position within the building and civil engineering sector.

Working towards improved staff satisfaction
Based on a staff satisfaction survey carried out in 2004, the staff satisfaction index is currently 67.8 per cent compared with 67.7 per cent in 2002-2003. Overall, staff continue to consider COWI a good company to work for, despite a period of change. The staff satisfaction index covers aspects of the more detailed relations. On the positive side, we find staff opportunities for working independently, flexible working hours and a focus on the individual department's results. Areas where we face challenges include better opportunities for personal and professional development, a wish for a greater degree of involvement in decision-making, and better feedback on performance.

Events subsequent to the end of the financial year

There have been no significant events which might impact on the contents of the Annual Report since the end of the financial year.

Future expectations
We expect generally positive economic developments in 2005 and foresee that this will increase demand for the services of the COWI Group in a number of markets. However, we remain unsure of the extent and sustainability of the economic upswing, due in part to the uncertainty surrounding the US dollar.

On the Danish market, we expect economic growth to be driven by public and private investments. We anticipate that this development will have a positive effect on sales to these sectors. Our objective is to expand and strengthen our position in Denmark by focusing on client needs, client dialogue and the continued development of new services. We expect the structural reform of the public sector in Denmark to afford us a number of new opportunities as a result of our experience and competence within the sector and with change processes.

On the Norwegian market, we expect to see strong economic growth. We anticipate high-level public sector investment and consumption, and consequently good prospects for growth in turnover and earnings for COWI Norway.

Similarly, we expect reasonable growth in the international markets. We aim to strengthen our position by developing a greater presence, collaborations and initiatives in Central and Eastern Europe as well as in China, where growth and opportunities are considerable. We have enjoyed success for many years in the Middle East, with a number of major projects within civil engineering and construction in particular. We expect to be able to grow our business activities further. Any further weakening of the US dollar, however, may have a negative impact since it would impair our competitiveness on projects priced in US dollars or currencies tied to the US dollar, and on projects where competitor companies come from countries whose currencies are tied to the US dollar.

We will escalate our marketing and sales activities targetting selected clients and markets. Internally, we will continue to focus on controlling costs and making our business systems and work procedures more efficient.

Against this background we expect to see a growth in turnover in 2005, along with improved profitability and, consequently, a higher operating margin. We are working continuously to improve the cash flow from operations in order to provide the scope for business development by establishing a greater corporate presence and by making acquisitions.

Four out of ten consultants in COWI have experience of heading big projects.

Financial Review

General
Following a change of financial year with effect from 1 January 2004, the financial year is equal to the calendar year in 2004. The comparative figures in the profit and loss account and the cash flow statement as well as the 5-year financial highlights have been restated to the respective calendar years.

Profit and loss account
The consolidated net turnover for 2004 amounted to DKK 2,594.3 million, which is DKK 11.0 million below 2003. Turnover is negatively impacted by the decrease in turnover of the Norwegian subsidiary, COWI AS by DKK 29.5 million against the previous year as a result of the company's focus on the core business and profitability. Turnover is further down by DKK 38.0 million as a result of the considerable workforce reductions in the German subsidiary, ETC at the beginning of the year because the company's major customers froze projects in progress and were reluctant to launch new projects. Adjusted for the reduced turnover of these two companies, the Group's turnover is up by DKK 56.5 million, equalling just over 2% growth.

Of the consolidated turnover, foreign turnover accounted for 61%, which corresponds to last year's level.

Total operating expenses, excluding financial income and expenses, dropped 4% to DKK 1,766 million. The most substantial operating expenses, staff expenses, were reduced by 2%, a drop that is linked to the staff cuts during 2004. Depreciation, amortisation and impairment were down by 19% to DKK 65.2 million. The explanation for this is the reduced goodwill amortisation, own development of map products and IT.

Operating profit increased by DKK 58.0 million to DKK 90.8 million as a result of the continued focus on cost control and efficiency and because the financial statements for 2003 were affected by large costs in connection with the integration and restructuring of the two acquired enterprises, Kampsax A/S and COWI AS, Norway in 2002-2003.

The Group's operating margin, calculated as operating profit as a percentage of turnover, reached 3.5% against 1.3% the previous year. The Group's EBITDA (Earnings Before Interest, Tax, Depreciation and Amortisation), which is a measure of the Group's basic earnings capacity, amounted to DKK 156.1 million against DKK 113.6 million the previous year, which means that the EBITDA margin has increased to 6.0% against 4.4% the previous year.

Financial income and expense, net amounted to an income of DKK 5.9 million, equalling a reduction of DKK 1.7 million compared with last year. The lower income results primarily from lower profit on the Company's securities in 2004 than in the previous year.

The profit before tax and minority interests was DKK 96.7 million, equalling a 139% increase compared with 2003.

The computed tax amounts to DKK 34.3 million against DKK 15.7 million last year. The effective tax rate for the year is 35.4% against 38.8% last year. The lower effective tax rate is explained by the inclusion in the tax expense for 2003 of adjustments relating to previous years.

The consolidated profit after tax and minority interests amounts to DKK 60.6 million against DKK 22.0 million in 2003.

Balance sheet
The consolidated balance sheet total is DKK 1,562.9 million against DKK 1,519.4 million for 2003. No material changes were seen in the balance sheet structure during the year, apart from a change in the equity ratio from 25.7% at 31 December 2003 to 28.5% at 31 December 2004.

Shareholders' funds were increased by the profit for the year of DKK 60.6 million, increased by an adjustment relating to subsidiaries of DKK 1.7 million and reduced by foreign exchange adjustments of DKK 4.2 million. Following the change in the Danish Companies' Act with effect from 1 July 2004, abolishing the limitation of share premium accounts, the share premium of DKK 5.9 million has been transferred to distributable reserves.

Cash flow statement
Cash flows from operating activities amounted to DKK 167.1 million, which is in line with the previous year. Cash flows from investing activities amounted to DKK 37.1 million, a significant drop from the previous year, when investments were affected by the acquisition of COWI AS, Norway.

The free cash flow was positive at DKK 129.4 million, which represents a significant improvement over 2003 when the free cash flow was negative.

At the end of the financial year, the Group's cash and cash equivalents amounted to DKK 320.9 million, an increase of DKK 70.7 million from year-end 2003. When adding credit lines granted but not utilised to this amount, COWI's financial resources amounted to DKK 588.1 million at year-end, which is DKK 50.9 million higher than at year-end 2003.

Applied Accounting Policies

The 2004 Annual Report of COWI A/S has been prepared in accordance with the provisions of the Danish Financial Statements Act for a large class C enterprise.

Applied accounting policies remain unchanged from last year.

Pension benefit obligations
In connection with the acquisition of the shares in COWI AS, Norway (formerly Interconsult ASA) on 1 January 2003, goodwill on acquisition was calculated. In the calculation, the pension benefit obligations were not revalued to fair value. This decision was made with reference to section 11 (3) of the Danish Financial Statements Act as Management is of the opinion that continuing the accounting policy previously applied by COWI AS, Norway for pension benefit obligations gives a true and fair view in the Annual Report, as this policy implies that unamortised plan changes, estimate fluctuations and pension adjustments which may over time be recovered are not reclassified and amortised as goodwill.

The method applied means that the net pension asset recognised in COWI AS, Norway at 31 December 2004 of DKK 26.6 million is recognised in the consolidated balance sheet of the COWI Group and that estimate/plan changes identified at the takeover date of approximately DKK 57.9 million at 31 December 2004 are only disclosed in the notes and not recognised in the balance sheet under pension assets/provision for pension benefit obligations.

If the net pension benefit obligation had been recognised at fair value in the takeover balance sheet, the goodwill on acquisition at 31 December 2004 would have been DKK 55.1 million higher, and the net balance sheet total at 31 December 2004 would have been increased by DKK 50.0 million.

The chosen accounting treatment in 2004 positively affected the total consolidated profit by DKK 1.6 million, primarily attributable to the corridor approach and to differences between the period of goodwill amortisation (amortised over 20 years) and the charging of pension costs to the profit and loss account (amortised over 14 years except for the corridor, which is not amortised).

If the net pension benefit obligations had been recognised at fair value at the takeover, the consolidated shareholders' funds at 31 December 2004 would have been DKK 7.1 million higher. The reason is that the recognition in the balance sheet of the net pension benefit obligations would have resulted in positive foreign exchange adjustments on translation of NOK to DKK at 31 December 2004, while the amortisation differences mentioned above would have been reduced.

Change of comparative figures
COWI A/S has changed its financial year from 1 May - 30 April to the calendar year. The financial year has been changed by way of a transition period of 1 May - 31 December 2003 (eight-month transition period). Danish and foreign subsidiaries of the Group, which previously had a financial year of 1 May - 30 April, have also changed their financial years to the calendar year with a transition period equal to that of the Parent Company.

To ensure optimal comparability in the Annual Report for 2004, comparative figures have been restated so that the profit and loss account and cash flow statement comparatives cover the period 1 January - 31 December 2003 (12 months).

The five-year financial highlights have also been restated to cover the period 1 January - 31 December.

Recognition and measurement
In the profit and loss account, income is recognised as earned, including recognition of value adjustments of financial assets and liabilities measured at fair value or amortised cost. Similarly, all expenses including amortisation, depreciation and impairment losses are recognised in the profit and loss account.

Assets are recognised in the balance sheet when it is probable that future economic benefits will flow to the Company, and when the value of the asset can be reliably measured.

Liabilities are recognised in the balance sheet when it is probable that future economic benefits will flow out of the Company, and when the value of the liability can be reliably measured.

On initial recognition, assets and liabilities are measured at cost. Subsequently, assets and liabilities are measured as described for each individual item below.

Certain financial assets and liabilities are measured at amortised cost where a constant effective interest is recognised over the maturity. Amortised cost is stated as original cost less any principal payments plus or minus the cumulative amortisation of any difference between cost and nominal amount. In this way capital losses and gains are amortised over the maturity.

Recognition and measurement take into consideration anticipated losses and risks that arise before the time of presentation of the Annual Report and which confirm or invalidate affairs and conditions existing at the balance sheet date.

Group Accounts

Consolidation policy
The Annual Report includes the Parent Company COWI A/S as well as undertakings in which the Parent Company directly or indirectly holds the majority of the voting rights or in which the Parent Company through its shareholding or otherwise exercises a controlling interest. Undertakings in which the Group holds between 20% and 50% of the voting rights and exercises a significant, but not controlling interest are treated as associated undertakings.

On consolidation, intercompany profits and expenses, shareholdings, dividends and balances as well as realised and unrealised gains and losses on transactions between consolidated companies have been eliminated.

The accounts applied for the Group's Annual Report have been presented in accordance with Group accounting policies. The Group's Annual Report has been prepared on the basis of the accounts of the Parent Company and the subsidiaries by combining items of a uniform nature.

Investments in subsidiaries are eliminated at the relevant proportion of the net asset value of the subsidiaries at the time of acquisition.

On acquisition of subsidiaries, any differences between the acquisition cost and the net asset value of the undertaking acquired is stated at the time of acquisition after adjusting the individual assets and liabilities at fair value (the purchase method) and allowing for recognition of any reconstruction provisions in respect of the undertaking acquired. Any remaining positive differences are recognised in the balance sheet under intangible fixed assets as Group goodwill and amortised on a straight-line basis over the expected useful life, however at a maximum of 20 years. Any negative differences are recognised in the balance sheet.

Goodwill from acquired undertakings is adjusted as a result of changes in recognition and measurement of net assets for a period of up to a total financial year following the time of acquisition.

Minority interests
On statement of Group results and Group shareholders' funds, the share of results and equity in subsidiaries that is attributable to minority interests is recognised as separate items in the profit and loss account and the balance sheet. Minority interests are recognised at fair value on the basis of a remeasurement of acquired assets and liabilities at the time of acquisition of subsidiaries.

Corporation tax and deferred tax
The Company is jointly taxed with certain 100% owned Danish and foreign subsidiaries. The tax effect of the joint taxation with the subsidiaries is charged to the profit and loss account in the Parent Company.

Tax for the year consisting of current tax and deferred tax for the year is recognised in the profit and loss account with the share attributable to profit for the year, and is recognised directly in shareholders' funds with the share attributable to entries recognised directly in equity. Any share of the tax carried in the profit and loss account arising from profit/loss on extraordinary activities for the year is attributed to the profit and loss account, while the remaining share is attributed to profit/loss on ordinary activities for the year.

Current tax liabilities and current tax receivable are recognised net in the balance sheet as tax computed on taxable income for the year adjusted for tax on taxable income for previous years.

Deferred tax is accounted for using the balance-sheet liability method in respect of all temporary differences between accounting and tax values of assets and liabilities. However, no deferred tax is recognised in respect of temporary differences concerning goodwill not deductible for tax purposes as well as other items—apart from acquisition of enterprises—where temporary differences have arisen at the time of acquisition without any effect on accounting and taxable profits. In cases where the computation of the tax value may be made according to alternative tax rules, deferred tax is recognised on the basis of the planned use of the asset or settlement of the liability, respectively.

Deferred tax assets including the tax value of tax-loss carryforwards are recognised at the value at which they are expected utilised, either by elimination in tax on future earnings or by set-off against deferred tax liabilities within the same legal tax entity and jurisdiction.

Adjustment of deferred tax is made concerning elimination made of unrealised intercompany gains and losses.

Deferred tax is measured on the basis of the tax rules and tax rates in the respective countries that will be effective under the legislation at the balance sheet date when the deferred tax is expected to crystallise as current tax. Any changes in deferred tax as a consequence of amendments to tax rates are recognised in the profit and loss account.

Translation policies
Transactions in foreign currencies are translated applying standard rates approximating the foreign exchange rates ruling at the dates of transaction. Any exchange differences arising between the transaction date rates and the rates at the date of payment are recognised in the profit and loss account as part of net turnover.

Accounts receivable and payable and other monetary items in foreign currencies that have not been settled at the balance sheet date are translated into the exchange rates ruling at the balance sheet date. Any differences between the exchange rates at the balance sheet date and the rates at the time when the receivable or payable arises are recognised in the profit and loss account under financial income and expenses.

Fixed assets acquired in foreign currencies are translated into the rates ruling at the dates of transaction.

On recognition of foreign subsidiaries and associated undertakings that are separate legal entities, profit and loss accounts are translated at monthly average exchange rates, and balance sheet items are translated at the exchange rates at the balance sheet date. Exchange differences arising on translation of the opening equity of foreign subsidiaries to the exchange rates at the balance sheet date, and on translation of profit and loss accounts from average exchange rates to the rates at the balance sheet date are recognised directly in shareholders' funds.

On recognition of foreign subsidiaries that are integrated entities, monetary items are translated at the exchange rates ruling at the balance sheet date. Non-monetary items are translated at the rates at the time of acquisition or at the time of any subsequent revaluation or writedown for impairment of the asset. Profit and loss account items are translated at transaction-date exchange rates; however, items derived from non-monetary items are translated at the historical rates in respect of the non-monetary item.

Exchange adjustments of intercompany balances and transactions with foreign subsidiaries that are considered additions to or deductions from the equity of independent subsidiaries are recognised directly in shareholders' funds. Similarly, exchange gains and losses on loans and derivative financial instruments contracted for hedging purposes by independent foreign subsidiaries are recognised directly in shareholders' funds.

Derivative financial instruments
Derivative financial instruments are initially recognised in the balance sheet at cost and subsequently remeasured at their fair value. Positive and negative fair values of derivative financial instruments are included in prepayments under assets and in deferred income under liabilities, respectively.

Changes in the fair value of derivative financial instruments that are designated and qualify as fair value hedges of a recognised asset or liability are recognised in the profit and loss account together with any changes arising in the fair value of the hedged asset or the hedged liability.

Changes in the fair value of derivative financial instruments that are designated and qualify as future asset and liability hedges are recognised in prepayments/deferred income or shareholders' funds, respectively. Where the forecast transaction results in the recognition of an asset or a liability, amounts that have been deferred in equity are transferred from equity and included in the cost of the asset and the liability, respectively. Where the forecast transaction results in income or expenses, amounts that have been deferred in equity are transferred to the profit and loss account in the period during which the hedged item affects the profit and loss account.

Changes in the fair value of any derivative financial instruments that do not qualify for hedge accounting are recognised immediately in the profit and loss account.

Segment information
Information is provided on geographical markets. Information on geographical markets is based on the group's internal financial reporting system.

Incentive schemes
The material provisions of the employee share schemes are disclosed in the notes to the Group Accounts and have no effect on the profit and loss account. At present, there are no incentive schemes.

Profit and loss account

Net turnover
Net turnover corresponds to an approximate and prudently assessed sales value of work performed for the year. The completion of the individual projects will generally progress over several accounting periods and therefore the percentage-of-completion method is applied for revenue recognition. Profits on work performed are recognised as income accordingly and by reference to the stage of completion.

Project expenses
Project expenses include expenses directly attributable to projects excluding salaries including travel expenses, external expenses as well as other expenses.

External expenses
External expenses include administrative expenses, office expenses, marketing expenses as well as other expenses.

Other operating expenses, net
Other operating expenses, net include items of a secondary nature compared with the Company's core activities, including removal expenses as well as profits and losses from the sale of intangible and tangible fixed assets.

Net financials
Financial income and expenses include interest, financial expenses related to finance leases, realised and unrealised exchange adjustments, price adjustments on securities as well as amortisation of long-term receivables.

Extraordinary income and expenses
Extraordinary income and expenses include income and expenses attributable to events or transactions that are clearly distinct from the ordinary activities and are anticipated to be non-recurring.

Balance sheet

Intangible fixed assets

Goodwill
Goodwill is amortised over the estimated useful life determined on the basis of Management's experience with the individual business areas. The amortisation period is 5-20 years, the longest period applying to acquired undertakings with a strong market position and an expected long earnings profile.

Rights
Rights are amortised on a straight-line basis over 5 years.

Own-developed products
Own-developed products that are clearly defined and identifiable where the technical utilisation rate, sufficient resources and a potential future market or development opportunity in the enterprise can be verified and where the intention is to market or use the project, are recognised with effect from 1 May 2002 as intangible fixed assets. This applies if sufficient certainty exists that the net present value (value in use) of the future earnings can cover the expenses involved.

Own-developed products that do not meet the criteria for recognition in the balance sheet are recognised as expenses in the profit and loss account as incurred.

Own-developed products include salaries, amortisation and other expenses that are directly or indirectly attributable to the Company's development activities. Capitalised own-developed product costs are measured at the lower of cost, less accumulated amortisation and impairment losses, and recoverable amount.

On completion of the development work, own-developed products are amortised on a straight-line basis over the period in which the work is expected to generate economic benefits. The amortisation period is 2-5 years.

Software
Software is measured at the lower of cost, less accumulated amortisation and impairment losses, and net asset value. The amortisation period is 3-5 years.

Summary of the amortisation periods for intangible fixed assets

Goodwill	5 -20 years
Rights	5 years
Own-developed products	2 -5 years
Software	3 -5 years

Tangible fixed assets

Land and buildings
Land and buildings are measured at cost less accumulated depreciation and impairment losses and depreciated on a straight-line basis over 50 years.

Special installations in buildings are depreciated on a straight-line basis over 10-15 years.

Technical installations, operating and other equipment
Technical installations, operating and other equipment, including leasehold improvements are measured at cost less accumulated depreciation and impairment losses and depreciated on a straight-line basis over 3-10 years.

Assets under finance leases
At the inception of the lease, leases in respect of tangible fixed assets in terms of which the individual group companies assume substantially all the risks and rewards of ownership (finance leases) are recognised in the balance sheet at the fair value of the leased asset where such an asset exists. Alternatively, the net present value, if lower, of future lease payments at the inception of the lease is applied. When computing the net present value, the interest rate implicit in the lease is applied as the discount rate or an approximated value. Assets under finance leases are depreciated and impaired like the Group's other tangible fixed assets.

The residual lease obligation is capitalised and recognised in the balance sheet under debt, and the interest element on the lease payment is charged to the profit and loss account, as incurred, over the lease term.

All other leases are considered as operating leases. Lease payments under operating leases are recognised in the profit and loss account over the lease term.

Summary of depreciation periods for tangible fixed assets

Buildings	50 years
Special installations in buildings	10 -15 years
Technical installations, operating and other equipment, including leasehold improvements	3 -10 years

Impairment of fixed assets
The net book value of intangible as well as tangible fixed assets are reviewed on an annual basis to determine whether there is any indication of impairment exceeding the write-downs in connection with general amortisation and depreciation. Where impairment is required, writedown is made to recoverable amount, if lower. The recoverable amount of the asset is determined as the higher of net selling price and net present value (value in use). Where it is not possible to determine the recoverable amount of the individual asset, the impairment requirement is assessed in respect of the smallest group of assets for which it is possible to determine the recoverable amount.

Fixed asset investments

Investments in subsidiaries and associated undertakings
Investments in subsidiaries and associated undertakings are recognised and measured under the equity method in the Parent Company's Annual Report.

The Parent Company profit and loss account recognises the proportionate share of the subsidiaries' results before tax for the year under the item 'Profit on ordinary activities before tax in subsidiaries', while the share of tax in subsidiaries is included in the item 'Tax on profit on ordinary activities'. Group goodwill amortisation is presented separately in the profit and loss account under the item 'Goodwill and Group goodwill amortisation'.

The Group's and the Parent Company's profit and loss account includes the proportionate share of results before tax for the year of associated undertakings under the item 'Profit on ordinary activities before tax in associated undertakings', while the share of tax in associated undertakings is included in the item 'Tax on profit on ordinary activities'. Group goodwill amortisation is presented separately in the profit and loss account under the item 'Goodwill and Group goodwill amortisation'.

Under the item 'Investments in associated undertakings', the Group's balance sheet includes the relevant equity interest proportion of the net asset value of the associated undertakings measured under the Parent Company's accounting policies less deduction or with addition of the share of unrealised intercompany profits or losses.

Under the items 'Investments in subsidiaries' and 'Investments in associated undertakings', the Parent Company's balance sheet includes the relevant equity interest proportion of the net asset value of the undertakings measured under the Parent Company's accounting policies less deduction and with addition of the share of unrealised intercompany profits or losses.

Subsidiaries and associated undertakings with a negative net asset value are measured at DKK zero, and any receivable from these undertakings is written down, to the extent estimated to be uncollectible, by the Parent Company's share of the negative net asset value. Where the negative net asset value exceeds the amount receivable, the residual amount is recognised under provisions to the extent where the Parent Company has a legal or constructive obligation to cover the undertaking's negative balance.

The total net revaluation of investments in subsidiaries and associated undertakings is transferred in the Parent Company over the distribution of profit to 'Reserve for net revaluation according to the equity method' under shareholders' funds.

Positive and negative differences are separately included under the item 'Group goodwill' both in the Parent Company's balance sheet and in the Group Accounts.

Undertakings acquired during the financial year are included in the Parent Company and Group Accounts from the time of acquisition, and undertakings disposed of are included until the time of disposal. Comparative figures are generally not adjusted for new acquisitions and disposals.

Any gains or losses on disposal or liquidation of subsidiaries are computed as the difference between the sales sum or the liquidation amount and the net asset value of net assets at the time of disposal or liquidation, including non-amortised goodwill as well as expected sales or liquidation expenses. Any gains or losses are recognised in the profit and loss account.

Other investments and participating interests
Other investments and participating interests include bonds and shares measured at fair value at the balance sheet date. Listed securities are mea-

sured at the official market price at the balance sheet date. Unlisted securities are measured at selling price based on a computed value in use.

Current assets

Receivables
Accounts receivable are measured at the lower of amortised cost or net realisable value corresponding to a nominal value less losses for uncollectibles. Losses on uncollectibles are calculated on the basis of an individual assessment of each account receivable, and in respect of trade accounts receivable, an additional general provision is made.

Contract work in progress
Contract work in progress is recognised in the balance sheet net of amounts invoiced on account. Gross work in progress is measured at the selling price of the work performed. The selling price is measured in proportion to the stage of completion at the balance sheet date and the total expected profit on the individual projects (the percentage-of-completion method). This principle implies that the expected profit on the individual projects is recognised in the profit and loss account on a current basis by reference to the stage of completion.

The stage of completion is measured by the proportion that project expenses incurred for work performed to date bear to the estimated total project expenses. Where it is probable that total project expenses will exceed the total revenues from a project, the expected loss is recognised as an expense in the profit and loss account.

The share of work in progress etc. performed in working partnerships is included in work in progress.

Own shares
Own shares are shares acquired by COWI A/S for use in future allotments to employees. Own shares are measured at cost and tied up in a special reserve under shareholders' funds. Any gains/losses on disposal are recognised in the profit and loss account.

Current asset investments
Current asset investments include listed bonds and shares measured at fair value at the balance sheet date. Listed securities are measured at market price. Unlisted securities are measured at selling price based on a calculated value in use.

Net pension funds and pension benefit obligations
A number of defined benefit plans have been concluded in the Group's Norwegian subsidiaries. The assets stemming from these plans are placed in pension funds in accordance with the relevant regulations. The pension plans are funded through contributions from the company, due consideration being paid to the assessments by independent, qualified actuaries on the determination of the necessary contributions to the plans.

When determining pensions, linear earnings profiles and expected final salaries constitute the basis of eligibility. For the benefit plans, total obligations are assessed against total assets in the benefit plan. When measuring plan assets and benefit obligations, the estimated fair value at the time of closing the accounts is applied. The estimated values are adjusted each year in accordance with actuarial calculations. The accounting for pension costs is in accordance with International Accounting Standard no. 19 (IAS 19, Employee Benefits).

Payroll tax is charged to the profit and loss account on the basis of paid-in pension premiums. Plan changes are amortised over the estimated remaining earnings period. The same applies to estimate fluctuations to the extent that they exceed 10 per cent of the higher of the accrued pension benefit obligations and the plan assets (the corridor approach).

COWI A/S has contributed to defined benefit plans for a number of former and present members of Management. These plan benefits are recognised in the balance sheet as the benefits are earned. The calculation of plan benefits is based on actuarial calculations.

Prepayments
End-of-period adjustments required by accrual accounting recognised as prepayments under assets include payments made in respect of subsequent financial years, typically prepaid rent, insurance premiums, subscriptions etc. as well as adjustments to fair value of derivative financial instruments with a positive fair value.

Shareholders' funds

Dividend
Dividend is recognised as a liability at the time of adoption by the Annual General Meeting. Dividend expected distributed for the year is recorded in a separate item under shareholders' funds.

Provisions

Provisions are recognised when—as a consequence of an event occurred before or on the balance sheet date—the Group has a legal or constructive obligation and it is probable that economic benefits must be sacrificed to settle the obligation.

Other provisions include legal obligations etc. on completed projects. Provisions with an expected maturity exceeding one year from the balance sheet date are discounted at the average bond yield. Deferred tax is not discounted to present value.

Financial debts
Fixed-rate loans such as mortgages and loans from credit institutions intended held to maturity are recognised initially at the proceeds received net of transaction expenses incurred. In subsequent periods, borrowings are stated at amortised cost corresponding to the capitalised value using the effective interest method; the difference between the proceeds and the nominal value (the capital loss) is recognised in the profit and loss account over the loan period.

Other debts are measured at amortised cost, materially corresponding to nominal value.

Deferred income and other liabilities
End-of-period adjustments required by accrual accounting recognised as deferred income under liabilities include payments received concerning income in respect of subsequent periods as well as adjustments to fair value of derivative financial instruments with a negative fair value.

Cash flow statement

The cash flow statement shows the Group's cash flows for the year distributed on operating, investing and financing activities, net changes for the year in cash and cash equivalents as well as Group cash and cash equivalents at the beginning and end of the year.

Cash flow from operating activities
Cash flows from operating activities are calculated as Group results adjusted for non-cash operating items such as amortisation, depreciation and impairment losses, provisions as well as net change in working capital, interest income and expenses, amounts paid in respect of extraordinary items and corporation tax paid. Working capital includes current assets less short-term debt excluding items included in cash and cash equivalents.

Cash flow from investing activities
Cash flows from investment activities include cash flows from acquisitions and disposals of intangible and tangible fixed assets as well as fixed asset investments.

Cash flow from financing activities
Cash flows from financing activities include cash flows from the raising and repayment of long-term debt as well as purchase of own shares and dividend payments to shareholders.

Cash and cash equivalents
Cash and cash equivalents include cash at bank and in hand as well as securities recognised as current asset investments.

The cash flow statement cannot be immediately derived from the published financial records.

Financial ratios

The financial ratios stated in Key Figures and Financial Ratios have been calculated as follows:

EBITDA margin	$\frac{\text{Operating profit before depreciation and amortisation x 100}}{\text{Net turnover}}$
Operating margin	$\frac{\text{Operating profit x 100}}{\text{Net turnover}}$
Return on invested capital	$\frac{\text{Operating profit x 100}}{\text{Non-financial assets less advance invoicing, end-of-year}}$
Equity ratio	$\frac{\text{Equity excl. minority interests, end-of-year x100}}{\text{Total liabilities and equity, end-of-year}}$
Return on equity	$\frac{\text{COWI Group share of profit for the year x 100}}{\text{Average equity excl. minority interests}}$

Profit and loss account

Parent Company				Group	
2003	2004	DKK '000	Note	2004	2003
1,802,254	1,852,188	**Net turnover**	**1**	2,594,326	2,605,289
(613,629)	(631,856)	Project expenses		(737,131)	(737,909)
1,188,625	1,220,332	**Own production**		1,857,195	1,867,380
(168,821)	(175,182)	External expenses	**2**	(302,798)	(323,103)
(930,170)	(940,146)	Staff expenses	**3**	(1,397,846)	(1,429,714)
(43,244)	(33,316)	Amortisation, depreciation and impairment losses	**4**	(65,273)	(80,704)
46,390	71,688	**Operating profit on ordinary activities**		91,278	33,859
1,788	1,245	Other operating expenses, net	**5**	(451)	(1,001)
48,178	72,933	**Operating profit**		90,827	32,858
(4,930)	(23,826)	Profit on ordinary activities before tax in subsidiaries	**6**	-	-
196	49	Profit on ordinary activities before tax in associated undertakings	**7**	926	370
(17,176)	(13,716)	Goodwill and group goodwill amortisation	**4**	-	-
23,029	22,693	Financial income	**8**	23,925	31,595
(12,540)	(11,602)	Financial expenses	**9**	(18,972)	(24,385)
36,757	94,183	**Profit on ordinary activities before tax**		96,706	40,438
(14,775)	(33,604)	Tax on profit on ordinary activities	**10**	(34,326)	(15,702)
21,982	60,579	**Profit on ordinary activities after tax**		62,380	24,736
-	-	Profit on extraordinary activities after tax		-	-
21,982	60,579	**Profit for the year**		62,380	24,736
-	-	Profit/loss from subsidiaries attributable to minority shareholders		(1,801)	(2,754)
21,982	60,579	**COWI's share of profit for the year**		60,579	21,982

Proposed distribution of net profit

		DKK '000
3,475	5,213	Proposed dividend at 15% (10%)
-	15,041	Transferred to Reserve for net revaluation according to the equity method
18,507	40,325	Retained earnings
21,982	60,579	

Balance sheet

Parent Company				Group	
31 Dec. 2003	31 Dec. 2004	DKK '000	Note	31 Dec. 2004	31 Dec. 2003
121,317	114,759	Goodwill and rights		357	677
121,319	114,161	Group goodwill		228,921	242,636
9,433	9,578	Software		10,796	11,699
5,855	9,219	Own-developed products		9,219	5,855
257,924	247,717	**Intangible fixed assets**	**11**	249,293	260,867
4,302	4,173	Land and buildings		7,533	9,901
82,031	73,097	Technical installations, operating and other equipment		103,670	114,874
1,561	296	Fixed assets in course of construction		1,057	2,297
87,894	77,566	**Tangible fixed assets**	**12**	112,260	127,072
95,840	139,229	Investments in subsidiaries	**6**	-	-
1,189	1,166	Investments in associated undertakings	**7**	6,062	7,478
23,401	18,745	Loans to subsidiaries		-	-
293	252	Other investments and participating interests		5,470	5,739
120,723	159,392	**Fixed asset investments**	**13**	11,532	13,217
466,541	484,675	**Total fixed assets**		373,085	401,156
467	479	**Stocks**		484	467
310,048	291,717	Accounts receivable, services		479,813	483,294
181,062	166,617	Contract work in progress, net	**14**	241,308	232,986
69,203	63,691	Amounts owed by subsidiaries		-	-
-	-	Amounts owed by associated undertakings		3,254	420
30,314	30,276	Other receivables		37,998	53,337
-	-	Net pension assets	**15**	29,210	28,734
-	-	Tax asset	**20**	18,837	25,980
40,143	53,794	Prepayments	**16**	58,021	42,827
630,770	606,095	**Accounts Receivable**		868,441	867,578
152,275	160,861	**Current asset investment**	**17**	161,457	152,275
50,976	76,313	**Cash at bank and in hand**		159,418	97,923
834,488	843,277	**Total current assets**		1,189,800	1,118,243
1,301,029	1,328,423	**TOTAL ASSETS**		1,562,885	1,519,399

Parent Company				Group	
31 Dec. 2003	31 Dec. 2004	DKK '000	Note	31 Dec. 2004	31 Dec. 2003
34,750	34,750	Share capital		34,750	34,750
5,881	-	Share premium account		-	5,881
-	15,041	Reserve for net revaluation according to the equity method		-	-
347,350	391,134	Retained earnings		406,175	347,350
2,318	5,213	Proposed dividend		5,213	2,318
390,299	446,138	**Shareholders' funds**	**18**	446,138	390,299
-	-	**Minority interests**	**19**	10,888	15,309
149,928	170,323	Deferred tax	**20**	172,318	152,492
27,000	27,000	Net pension benefit obligations	**15**	28,331	28,615
12,721	18,922	Other provisions	**21**	44,727	40,011
189,649	216,245	**Provisions**		245,376	221,118
9,409	7,928	Credit institutions		14,360	24,942
9,409	7,928	**Long-term debt**	**22**	14,360	24,942
73,729	46,354	Credit institutions		64,712	108,874
13,851	17,172	Amounts owed to subsidiaries		-	-
98,735	77,053	Accounts payable, suppliers		107,974	132,535
37,069	40,407	Taxes and VAT payable		94,238	76,670
339,707	318,095	Amounts invoiced in advance	**14**	352,099	337,227
128,177	135,281	Accrued holiday allowance		173,504	166,721
19,005	18,974	Other accounts payable		39,709	33,109
1,399	4,776	Deferred income		13,887	12,595
711,672	658,112	**Short-term debt**		846,123	867,731
721,081	666,039	**Total debt**		860,483	892,673
1,301,029	1,328,423	**TOTAL LIABILITIES AND SHAREHOLDERS' FUNDS**		1,562,885	1,519,399
		Contingent liabilities, commitments and guarantees	**23**		
		Notes without reference	**24-26**		

Statement of changes in shareholders' funds

Statement of changes in shareholders' funds of the COWI Group

Group DKK '000	Share capital	Share premium account	Reserve for own shares	Retained earnings	Proposed dividend	Total
Shareholders' funds at 1 January 2003	34,750	5,881	3,993	340,516	-	385,140
Distributed dividend					(3,475)	(3,475)
Profit for the year				21,982		21,982
Exchange adjustment, foreign subsidiaries				(9,442)		(9,442)
Exchange adjustment, foreign associated companies				(52)		(52)
Value adjustments of investments in subsidiaries				(3,530)		(3,530)
Value adjustment of hedging instruments, beginning-of-year				(658)		(658)
Value adjustment of hedging instruments, end-of-year				334		334
Sale of own shares			(3,993)	3,993		-
Proposed dividend				(5,793)	5,793	-
Shareholders' funds at 1 January 2004	**34,750**	**5,881**	**-**	**347,350**	**2,318**	**390,299**
Distributed dividend					(2,318)	(2,318)
Profit for the year				60,579		60,579
Share premium account transferred to distributable reserves		(5,881)		5,881		-
Exchange adjustment, foreign subsidiaries				(105)		(105)
Value adjustment of own shares in foreign subsidiaries				1,744		1,744
Value adjustment of hedging instruments, beginning-of-year				(334)		(334)
Value adjustment of hedging instruments, end-of-year				(3,727)		(3,727)
Proposed dividend				(5,213)	5,213	-
Shareholders' funds at 31 December 2004	**34,750**	**-**	**-**	**406,175**	**5,213**	**446,138**

Statement of changes in shareholders' funds of COWI A/S

Parent Company

DKK '000 capital	Share reserve	Net revaluation account	Share premium shares	Own earnings	Retained dividend	Proposed dividend	Total
Shareholders' funds at 1 January 2003	34,750	-	5,881	1,900	342,609	-	385,140
Distributed dividend					(3,475)		(3,475)
Profit for the year					21,982		21,982
Exchange adjustment, foreign subsidiaries					(9,442)		(9,442)
Exchange adjustment, foreign associated companies					(3,530)		(3,530)
Value adjustments of investments in subsidiaries					(52)		(52)
Value adjustment of hedging instruments, beginning-of-year					(658)		(658)
Value adjustment of hedging instruments, end-of-year					334		334
Sale of own shares				(1,900)	1,900		-
Proposed dividend					(5,793)	5,793	-
Shareholders' funds at 1 January 2004	**34,750**	**-**	**5,881**	**-**	**347,350**	**2,318**	**390,299**
Distributed dividend						(2,318)	(2,318)
Profit for the year					60,579		60,579
Share premium account transferred to distributable reserves			(5,881)		5,881		-
Transfer to reserve for net revaluation according to the equity method		15,041			(15,041)		-
Exchange adjustment, foreign subsidiaries					(105)		(105)
Value adjustment of own shares in foreign subsidiaries					1,744		1,744
Value adjustment of hedging instruments, beginning-of-year					(334)		(334)
Value adjustment of hedging instruments, end-of-year					(3,727)		(3,727)
Proposed dividend					(5,213)	5,213	-
Shareholders´funds 31 December 2004	**34,750**	**15,041**	**-**	**-**	**391,134**	**5,213**	**446,138**

Cash flow statement

Group

DKK '000	Note	2004	2003
Operating profit		90,827	32,855
Amortisation and depreciation for the year as well as profit/(loss) from disposal of fixed assets		65,378	81,192
Unrealised value adjustments for the year, net		(5,631)	(216)
Other provisions for the year		4,432	(17,415)
Operating profit adjusted for non-cash movements		155,006	96,416
Net financial income paid for the year		4,953	7,210
Corporation tax paid		(7,376)	(5,611)
Cash flow from operating activities before change in working capital		**152,583**	**98,015**
Change in stocks		(17)	282
Change in work in progress		6,550	52,921
Change in accounts receivable		3,481	45,336
Change in accounts payable		(24,561)	24,280
Change in other receivables and prepayments		(3,165)	24,089
Change in other payables and deferred income		32,242	(70,398)
Cash flow from operating activities		**167,113**	**174,525**
Acquisition of intangible fixed assets		(13,592)	(16,369)
Disposal of intangible fixed assets		123	1,581
Acquisition of tangible fixed assets		(29,241)	(47,132)
Disposal of tangible fixed assets		3,693	7,717
Acquisition of subsidiaries and activities		-	(135,266)
Acquisition of other fixed asset investments		(1,188)	(10,837)
Disposal of fixed asset investments		2,531	10,288
Cash flow from investing activities		**(37,674)**	**(190,018)**
Free cash flow		**129,439**	**(15,493)**
Repayment of financial accounts payable (net)		(54,744)	(30,324)
Distributed dividend/purchase of minorities		(4,018)	(3,835)
Sale/purchase of own shares (+/-)		-	3,993
Cash flow from financing activities		**(58,762)**	**(30,166)**
Cash flow for the year		**70,677**	**(45,659)**
Cash and cash equivalents, beginning-of-year		250,198	295,857
Cash and cash equivalents, end-of-year	**26**	320,875	250,198

The cash flow statement cannot be immediately derived from the profit and loss account.

Notes

Note 1 Segment information

Below, the Group's turnover, operating profit, fixed assets and liabilities are distributed by geographical market into the Danish market and the foreign markets. A corresponding distribution of activities has been omitted.

	Group	
DKK '000	Danish market	Foreign market
Net turnover	1,019,009	1,575,317
Operating profit	44,094	46,733
Fixed assets	101,807	271,278
Liabilities	332,957	452,333

Note 2 Fees for auditor elected by the Annual General Meeting

Parent Company			Group	
2003	2004	DKK '000	2004	2003
1,500	1,600	Audit fee	3,055	3,866
1,898	2,476	Fees, services other than audit	3,257	2,268
3,398	**4,076**	**Total fees for auditor elected by the Annual General Meeting**	**6,312**	**6,134**

Note 3 Staff expenses

Parent Company			Group	
2003	2004	DKK '000	2004	2003
625	838	Remuneration for Board of Directors, Parent Company	838	625
890,029	908,693	Salaries and wages	1,285,850	1,304,401
9,169	4,657	Pensions and social security	62,585	73,810
30,347	25,958	Other staff expenses	48,573	50,878
930,170	**940,146**	**Staff expenses**	**1,397,846**	**1,429,714**
6,314	6,135	Remuneration, Executive Management	6,135	6,314
1,963	1,942	Average number of employees	3,364	3,448
1,960	**1,923**	**Number of employees at 31 December**	**3,294**	**3,433**

Note 4 Amortisation, depreciation and impairment losses

Parent Company			Group	
2003	2004	DKK '000	2004	2003
5,715	5,009	Software	6,805	8,744
10,239	4,133	Own-developed products	4,133	10,239
37	129	Land and buildings	278	156
27,253	24,045	Technical installations, operating and other equipment	39,994	43,959
43,244	33,316		51,210	63,098
6,402	6,558	Goodwill and rights	347	430
10,774	7,158	Group goodwill	13,716	17,176
60,420	**47,032**	**Amortisation, depreciation and impairment losses**	**65,273**	**80,704**

Note 5 Other operating expenses, net

Parent Company			Koncern	
2003	2004	DKK '000	2004	2003
1,992	45	Profits from sale of fixed assets	413	1,992
(1,509)	(378)	Loss from sale of fixed assets	(518)	(2,480)
1,814	1,923	Royalty income	-	-
(509)	(345)	Removal expenses	(346)	(513)
1.788	**1.245**	**Other operating expenses, net**	**(451)**	**(1,001)**

Note 6 Investments in subsidiaries

							COWI Group's share
Name	Domicile	Owner-ship %	Share capital	Share holders' funds	Profit/ loss for the year	Profit on ordinary activities before tax	Share-holders' funds
			(1,000)	DKK '000	DKK '000	DKK '000	DKK '000
Ben C. Gerwick Inc.	USA	94.5%	USD 766	9,275	16	347	8,765
Bruun & Sørensen Energiteknik A/S	Denmark	100%	DKK 1,000	5,681	359	359	5,681
CCL GmbH	Germany	100%	EUR 25	-	-	-	-
COMAR Engineers A/S	Denmark	100%	DKK 849	1,826	(21)	(21)	1,826
COWI Belgium SPRL	Belgium	100%	EUR 7	140	74	131	140
COWI Canada Ltd.	Canada	100%	CAD 1,079	3,026	3,260	5,425	3,026
COWI Hungary Ltd.	Hungary	100%	HUF 50,000	3,322	574	651	3,322
COWI Korea Ltd.	Korea	60%	KRW 500,000	4,269	694	521	2,562
COWI Philippines Inc.	Philippines	100%	PHP 5,846	(626)	(814)	(730)	(626)
COWI Tanzania Consulting Engineers and Planners Ltd.	Tanzania	100%	TZS 20,000	5,619	3,335	169	5,619
COWI-Almoayed Gulf W.L.L.	Bahrain	49%	BHD 20	1,113	608	298	545
COWIconsult International Ltd.	England	100%	GBP 95	980	386	429	980
Danport A/S	Denmark	100%	DKK 500	557	15	15	557
Enviroplan International A/S	Denmark	100%	DKK 500	483	(13)	(13)	483
ETC GmbH	Germany	100%	EUR 1,790	22,103	233	467	22,103
Hjellnes COWI A/S	Norway	70%	NOK 4,678	26,707	2,264	2,733	18,695
COWI AS	Norway	100%	NOK 21,695	50,531	5,928	11,922	50,531
KX A/S	Denmark	100%	DKK 10,000	(18,510)	(9,589)	(6,451)	(18,510)
Matcon Rådgivende Ingeniørfirma A/S	Denmark	100%	DKK 500	1,718	3	3	1,718
MMS Norge A/S	Norway	100%	NOK 100	81	25	25	81
Studstrup og Østgaard A/S	Denmark	100%	DKK 1,125	2,557	180	257	2,557
UAB COWI Baltic Consulting Engineers and Planners	Lithuania	100%	LTL 200	2,409	699	825	2,409
Trondheim Avtalepartner AS	Norway	100%	NOK 101	7,629	3,959	6,464	7,629
						23,826	120,093
For companies with negative shareholders' funds, a set-off has been effected in amounts receivable						-	19,136
						23,826	**139,229**

All subsidiaries are independent entities.

Note 7 Investments in associated undertakings

							COWI Group's share
Name	Domicile	Owner-ship %	Share capital	Share holders' funds	Profit/ holders' funds	Profit on ordinary activities before tax	Share-holders' funds
			(1,000)	DKK '000	DKK '000	DKK '000	DKK '000
CAT Alliance Ltd.	England	33%	GBP 100	665	(143)	(47)	222
Covitecma S.A.	Spain	25%	EUR 180	2,639	389	97	659
Yan-Dan Ltd.	China	30%	CNY 1,244	949	(4)	(1)	285
COWI A/S's investments in associated companies						49	1,166
Aviaplan AS	Norway	33%	NOK 100	955	293	96	315
ComputIT AS	Norway	46%	NOK 2,173	3,454	327	77	1,589
Teledrifting AS	Norway	50%	NOK 150	1,721	158	17	861
Lista Flypark AS	Norway	50%	NOK 100	-	-	-	-
Synkarion AS	Norway	34%	NOK 100	242	53	13	82
Team St. Olav ANS	Norway	48%	NOK 844	509	892	309	244
Interconsult Bulgaria Limited	Bulgaria	50%	USD 2.67	1,362	106	185	681
Hunan Qunshan Water Treatment Equipment Co. Ltd.	China	28%	RMB 1,660	-	-	45	-
Zeolite Investments (Private) Limited	Zimbabwe	35%	ZWD 0.1	867	-	5	304

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Note 7 Investments in associated undertakings (continued)

Name	Domicile	Owner-ship %	Share capital	Share holders' funds	Profit/ holders' funds	Profit on ordinary activities before tax	Share-holders' funds
			COWI Group's share				
			(1,000)	DKK '000	DKK '000	DKK '000	DKK '000
Interconsult Zimbabwe (Private) Limited	Zimbabwe	35%	ZWD 200	1,965	-	-	688
Trondsheimslaget ANS	Norway	34%	NOK 593	388	528	130	132
IC Malawi	Malawi	33%	MWK 60	(69)	25	-	-
						926	**6,062**

Note 8 Financial income

Parent Company 2003	Parent Company 2004	DKK '000	Group 2004	Group 2003
7,198	7,143	Interest, cash at bank and in hand and securities etc,	8,408	12,276
2,862	3,826	Interest, group undertakings	-	-
10,382	7,205	Realised and unrealised capital gains, investments	7,734	10,417
2,587	4,519	Foreign exchange gains	7,783	8,902
23,029	**22,693**	**Financial income**	**23,925**	**31,595**

Note 9 Financial expenses

Parent Company 2003	Parent Company 2004	DKK '000	Group 2004	Group 2003
5,328	3,648	Interest, bank and mortgage debt etc.	6,513	9,761
212	635	Interest, group undertakings	-	-
1,452	3,138	Realised and unrealised capital loss, investments	3,556	1,579
5,548	4,181	Foreign exchange losses	8,903	13,045
12,540	**11,602**	**Financial expenses**	**18,972**	**24,385**

Note 10 Tax on profit for the year

Parent Company 2003	Parent Company 2004	DKK '000	Group 2004	Group 2003
-	-	Current tax	(5,851)	(3,347)
(2,264)	(1,506)	Current tax, foreign project offices	(1,506)	(2,264)
(8,491)	(20,269)	Deferred tax	(26,843)	(7,631)
-	-	Tax in associated companies	-	-
(1,560)	(11,703)	Tax in group undertakings	-	-
(2,460)	(126)	Deferred tax for previous years carried back	(126)	(2,460)
(14,775)	**(33,604)**	**Tax on profit for the year**	**(34,326)**	**(15,702)**
		broken down as follows:		
(14,775)	(33,604)	Tax on profit on ordinary activities	(34,326)	(15,702)
-	-	Tax on profit on extraordinary activities	-	-
(14,775)	(33,604)	Tax on profits for the year	(34,326)	(15,702)
-	-	Tax on movements in shareholders' funds	-	-
(14,775)	**(33,604)**	**Total tax on profit for the year**	**(34,326)**	**(15,702)**
		Tax on profit on ordinary activities can be broken down as follows:		
(11,026)	(28,255)	Tax on profit on ordinary activities before tax calculated at 30%	(29,012)	(12,131)
(1,662)	(4,264)	Adjustment of tax calculated in foreign group undertakings in proportion to 30%	(4,264)	(1,662)
		Tax effect from:		
(3,232	(2,147)	Book amortisation of goodwill disallowed for tax purposes	(2,147)	(3,232)
3,605	1,188	Other costs/other earnings disallowed for tax purposes	1.223	3.783
(2,460)	(126)	Adjustment of taxes for previous years	(126)	(2,460)
(14,775)	(33,604)		(34.326)	(15.702)
40.2%	**35.7%**	**Effective tax rate**	**35.5%**	**38.8%**

Note 11 Intangible fixed assets

Group

DKK '000	Goodwill and rights	Group goodwill	Software	Own-developed products	Total
Cost at 1 January 2004	20,935	285,353	47,979	16,594	370,861
Additions	53	-	6,042	7,497	13,592
Disposals	-	-	427	-	427
Cost at 31 December 2004	20,988	285,353	53,594	24,091	384,026
Depreciation and writedowns at 1 January 2004	20,258	42,717	36,280	10,739	109,994
Amortisation	347	13,716	6,805	4,133	25,001
Disposals	(26)	-	287	-	261
Amortisation and writedowns at 31 December 2004	20,631	56,432	42,798	14,872	134,733
Net book value at 31 December 2004	**357**	**228,921**	**10,796**	**9,219**	**249,293**

Parent Company

DKK '000	Goodwill and rights	Group goodwill	Software	Own-developed products	Total
Cost at 1 January 2004	150,746	154,200	40,298	16,594	361,838
Additions	-	-	5,168	7,497	12,665
Disposals	-	-	185	-	185
Cost at 31 December 2004	150,746	154,200	45,281	24,091	374,318
Amortisation and writedowns at 1 January 2004	29,429	32,881	30,865	10,739	103,914
Amortisation	6,558	7,158	5,009	4,133	22,858
Disposals	-	-	171	-	171
Amortisation and writedowns at 31 December 2004	35,987	40,039	35,703	14,872	126,601
Net book value at 31 December 2004	**114,759**	**114,161**	**9,578**	**9,217**	**247,717**

Note 12 Tangible fixed assets

Group

DKK '000	Land and buildings	Technical installations, operating and other equipment	Assets in course of construc-tion	Total
Cost at 1 January 2004	12,178	277,719	2,297	292,194
Additions	439	30,042	353	30,834
Disposals	3,280	13,966	1,593	18,839
Cost at 31 December 2004	9,337	293,795	1,057	304,189

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Note 12 Tangible fixed assets (continued)

Group

DKK '000	Land and buildings	Technical installations, operating and other equipment	Assets in course of construc-tion	Total
Depreciation and writedowns at 1 January 2004	2,277	162,845	-	165,122
Depreciation and writedowns	278	39,994	-	40,272
Disposals	751	12,714	-	13,465
Depreciation and writedowns at 31 December 2004	1,804	190,125	-	191,929
Net book value at 31 December 2004	**7,533**	**103,670**	**1,057**	**112,260**
Of which assets held under finance leases at	-	11,011	-	11,011

At 1 January 2004, the official valuation of Danish properties with a net book value of DKK 4,675 thousand amounted to DKK 5,140 thousand.

Parent Company

DKK '000	Land and buildings	Technical installations, operating and other equipment	Assets in course of construc-tion	Total
Cost at 1 January 2004	5,244	180,852	1,561	187,657
Additions	15,853	296	16,149	
Disposals	7,963	1,561	9,524	
Cost at 31 December 2004	5,244	188,742	296	194,282
Depreciation and writedowns at 1 January 2004	942	98,821	-	99,763
Depreciation and writedowns	129	24,045	-	24,174
Disposals	-	7,221	-	7,221
Depreciation and writedowns at 31 December 2004	1,071	115,645	-	116,716
Net book value at 31 December 2004	**4,173**	**73,097**	**296**	**77,566**
Of which assets held under finance leases at	-	11,011	-	11,011

At 1 January 2004, the official valuation of Danish properties with a net book value of DKK 4,173 thousand amounted to DKK 4,630 thousand.

Note 13 Fixed asset investments

Group

DKK '000	Investments in associated undertakings	Invest-ments and partici-pating interests	Total
Cost at 1 January 2004	7,814	6,265	14,079
Additions	1,027	161	1,188
Disposals	2,647	83	2,730
Cost at 31 December 2004	6,194	6,343	12,537
Revaluations at 1 January 2004	905	24	929
Additions	97	-	97
Disposals	28	-	28
Revaluations at 31 December 2004	974	24	998
Writedowns at 1 January 2004	1,241	550	1,791
Additions	92	347	439
Disposals	227	-	227
Writedowns at 31 December 2004	1,106	897	2,003
Net book value at 31 December 2004	**6,062**	**5,470**	**11,532**

Parent Company

DKK '000	Investments in subsidiaries	Investments in associated companies	Loans to subsidia-ries	Other invest-ments and partici-pating interests	Total
Cost at 1 January 2004	103,429	1,144	23,401	809	128,783
Additions	20.759	-	-	-	20,759
Disposals	-	-	4,656	-	4,656
Cost at 31 December 2004	124,188	1,144	18,745	809	144,886
Revaluations at 1 January 2004	24,449	905	-	24	25,378
Additions	14,032	97	-	-	14.129
Disposals	2,152	28	-	-	2,180
Revaluations at 31 December 2004	36,329	974	-	24	37,327
Writedowns at 1 January 2004	32,038	860	-	540	33,438
Additions	10,405	92	-	41	10,538
Disposals	21,155	-	-	-	21,155
Writedowns at 31 December 2004	21,288	952	-	581	22,821
Bet book value at 31 December 2004	**139,229**	**1,166**	**18,745**	**252**	**159,392**

Note 14 Contract work in progress, net

Parent Company 31 Dec 2003	Parent Company 31 Dec 2004		Group 31 Dec 2004	Group 31 Dec 2003
		DKK '000		
5,295,849	6,164,072	Selling price of work in progress	6,238,763	5,372,467
(5,454,494)	(6,315,550)	Amounts invoiced in advance	(6,349,554)	(5,476,708)
(158,645)	**(151,478)**	**Contract work in progess, net**	**(110,791)**	**(104,241)**
		Recognised in the balance sheet at:		
181,062	166,617	Contract work in progress	241,308	232,986
(339,707)	(318,095)	Amounts invoiced in advance	(352,099)	(337,227)
(158,645)	(151,478)		(110,791)	(104,241)

COWI A/S is a party to a number of working partnerships and has assumed joint and several liability for the liabilities of the working partnerships.

At the end of the financial year, COWI A/S' liabilities through working partnerships of which COWI is the lead partner can be calculated as follows:

DKK '000	31 Dec 2004
Total sum contracted for in working partnerships to which COWI A/S is a party	1,105,302
Stage of completion of the working partnerships	92.00%
COWI A/S' share of sums contracted for through working partnerships	383,082
COWI A/S' average stage of completion of own share of contract sums	83.95%

Note 15 Net pension assets and net pension benefit obligations

The COWI Group's Norwegian subsidiaries have arranged defined benefit plans for their employees. In 2004 and 2003, this comprised the COWI AS group and Hjellnes COWI AS.

DKK '000	31 Dec 2004	31 Dec 2003
Number of people covered by the benefit plan		
Active staff	635	665
Retired staff	80	62
Total number of people covered by the benefit plan	715	727
Net pension assets and pension benefit obligations		
Estimated pension benefit obligations at 31 December	(193,172)	(169,266)
Plan assets at 31 December	149,792	137,083
Estimated fair value, net obligations as at 31 December	(43,380)	(32,183)
Estimate/plan changes not recognised in the p/l account at the time of takeover	85,069	85,069
Estimate/plan changes at the time of takeover amortised in connection with retirement	(9,295)	(7,422)

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Note 15 Net pension assets and net pension benefit obligations (continued)

DKK '000	31 Dec 2004	31 Dec 2003
Estimate/plan changes at the time of takeover amortised during the time of ownership	(8,207)	(4,468)
Foreign exchange adjustments of estimate/plan changes at the time of takeover	(9,676)	(11,197)
Estimate/plan changes not recognised in the p/l account during the time of ownership	13,368	(2,503)
Change resulting from change of financial year	-	(177)
Net plan assets and obligations at 31 December	27,879	27,119
recognised in the balance sheet as follows:		
Net pension assets as 31 December	29,210	28,734
Net pension benefit obligations at 31 December	(1,331)	(1,615)
	27,879	27,119
Total pension benefit obligation not recognised in the profit and loss account at 31 December 2004	71,259	59,302
Specification of net pension benefit obligations recognised in the p/l-account:		
Pension earnings during the year	(11,187)	(11,479)
Interest expenses on accrued benefit obligations	(10,198)	(9,082)
Expected return on plan assets	9,427	8,531
Estimate and plan changes recognised in the profit and loss account	(4,000)	(4,613)
Other changes in benefit obligations	(703)	(471)
Total benefit obligations recognised in the profit and loss account at 31 December	(16,661)	(17,114)

Benefit calculations are based on the following financial assumptions:

Discount rate	5.5%	6.0%
Expected return	6.5%	7.0%
Salary adjustments	3.0%	3.5%
Long-term health regulation	3.0%	3.3%
Pension adjustments	3.0%	2.5%
Expected voluntary redundancy before 40 years of age	4.0%	4.0%
Expected voluntary redundancy after 40 years of age	2.0%	2.0%
Discount rate applied at 31 December	6.0%	6.0%

Estimate changes and fluctuations are amortised over the expected remaining pension earnings period to the extent that they exceed ten per cent of the higher of benefit obligations and plan assets (corridor). Both in the Parent Company and the Group, plan changes are amortised over the expected remaining pension earnings time (non-corridor approach).

In previous years, COWI A/S has approved defined benefit plans for a number of former and present members of Management. The net present value of these may be specified as follows:

Benefit obligations to present members of Management	9,915	9,915
Benefit obligations to former members of Management	17,085	17,085
Benefit obligations in COWI A/S	27,000	27,000

Benefit calculations are based on the following financial assumptions:

Basis of determination	G-82	G-82
Interest rate	4.5%	4.5%
Future salary adjustment rates	2.5%	2.5%

Note 16 Prepayments

Parent Company 31 Dec 2003	Parent Company 31 Dec 2004		Group 31 Dec 2004	Group 31 Dec 2003
2,081	7,683	Insurance premiums	9,190	2,747
17,099	16,165	Rent	16,650	17,601
20,963	29,946	Other	32,181	22,479
40,143	**53,794**	**Prepayments**	**58,021**	**42,827**

Note 17 Current asset investments

Parent Company 31 Dec 2003	Parent Company 31 Dec 2004		Group 31 Dec 2004	Group 31 Dec 2003
38,499	42,708	Shares	42,708	38,499
113,776	118,153	Bonds	118,749	113,776
152,275	**160,861**	**Portfolio at 31 December**	**161,457**	**152,275**

Note 18 Shareholders' funds

The share capital consists of:

		2004
A shares:		**DKK '000**
2 shares of each DKK	1,000	2
1 share of DKK	2,998,000	2,998
1 share of DKK	7,000,000	7,000
1 share of DKK	10,000,000	10,000
		20,000
B shares:		
147,500 shares of each DKK 100		14,750
		14,750

Each A share of DKK 100 carries 10 votes whereas each B share of DKK 100 carries 1 vote.

Note 19 Minority interests

DKK '000	Group 31 Dec 2004	Group 31 Dec 2003
Minority interests at 1 January	15,309	15,669
Disposals and additions	(5,850)	(2,899)
Share of profit for the year	1,801	2,754
Exchange adjustment	(372)	(215)
Minority interests at 31 December	**10,888**	**15,309**

Note 20 Deferred tax

Parent Company 31 Dec 2003	Parent Company 31 Dec 2004	DKK '000	Group 31 Dec 2004	Group 31 Dec 2003
149,483	149,928	Deferred tax at 1 January	126,512	116,421
2.460	126	Reversal concerning previous years	126	2,460
8,491	20,269	Deferred tax for the year	26,843	7,631
(10,506)	-	Transferred from subsidiaries	-	-
149,928	170,323		153,481	126,512
		Recognised in the Annual Report:		
-	**-**	**Tax asset**	**18,837**	**25,980**
149,928	**170,323**	**Deferred tax**	**172,318**	**152,492**
149,928	170,323		153,481	126,512
		Tax asset concerns:		
-	-	Intangible fixed assets	46	-
-	-	Tangible fixed assets	3,421	(4,108)
-	-	Fixed asset investments	174	-
-	-	Current assets	1,425	926
-	-	Provisions	4,876	493
-	-	Debts	3,044	(452)
-	-	Tax-loss carryforwards	18,420	29,121
-	-	Offset within legal tax entities and jurisdictions	(12,569)	-
-	**-**		**18,837**	**25,980**
		Deferred tax concerns:		
(2,203)	(685)	Intangible fixed assets	(685)	(2,201)
(9,191)	(13,588)	Tangible fixed assets	(13,056)	(8,955)
245	97	Fixed asset investments	97	245
173,106	204,738	Current assets	217,118	175,432
(12,029)	(20,239)	Provisions	(18,587)	(12,029)
-	-	Offset within legal tax entities and jurisdictions	(12,569)	-
149,928	**170,323**		**172,318**	**152,492**

Note 21 Other provisions

Parent Company 31 Dec 2003	Parent Company 31 Dec 2004	DKK '000	Group 31 Dec 2004	Group 31 Dec 2003
-	-	Guarantees at 1 January	299	3,484
-	-	Adjustment for the year	4,714	(3,185)
-	-	Guarantees	5,013	299
12,721	18,922	Other provisions	39,714	39,712
12,721	**18,922**	**Other provisions at 31 December**	**44,727**	**40,011**

Note 22 Long-term debt

Parent Company 31 Dec 2003	Parent Company 31 Dec 2004	DKK '000	Group 31 Dec 2004	Group 31 Dec 2003
1,877	1,321	Long-term debt falling due after more than 5 years	1,321	3,117
7,532	6,607	Long-term debt falling due between 1 and 5 years	13,039	21,825
9,409	7,928	**Long-term debt at 31 December**	14,360	24,942

Note 23 Contingent liabilities, commitments and guarantees

Parent Company 31 Dec 2003	Parent Company 31 Dec 2004	DKK '000	Group 31 Dec 2004	Group 31 Dec 2003
		Contingent liabilities		
1,469	2,321	Lease commitments (operating leases) expiring within 5 years with a total of	14,761	16,327
327,539	278,801	Rental commitments in the period of termination	497,704	609,784
535,294	387,918	Recourse guarantees and performance bonds	472,487	539,528
22,507	42,189	Other guarantees and charges	86,839	52,981

The Group's Danish companies are jointly and severally liable for tax on Group income subject to joint taxation.

By virtue of its business operations, the COWI Group is a party to legal disputes that can be expected in the course of its business operations. In the opinion of Management, no material liabilities are incumbent on the Company as a consequence of this.

Current restructuring expenses are charged to the profit and loss account as incurred.

		Guarantees		
		The following assets have been provided as guarantees to credit institutions:		
-	-	Account receivable, services at a book value of	57,614	51,772
-	-	Technical installations, operating and other equipment at a net book value of	30,227	35,914

Furthermore, COWI A/S has a total guarantee facility of DKK 668 million, of which DKK 480 million had been spent by 31 December 2004 on performance bonds relative to projects in progress.

Note 24 Related party transactions

The COWI FOUNDATION owns all A shares in the Company and exercises a controlling influence on the Company. The COWI FOUNDATION does not carry on any independent business, and no material transactions are conducted between the Foundation and the Company.

Apart from intercompany transactions and usual management remuneration, no transactions were made during the year with Board of Directors, Executive Management, management employees, principal shareholders, group undertakings or other related parties.

Note 25 Board of Directors and Executive Management

The Company's directors and members of Executive Management own the following nominal shareholdings in COWI A/S and, at the end of the financial year, held the following directorships and executive functions in companies other than consolidated COWI companies:

Board of Directors	Directorships and executive functions in other companies	Shares in COWI A/S, nom. holdings
Ole Steen Andersen, Chairman	Danfoss A/S (M), Sauer-Danfoss Inc. (MB), Danfoss Murmann Holding A/S (MB), Danske Trælast A/S (MB)	
Knud E. Østergaard Hansen, Vice Chairman	Dansk Standard (MB)	17,900
Henrik Gürtler	Novo A/S (MD), Novozymes A/S (CB), Københavns Lufthavne A/S (CB), Brdr. Hartmanns Fond (MB), Novo Nordisk A/S (MB)	
Niels Christian Nielsen	Danske Bank A/S (MB), Grundfos A/S (MB), Otto Mønsted A/S (MB), Oticon-Fonden (MB)	
Anders Thyge Egeberg		900
Berit Bankel*		3,500
Henriette R. Bundgaard*		2,100
Lars Rosholm*		6,600
Executive Management		
Klaus H. Ostenfeld, President CEO		17,900
Keld Sørensen, Executive Vice President, Finance		1,300
Lars-Peter Søbye, Executive Vice President, COO Denmark		7,400
Henning H. Therkelsen, Executive Vice President, COO International		17,900

(CB) = Chairman of the Board of Directors

(MB) = Member of the Board of Directors

(MD) = Managing Director

(M) = Manager

*) Staff representatives

Note 26 Cash and cash equivalents

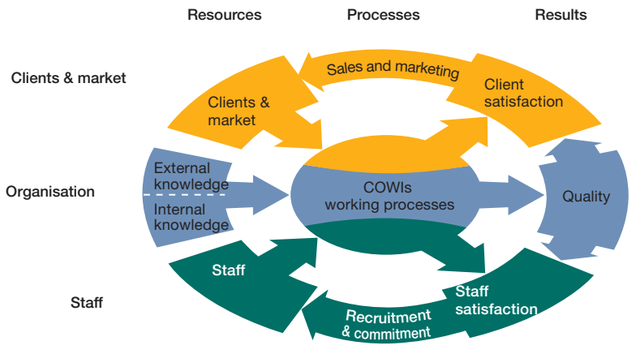
DKK '000	Group 31 Dec 2004	Group 31 Dec 2003
Cash and cash equivalents at 31 December include: Securities	161,457	152,275
Cash at bank and in hand	159,418	97,923
Cash and cash equivalents 31 December	320,875	250,198
Committed undrawn credit facilities at 31 December not including guarantee facilities	267,266	287,000
Financial resources at 31 December	**588,141**	**537,198**

Intellectual Capital Report

COWI's knowledge cycle

Our most important resource is knowledge. Knowledge represents our intellectual capital which we manage and develop dynamically at COWI, tracking and reporting on key aspects of this asset in our Intellectual Capital Report (ICR). This is the seventh annual ICR to be published in tandem with our financial annual report. Our competencies and knowledge areas chiefly comprise highly developed professional expertise and social competencies, vested both in our individual employees and in our corporate culture as a whole. These competencies cannot be measured directly, but come to the fore as the context dictates. The ICR therefore accounts not only for our knowledge resources but also at our knowledge processes and their results.

Our day-to-day corporate activities comprise a series of interacting processes which provide the framework within which we deploy our resources to execute tasks for clients and provide quality, to the satisfaction of clients and employees alike. Our reputation, which depends on this satisfaction, provides the basis for sales, recruitment and commitment in our daily work. This in turn allows us to generate and improve our knowledge resources continuously, thus creating a perfect circle. We call this circle COWI's knowledge cycle.



Networking: Sharing the "experience dividend"

COWI commands 55 professional networks in various areas. Each network contributes in a variety of ways to knowledge-sharing and efficiency-enhancement. Jørgen Strabo, discipline coordinator of the Project Managers (PM) network which provides a forum for experienced project managers across business units to meet and share their experience and expertise, says: "We are here to assist all of COWI, and we're not just a professional talking shop. The network ensures synergies, and enables us to achieve results that we could never achieve individually. We work with best practice, IT tools and more broadly-based activities that enhance project management and make it more productive. We highlight our individual strengths, to enable us to draw on each other's competencies in our day-to-day work."

The PM network may be compared with a greenhouse, in which professionalism can be cultivated and where COWI can harvest resources for the business as a whole. "In 2004, in collaboration with our finance department, we published a project finance management kit with advice and guidelines designed to assist project managers with financial management tasks. We have prepared guidelines for identifying the best project manager for a particular task, for kicking off a project in the best possible way and for evaluating the results."

Chief Project Manager Jørgen Strabo coordinates the project management network at COWI.

Strong tools for bridge design

COWI provides consultancy services on matters so complex that large amounts of our knowledge may beneficially be embedded in working tools. The development of working tools that are funded internally is covered by the ICR statement on development activities.

The Integrated Bridge Design and Analysis System (IBDAS) is one example of an internally developed design tool. "We began developing IBDAS because of a specific need for the tool; it is an IT system for designing bridges and loadbearing structures, permitting drawings, analyses and calculations to be executed simultaneously with the actual design work. It is a unique solution which COWI utilises in any large-scale bridge project. IBDAS enables the user to create 3D models for building the best bridges, to work on the smallest details, to alter projects along the way and to incorporate any contingent changes immediately. IBDAS helps you to minimise the risk of mistakes—if you change a single parameter, say a part of the design, all other elements and all analysis work are automatically updated. And all on the basis of the latest design practices," explains Peder F. Jakobsen (MSc. Civ. Eng.).

Georg Bjørn Andersen (MSc. Civ. Eng) (left) and Peder F. Jakobsen (MSc. Civ. Eng) are the masterminds of the analysis tool used in bridge design projects.

Knowledge sharing—a two-way process

Jens Christoffersen has been posted to COWI Tanzania for three years as Managing Director.

In 2004, 140 of COWI's employees were posted abroad. Jens Christoffersen joined COWI's subsidiary in Tanzania as Managing Director for a three-year posting.

"Foreign postings are very enriching. Actually being in the field with your colleagues enables you to exchange far more information, which would never be communicated by e-mail or telephone. You create synergies by being in situ. I have obviously brought along several tools related to project management, planning, systematics and professional knowledge to Tanzania. What is more interesting, however, is all the informal knowledge you acquire, the different ways of doing things; knowledge which is transferred both ways almost imperceptibly; all the knowledge you acquire which you didn't realise you didn't have until you came up against it. Being posted abroad means being close to clients, in an ongoing dialogue and taking decisions about a string of unforeseen events."

Not only does COWI post Danish employees abroad: we also bring overseas colleagues to work on projects in Denmark in collaboration with Danish colleagues.

Intellectual Capital Report 2004

RESOURCES

CLIENTS & MARKET

		Accounts	
	2004	2003	02/03
1 Public clients	49%	47%	45%
2 Semi-public clients	8%	9%	14%
3 Private clients	32%	34%	31%
4 Other clients	10%	10%	10%
5 Number of clients	1.617	1.494	1.622
6 Projects abroad	31%	34%	29%
7 Clients abroad	18%	17%	15%

ORGANISATION

13 Professional networks, number (*)	55	56	49
14 Staff participation in professional networks (*)	21%	22%	20%
15 "Best practices on the Intranet, number (*)	978	965	964
16 Projects/employee, number	17	14	17
17 Ongoing projects, number	4,958	5,016	5,774
18 Average turnover/employee (DKK '000)	1,197	1,148	1,157

STAFF

29 Number of employees	1,923	1,960	1,972
30 Average age	44.1	44.0	43.6
31 Length of education, year	6.3	6.2	6.4
32 Length of education, written down, year	4.2	4.1	4.3
33 Employees with highest education (PhD, etc)	4.0%	4.0%	4.1%
34 Higher education; technical	54%	52%	52%
35 Higher education; natural sciences	5%	5%	5%
36 Higher education; social sciences	9%	9%	9%
37 Other higher education	5%	5%	4%
38 Work experience, year	16.9	16.2	15.4
39 Seniority in COWI, year	10.6	10.1	9.7
40 Project management capacity, all projects	61%	59%	58%
41 Project management capacity, major projects	39%	36%	35%
42 Project management capacity, international projects	25%	25%	24%

PROCESSES

ORGANISATION

		Accounts	
	2004	2003	02/03
8 Lectures/100 employees, number (**)	10	17	13
9 Professional publications/100 employees, number (*)	7	12	10
10 Client inflow (**)	21%	13%	32%
11 Client outflow (**)	13%	21%	19%
19 Inter-disc. cooperation; technical	15%	16%	18%
20 Inter-disc. cooperation; natural sciences	51%	51%	55%
21 Inter-disc. cooperation; social sciences.	48%	46%	46%
22 Trade within COWI Group (*)	11.4%	12.9%	6.4%
23 Staff exchange within COWI group.	0.3%	0.5%	0.6%
24 Long-term postings	7.3%	7.9%	6.4%
25 Development activity, externally financed	7.0%	5.8%	5.9%
26 Development activity, internally financed	1.0%	0.9%	0.9%

STAFF

43 International travel experience in COWI	23%	22%	21%
44 Supplementary education (*)	0.6%	0.6%	0.6%
45 Staff inflow (**)	11%	12%	31%
46 Staff outflow (**)	13%	12%	11%

RESULTS

ORGANISATION

		Accounts	
	2004	2003	02/03
12 Media exposure, millions, number (**)	185	120	149
27 QA audits/100 employees, no. (**)	4.4	4.1	2.3
28 Costs attributed to external faults (**)	0.2%	0.1%	0.4%

STAFF

48 Staff satisfaction index (*)	67.8%	n/a	67.7%
49 Sick leave	2.5%	2.2%	2.5%
50 Staff owning COWI shares (*)	45%	46%	48%
51 Engineering students' preferred place of work, rank. (*)	7/2	n/a	3/2
52 Business students' preferred place of work, rank (*)	42/9	n/a	30/9

Clients and market

1-4 Share of year's project manhour costs by client category. 'Other clients' includes international organisations, joint ventures, etc

5 Number of clients in the year with independent organisational status—own CVR number (DK) or VAT number (abroad).

6 Share of year's project manhour costs used on projects with location/recipient outside Denmark.

7 Share of year's manhour costs used on projects for clients abroad.

8 Number of external lectures per 100 employees held during the year.

9 Number of publications available to the public per 100 employees recorded during the year.

10 Share of clients for the years – either brand new or former clients for whom COWI did not work in the previous year. The number relates to the number of clients at the end of last year.

11 Share of clients from last year for whom COWI has not worked this year (Note 10).

12 Number of media exposures (in millions) in the year. The indicator is the sum of the number of readers/ listeners/viewers of COWI references in printed and electronic media, including TV and radio programmes but excluding advertising material. Based on summaries from Gallup and InfoMedia.

Organisation

13 Number of registered internal professional networks at corporate or business unit level.

14 Share of employees participating in one or more registered internal professional networks.

15 Number of 'best practices' accessible on COWI's intranet.

16 Average number of active external projects an employee has worked on in the year.

17 Number of active ongoing external projects.

18 Average budgeted fee (in DKK 1,000) per project—excl. VAT and reimbursements. Based on active projects in the year.

19 Average share of project activity by economists, biologists, etc. on projects with participation of staff with technical education.

20 Average share of project activity by economists, engineers, etc. on projects with participation of staff with natural sciences education.

21 Average share of project activity by engineers, biologists, etc. on projects with participation of staff with social sciences education.

22 Share of COWI Group's total turnover invoiced from or to foreign subsidiaries in the Group. Most trade within the COWI Group is done with Kampsax A/S and associated companies. Apart from this trade was 2.3% in 2002/ 2003, 3.2% in 2003 and 3.0% in 2004.

23 Share of employees posted to foreign subsidiaries in the COWI Group or vice versa.

24 Share of employees with long-term posting to foreign subsidiaries in the COWI Group, permanent COWI offices abroad or project offices.

25-26 Overall development activity on external and internal projects compared to total project activity.

27 Number of internal and external quality audits per 100 employees.

28 Share of turnover used for correcting external errors and omissions in the year—that is errors and omissions discovered after project approval.

Staff

29-30 Number of employees and their average age.

31 Average official length of education since secondary school.

32 Average official length of education written down to 50% of initial value after 35 years.

33 Share of employees with highest level of education—PhD, doctorate or MBA/ MPA in addition to masters degrees.

34-37 Share of employees with higher education in technical disciplines, natural sciences or social sciences as well as other higher educations (BSc or MSc).

38 Average employee work experience since end of main education.

39 Average staff seniority in COWI.

40 Share of employees with project management experience in COWI.

41 Share of employees with project management experience in COWI projects with a value greater than DKK 1 million.

42 Share of employees with project management experience on international COWI projects.

43 Average foreign travel experience since being employed by COWI. 100% is reached at 200 travel days.

44 Share of supplementary education activity (courses, conferences, etc.) of total fixed working hours.

45-46 Inflow and outflow of employees in the year compared to number of employees by end previous reporting year, incl. part-time staff.

47 Share of fixed working hours used on travel days abroad. Basis: 220 fixed working days per full-time employee per year.

48 Staff satisfaction index based on weighted average of answers in staff survey. The index was reached by weighting satisfaction against importance of a particular issue. In 2003, the satisfaction index was not measured.

49 Share of sick leave of the total fixed working hours. Maternity leave and child's first day of illness not included.

50 Share of current staff owning COWI shares.

51 COWI's ranking by engineering students as preferred workplace according to Universum survey. No. overall/ consultants.

52 COWI's ranking by students at business colleges and social sciences as preferred workplace according to Universum survey. No. overall/consultants.

General

A. Unless otherwise specified, figures are as per end of accounts period.

B. Units are given in tables, with name of indicator or in the specific indicator note.

Accounting policy

C. The Intellectual Capital Report is for the parent company COWI A/S.

D. The accounts period follows the financial year – 1 January to 31 December.

E. In 2003, the account period covered eight months. To facilitate comparison with previous 12-month account periods, a number of indicates—marked (**)—have been extrapolated with factor 1.5.

F. The ICR is designed n the same manner as that for 2003, i.e. according to legal units, staff, clients and companies, and according to what we possess (resources), what we do (processes) and the effect of what has been done (results).

G. All clients, projects and staff with a contractual relationship with COWI are included, irrespective of geographical location or form of contract, excluding-staff a local offices outside Denmark

H. Apart from those marked (*), indicators are based on transaction information on clients, projects and staff in COWI's central administrative systems.

I. A few indicators have been adjusted and/or redefined relative to 2003. To enable comparison, these indicators have been recalculated for 2002/2003 and 2003. Exceptions to this are stated in the relevant notes.

J. Data is collected and consolidated for a period after the end of the account year, whereafter the ICR is closed. The last indicators as of 10 February 2005.

K. The ICR includes items posted after closing in account year 2003. Transactions for 2004, which have not been included, will be posted in 2005.

L. The data basis is consistent with the financial accounts.

M. The ICR published externally is consistent with the internal ICR at department, division and company level..

N. The ICR has not been audited externally. All definitions, calculations and results are documented for administrative use.

(*) See Note H
(**) See Note E

From classical engineering skills to modern socio-economic analyses

COWI provides 33 consultancy services within six business areas

From classical engineering through the environment to modern socio-economic analyses, COWI's consultancy services are extensive, based on the three E's: Engineering, Environmental science and Economics. These are the skills we bring to bear when we provide consultancy on socio-economic infrastructure: how do we complete the project, what consequences does it have for the environment, and what will it cost to implement?

International profile

As early as the 1930s, COWI's founder, Christen Ostenfeld, was acquiring engineering knowledge from abroad. In the 1970s, our services expanded into traffic planning and the environment. In the 1980s we added social sciences to our portfolio: this was new and innovative thinking, an approach which has characterised the history of our policy. Most recently, we have expanded into geographical information and mapping. We offer our members of staff the opportunity to develop professionally, culturally and linguistically in other countries. We are well known for developing groundbreaking strategies, and we apply the latest research from around the world.

Interdisciplinary strengths

When COWI's skills complement each other, we create synergy and total solutions for the client.

Our strength lies in having an extensive, shared network. We understand each other across diverse areas of work, national borders and specialisms, and work easily on multi-disciplinary projects. This means that the client gets high quality services at a good price, and that the responsibility for resolving a problem, however complex it may be, resides in one place. Four out of ten members of COWI staff have experience of managing large projects. We regard this as a unique strength.

33 services

Based on Engineering, Environmental science and Economics, we offer 33 services within six business areas: Nature, Society, Transport, Buildings, Industry and Utilities. We change constantly to suit the needs of society. COWI's services therefore change as society changes.

Highest possible quality

All services have one thing in common: the quality must be of the highest, by both national and international standards. Our daily "quest for quality" is so important that it is written into the Company's mission statement. COWI's quality policy is to provide highly competent consultancy based on top-level knowledge, so that the consultancy gives the client added value.

This means that the Company has a specific duty to keep professionally up to date, both in breadth and in depth. Breadth means that we can undertake multi-disciplinary work, and depth that we keep pace with and promote professional development, both nationally and internationally. Both factors are important for selecting the right solution in a given case. Selecting the right solution is the sign of competent consultancy.

Nature. We have developed our environmental consultancy since the 1970s.

Society. When we provide consultancy on socio-economic infrastructure we combine engineering, environmental issues and economics.

Competencies

Three out of four members of COWI staff have qualifications corresponding to a BSc. or an MSc.

Within engineering, our services include construction and building technology, geotechnics, mechanical engineering, electrical and process engineering, as well as a number of general technical areas such as logistics, risk analysis and computer technology.

Our environmental capabilities include biology, hydrology and working environment/health and safety as well as environmental chemistry, environmental engineering and environmental management.

Under economics, we offer, amongst other services, macro-economics, finance, sociology, anthropology and geography as well as all disciplines within traffic, regional and urban planning.

In addition, many of our staff are competent within more general disciplines such as project management, quality management, data processing and communication.

Transport. Our consultancy services range from planning to completed infrastructure.

Buildings. We provide consultancy on the building process from concept to operation.

Our consultancy services
Amongst other services, we provide analyses, assessments and expert assistance covering market research, technical and financial assessments, simulations, environmental impact assessments, traffic analyses etc. Analyses and assessments may be strategic or operational, such as surveying, boreholes, geological investigations, mapping, laboratory testing, materials testing etc.

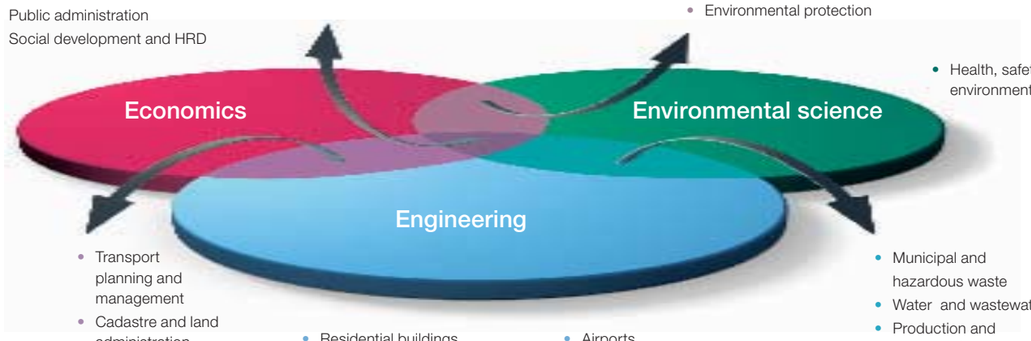
Within certain areas, we operate and maintain the client's plant and systems, e.g. computer systems as well as plant and systems monitoring. We also offer planning and preparation of training, and staff can be seconded.

COWI's services

- Development assistance
- Urban and regional development
- Environmental and social due diligence
- Geographical information systems and IT
- Mapping
- Energy planning and systems

- Environmental policy and regulation
- Natural resources management
- Environmental protection

- Welfare economics and services
- Public administration
- Social development and HRD



- Health, safety and environment

- Transport planning and management
- Cadastre and land administration

- Municipal and hazardous waste
- Water and wastewater
- Production and process plants
- Oil and gas
- Coastal engineering

- Residential buildings
- Educational buildings
- Hospitals and health buildings
- Cultural and sports buildings
- Industrial buildings
- Commercial buildings
- Roads

- Airports
- Railways and metros
- Tunnels
- Bridges
- Ports and marine structures
- Telecommunications

COWI currently provides 33 services based on Engineering, Environmental science and Economics.

Project Management is an independent service in which the client's project is managed and coordinated by COWI.

For clients who are to acquire or operate a system, production plant or a building, we can offer client consultancy, design consultancy or operational consultancy.

Within client consulting services, we establish the overall framework in creative collaboration with the client. We use dialogue with the client to gain insight into the organisation and its specific needs and strategies. This strategy allows us to inject fresh impetus into the organisation and take account of its future needs.

The basis of successful design consultancy within acquisition, conversion, renovation and decommissioning is high standards of professional knowledge and expertise combined with knowledge and experience of managing the process from the initial phases to handover and operation. We cover all disciplines to a high professional level, throughout the design and implementation phases. Multi-disciplinary inputs ensure integration and total solutions.

Within operational consultancy, we work on improved operational efficiency in public management and in private companies. In situations where the client wishes to change the physical framework of and cooperation on projects and operational routines, we offer our services as process consultants.

Industry. We are the industry's partner from concept to operation.

COWI's six business areas:

Nature
Nature in focus. We solve problems within management of natural resources, environmental policy and regulation, environmental protection and coastal engineering.

Society
Mapping and planning, and development at community level. We provide consultancy on welfare economics and services, public administration, social development and HRD, urban and regional development, development assistance, cadastre and land administration, geographical information systems & IT and mapping.

Transport
From planning to completed infrastructure. We solve problems within transport planning and management, roads, airports, railways and metros, tunnels, bridges, ports and marine structures.

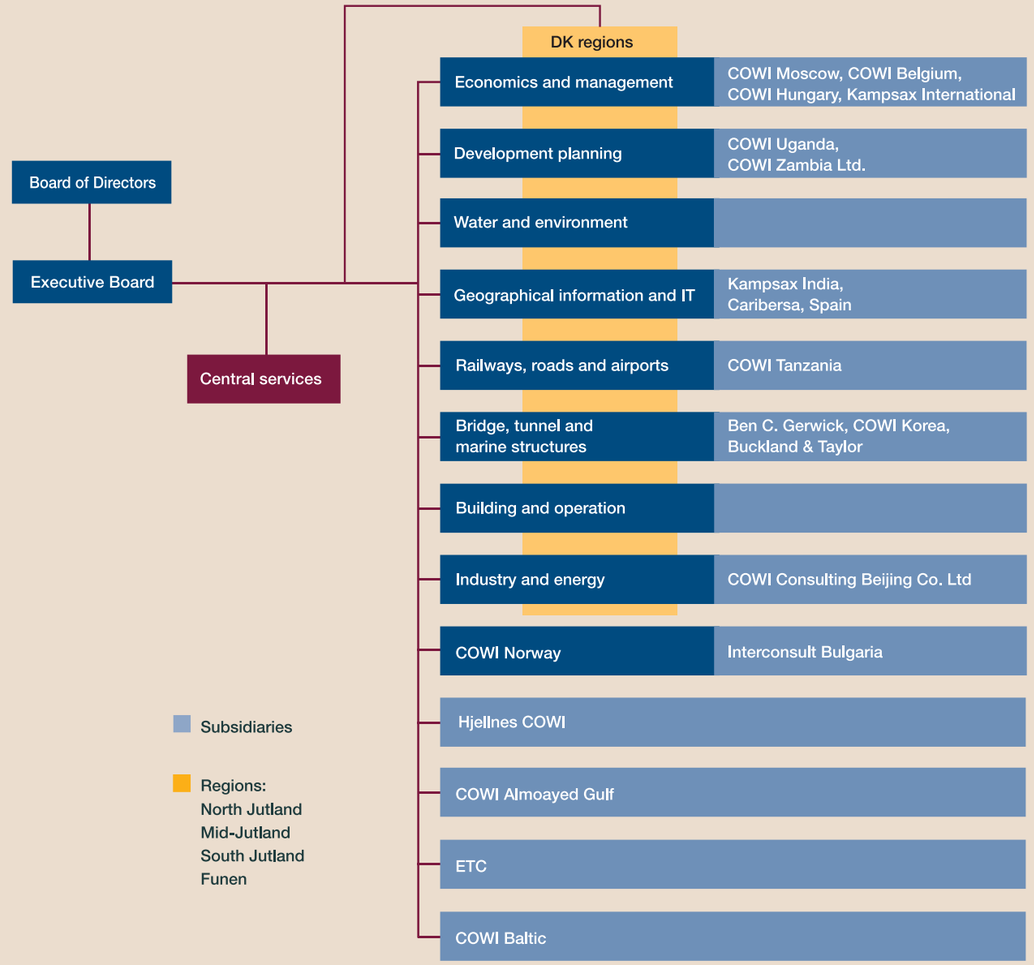
Buildings
The building process from idea to operation. We provide consultancy on residential buildings, educational buildings, hospitals and health service buildings, cultural and sports buildings and commercial buildings.

Utilities
Efficient utilities and better operation. We provide consultancy on municipal and hazardous waste, water and wastewater, energy planning and systems and telecommunications.

Industry
Development and production optimisation. We are the industry's partner from concept to operation, and during acquisition, disposal and decommissioning. We provide consultancy on industrial buildings, production and processing plants; on oil and gas, the environment, working environment and health and safety; and on environmental and social due diligence.

Utilities. We provide consultancy on efficient utilities and operation at many levels.

COWI's organisational group structure



COWI worldwide

Subsidiaries and offices

- Subsidiaries
- Large project offices

Offices in Denmark

COWI Group 1 january 2005

Employees	COWIfoundation	SEB Trygg Liv og Danica
B shares	A shares	B shares

Danish offices

Lyngby (Head Office), Esbjerg, Holstebro, Kolding, Odense, Silkeborg, Svendborg, Vejle, Viborg, Århus, Aabenraa, Aalborg

Offices abroad

Bolivia, El Salvador, Kuwait, Latvia, Ireland, Korea, Norway, Qatar, Sweden, Uganda

Wholly and partly owned companies abroad

- **COWI AS** Oslo, Norway (100%)
- **Hjellnes COWI AS** Oslo, Norway (70%)
- **ETC Transport Consultants GmbH** Berlin, Germany (100%)
- **COWI Canada Ltd.** Saint John, Canada (100%)
- **Buckland & Taylor Ltd.** Vancover, Canada (100%)
- **COWI-ALMOAYED GULF W.L.L.** Manama, Bahrain (49%)
- **Ben C. Gerwick, Inc.** San Francisco, California, USA (94,5%)
- **Kampsax India Private Limited**
- **COWI Tanzania Consulting Engineers and Planners Ltd.** Dar-es-Salaam, Tanzania (100%)
- **COWI Korea** Seoul, Korea (60%)
- **UAB COWI Baltic Consulting Engineers and Planners** Vilnius, Lithuania (100%)
- **COWI Hungary Ltd.** Budapest, Hungary (100%)
- **COWIconsult International Ltd.** London, England (100%)
- **Moscow Representative Office of COWIconsult International Ltd.** Moscow, Russia (100%)
- **COWI Belgium SPRL** , Belgium (100%)
- **Kampsax International SPRL** Belgium
- **COWI Consulting (Beijing) Co. Ltd.**
- **COWI Latvia SIA**
- **COWI Zambia Limited**
- **Kampsax Caribersa S.A.**
- **CAT Alliance Ltd.** London, England (33,3%)
- **Covitecma S.A.** Madrid, Spain (25%)
- **Interconsult Bulgaria Ltd.** Sofia, Bulgaria (50%)

Wholly owned companies in Denmark

- BRUUN & SØRENSEN ENERGITEKNIK AS
- COMAR Engineers A/S
- DANPORT The Danish Port Consultancy Group
- KX A/S
- MATCON Rådgivende Ingeniørfirma A/S
- Studstrup & Østgaard A/S Rådgivende Ingeniørfirma

Executive Management

Klaus H. Ostenfeld,
President, CEO

Birgitte Brinch Madsen,
Vice President, Industry and Energy

Henrik Rossen,
Vice President, Building and Operation

Rasmus Ødum,
Vice President, Geographical Information and IT

Torben Søgaard Jensen,
Regional Director, North Jutland

John Dyrlund,
Regional Director, South Jutland

Mogens Heering,
Vice President, Water and Environment

Keld Sørensen,
Executive Vice President, Finance

Stig P. Christensen,
Vice President, Economics and Management

Lars-Peter Søbye,
Executive Vice President, COO Denmark
and Acting Regional Director, Mid-Jutland

Jan M. Kieler,
Vice President, Development Planning

Peter Hostrup Rasmussen,
Vice President, Railways, Roads and Airports

Henning H. Therkelsen,
Executive Vice President, COO International

Christian Nørgaard Madsen,
Managing Director, COWI AS Norge

Anton Petersen,
Vice President, Bridge, Tunnel and
Marine structures

Henrik Theilgaard,
Regional Director, Funen

Subsidiaries and offices abroad – management

Alok Upadhyaya, Managing Director,
Kampsax India (P) Ltd., India

Raphael Zayat, Managing Director
Kampsax International, Belgium

Rainer Obst, Managing Director
ETC Transport Consultants GmbH,
Germany

Juan Antonio Martínez, Managing Director
Ripoll Caribersa S/L, Spain

Andrius Koncius, Managing Director
UAB COWI Baltic, Lithuania

Robert Bittner, President
Ben C. Gerwick, USA

Ivar Schjetlein, Managing Director
Hjellnes COWI AS, Norway

Peter L. Otteskov, Managing Director
COWI Uganda Ltd., Uganda

Zsuzsanna Lehoczki, Managing Director
COWI Hungary Ltd., Hungary

Anthony J. Carpenter, Managing Director
COWI-Almoayed Gulf W.L.L., Bahrain

Barbro Sørlid Engh, Managing Director
Norsas AS, Norway

Jacob Ulrich, Managing Director
COWI Zambia Ltd., Zambia

Jorge Torrejon, President
Buckland & Taylor Ltd., Canada

Jens Christoffersen, Managing Director,
COWI Consulting Engineers and
Planners Ltd., Tanzania

Sergey Stepanischev, Managing Director
Moscow Representative Office of
COWIconsult International Ltd., Russia

Michael Lorentzen, Managing Director,
COWI Belgium SPRL, Belgium

Man Seop Lee, Managing Director
Sungnam, Korea

Gunnar Morten Pettersen, Managing Director
Ing. Strand og Grindahl AS, Norway


Visit us at www.cowi.dk