Building well-being since 1917

Tablet manufacturing at Orion's plant in Vallila, Helsinki, in the 1940s.
Orion Corporation is a Finnish stock exchange company which develops, manufactures and markets pharmaceuticals, active pharmaceutical ingredients and diagnostic tests for global markets. Orion has been building well-being for as many as 90 years.

Orion’s clientele consists of healthcare service providers and professionals, such as doctors, pharmacies, hospitals, healthcare centres, clinics and laboratories.

Pharmaceuticals account for about 95% of Orion's net sales, of which a considerable part comes from proprietary patented pharmaceutical innovations. Orion carries on intensive research with the aim of introducing new innovative treatments to global markets. The core therapy areas in Orion’s product and research strategy are the central nervous system, cardiology and critical care, and hormonal and urological therapies. In global marketing, Orion enters into licensing partnerships with other pharmaceutical companies.

Stalevo® and Comtess®/Comtan®, for Parkinson’s disease, are the largest products by sales in Orion’s portfolio. These products are marketed in collaboration with Novartis, and they are the most significant globally marketed products for Orion.

Orion has also a large portfolio of generic, off-patent prescription medicines, hospital treatments and self-care products. These products are sold mainly in Finland, other Nordic countries, the new EU countries and Germany. In animal health, Orion has the leading market position in its home territory, the Nordic countries. The subsidiary Fermion produces active pharmaceutical ingredients for both Orion and other pharmaceutical companies.

Orion’s diagnostic tests are used widely around the world to help in diagnosing patients and to contribute to the follow-up of treatment. The emphasis in this product sector is on easy-to-use and rapid point-of-care tests. The leading brand is the QuikRead® test for diagnosing infections.

Orion’s strategy emphasises profitable growth and increased shareholder value, whilst keeping business risks under control. Orion aims at strengthening its European presence. The company is promoting the growth of all of its businesses, but the best long-term growth opportunities are seen in the proprietary products.
Orion is Finland’s largest pharmaceuticals manufacturer and pharmaceutical research company. Its operations date back to Osakeyhtiö Orion, which was founded in 1917. Having grown and taken shape for decades under private ownership – being held mainly by doctors, pharmacists and other healthcare professionals – the company was listed on the Helsinki Stock Exchange in May 1995. In summer 2006, the old Orion demerged into two new listed companies, Oriola-KD Corporation and the present Orion Corporation. Orion’s ownership base is still predominantly Finnish, with about half of its shares being owned by households.

During its 90 years in business, Orion has experienced, in its own sector, changes and impacts that have been ushered in by both society and scientific fields. Over the years, the company has grown and changed. It has developed its product portfolio by utilising the research results of the natural sciences and medicine as well as by deploying new technologies. Skilled, dedicated and enthusiastic employees have been the most important drivers of development. Management has put in place the framework for operations and growth. Committed and visionary owners have enabled the long-term development of the company’s operations.
Mira Marjakoski operating and supervising a pharmaceuticals packaging line at Orion’s Turku plant.
Orion Group

The present Orion Corporation is the parent company of the Orion Group, founded on 1 July 2006 in the demerger of the former Orion. The Group’s business areas are:

- pharmaceuticals (research, development, manufacturing and marketing), accounting for about 95% of net sales in 2006.
- diagnostic tests (development, manufacturing and marketing), accounting for about 5% of net sales in 2006.

Pharmaceuticals business

Orion develops, manufactures and markets pharmaceuticals and active pharmaceutical ingredients. In addition, Orion carries on intensive research with the aim of bringing new proprietary drugs to the international market. A growing part of its net sales has stemmed from new, patented proprietary pharmaceutical innovations. The core therapy areas of the company’s product and research strategy are diseases of the central nervous system, cardiovascular diseases and critical care as well as hormonal and urological therapies.

Orion’s pharmaceutical divisions:

- Proprietary Products (patented prescription medicines)
- Specialty Products (off-patent prescription medicines and self-care products)
- Animal Health
- Fermion (active pharmaceutical ingredients)

In the Proprietary Products business, Orion focuses on the development of innovative drug treatments for international markets. The research that got under way in the early 1980s has already yielded seven proprietary products, three of which are for veterinary medicine. Proprietary products for human use made up about 43% of the net sales generated by the Pharmaceuticals business in 2006.

The Specialty Products business consists of off-patent products, or generics, generating stable cash flows. The majority of these products are based on Orion’s own product development and they accounted for about 36% of net sales derived from Orion’s Pharmaceuticals business in 2006. A substantial part of the net sales from these products comes from the Finnish market. The other Nordic countries are also important markets, as are the new EU countries on the southern Baltic Rim as well as Germany.

Orion is a major Nordic player as a marketer of veterinary medicines, which made up about 10% of net sales generated by Orion’s Pharmaceuticals business in 2006.

Fermion is a fine chemicals company that is specialised in active pharmaceutical ingredients. It manufactures the active ingredients for Orion’s proprietary drugs. In addition, it supplies pharmaceutical ingredients to a number of other pharmaceutical companies. Fermion’s sales to external customers made up about 6% of the net sales generated by Orion’s Pharmaceuticals business in 2006.

Diagnostics business

Orion Diagnostica develops, manufactures and markets in vitro diagnostic testing methods and systems. Its focus is on point-of-care tests which physicians and nurses use in doctors’ offices and in small-scale laboratories. The leading brand in the product range is QuikRead. The first application, now widely marketed around the world, is a CRP test for the rapid detection of bacterial infections in the body.

Other important diagnostic products are collagen tests that measure bone metabolism, as well as various hormone markers. In-house product development has also yielded hygienic tests, which are used in many business sectors.
Orion’s strategy

Orion is a European pharmaceutical and diagnostics company whose business operations focus on developing innovative medicinal treatments and diagnostic tests for the global market. The aim is profitable growth and increased shareholder value, whilst keeping business risks under control.

Orion is seeking to strengthen its presence in Europe.

Orion’s goal is to speed up the growth of its Specialty Products and Proprietary Products businesses, but growth is also sought within animal health and diagnostics. In countries where Orion has its own sales organisations, organic growth is speeded up through acquisitions of products, product portfolios and companies. In other market areas, Orion seeks close partnerships in order to achieve full European coverage for its products. The aim for Orion is to have Europe-wide control of the marketing authorisations and pricing of the proprietary drugs, because the best long-term growth potential is seen within this product segment.

For Proprietary Products, focusing of research and development within selected therapy areas, plays a central role. Orion strengthens the early phases of research and development. As a rule, the costs and risks of Phase 3 clinical research – the most extensive phase – are shared with partners. Partnerships and networking are important all across the value chain, both in research and product development and in reaching global markets. Orion aims to increase the in-licensing of developmental molecules and networking. In research and product development, risks are managed by a balanced engagement in the development of new chemical entities and by managing the life cycles of the proprietary products already on the market. Fermion plays an important role as a manufacturer of the active ingredients for Orion’s proprietary products and as a developer of their manufacturing processes.

In the Specialty Products business, Orion is strong in the Finnish home market. Orion aims to step up the introduction of new products via in-licensing on the Nordic markets and in central and eastern Europe.

In the Animal Health business, Orion is the second largest company in the Nordic market area. Orion’s innovative animal sedatives are sold by partners on a global scale. Orion markets both its own animal health products and those licensed from other companies in the Nordic countries. In the research and development of animal health products, Orion aims to make maximum use of synergies with the development of proprietary pharmaceuticals for human use. The applications developed for animal health offer a big opportunity for the life cycle management of Orion’s proprietary drugs.

Within Diagnostics, Orion aims to be a leading company in selected areas of point-of-care diagnostics in primary healthcare. The needs of customers and markets in the fields of healthcare and industrial hygiene are met by offering innovative, cost-effective, easy-to-use and reliable tests. The flagship product line is QuikRead®.

Orion’s operational structure
Company locations
Orion’s head office is located in the Mankkaa district of Espoo at the address Orionintie 1 A, 02200 Espoo. The management of the business divisions and a large part of the production operations are in Espoo.

Research and development:
Pharmaceutical research centres are located in Espoo, Turku and Kuopio, Finland, and Nottingham, England. Orion Diagnostica’s research units are located in Espoo and Oulu.

Marketing:
Orion has overseas marketing companies in Sweden, Norway, Denmark, Germany, the United Kingdom, Ireland, Switzerland, Hungary and Estonia. In addition, the company has representative offices in most of the east European countries.

Production:
Orion has pharmaceutical plants in Espoo, Turku and Kuopio. Diagnostic products are manufactured in Espoo and Turku. Fermion, which manufactures active pharmaceutical ingredients, has fine chemicals plants in Hanko and Oulu.

Orion as a listed company
On 3 July 2006, Orion Corporation was listed on the Helsinki Stock Exchange as a new company after the demerger of the old Orion.

The trading code of the present Orion’s Class A share on the Helsinki Stock Exchange is “ORNAV” (ISIN Code FI0009014369) and that of the Class B share “ORNBV” (ISIN Code FI009014377). Based on its market capitalisation, Orion belongs to the large companies in the Healthcare segment of the OMX Nordic List.

Financial information on Orion is presented in a separate Financial Statements 2006 publication.

Orion’s internet website at www.orion.fi/investors offers all information and publications specified in the disclosure obligations of listed companies. Wide-ranging information on trading in Orion shares is also given in this section, relayed to the website directly from the Helsinki Stock Exchange trading system. Abundant information on the company’s ownership base and changes in it is also available on the website.

Maintenance of the website of the old Orion was discontinued on 30 June 2006 in the wake of the company’s demerger and dissolution, but the website can still be browsed at the address www.orionbeforedemerger.fi. This website also provides, among other things, the information and documents connected with the old Orion’s demerger. A link to the old home page is also provided on the present Orion’s website.

Orion’s financial objectives
The moderate organic growth of the net sales in the next few years is accelerated via product, portfolio and company acquisitions. Operating profit will be increased and the Equity ratio is maintained at a level of at least 50%.

Dividend policy
In the dividend distribution, Orion takes into account the company’s distributable funds and the medium-long and long-term needs of capital expenditure and other financial needs required for the achievement of the financial objectives.

Orion’s main strengths
Orion has a 90-year long backlog of expertise and experience of developing, producing and marketing pharmaceuticals.

Orion is Finland’s largest company engaged in pharmaceutical research as measured by its annual outlays in euros as well as by the number of staff employed at its research units. Over the past 20 years, Orion’s in-house pharmaceutical research has brought to market seven proprietary drugs.

The core platforms of research expertise are receptors and enzymes related to selected therapy areas and, thereby, the mechanisms of the related active ingredients.

On an international yardstick, Orion has leading expertise in the COMT enzyme, and it applies this knowledge in the drugs it develops for treating Parkinson’s disease. Another key area are alpha receptors of the central nervous system, from which platform Orion has developed and brought to market new chemical entities for both human and veterinary indications. Orion furthermore has achieved significant research results in the area of heart failure, primarily in research on the levoSimendan molecule, having continuously built up expertise ever since the 1980s. In addition, Orion has a strong know-how concentration in the area of hormonal and urological therapies.

Orion has a solid market share of about 9% of pharmaceuticals in Finland. Measured by numbers of packages sold, Orion is far and away the largest: nearly a third of the drug packages sold in Finnish pharmacies come from Orion. In the international markets, Orion is strongest in Parkinson’s disease, for which the company has developed selegiline (Orion’s trade names are Eldepryl® and Movergan®) and entacapone (Comtess®/Comtant®) as well as the enhanced levodopa treatment Stalevo®.

In the field of diagnostics, Orion has strong speciality expertise relating to inflammatory diseases, hormones, specific proteins and bone metabolism.
Business environment

A market of 600 billion dollars

Because the world’s pharmaceutical sales statistics for 2006 will not come out until around April 2007, in this publication we discuss the market in the light of statistics for 2005. The data compiled by the American company IMS Health, which has carried on pharmaceutical market research since 1954, are based on trade between wholesalers and distributors, i.e. mainly on purchases by pharmacies and hospitals. The audited IMS statistics cover about 95% of drug sales worldwide.

In 2005, drug sales grew by about 7%, just topping the 600 billion US dollar mark. In slightly less than ten years, sales doubled. The annual growth rate has varied between 7 and 13 per cent and it has been buoyed largely by the biggest market, the United States. The sales statistics are led by patent-protected compounds featuring new mechanisms of action, having been developed for major diseases.

At the turn of the decade, AstraZeneca’s ulcer medicine Losec (omeprazole) ranked first in the sales statistics. The cholesterol drug Lipitor (atorvastatin) moved into the top spot in 2001 and has held on to it ever since, generating billions of dollars in sales for its originator, Pfizer, under the shelter of its product patent. In countries with a high standard of living, people are increasingly susceptible to largely lifestyle illnesses, such as cardiovascular diseases, obesity, diabetes, alimentary disorders, asthma and various mental health problems.

The United States’ share of global drug sales is about 45%, Japan accounts for about 10% and the EU for about 35%. The new EU member states offer growth potential for the drugs sold in more advanced markets. Other large and fast-growing future markets are China and India. Pharmaceutical companies see also manufacturing and product development opportunities in the emerging markets.

In 2005, the audited sales of the ten top-selling drugs amounted to about 57 billion US dollars, nearly 10% of all drug sales. The cholesterol drug atorvastatin alone racked up sales of about 2.3%, or almost 13 billion dollars.

In the pharmaceutical market, there are hundreds of players, ranging from the big multinationals to very local companies. The world’s largest pharmaceutical company is Pfizer, which had net sales in 2005 of over 51 billion US dollars. Frequent changes take place in the size ranking of players due to...
mergers and acquisitions. In the pharmaceutical sector, product portfolios and investigational compounds often change owners too.

Gauged by the yardstick of the global pharmaceutical market, Orion, with its ca. EUR 600 million in pharmaceutical sales, is a comparatively small player, but still ranks in the top 100. In the Finnish market, Orion has for decades been among the leaders, but especially after a major reform of Finland’s patent legislation in the early 1990s, the Finnish market has changed radically. Already over a hundred pharmaceutical companies have established a marketing company in Finland, and about nine out of every ten euros of pharmaceutical wholesale trade flow via the accounts of those companies. Orion attends to the healthcare of Finns by maintaining an extensive product range of reimbursable drugs and by ensuring that its products are always available at pharmacies.

The global diagnostics market is estimated at about EUR 22 billion. Although several large players dominate the market for centralised automated laboratory systems, the industry is quite fragmented as a whole. Orion Diagnostica is a medium-sized company with a relatively strong position in its selected product areas.

The regulatory regime extends from research to marketing

The presence of the authorities pervades the pharmaceutical and diagnostics sector. A number of licences are required for developing, manufacturing, importing and selling pharmaceuticals and diagnostic tests as well as for their production processes.

The strict regulation and supervision of the pharmaceutical field were largely boosted by the adverse effects of certain new drugs experienced at the end of the 1940s and in the early 1950s, and the human suffering they caused. This set in motion across the entire western world an effort to establish common requirements and practices. Over the years, drug legislation and regulations have continually become more stringent, and before new active ingredients can be let out on the market, they must pass through an ever finer sieve. Within the EU, the highest regulatory body in the pharmaceutical industry is the EMEA, European Medicines Agency, and its counterpart in the United States is the FDA, Food and Drug Administration.

In the pharmaceutical sector, a new product’s road from the discovery of a new investigational compound to the obtaining of market authorisations lasts years and runs by way of many bends and milestones. Costs grow and multiply phase by phase as the research progresses from the laboratories to extensive multinational patient trials. In the hands of the drug authorities are not only the approval of a new drug to the market, but also monitoring of the efficacy and safety of products that are already on the market. The reported adverse events of available drugs are collected into a registers monitored by the drug agencies. Sometimes new drugs have been withdrawn from the market, because only extensive use by patients has revealed adverse effects not seen during the research phases. The authorities also oversee the pharmaceutical companies’ operational qualifications. The entire supply chain must follow the internationally agreed standards of Good Practices.

The marketing of pharmaceuticals is likewise closely supervised by the authorities. It is permitted to tell about products only and exactly in line with the summary of product characteristics confirmed when granting the marketing authorisation. The pharmaceutical companies must not inform consumers directly about prescription drugs. Doctors and pharmacists have the task of giving out information on them. Only the marketing of self-care drugs directly to consumers is permitted, though it too is closely regulated. In the United States, the legislation on drug advertising and information is looser than in the EU, where no signs are on the horizon that the present practice will be eased in any way. One of the biggest challenges for achieving success in the industry is thus an uncompromising fastidiousness in regard of the sector’s numerous regulations and still fairly unharmonised requirements. A thorough knowledge of them is a competence requirement for those working in the industry.

In conducting their marketing, pharmaceutical companies that are well aware of their responsibility undertake to observe ethically balanced rules of the game that are jointly agreed by and for the industry and are written down in the Code of Practice on the Promotion of Medicines of EFPIA, the European Federation of Pharmaceutical Industries and Associations. The practices agreed by an individual country can be even more demanding, as they are in Finland, for example. The pharmaceutical companies themselves see to it that they observe the rules of the game. Even the smallest instances of going overboard in marketing claims for a competing product are reported without delay to the Supervisory Commission for the Marketing of Medicinal Products. Depending on the seriousness of the case, the Commission administers a reprimand or imposes a penalty.
Orion Group
in the light of key figures

In this brochure, the table below is the only chapter providing figures on Orion’s success in terms of financial performance. The word ‘proforma’ means that the figures for 2005 and January – June 2006 have been derived from the financial statements of the old Orion on the basis of the structure of the present Orion. Proforma figures facilitate the comparison of the performance. Readers interested in more details about the financials are advised to acquaint themselves with a separate publication, Orion Group Financial Statements 2006.

The financial reports published by Orion are available on the company’s homepage www.orion.fi/investors.

### Key figures of the Orion Group for 2006 (proforma)

<table>
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<tr>
<th>EUR million</th>
<th>2006 Proforma</th>
<th>2005 Proforma</th>
<th>Change, %</th>
<th>7-12/2006 Official financial statements</th>
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CEO’s greeting

For Orion, 2007 is a jubilee year. Although above all it marks a waypost in our 90-year history, we have cause to celebrate for a number of other reasons. Orion is a company with numerous causes for joy and pride. The results of our work are on display daily for every Finn who visits a pharmacy.

The theme of our jubilee year, “Building Well-being,” would have been well suited as Orion’s mission way back in 1917, when the company’s operations began. The times when Lääketehdas Orion was founded were anything but ideal for a risky business venture. At the time, scarcely anything was so plentiful as uncertainty and want. The working premises were deplorable, and keeping up with bills day by day was a torment. Despite these problems, the owners had courage, initiative and willpower. They also had the wisdom to take decisions swiftly. Along with this, there was a network of like-minded people who had the daring to invest more capital in the company to develop its operations.

The 1930s were a decade of growth. In the 1940s, Orion shared the travails of Finland’s fateful years and provided medicines in difficult crisis conditions. And got the job done, albeit by a whisker at times.

At several stages, the company’s mainline business was threatened for political reasons: State ownership of the pharmaceutical industry was planned for the first time in the 1950s and again in the 1970s. Orion’s management safeguarded the continuity of operations by bringing in other fields of business completely unrelated to pharmaceuticals to give the company legs to stand on if the main business were to be lost. Fortunately, we were allowed to keep the pharmaceutical business, but many other lines were also retained in the company structure for a long time. Yet pharmaceuticals were, remained and grew as the core business. They were what Orion was known for. Orion became the trusted medicine chest of Finns.

Before the demerger in summer 2006, Orion had already for a number of years been squarely focused on the healthcare sector. Today’s Orion is an actor in the pharmaceutical industry more than ever before in its 90-year history. This is how we want to develop Orion. The company I’m heading is imbued with a decisively profit-minded spirit of continuous improvement, to which the Orion employees are firmly committed.

We are now putting efforts on the fast-growing markets of Europe and Russia, where we see plenty of potential for thriving business. We are moving ahead by reinforcing our own sales operations in these countries step by step. We are beefing up our product portfolio with products that are suited to these markets, and we are making the Orion name well known and trusted. By carrying out these measures, we will have a firm footing for bringing our own new proprietary drugs – when the time is ripe and with our own resources – out on the market in all the countries where we have a presence through our own organisation.

Our financial performance stands up to comparison by any yardstick. It has taken a strong team spirit to achieve this. It is gratifying for me to work with a first-rate staff and management who are committed to our shared objectives and the aim of further developing Orion.

Jukka Viinanen
President and CEO
The Proprietary Products division comprises the human medicines resulting from Orion's in-house R&D – the product group that Orion has identified as having the best long-term growth potential.

As a result of research begun in the 1980s, Orion has brought to market seven proprietary drugs, three of which are for veterinary use. While proprietary drugs accounted for only about 7 per cent of the net sales of Orion's pharmaceutical business in 1996, the figure was 28 per cent in 2000 and about 46 per cent in 2006.

Expertise in Parkinson's disease

A particular boost to growth has come from Stalevo® and Comtess®/Comtan®, which are medicines for Parkinson's disease (PD) based on the discovery entacapone. They are by far the best-selling franchise in Orion's range. Parkinson's disease has become Orion's strongest area of expertise. Orion's first drug for PD was the MAO-B inhibitor selegiline, sold under the trade names Eldepryl® and Movergan®. Orion acquired the rights to this molecule at a very early development stage and it came onto the market in 1982. In 1998, Orion launched the COMT enzyme inhibitor entacapone in Europe, and a year later in the United States. Entacapone is an active ingredient that enhances the effect of levodopa, the standard treatment for PD. Orion markets entacapone in Europe under the name Comtess, and in countries where Orion doesn’t have its own sales organisation, it is sold under the name Comtan by the partner Novartis. Comtess/Comtan is Orion's first major globally sold drug.

In the work with selegiline and entacapone Orion has accumulated globally unique expertise in the treatment of Parkinson's disease. Further research in entacapone resulted in the launch of Stalevo in 2003, an enhanced levodopa treatment combining into one tablet the basic treatment levodopa and the enzyme inhibitors entacapone and carbidopa, which enhance the effect of levodopa. Favourable long-term clinical experience is establishing Stalevo as a standard medication for Parkinson's patients requiring levodopa therapy.
Specialist drugs for intensive care and cardiology

One of the most difficult specialised areas of medical science is patient care in hospital intensive care and cardiac monitoring units. Orion has produced two notable drugs for this challenging field: levosimendan and dexmedetomidine. Orion’s first proprietary drugs were the animal sedatives Domosedan®, Domitor® and their reversal, Antisedan®. They received marketing authorisation in the 1980s and are used by veterinarians all over the world. The same alpha2 receptor research platform later yielded dexmedetomidine (trade name Precedex®), which is used as a sedative for human patients in intensive care. Orion licensed this drug to the American company Abbott Laboratories in 1994 when it was in Phase II clinical trials. Today, Hospira Inc. markets Precedex in the United States, Japan and several other countries outside Europe. Orion has started Phase III clinical trials in 2007 with a goal to introduce dexmedetomidine into Europe.

Orion’s expertise in the field of heart failure has also grown through the research the company has been carrying out since the 1980s. Levosimendan (trade name Simdax®) is an intravenously administered hospital drug for acute decompensated heart failure for use in intensive care and cardiac monitoring wards. It received marketing authorisation in Sweden in 2000 and is now available in about 40 countries, but lacking authorisation in countries with the greatest potential. Excluding the Nordic countries, Abbott Laboratories holds the global marketing and development rights to Simdax.

Orion’s proprietary portfolio also includes a family of hormone replacement therapies for treating menopausal symptoms. It includes a variety of products and treatment options sold under trade names such as Indivina®, Divina®, Divitren®, Diviseq® and Divigel®, which are marketed by several pharmaceutical companies under Orion’s license. The company’s hormonal research has also yielded Fareston® (toremifene), a drug used to treat breast cancer. It received marketing authorisation in the United States in 1997. The majority of sales are generated in Japan, where it is marketed by Nippon Kayaku, and in the United States, where the marketing rights are held by GTx, Inc. GTx is also conducting further research in toremifene, for urological indications.

Aiming for the longest possible lifecycle

One of Orion’s commercial goals is to expand the use of its drug discoveries by, for example, lengthening molecules’ lifecycles as much as possible. Ways of extending lifecycles include broadening their indications, creating a drug for completely new indications from the same molecule, developing new and improved pharmaceutical formulations, coming up with new manufacturing methods for pharmaceutical ingredients, and also with the aid of patents and out-licensing. The synergy benefits from developing proprietary drugs can often be harnessed for veterinary medicines, too. For extending the lifecycles of Stalevo and Comtess/Comtan, Orion is developing a new, even more powerful COMT enzyme inhibitor, applying the very extensive knowledge it has acquired from years of work already done.

The risks of lifecycle management projects are distinctly lower than those involved when developing completely new proprietary drugs, because medicines based on familiar molecules have been on the market for a long period, and their efficacy and safety are known.

The pharmaceutical facilities of Orion in Turku derive their origin from those of Lääke Oy, which was founded in 1947. The picture shows a view of Lääke Oy’s scientific research laboratory, where work started in 1959.
Stalevo® is used for the treatment of Parkinson’s disease broadly across the world. The tablet contains three active ingredients: levodopa, carbidopa and entacapone, a substance originating from Orion’s own research.
The Specialty Products unit is an important strategic cornerstone in Orion’s pharmaceutical business, with a wide range of products bringing in steady cash flows and supporting Orion’s expansion and growth targets on both a long- and short-term basis.

The portfolio comprises an extensive and diverse range of generic prescription drugs, hospital medicines and self-care products for primary healthcare. Orion has developed most of its range of approximately 250 products, such as Finland’s best-selling painkiller Burana® (ibuprofen), itself. The large Specialty Products family also contains non-medicinal products, such as the Aqualan® creams, and the multivitamin Multivita®, Orion manufactures the majority of its product range itself.

Currently, about 70% of the Specialty Products net sales are generated in Finland, where Orion’s solid market position is largely based on its extensive range of basic medicines covering almost all of the most common illnesses. In terms of packages sold, Orion is the clear market leader in Finland with a market share of almost one third. At the end of 2006, Orion achieved its goal of being the largest player in Finland in terms of wholesale value as well. Orion has had the greatest market share in self-care products for years. In 2006, Orion products accounted for almost a quarter of the total wholesale value of self-care products.

A significant proportion of prescription drugs in Finland fall under the scope of generic substitution. The company aims for an affordable Orion alternative to always be available in pharmacies if the prescribed drug can be substituted. As a Finnish player, Orion also has a unique competitive advantage: the ability to ensure uninterrupted availability and reliable supply for its whole product range.

Orion seeks growth by bringing an increasing number of new and affordable products for primary healthcare, both for Nordic markets and those in Central and Eastern Europe and other European Union countries. In-licensing of developmental products is being stepped up in order to complement and renew the product range. Growth is sought for all key product franchises. In the Scandinavian market also self-care products offer good growth opportunities for Orion.

With its long-term strategy for establishing a greater European presence, the Specialty Products division is building a working pattern that will enable Orion to market future proprietary drugs throughout Europe via its own sales organisations. A credible presence in the market also makes Orion a more attractive partner for other pharmaceutical companies.

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**Easyhaler®**

One example of the Specialty Products division’s know-how is the reliable and easy-to-use Easyhaler® inhaler technology. The first Easyhaler was brought to market in 1994, and sales of the renewed and extended product family are boosted by an expanding network of international partners. Orion has already developed several formulations of respiratory drugs for the Easyhaler.
Laura Koistinen, pharmaceutical chemist at the Espoo VI Pharmacy in the Iso Omena shopping centre, advising a customer in the use of Easyhaler asthma medicines.
Veterinarian Katri Wermundsen studying a cow named Tirlittan at the cattle farm of Teemu Ranta, Vihti, southern Finland.
Orion is one of the Nordic countries’ leading players in veterinary medicines. Orion manufactures, markets and sells both proprietary and generic drugs for animal use. In the Nordic countries, it also represents several international companies. Pfizer, the world’s largest in veterinary medicines, markets and sells Orion’s animal sedatives on the international market.

The proprietary drugs Domosedan®, Domitor® and Antisedan® are Orion’s major products for animal health. Domosedan is used for the sedation of large animals, mainly horses, for veterinary examinations and procedures. Domitor is the corresponding product for small animals, such as cats and dogs. Dexdomitor®, which is currently in the launch phase, is the latest product in the family. Antisedan is an antibody to these sedatives and is used to wake up animal patients quickly and safely after procedures.

Other veterinary products include prescription-free parasite drugs for cats and dogs, ketoprofene painkillers for cattle in particular, and the Aptus® well-being range. The selection also includes a number of in-licensed products.

Orion aims to maximise the outputs of human drug development by studying their opportunities in veterinary medicine too.

The Animal Health division accounts for about ten per cent of Orion’s net sales. Growth is sought from sales of proprietary drugs and, in line with Orion’s growth strategy, by expanding into Eastern Europe as well.
Fermion

Active pharmaceutical ingredients

Fermion has a strategically important role in the Orion Group’s Pharmaceuticals business, as it primarily manufactures the active ingredients for Orion’s proprietary drugs – entacapone, levosimendan, toremifene, detomidine, medetomidine, dexmedetomidine and atipamezole. Fermion also manufactures and sells ingredients to other pharmaceutical companies. In total, Fermion has high-standard documentation and manufacturing processes for about thirty pharmaceutical ingredients, such as the cancer drugs methotrexate and azathioprine, as well as the antidepressant trazodone. Sales to other companies account for about six per cent of Orion’s net sales.

It is strategically important for Orion that the company controls the entire supply chain for its proprietary products. Fermion has extensive special know-how in synthesizing molecules and manufacture of fine chemicals. The company’s process technology and systems meet the strictest standards set by authorities on the production of active pharmaceutical ingredients. In its customer relations, Fermion’s key competitive advantages lie in its cutting-edge technology, reliability of delivery, dependability, high quality and cost-effectiveness.

Fermion’s production facilities are located in Hanko and Oulu. The company also has a pilot unit in Espoo, where it tests and develops the production of new active pharmaceutical ingredients.

The development of industrial manufacturing processes for active pharmaceutical ingredients is one of the core tasks in Fermion’s R&D. The bench-scale laboratory is like a miniature plant, where drug candidates are manufactured for clinical research. The laboratory also provides an excellent base for the development of efficient and safe industrial scale manufacturing processes.
Orion Diagnostica manufactures *in vitro* diagnostic tests and systems for diagnosing patients in hospitals, health centres and clinics. It is increasingly focusing on point-of-care tests, which physicians and nurses use to diagnose diseases and to monitor the effectiveness of treatment during patient consultations and in small-scale laboratories. Orion Diagnostica’s products are marketed globally.

A correct and rapid diagnosis is to every patient’s advantage and also benefits all other parties involved in healthcare. Physicians are able to start treating their patients quickly; and the diagnostic method used to evaluate and monitor the patient’s condition and required treatment also notably affects the overall efficiency and cost of healthcare.

Diagnostic methods are moving towards easier-to-use, faster and more reliable tests, as well as the combination of diagnostics with suitable medication. A first step towards so-called theranostics is the leading brand in Orion Diagnostica’s product range, QuikRead®, and its successful application, the CRP test. A blood sample taken from the fingertip is measured for its C-reactive protein (CRP) content, with a raised value often indicating bacterial infection. The results of the CRP test, combined with the patient’s symptoms, help physicians decide whether the patient is suffering from a viral or bacterial infection, and whether or not a course of antibiotics is required.

Further examples of point-of-care products are Turbox®, an analyser that measures proteins and can be used to assess 17 different proteins from plasma, blood or urine samples, and the Pyloriset® test used to identify a Helicobacter pylori infection by detecting anti-bacterial antibodies in serum or the bacteria itself from a biopsy sample. Diarlex® reveals rota and adenoviruses from faecal samples.

Orion Diagnostica has accumulated decades of expertise in point-of-care tests. A long-time market leader in its sector, the Uricult® urinary tract infection test came onto the market 40 years ago and still enjoys stable demand.

Other major diagnostic products include various hormonal indicators and the UniQ® collagen tests that measure bone metabolism and help physicians treat osteoporosis. These tests are extremely sensitive. For example, even if evidence of change is not yet visible in bone density measurements, the ICTP test can reveal metastatic tumours resulting from breast cancer. The PINP® test, which measures bone formation, can also be used to monitor treatment of osteoporosis.

Some of Orion’s diagnostic tests are used in highly automated hospital laboratories. Orion offers tests based on several different technologies, including those for hormonal, bone, connective tissue, gastroenterological and specific protein assessment. Orion also engages in contract manufacturing of diagnostic products for other companies.

Hygiene tests based on the company’s in-house product development are an important product group for Orion Diagnostica. Technically, their concepts are very close to diagnostic methods, but they are used in many business and industry sectors. The Hygicult® tests are used for monitoring microbial loading in, for example, the food and cosmetics industries and in commercial kitchens. The Easycult® tests are used to measure microbial loading in industrial fluids and liquid fuels in order to optimise use and warehousing times. Easycult users include the paper industry, airlines and oil companies.
The hygiene requirements are high in the personnel restaurant maintained by Fazer Amica at the head office of Finland Post Corporation. Mrs. Anita Rantamäki uses Hygicult® to check the microbe content on the surface of a cooking kettle.
A pharmaceutical substance is being crystallised by Jarmo Hurme, Research Assistant at Orion’s Turku research centre. The concentration is purified, dried and analysed for the next steps in the handling process.
Research and product development

Orion invests an annual average of about 15% of its pharmaceutical net sales in research and product development, a work field of about 700 people.

The focus is on early research, preclinical as well as clinical Phases I and II, whereas the large-scale Phase III trials are preferred to be conducted together with partners selected for further development and marketing.

Pharmaceutical research and development is time consuming and financially highly risky, but a project that leads to marketing authorisations can also mean big opportunities. On average, only one of ten drug candidates having progressed into clinical trials ends up to the market. The long route takes over ten years, and the work is closely supervised and regulated by the authorities. Orion is Finland’s largest researcher of pharmaceuticals in terms of annual expenditure and research personnel.

**Top scientific expertise is Orion’s strength**

The relatively small and concise group of scientists makes an ideal platform for innovative and productive pharmaceutical research. The organisation has the power and agility of a small company but also has all the resources and hands-on experience to conduct projects through all the phases and to attend to marketing authorisation application procedures.

Orion’s core expertise areas in pharmaceutical research are selected target proteins, enzymes and receptors. One of the particular strengths Orion draws on is the knowledge it has gained on the structure of the target proteins studied, their cellular mechanisms of action and the behaviour of the compounds in the body. Work focuses on indication areas for which research models that predict efficacy and safety have been developed over the years.

**COMT enzyme**

High-calibre scientific knowledge of the COMT enzyme (catechol-O-methyltransferase) and the role it plays in the treatment of Parkinson’s disease has played a key role in Orion’s drive to go international and its growth into a company known for reliable treatments for Parkinson’s. On this path, Orion is currently developing a new COMT inhibitor that is even more effective and longer-lasting than entacapone.

**Alpha, receptors**

Research in adrenergic alpha, receptors, which belong to the large family of G protein-coupled receptors, has already yielded four proprietary drugs for Orion. Basic scientific research in this area has proceeded rapidly and the systematic development of new specific compounds acting on alpha, receptor subtypes is on the horizon. Orion is actively studying opportunities for the use of alpha, receptors in the treatment of the symptoms of schizophrenia and depression, for instance.
Androgen receptor
Research by Orion in hormonal and urological therapies focuses on hormonal nuclear receptors. In recent years, Orion’s researchers have identified many active ingredients affecting the male hormone (androgen) receptor. In this research area, Orion seeks to develop new treatments with testosterone-like favourable effects on muscle mass and bones, for instance, but without the unfavourable effect of enlarging the prostate. Unmet needs in this therapy area also offer potential for new prostate cancer medication.

Diagnostic products
In diagnostics, Orion has strong specialist expertise in the development of easy-to-use and quick methods, especially in point-of-care testing of infectious diseases, hormones, specific proteins and bone metabolism. The shift in the product range to rapid point-of-care tests has strongly steered product development to meet the needs of customers that use those tests, i.e. minor clinics and doctor’s offices. The leading product family in this area is the QuikRead system, which is under intensive development at Orion. In focus are also tests like the unique UniQ collagen tests.

Wise use of resources
Carrying out numerous large-scale pharmaceutical R&D projects simultaneously has been a challenge to Orion, which is why the company has streamlined more resources into the early stages of research and the effective management of projects instead of increasing the number of projects. Controlled project work also entails the ability to change direction if the chosen molecule does not prove to be suitable for its planned use. Research will then continue using back-up molecules.

Lead molecules and their back-ups are constructed using computer-assisted molecule modelling and structural design. Computer-assisted molecule screening and modelling have accelerated steps and increased efficiency in early research, because they not only reduce the mass screening workload of laboratories, but also generate a greater variety of ideas on optimal molecule structures. It is also important that computer models can be continuously fine-tuned on the basis of information gleaned on the target protein and the structural effects of the substances being studied.

### The discovery, development and approval of a new medicine

<table>
<thead>
<tr>
<th>Years (on average)</th>
<th>Number of tested</th>
<th>Purpose</th>
<th>Success rate</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Preclinical phase</strong></td>
<td>6–7</td>
<td>Study safety, biological activity and pharmaceutical formulation in laboratory and animal tests</td>
<td>5,000–10,000 compounds to be tested</td>
</tr>
<tr>
<td><strong>Clinical trials Phase I</strong></td>
<td>1–2</td>
<td>20–50 healthy volunteers</td>
<td>Document tolerability and dosage</td>
</tr>
<tr>
<td><strong>Clinical trials Phase II</strong></td>
<td>2</td>
<td>100–500 volunteer patients</td>
<td>Study efficacy, register adverse effects, document tolerability and dosage</td>
</tr>
<tr>
<td><strong>Clinical trials Phase III</strong></td>
<td>3–4</td>
<td>1,000–5,000 volunteer patients</td>
<td>Document effectiveness, accumulate documentation on adverse effects in long-term therapy and compare with standard therapy</td>
</tr>
<tr>
<td><strong>Authorities</strong></td>
<td>1–3</td>
<td>Evaluation and approval of the application</td>
<td>1 receives a marketing approval</td>
</tr>
<tr>
<td><strong>Clinical trials Phase IV</strong></td>
<td>Several years</td>
<td>Thousands of users of the medicine</td>
<td>Follow-up safety in the normal population. Thorough follow-up of adverse reactions in additional studies</td>
</tr>
</tbody>
</table>

Source: Pharmaceutical Information Centre
The level of technology at all of Orion’s research facilities is competitive in global terms. That said, new technologies are deployed not as an end in itself, but if the technology can yield substantial added value to in-house research.

**Significance of networking and co-operation**

When companies seek new ideas and research avenues to add to their existing development projects, networking with academic researchers and biotech companies becomes more important. Collagen tests are an example of successful products created through intensive co-operation between Orion Diagnostica and academic research.

In Finland – Orion’s homeland – specialist expertise in biomedicine and high-tech offers excellent partnership potential for Orion’s R&D. The company also has an active and extensive collaboration network outside Finland.

**Efficient utilisation of molecule inventions is a strategic target**

By the time a new active ingredient is brought to market, its efficacy and safety have already been established. However, not all of the benefits it can yield have been demonstrated at that point. Further research is carried out to expand its indications and/or applications. In addition, a greater variety of ways of administering the drug can be developed. Well-managed life cycles of active ingredients can yield added value for patients, too, as they benefit from better treatments. Further development is also a way for the originating company to balance out the risks associated with new drug development.

**Ongoing clinical development projects**

**Parkinson’s disease**

Orion is currently carrying out Phase III clinical trials in STRIDE-PD with its partner Novartis to evaluate whether Stalevo treatment can delay the onset of dyskinesia – involuntary movements – in Parkinson’s patients. The study compares patients receiving Stalevo with patients on traditional levodopa/carbidopa medication. STRIDE-PD is one of the largest research programmes on Parkinson’s patients carried out to date. It involves 70 centres in 14 countries and about 740 Parkinson’s patients, each receiving treatment for at least two years. Research was started up towards the end of 2004 and the first results are expected in 2008.

**Intensive care**

Orion’s proprietary drug dexmedetomidine is already on the US and Japanese markets as a short-term sedative in intensive care under the name Precedex®. The drug was developed by Abbott and Hospira under license from Orion. In Europe, Orion is conducting Phase III trials with dexmedetomidine with a view to launching it for long-term sedation of intensive care patients in the EU.

**Heart diseases**

Under a renewed licensing agreement concluded in 2004, Abbott took over the large-scale Phase III clinical trials on the intravenous heart failure drug Simdax® (levosimendan). The product is already approved in approximately 40 countries, but Orion and Abbott are negotiating on possible further trials for approvals by countries such as the United States. In its LEVET programme, Orion studies the efficacy of levosimendan in the treatment of heart diseases in dogs.
Pharmaceuticals from in-house research

Detomidine and medetomidine were the first Orion-originated molecule discoveries that progressed into commercialised drugs. They affect numerous nervous systems via the adrenergic alpha2 receptors. When the molecules bind to this receptor, they activate it causing a sedated condition in which also stress reactions and pain are alleviated. Atipamezole is their antibody. When atipamezole binds to the same alpha2 receptors, it prevents their activation. The blocking of alpha2 receptors increases nerve cell activity and awakens the patient.

Orion’s research and product development on the molecules in the alpha2 family has yielded the intravenous sedative Precedex® (dexmedetomidine) for patients in intensive care. Veterinarians are users of Domitor® (medetomidine), a sedative for cats and dogs, and Domosedan® (detomidine), for horses and cattle. Antisedan® (atipamezole) acts reversally, rapidly waking up the animal patient after the procedures.

Entacapone is Orion’s globally most significant molecule innovation. It is a drug that enhances the effect of levodopa, the basic medication for treating Parkinson’s disease. It works by inhibiting the harmful effects of the COMT enzyme on levodopa. Entacapone was brought to market in 1998 as Comtess® and Comtan®. In result of further development, Orion launched Stalevo® in 2003. It contains levodopa and both entacapone and carbidopa to enhance the therapeutic effect of levodopa. Treatment with Stalevo and Comtess/Comtan extends the daily “on” time of Parkinson’s patients – the time when symptoms are under control – and improves quality of life more than treatment with levodopa without COMT enzyme inhibition.

Levosimendan is a molecule that in the presence of calcium binds to the troponin C protein of the cardiac muscle. Levosimendan has two unique mechanisms of action: it sensitisises the heart muscle to the calcium contained in the muscle’s cells and thus increases heart muscle contractility without raising the heart’s oxygen consumption. In addition, it dilates veins by opening their potassium channels, thereby improving blood circulation to vital organs. Both mechanisms improve blood circulation to the body and tissue through the heart. Levosimendan is the active ingredient in the intravenous heart failure drug Simdax®, used at cardiac monitoring and intensive care wards at hospitals.

Toremifene is an antiestrogen developed by Orion. It is the active ingredient in the breast cancer drug Fareston®. Toremifene binds to the estrogen receptors of cancer cells, preventing the body’s own estrogen from stimulating cancer cell growth.

Product development innovations

Orion’s product development has yielded numerous pharmaceutical and diagnostic innovations other than new chemical entities.

The QuikRead® test is Orion’s most successful point-of-care test. In a few minutes, it measures the C-reactive protein content in a blood sample taken from the fingertip.

UniQ® collagen tests in turn are based on unique know-how in bone metabolism and applications for its measurement in clinical diagnostics.

The Easyhaler® inhaler is a device for the administration of asthma medicines. Thanks to its accuracy and ease of use, it is proven to be excellent suitable for use by children too.
Dr. Gerd Wohlfahrt has a fascinating job as a constructor of molecule models at Orion’s Espoo research center. In this work, a so-called pharmacophore is a key tool for featuring the binding of a substance onto the target protein three-dimensionally. By the help of the special glasses, Dr. Wohlfahrt sees the picture of the model on the screen three-dimensionally.

Dr. Gerd Wohlfahrt, Senior Research Scientist at Orion’s Espoo research center, works as a specialist of computer-aided drug design. One of the most important tools for finding and optimising new drug candidates is modeling of their interactions with target proteins. With the help of special glasses these complex molecular systems can be displayed in three dimensions.
Physicians are the best experts of diseases and their treatments. Dr. Maija Vesanto serves as a company physician at the occupational health care centre of Orion in Espoo.
Our customers are healthcare professionals

Orion’s clientele comprises healthcare service providers and professionals. Pharmaceuticals are marketed primarily to physicians, pharmacies, public and private hospitals, healthcare and medical centres, and in the case of self-care products also to consumers. The customers for diagnostic products are also hospital and healthcare institutions, clinical laboratories, medical centres and doctor’s offices. Customers for hygiene tests include several sectors ranging from the petrochemical industry to food processing. The main customers of Fermion are other pharmaceutical companies.

Extremely in-depth understanding of overall treatment concepts is required in the development and marketing of drugs. The information released by Orion is clinically proven and has been approved for the summaries of product characteristic. Orion’s products are intended for therapy areas in which the main target group for product information is specialist doctors. For instance, knowledge of the mechanism, effectiveness and effects of Stalevo and Comtess/Comtan is important for neurologists treating Parkinson’s patients, because the disease of every patient is different.

Adopting the use of levsimendan is tied to the whole treatment concept of cardiac monitoring and intensive care wards at hospitals. The unique mechanisms of the medication affect critical vital functions that entail the attending physicians to have particular in-depth expertise in critical care. The doctor treating a heart failure patient who has been brought to hospital in a critical condition must make fast assessments when deciding on the treatment and, for instance, the use of Simdax.

EU legislation protects consumers – the end users of pharmaceuticals – from the marketing and advertising of prescription drugs. Only self-care products can be marketed directly to consumers. Pharmaceutical companies may target communications about prescription products to healthcare providers only. Physicians and pharmacies are thus the primary source of pharmaceutical information for consumers. The Pharmaca Fennica database for physicians and pharmacies includes complete summaries of the product characteristics of all drugs approved for use in Finland. Consumers can consult Lääkeopas, a generalised book based on this massive database. It features basic information on the most common drugs, and is available from pharmacies and bookstores.

The information society and information technology pose challenges to legislators. In the United States, consumers can be directly informed of prescription medications. The Internet is a peerless but not unproblematic medium for this purpose, making it easy to formally comply with the intent of legislation. The Internet has also become a market place for booming trade in illegal counterfeit drugs that are usually either inert or may contain dangerous substances.
Orion strengthens its European presence

Orion’s products are available in over one hundred countries. The company has own sales organisations in 16 European countries. Orion Diagnostica has subsidiaries in Scandinavia and an extensive network of importers and agents in other markets. In line with its strategy, Orion aims to bolster its presence in Europe by stepping up growth in the pharmaceutical business, primarily by means of product and portfolio acquisitions and even company acquisitions, if possible. The greatest growth is being sought in the new EU countries and Russia, where the market is growing rapidly even though the figures are still low compared to western countries. The healthcare systems of these countries are inevitably developing towards those of the older EU countries. Orion’s representative offices in many eastern European countries constitute a good basis for strengthening the company’s presence.

European healthcare systems are very heterogeneous. For this reason, when venturing into new territories, Orion first evaluates the special characteristics and operating patterns of the market, such as its reimbursement systems and principles for possible generic substitution. The company then sets up the local operational structure fitting it to the requirements of the product range.

In European countries where Orion does not have its own sales organisation, the company strives to engage in close co-operation with pharmaceutical companies having an established position in that territory. Orion nevertheless retains control of its distribution channel, marketing authorisations, pricing and brands.

To global markets with partners

Partnerships and networking play an important role in Orion’s strategy. Orion ensures the widest possible market coverage for its proprietary drugs by making marketing agreements with pharmaceutical companies whose product portfolios are an ideal fit for Orion’s product and which have strong and capable marketing resources. Orion receives a share of the sales generated by partners. Orion recognises this income in its net sales. The size of the share depends on factors such as the partner’s participation in the research costs and the division of marketing costs between the parties.

Of the global giants in the pharmaceuticals business, Orion’s partners are the Swiss company Novartis, which sells Stalevo and Comtan, and the US company Abbott Laboratories, which has rights to Simdax. Orion handles sales of Stalevo and Comtess in most of those European countries where it has its own sales organisations. Simdax is marketed by Orion in the Nordic countries and certain Eastern European countries. As early as in 1994, Abbott already received global rights to dexmedetomidine, when the compound was in the second clinical phase. From Abbott they were transferred to Hospira in a structural reorganisation. Orion reacquired the European rights to the compound a few years ago.

The company has made regional marketing agreements for the Easyhaler product family with numerous pharmaceutical companies. The partners include Hexal, Ranbaxy, Meda and Menarini, whereas Organon, Upsher-Smith, Pola, Nippon Kayaku and GTx are Orion’s partners in hormonal products. Pfizer is an important partner in veterinary drugs.

Business Development

The Business Development and Support unit assists in the implementation of Orion’s growth strategy in many ways, such as by acquiring market information and by preparing product and portfolio acquisitions for the pharmaceutical businesses. When new products are being acquired, international partners are actively scanned, and new collaboration agreements are made to support growth in all businesses. The unit co-ordinates the evaluation of new products – on the basis of which they are either included in Orion’s sales portfolio or slated for further development – and both leads and administers the development and life-cycle management projects of the selected drugs.

The unit also collects market information for Orion – making market and price analyses and health economic studies for use in strategic decision-making. It provides support for marketing and sales by assembling product-related medical information and publications as well as opinions by experts.
Mira Marjakoski and Seija Vieltojärvi are operating a blister packaging line at Orion’s pharmaceutical plant in Turku.
An efficient and reliable supply chain

Orion’s supply chain is a management responsibility area comprising many functions and phases in the manufacture of pharmaceuticals and their delivery to customers. The purpose is to manufacture products and to ensure that the right products are supplied to the customer at the right time as efficiently, economically and reliably as possible. About 850 people work in the company’s Supply Chain and related quality assurance at its pharmaceutical plants in Espoo, Turku and Kuopio. Each plant specialises in certain types of products. The manufacture of diagnostic products has been partially integrated into the supply chain of pharmaceuticals, yielding synergy benefits in purchases, for instance.

Seamless management of the whole chain is a must

Large amounts of capital are tied up in the supply chain functions. For this reason, it is important to optimise operations control, with an eye on maximum cost effectiveness, high capacity utilisation and ensuring the rapid turnover of the stocks of materials and finished products. An information system providing complete control – from procurements, forecasts and the inventory status all the way to customer inventories – is an indispensable tool. Correct prediction is important in ensuring that wholesalers have enough products to meet demand.

Orion’s production program includes about 300 products. They are sold in about 5,800 versions of packages. For instance, over two billion tablets are made annually. In line with its strategy, Orion taps into the advantages of networking in production as well. It is rational to outsource part of the products. That said, Orion manufactures drugs for other pharmaceutical companies in much greater and growing volumes. Over the past few years, Orion has substantially increased the utilisation ratio of its production capacity by centralising production at three plants – down from seven –, adopting shift-work and doing contract manufacturing. Tablets are produced in three shifts.

Efficiency also means minimising the lead times of production batches and the ability to rapidly restart a production line for the manufacture of another tablet strength or an entirely different product. For instance, products in the Comtess/Comtan and Stalevo families include many strengths and forms, and an even greater variety of packages for different markets.

The supply chain must also ensure that the goods and materials arriving from external sources are priced right. The company seeks to centralise its procurements and forge partnerships, especially in the procurement of technical and packaging materials, an area in which there are many providers to choose from. On the other hand, suppliers of pharmaceutical ingredients usually specialise in a few substances, meaning that not so many substances are available from one supplier.

As Finland’s leading pharmaceutical company, Orion has made contingency plans for societal emergencies. To ensure its operational viability under exceptional circumstances, Orion maintains reserves of the most critical active ingredients, other substances required in drug manufacture and packaging materials in excess of its own requirements.
The quality of a drug is the outcome of a seamless chain

Orion is committed to developing and producing high-quality pharmaceuticals and diagnostic products that improve human well-being. Its products are used for diagnosing, treating and curing diseases, monitoring treatment and maintaining health. Due to its nature the business is subject to stringent supervision. Operations are guided by special legislation, numerous official regulations, comprehensive permits, licenses and reporting procedures as well as regular inspections by the pharmaceutical supervision authorities. The major authorities supervising Orion are the Finnish National Agency for Medicines and the US FDA, the Food and Drug Administration. In addition, Orion’s operations are guided by ethical principles concerning products and healthcare in general, as well as the values of Orion as a working community.

Quality along the entire chain of operations hinges on compliance with good practices based on EU provisions, process efficiency and functionality, the safety and consistent quality of products as well as delivery reliability.

The marketing authorisation holder takes charge

As a drug manufacturer Orion is responsible for ensuring that its products fulfil the requirements of the Medicines Act and boast faultless quality. Manufacture and quality control must comply with the set provisions. Pharmaceutical manufacturers must also use production methods that comply with EU provisions. This applies equally to outsourced products. When outsourcing, Orion settles on the responsibilities and technical details of the sub-contractor in specific quality agreements. Orion also verifies the appropriateness of the contract manufacturer’s qualifications by making on-the-spot inspections.

Each drug is available on the market under a product-specific marketing authorisation granted by a pharmaceutical authority. In order to obtain marketing authorisation, the product must be demonstrated to be medically purposeful and safe, and it must fulfil the production and quality requirements set for active ingredients, pharmaceutical preparations and formulations in the official guidebook, the pharmacopoeia. Furthermore, its composition and other information must be appropriately documented and provided. As the marketing authorisation holder, Orion is responsible for the quality and safety of its products to the National Agency for Medicines, which, as set forth in the Medicines Act, inspects pharmaceutical plants and their contract manufacturers. Also the pharmaceutical safety operations and facilities of the marketing authorisation holder are subject to regulatory supervision.

Full traceability

Orion acquires active ingredients from suppliers whose operational quality has been verified. All the raw materials used in pharmaceutical manufacture and their packaging materials are inspected before being approved for use in production. Pharmaceuticals are manufactured in validated processes accordance with Good Manufacturing Practices. The quality of each completed product batch is inspected and verified before market release. These procedures ensure the safety and faultless quality of the drugs. All materials and stages of manufacture, quality assurance and distribution can be seamlessly traced on the basis of the batch number on the product package. Orion maintains constant readiness to rapidly recall a product batch from both wholesale and retail distribution. All complaints and quality deviations are logged and evaluated thoroughly.

The safety of a drug is continuously monitored throughout the time it is on the market. There is no drug without side-effects, but constant follow-up and reporting to the authorities ensure that the benefits outweigh the adverse effects. Orion collects all feedback on the quality of its products everywhere they are used, and evaluates this feedback systematically.

Only correctly taken medicines help

Orion seeks to ensure patient safety by providing accurate and up-to-date information on its products within the limits set by law. The patient leaflet provides salient information on the drug and its use. The patient can ask for more information from his/her attending physician or a pharmacy. It is important to take the drug as prescribed and to store it in the right conditions. Drugs should not be used after the expiration date. Expired drugs should be taken to a pharmacy for disposal. Doubtful products should be returned to the pharmacy, which will send it back to the manufacturer.
The chemical quality of the products is assured with different analyses. Laboratory technician Jaana Nissinen makes sure that the concentrations of pharmaceutical preparations comply with what is provided on the product labels.
Fermion is a wholly-owned subsidiary of Orion Corporation. One of the substances manufactured by Fermion’s plant in Hanko, southern-most Finland, is entacapone, the active ingredient in Orion’s proprietary treatments for Parkinson’s disease.
Environmental and safety considerations are accounted for in all of Orion’s operations

Environmental aspects are an inseparable part of high-quality manufacture of pharmaceuticals and diagnostic tests. Orion takes environmental impacts into consideration in every stage of product development and manufacture. Orion has set the bar high for its environmental management, and also demands this from its contract manufacturers, goods suppliers and other partners. The standard and appropriateness of the operations of partners are ensured by means of quality agreements, audits and similar procedures. Orion continuously hones its environmental compliance to reduce the environmental load of its operations.

Environmental impacts are also an essential part of the company’s safety policy, which obligates to identify the environmental impacts of the decisions and solutions, to develop operations to preserve the diversity of nature and to establish procedures in case of accidents.

Emissions limited by process technology

All of Orion’s plants represent high technical standards. Orion uses cutting-edge methods in its laboratories, manufacturing processes and quality assurance that meet the quality, safety and environmental requirements of pharmaceutical authorities, marketing partners and contract manufacturing customers. The company monitors the environmental impacts of its operations by measuring emissions and keeping track of waste and the volumes of substances and energy consumed. Although production volumes have grown at Orion’s plants, the company has kept its environmental compliance well in hand: methylene chloride emissions have declined, the reuse of waste has increased and relative energy consumption has been lowered. Thanks to greater internal recycling, the use of solvents has also declined. Moreover, significant amounts of energy are reclaimed from hazardous waste.

Stringent requirements have been set for the conditions and cleanliness of production premises. Manufacturing processes are as closed as possible to ensure the physical and microbiological purity of the products. The inflow and outflow air of the production facilities undergoes multi-stage conditioning and filtering. Volatile emissions into the outdoor air are minimal. Emissions from chemical processes are controlled effectively with condensers and scrubbers. Solvent emissions are minimised using modern process technology and upgrading the manufacturing processes so that the need of volatile solvents is kept to a bare minimum.

Converting waste into energy

Solvents are the major focus of emissions control in pharmaceutical production. Solvent emissions result from the filtering and drying of products, granulation, the coating of tablets and the washing of process equipment.

The most harmful solvent is methylene chloride. It has been successfully phased out in pharmaceutical production, but remains indispensable in some of Fermion’s processes and is still impossible to replace with other substances. However, methylene chloride emissions will be brought under effective control when the new solvent gas treatment facilities being built at Fermion’s Oulu and Hanko plants are completed in the latter half of 2007. The facilities will reduce airborne solvent emissions well under the official requirements. It is estimated that only about 0.5 per cent of the solvents used will evaporate into the air in Hanko, while its environmental permit allows for emissions of 5.0 per cent. The corresponding limit at the Oulu plant is 15 per cent.

Orion is a working community of versatile professionals

Orion is a working community with more than 3,000 members. Over 2,600 of the employees work at the Group’s Finnish locations. A total of about 470 people in 16 countries work for the foreign subsidiaries and representative offices, most of them in marketing. Orion is the largest employer in its field in Finland. The hundreds of job titles of its staff cover the whole field, from research to manufacture, marketing and administration.

The average length of employment at Orion is 11.5 years. Of the personnel, approximately 26% are blue-collar workers and 74% clerical employees. About 92 per cent are in a permanent employment relationship. About one per cent of all employees work part-time.

The pharmaceutical industry gives employees the chance to work in an international environment, offering a great variety of challenging career opportunities for experts in different fields. Orion needs a wide range of experts, ranging from the natural sciences to business, mathematics, technology, IT and the humanities. Graduate physicians, chemists, pharmacists, nurses and laboratory technicians have a good educational background for a job at Orion. The pharmaceutical industry trains some of its employees on its own, like pharmaceutical sales representatives, for instance.

Orion wants and needs competent employees. The company’s success is dependent on its ability to hire, develop, train and motivate professionally skilled personnel. HR management aims to ensure the competence, motivation and well-being of employees, the continuous development of the working community and precise resource planning. HR management is based on Orion’s values and the equitable and fair treatment of employees. In HR matters, Orion complies with legislation, collective agreements, work safety regulations and other obligations without compromise.

### Orion Group personnel by country, 31 Dec. 2006

<table>
<thead>
<tr>
<th>Location</th>
<th>Pharmaceuticals business</th>
<th>Diagnostics business</th>
<th>Corporate Administration</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Helsinki region</td>
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<td>182</td>
<td>30</td>
<td>1,526</td>
</tr>
<tr>
<td>Hanko</td>
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<td></td>
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<tr>
<td>Turku</td>
<td>658</td>
<td>47</td>
<td>705</td>
<td></td>
</tr>
<tr>
<td>Kuopio</td>
<td>83</td>
<td></td>
<td>83</td>
<td></td>
</tr>
<tr>
<td>Oulu</td>
<td>89</td>
<td>19</td>
<td>108</td>
<td></td>
</tr>
<tr>
<td>Other locations</td>
<td>12</td>
<td></td>
<td>12</td>
<td></td>
</tr>
<tr>
<td><strong>Finland total</strong></td>
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<td><strong>248</strong></td>
<td><strong>30</strong></td>
<td><strong>2,587</strong></td>
</tr>
<tr>
<td>Sweden</td>
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<td>15</td>
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<td></td>
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<td>Denmark</td>
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<td></td>
</tr>
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<td>Norway</td>
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<td></td>
</tr>
<tr>
<td>Germany</td>
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<tr>
<td>UK and Ireland</td>
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<td>Baltic countries</td>
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<td></td>
</tr>
<tr>
<td>Other countries</td>
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<td>7</td>
<td>136</td>
<td></td>
</tr>
<tr>
<td><strong>Foreign countries, total</strong></td>
<td><strong>433</strong></td>
<td><strong>41</strong></td>
<td><strong>0</strong></td>
<td><strong>474</strong></td>
</tr>
<tr>
<td><strong>Orion Group, total</strong></td>
<td><strong>2,742</strong></td>
<td><strong>289</strong></td>
<td><strong>30</strong></td>
<td><strong>3,061</strong></td>
</tr>
</tbody>
</table>
As part of his studies, student Topi Jokinen was familiarizing himself with work at Orion in late 2006. Line operator Lilja Soini and supervisor Terttu Suominen were guiding him to oversee the Aqualan packaging line in Turku.
Long-term development
Orion takes a long-term approach to the development of expertise and the working community. Orion’s supervisors have participated in Group-wide coaching on Orion’s approach to management for many years. The results of development efforts are tracked annually by means of regular working climate measurements and benchmarks of leadership and managerial work.

Development of skills focuses on deepening and maintaining expertise as well as its quality and safety. Orion also has a mentoring programme in which top experts pass on information and experience – “tacit knowledge” – to younger colleagues. Expertise is also developed by means of career planning and purposeful job rotation. Career planning aims to nurture motivated and multi-skilled employees.

Ensuring well-being at work in many ways
Orion supports the occupational well-being of its personnel across the board. A particular life phases programme supports the occupational fitness of people of all ages in different life situations. Health checkups are performed by age group to evaluate occupational fitness and the need of measures to maintain it, such as “shape-up” courses that are sponsored by the company. In addition, Orion supports many recreational clubs of the personnel and maintains recreational facilities for its employees in different regions. Systematic workplace visits and risk assessments are carried out to continuously develop working conditions.

Occupational safety everybody’s business
At Orion, safety issues are led and supervised by a Group-level safety management team. It is responsible for the overall development of safety activities and sets development objectives for the safety committees for the different parts of the Group.

General instructions on safety and exceptional situations are provided in the Safety Guide, underlining the obligation of all Orion employees to maintain safety – never to consciously violate safety instructions, endanger people’s safety or damage property.

Influencing opportunities and co-operation
Co-operation between management and personnel is continuously developed at Orion. The Group has a European Works Council that convenes each year. The EWC enables regular dialogue between management and personnel in the whole Group, over national borders. Management and employee representatives also meet at national and local councils numerous times a year. In addition, a representative of the employees is a member in the Executive Management Board.

HR policy fosters equality
Orion respects human rights. Orion’s HR policy aims to promote gender and generational equality in the working community. A person may never be discriminated against on the basis of his or her age, gender, religion or ethnic background at any time while at Orion.
Orion Group values

Mutual trust and respect
We want the people in our working community to trust and respect each other.
- We need to accept diversity, be open to new ways of thinking and be prepared to help one another. The joy of success is shared with others.

Customer focus
We want to understand, anticipate, and meet our customers' present and future needs.
- Close co-operation with customers will ensure that their needs and problems steer both our immediate and long-term actions.

Innovation
We want to create and develop innovative solutions and ways of working.
- To succeed we need to embrace new challenges in a flexible and creative way. As a prerequisite to success this demands continuous learning and personal development.

Achievement
We want to be the best in our field, developing products, services and solutions that promote well-being and health.
- To achieve this every one of us needs to strive for the best in all that we do.

Quality, reliability and safety
We want high quality, reliability and safety to underline our actions.
- Accuracy is essential in all.
In the 1940's, the tablet machines in the Vallila factory of Orion in Helsinki were belt-driven.
Orion, 90 years

Orion was established by three fearless men in 1917 as the Great War raged – chemists Onni Turpeinen, Eemil Tuurala and Wikki Walkama. Their firm had modest beginnings. It was housed in an altogether grim building – a former butter plant on Mariankatu street in the Kruununhaka area of Helsinki. The company’s first major products were the artificial sweetener dulcine, ammonia and the rifle cleaning oil Bellistol. At that time, Orion had not as yet started up drug manufacture.

Bellistol sold well in wartime. However, in the 1920s, Orion hit extremely rough times, and even the dissolution of the company was considered seriously. Orion avoided liquidation by reducing its share capital and cutting wages.

The company started to rebound in the early 1930s. At that time, it moved to new premises of its own in the Vallila suburb of Helsinki. Soon after that Orion experienced an era of rapid growth and became Finland’s largest pharmaceutical manufacturer.

Life as an evacuee and in a regulated economy

In 1939, threatened by the looming war, Orion transferred most of its operations to Keuruu, far away from the capital. When the situation seemed to have calmed down, operations returned to Helsinki, but the Winter War soon broke out and they were relocated to Keuruu.

Before the war, Orion had stocked up on raw materials and could maintain its manufacturing programme virtually unchanged. Orion held the main responsibility for supplying pharmaceuticals in Finland, both on the front and at home. Sales grew at a rapid clip, as there were no imports. During the Continuation War, Orion remained based in Helsinki. In spite of a shortage of materials, production continued at a moderate rate.

After the war, Finland had a controlled economy. The value of currency declined and industry ran into difficulties. Wages and the prices of raw materials soared, but drug prices could not be raised. The company faced stiff price regulation. Orion was in such dire straits that in 1947 its management even considered winding up operations. Orion also had a reason to have a good look in the mirror. Even though the company had enjoyed buoyant growth, it had continued to operate like a small enterprise.

Times remained tough in the 1950s, as foreign competition increased and Finland’s money market was very tight. The company had little working capital in hand – not enough to even purchase raw materials. Orion once again improved its financial standing by issuing shares. As in previous issues, most of the shares were subscribed for by healthcare professionals. Their confidence in the Finnish pharmaceutical company remained high, even though after the war some parties pressed for the nationalisation of the pharmaceutical industry and pharmacies. To be on the safe side, Orion hived off all its non-pharmaceutical businesses to the holding company Regulus. The threat was very real until as late as the 1970s, when the so-called Pajula Committee proposed the nationalisation of major corporations.

Bolstering research

In the late 1950s, Orion stepped up resources for research and the development of new products. A scientific committee was set up. As early as back then, the company wished to focus on selected therapy areas.

At the beginning of the 1960s, a period of constructing new premises got under way. In the many sequential years of expansion, Orion centralised most of its functions at its current main location, Mankkaa in Espoo. The first part of the pharmaceutical plant was completed there in 1962. The last of Orion’s departments to move from Helsinki was the head office, in 1984.

In the 10-year period from 1967–1976, sales of Orion’s drugs quadrupled. The additional capital required to fuel growth was collected by raising the share capital, increasing long-term debt and selling off assets.

At the beginning of the 1980s, the company’s research activity began to gather momentum, yielding its first commercial fruits in the latter half of the decade. As the significance of research increased year by year, the company’s management faced entirely new challenges – but also saw new opportunities open up. Even the structure of pharmaceutical production began to change significantly.

The company began to make a concerted effort to step up exports of pharmaceuticals to western European markets in 1977. It was then that Orion’s subsidiary in Switzerland, Interorion AG, acquired the Ercopharm company in Denmark. This acquisition gave Orion a beachhead into...
the pharmaceutical markets of Central Europe and the neighbouring Nordic countries. It also opened up better opportunities for new inlicensed products.

Thanks to Orion’s proprietary drugs, exports began to surge – and as they did, also partnering up with other pharmaceutical companies became increasingly important.

**The circle closes**

In 1948, Orion set up the drug distribution company Oriola Oy and the technochemical company Noiro. These measures represented the vertical expansion of the core business, as did the later acquisition of Lääketehdas Alb. Koponen, the founding of Fermion and the start-up of diagnostics business.

Orion also began to grow through diversification. Orion was a company focused on its home market and its growth opportunities were limited – and thus it began to seek growth, cash flow and exports in other fields, which was the general trend at that time. The company sought to lessen its dependence on the Finnish pharmaceutical market. Its foreign subsidiaries operated very independently. Managing the corporation as a whole became difficult. In 1970, all the business areas were incorporated into the parent company, under the name Orion-yhtymä Oy.

At the beginning of the 1980s, there were still 13 pharmaceutical companies in Finland. Since then, the industry has undergone consolidation, driven by the need for sufficient critical mass, which enables longer production series, thereby lowering unit costs and increasing efficiency. Orion acquired the majority of the pharmaceutical company Farmos at the end of the 1980s, and it was merged into Orion in 1990.

Orion began to gradually dismantle its diversified business in the 1990s by restructuring operations. The foodstuffs company Chymos was the first to be divested, in 1994. The mechanical engineering company Normet was sold in 1999 and the cosmetics business Noiro in 2003. The restructuring process culminated in 2006, when the old Orion demerged to form two new listed companies. The new Orion now focuses on pharmaceuticals and diagnostic tests.

More about Orion’s history on www.orion.fi

Arvo Ylppö (1887–1992) was actively involved in the management of Orion in several positions of trust in 1925–1971. He was honoured with the title of Archiater – the highest honorary title for physicians in Finland, awarded exclusively for only one person for the rest of his/her lifetime.

Arvo Ylppö dedicated himself to promoting children’s healthcare. For decades, he was the leading figure in the care of small children. Ylppö rose to international reputation for his studies of premature births.

Ylppö was one of the founders of the Mannerheim League for Child Welfare in 1920. He served as the Chief Physician of the League’s Lastenlinna Children’s Hospital until 1963 – for 43 years. The child health clinic Ylppö set up in Lastenlinna in 1922 represented the beginning of Finland’s network of maternity and child health clinics, which soon grew to cover most of the country. In large part thanks to these clinics, infant mortality declined by more than a half by 1939.

Orion’s Neuvolakirja, a publication for child health clinics, has long been an important handbook for the nurses on questions related to the growth, development and illnesses of small children.
Events in Orion’s 90-year history

1917 Orion O/Y is established in Helsinki, on 21 September
1925 Dr. Arvo Ylppö is appointed to the Management Board
1934 Removal into own premises in Vallila, Helsinki
1935 New name Lääketehdas Orion OY
1938 Orion is Finland’s largest pharmaceutical manufacturer
1945 The Ylä-Mankkaa estate is bought in Espoo
1948 Oriola Oy is established for the wholesale of pharmaceuticals
1948 Noiro Oy is established for manufacturing technochemical consumer goods
1954 A new Lääketehdas Orion Oy is established with the name of the old one. The old Lääketehdas Orion renames itself Regulus Oy. The owners of the new Lääketehdas Orion Oy are Regulus Oy, Oriola Oy and Noiro Oy
1955 The foodstuffs company Chymos is acquired in Lappeenranta
1957 Dr. Arvo Ylppö retires
1960 Lääketehdas Alb. Koponen (Neofarma) is acquired in Seinäjoki
1962 The first part of the pharmaceutical plant is completed in Espoo. Gradual removal from Helsinki begins.
1962 Tiwi Oy’s chipboard production starts in Keuruu
1966 Manufacture of active pharmaceutical ingredients begins in Espoo
1968 Manufacture of diagnostic products begins. The first product is Urincult
1968 The Tuohilampi estate is acquired in Vihti
1970 Orion-yhtymä Oy is created via an arrangement in which Chymos and Noiro are merged into Regulus Oy and the group thus formed is merged into Lääketehdas Orion
1970 Fermion is established on a 50-50 basis with Kemira
1971 Peltosalmen Konepaja, or Normet, is acquired in Isalumi
1971 Dr. Arvo Ylppö, 84 years old, steps down from the Supervisory Board due to the age clause
1972 Tiwi is sold
1972 Oy Eurocell Ltd is established in Kauklahti, Espoo, to produce floor and block elements for construction
1974 Orion Diagnostica is established
1974 Remeda Oy is started up in Kuopio for manufacturing pharmaceuticals
1977 Ercopharm A/S is acquired in Denmark
1979 Soredex is acquired
1980 Medion is acquired from Valmet Oy and merged into Orion
1981 Fermion is merged into Orion
1983 Research is boosted with an aim to result in proprietary drugs
1983 Domosedan® is launched as a sedative for large animals
1983 The pharmaceutical plant of Salmed is acquired in Kemijärvi
1984 Two share classes: A (20 votes) and B (1 vote)
1984 Divina® hormone replacement therapy is launched
1987 Domitor® is brought to market as a sedative for small animals
1988 Orion gains a majority holding in Farmos-yhtymä
1988 Fareston® (toremifene) for the treatment of breast cancer receives marketing authorisation in Finland
1989 Antisedan® is launched as the antibody of Domosedan and Domitor
1990 Farmos-yhtymä is merged into Orion
1992 Farmos Diagnostica is combined with Orion Diagnostica
1993 Chymos is sold to Fazer Oy
1993 First generation of the QuikRead® CRP test is launched
1994 Easyhaler® inhaler is launched for its first applications in asthma medication
1995 Divigel® hormone replacement therapy is brought to market
1995 Orion is listed on the Helsinki Stock Exchange
1996 Fareston is granted marketing authorisation in the EU and Japan
1996 Entacapone marketing agreement with Sandoz (Novartis)
1997 Fareston is granted marketing authorisation in the USA
1998 Comtess®/Comtan® (entacapone) are granted EU marketing authorisation
1998 Marketing agreement for Simdax® (levosimendan) with Abbott Laboratories
1999 Normet and Soredex are sold
1999 Precedex® (dexametomidine) is granted a US marketing authorisation as a sedative in intensive care
1999 DiviSeq® and Indivina® hormone replacement therapies are granted the first marketing authorisations, in Sweden
2000 Simdax® is granted the first marketing authorisation for the treatment of acute decompensated heart failure, in Sweden
2002 Kronans Droghandel, KD, is acquired and the Wholesale and Distribution Division is formed
2003 Noiro is sold
2003 Stalevo® (levodopa, entacapone, carbidopa) receives marketing authorisation in the USA and EU
2004 The Group’s parent company is renamed Orion Oyj, or Orion Corporation
2004 Renewed agreement on Simdax with Abbott Laboratories
2005 An extraordinary general meeting decides on the demerger of Orion
2006 On 1 July, Orion demerges to form two new listed companies, the new Orion Corporation and Oriola-KD Corporation
Orion’s 90-year history

Orion was registered on 21 September 1917. The founders were chemists Onni Turpeinen, Eemil Tuurala and Wikki Valkama.

The first, very modest premises were located in a back-yard building in Mariankatu 26, Helsinki.

Professor Erkki Leikola was Orion’s Managing Director in 1933 – 1951. In those years Orion grew to Nr. 1 manufacturer of pharmaceuticals in Finland.

An eye cream advertisement from 1922

Tablet machines in the Vallila factory of Orion in the 1940s.
Tablet manufacturing hall in Orion’s new plant in Mankkaa, Espoo, in 1962.

The Farmos Group was merged into Orion in 1990. The manufacturing facilities of Lääkefarmos were built in Turku in 1972.

Orion Diagnostica was established in 1974 for the development, manufacture and marketing of diagnostic reagents and test kits. The dip slide test Uricult® for urinary tract infections was a great innovation of its time and was the best-selling product of Orion Diagnostica for many years.

The first building phase of Orion’s research center in Espoo was completed in 1982.

Orion Corporation was listed on the main list of the Helsinki Stock Exchange.

In the summer of 2006, the old Orion demerged into two new companies, the present Orion and Oriola-KD, a pharmaceutical distributor.

Orion received an EU-wide marketing authorisation for Comtess/Comtan for Parkinson’s disease. Entacapone, the most successful drug discovery of Orion so far, started its journey to global markets.
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**Turku site**
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Fax: +358 10 426 7547

**Kuopio site**
Address: Volttikatu 8
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Postal address: P.O. Box 1780
FI-70701 Kuopio, Finland
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Fax: +358 10 428 6444

**Active substance production:**

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Tel.: +358 10 4261
Fax: +358 10 428 1764

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Cover picture: Pamela Kaarna is one of the tens of pharmaceutical chemists of the Espoo VI Pharmacy at the Iso Omena shopping center. As a dispenser, she must know the drugs, their side effects and interactions as well as the instructions of storage and use. She also sees to it that the customer receives the necessary information about the product.
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Tablet manufacturing at Orion's plant in Vallila, Helsinki, in the 1940s.