Short History of the Rockwool Group
The photographs in this booklet come from a variety of sources and cover a time span of more than 80 years. We have always tried to find the photograph with the best documentary effect. However, please note that the photographs of the factories are in most cases more recent than the period in which they are mentioned.

Frontpage:
The mat production at the factory in Hedehusene around 1940.
How did one out of several hundred stone wool manufacturers become the world’s leading producer?

This booklet contains the story of the Rockwool Group – a story of important steps that have brought the company from its modest start in Denmark to the international Rockwool Group of today.

Even though we should concentrate our efforts on the present time and on planning to do the right things in the coming years, a lot can still be learned from studying the past. Just as international history is important to understand for politicians, company history can give valuable background information for business people.

Per Bak, former personnel development manager in Rockwool International A/S, has done a terrific job collecting photographs and information for this booklet – and writing it. For this we owe him many thanks.

I hope you will enjoy the reading and gain valuable background information from Short History of the Rockwool Group!

Tom Kähler
The 1930s: The Rockwool adventure is born

A study tour in 1935 to the US inspired the establishment of production of stone wool in a gravel pit.

The Rockwool adventure started in the 1930’s – but actually the company began in 1909 with a gravel pit on a small, Danish island in the Great Belt, Storebælt – today the leading traffic route for ships travelling from the Baltic Sea to the North Sea and vice versa. Gustav Kähler, son of Valdemar Kähler, who together with H. J. Henriksen started Korsør Stenforretning in 1909, had since 1933 been in charge of all the businesses owned by the families Henriksen and Kähler. These businesses were primarily gravel pits around the country, including Nymølle Skærvefabrik in Hedehusene as well as A/S Hasle Klinker on the Danish island of Bornholm in the Baltic Sea, a fishing net factory, N.P. Utzon, and a sand-lime brick factory in Ølsted.

**Study tour to the US brought a good contact**

In 1935 the possibility of starting a production of mineral wool was discovered. After finishing his engineering education and before joining the management, H. J. Henriksen’s son, Finn Henriksen, went on a study tour to the US. During this tour he made contact with the company Baldwin-Hill in New Jersey.

Finn Henriksen saw a good opportunity to use the company’s stone deposits for stone wool production, and as a result of this contact, I/S Henriksen & Kähler acquired the rights to use Baldwin-Hill’s technology in Scandinavia and Germany at a price of USD 5,000.

**Straw and seaweed as insulation**

In those days most buildings were not insulated and were therefore cold and often damp. Also in many other areas was a need for energy-saving insulation.

At the time it was common to insulate with straw and seaweed. Production of stone and glass wool was already taking place in a number of European countries.

In Denmark glass wool production started two years before the Rockwool production was started in Hedehusene.

**Into Sweden and Norway**

After his return home from the US, Finn Henriksen joined the company management and committed himself to building the Rockwool factory in Hedehusene and the completion of agreements for factories in Sweden and Norway.

In 1937 production started at the factory in Hedehusene and in
Skövde, Sweden, based on a 50/50 agreement with local partners.

In 1937 Henriksen and Kähler made a 50/50 agreement with local partners in Norway about the production of Rockwool stone wool in Larvik. This led to the manufacturing of insulation mats based on wool supplied from Hedehusene in 1938 and to in-house stone wool production with an electric furnace in 1940.

The factory destroyed by fire

The factory in Hedehusene burned down in 1938, the year after it was built.

All workers helped the workmen with the rebuilding and within a couple of weeks the factory was ready for production again.

At that time stone wool contained no binder and was generally used for mat production. It was sewn in between two layers of paper, which could secure the wool so that the mats could be transported and mounted.

By 1937 net sales were DKK 150,000 and there were around 20 employees.

The Swedish factory at Skövde – production began here in 1937.
The 1940s:
Wartime with scarcity of goods

Ingenuity was important during the Second World War - and insulation mats were heavy

The war years and the first years after the war brought many difficulties for production in Hedehusene.
This was also reflected in the net sales, which in 1940 amounted to DKK 1 million.
By 1946 net sales had only increased to DKK 1.3 million.
During the war the most necessary raw materials such as coke, oil and yarn for sewing the mats were all scarce.
Inspector Jørgensen was head of all the company’s businesses in Hedehusene.
He had great ingenuity, and he tried alternative solutions such as peat for steam production instead of oil, skimmed-milk instead of dust-laying oil and paper yarn for sewing the mats.

In 1943 the price of coke was DKK 5.50 per hectolitre, which corresponded to heating bills of DKK 200-250 a year for a house owner.
This was an expensive item, but the heat loss could be reduced to 1/3 by insulating with 50 mm Rockwool.

Claus Kähler joined the company in 1948
Claus Kähler, later to become CEO for 24 years, was first employed in 1948.
By this time there were 82 employees at the factory in Hedehusene. The 50% owned factory in Skövde, Sweden, which had not been occupied during the Second World War, had become significantly larger and more modern.

A heavy product!
During the 1940s the insulation mats were heavy because of the large content of shots in the wool.
A 10 m long 20 mm mat weighed close to 100 kg so it took a couple of men to carry it away from the production line.

A brand new but complicated technology
In the early 1950s the company obtained another licence contract with Baldwin-Hill for impregnation of the wool, that is the adding of binder to make the wool water-repellent and dimensionally stable. It took several years to get this to work. Conclusive progress was not made until after 1954 when Verner Palmqvist, as works manager, took on the task of getting control of the process.
Verner Palmqvist was a trained electrician and originally hired as such.
Claus Kähler soon noticed his unusual innovative abilities and he became involved in development projects together with inspector Jørgensen. He continued this work

Inspector Jørgensen tried out alternative solutions during World War II, when raw materials were scarce.
after inspector Jørgensen’s death in 1955.

Verner Palmqvist was hired in 1941 at the age of 24, and 44 years later he retired from the position of Vice President of the Group’s Research & Development department.

At the end of the 1940s the company had three factories: Hedehusene, Skövde and Larvik.

In 1937 net sales were DKK 150,000 and there were around 20 employees.

Verner Palmqvist – started in 1941 at the age of 24 as an electrician and retired 44 years later as Vice President of Research & Development. The photo shows him next to one of the productions lines in Hedehusene in 1958.

Claus Kähler, later to be CEO for 24 years, was employed in 1948.

The Bedford was the first Danish truck. During World War II, the Danish resistance movement ‘borrowed’ the car now and then for their activities.
The 1950s:

More technical progress

The decade of the second factory in Norway, the second in Sweden and the first production in continental Europe

By 1950 net sales reached DKK 6.7 million.

Production started at the factory in Trondheim, Norway, in 1950.

After 1954 the impregnated products became so good, also with respect to water-repellency and dimensional stability, that Batts gradually became the main product.

The spinning process succeeded the steam blast technique, which had previously been applied.

In 1952 a licence contract concerning the spinning process was made with the world’s biggest producer of stone wool at the time, Johns Manville, USA.

The spinning process succeeded the steam blast technique, which had previously been applied.

In 1953 the first 4-wheel spinner was introduced. This resulted in a significant production increase, since the raw materials were better used, and in addition a much better product quality was achieved.

The first production outside Scandinavia

In 1954 the first production outside Scandinavia took place following the establishment of the

Production began in 1950 at the 2nd Norwegian factory, based in the northern part of Norway in Trondheim.

Steam blasting into the wool chamber - the method used before the first 4-wheel spinner appeared in 1953.
German company, Deutsche Rockwool GmbH, together with German, Swedish and Norwegian co-owners. The factory was situated in Gladbeck in the Ruhr area in an old tileworks.

Rockwool Sweden also started production in Gimo in 1954.

The modest beginning of Rockwool Engineering

In 1957 a dedicated construction department was established at the factory in Hedehusene.

There were only five employees in the department, which was the modest beginning of Rockwool Engineering.

Lamella mats for pipe insulation were developed and patented at the end of the 1950s.

By the close of the 1950s the company had six factories situated in Denmark, Sweden, Norway and Germany.

The first production outside Scandinavia: The factory in Gladbeck, Germany, established in 1954.

In the background, at the left, the company’s new headquarters. They were moved from Korsør to the Hedehusene factory in 1958.
The 1960s: Construction boom and expansion

The splitting of the Group in a rather untraditional way - and the first legal demands for insulation thicknesses in new buildings

Net sales were DKK 50 million in 1960 and DKK 335 million in 1969. The improved financial situation for the general public led to a construction boom in Denmark, and this put great demand on suppliers of building materials. While construction work had been slow during the 1950s, around 40,000 houses/flats were now being built every year in Denmark.

During the 1960s substantial technological progress was made and several new inventions were patented.

The splitting of the company into two parts

In 1961 the two families Henriksen and Kähler decided to divide the businesses between them. The Kähler family made the splitting up into two equally valuable groups of activities after which the Henriksen family chose the group they preferred. The Henriksen family chose the group of businesses, which included a.o. light porous concrete in the United Kingdom (Celcon).
and Denmark (Gasbeton), gravel pits and Hasle Klinker. The businesses thereafter owned by the Kähler family were:
- The Rockwool companies in Denmark, Sweden, Norway and Germany
- A/S N.P. Utzon (fishing net factories)
- Nymølle Betonvarefabrik (concrete e.g. sewer tubes)
- Kølehuset Scancold (cold store)
- The gas meter factory P.W. Hallengreen & Son.

As personal assistant to Claus Kähler, Jens Nørgaard played a leading part in the proposal of splitting up the company. After dividing the company, he was appointed Vice President, and for a number of years, he was Claus Kähler’s closest associate together with Verner Palmqvist.

In 1962 the required insulation thickness for ceilings in Denmark was 50 mm. In the year 2000 the required thickness had increased to 250 mm!

Rockfon acoustic slabs were developed and introduced in 1962.


Since 1948 Elkem Spigerverk A/S had produced stone wool in a factory in Moss.

Thereafter Rockwool had three factories in Norway.

The construction boom and the wish for improved home comfort increased demand for insulation thicknesses have gradually increased.

The first legal demands
The early 1960s introduced something new, legal demands for insulation thicknesses in new buildings.

The unique flexi process from 1967. The wool is laid out in several layers.
insulation, and in 1965 it was decided to build a new factory in Jutland.

**The Finnish connection**
Also in 1965 a licence contract was made with the Finnish Group OY Partek AB (construction materials). The transfer of know-how to Partek stopped at the end of 1979.

Production at the new Danish plant in Vamdrup, Jutland, started in 1966.

In 1967 the flexi process was developed and implemented.
This is a process in which the wool web is laid out in several layers on top of each other by means of a pendulum.
The innovation resulted in a quality improvement of the products.

**Two more Swedish factories**
In 1968 Rockwool Sweden started production at the factory in Hässleholm and took over the small stone wool producer Laxå Bruk AB.

In 1968 the licence agreement with Baldwin-Hill expired, and Rockwool had the opportunity to use the acquired technology outside Scandinavia and Germany.

In 1969 Rockwool entered into a licence agreement with Flumroc AG, a producer of mineral wool in Flums, Switzerland, since 1950. At the same time a minority shareholding (since then increased to 40%) was acquired.

At the end of the 1960s Rockwool had 10 factories in Denmark, Sweden, Norway and Germany.
The 1970s:

Energy crisis and new markets

Rockwool Company established in London, Grodan was developed, and the Rockwool Group took over the shares in Lapinus in the Netherlands.

Net sales were DKK 360 million in 1970 and at the end of the 1970s DKK 1,599 million.

The sales company Rockwool Company (U.K.) was established in 1970 in London.

Roofing boards for flat roofs were introduced in the 1970s.

The start of Grodan

Grodan substrates for plants were developed and added to the product range after 1970.

The environment friendly Grodan products give a higher yield and reduce the use of water, energy, fertilizers and chemicals in horticulture.

1971: The internationalisation accelerates

In 1971 the Rockwool Group took over 50% of the shares in the Dutch stone wool company selling their products under the Lapinus brand.

The production had been moved to Roermond three years earlier.

It was part of the agreement that the remaining 50% could be taken over 4 years later.

Aat Kuijs, who was technical director at the time of the take-over, was appointed managing director in 1976 and turned out to be exceptionally talented in many

Wern Tarw, Wales – the factory was built in 1979.
Until his retirement in December 1993, Aat Kuijs was instrumental in building up a strong market-leading insulation business – and he also achieved good results with new companies such as Grodan, Rockfon, Lapinus Fibres and Rockpanel outside the insulation business, as he was a true entrepreneur.

**Second German factory in 1974**
The energy crisis affected the business sector seriously with heavily increasing oil prices.

However, the energy crisis also created a large demand for improvement insulation.

In 1974 production started at the new German factory in Neuburg.

Through Statsforetag AB – later Procordia AB – the Swedish State took over 50% of Rockwool Sweden.

The co-operation on the Swedish board of directors was not working well.

It was therefore decided to sell out to the Swedish State with the condition that the Swedish State was not allowed to resell to our competitors.

(Nevertheless, this is exactly what Procordia AB did in 1986, when they sold to a puppet of Oy Partek AB. After a long legal case, Procordia AB had to send a cheque in the amount of 47 million Swedish Kroner to Rockwool International A/S).

**1976: Rockwool International is established**
In 1976 the Danish parent company A/S Rockwool was split into Rockwool International A/S as parent company and Rockwool A/S as subsidiary company including the Danish factories. Rockwool A/S became responsible for the Danish insulation market.

The research and development department became part of Rockwool International A/S.

Production at the newly built
factory in Øster Doense started in 1977.

**1977: The introduction of light wool**
1977 was also the year when the LUP process (light wool process) was introduced.

This meant a significantly lower density and better economy. This was very important due to the advantages achieved by the glass wool competition who introduced the TEL process in 1960s.

**1978: Tom Kähler is employed**
In 1978 Grodania and Rockfon were established as profit centres and were made part of a new diversification division reporting to Tom Kähler who became member of the top management.

In 1979 production started at the newly built factory in Wern Tarw in Wales, at the beginning in a joint venture with British Petroleum.

By the end of the 1970s Rockwool International A/S had 10 factories in Denmark, Norway, Germany, the Netherlands and Wales, and the number of employees totalled 3,999.

Roermond, the Netherlands: The Rockwool Group took over 50% of the shares in 1971 - and the other 50% four years later.

Cucumbers growing in Grodan substrate, which was added to the product range in 1970. The picture shows a visit at a Korean green house in 2003.

A young Tom Kähler joins the top management in 1978.
The 1980s:

Building crisis and overseas expansion

New factories in France and Canada, the 3rd in Germany, new companies, a major debate over the WHO classification - and Claus Kähler retires


In 1980 production was launched at the new factory in St. Eloy-Les-Mines in France.

In 1981 Conrock A/S was established comprising all the diversification activities: Rockfon, Grodan and Business Development (as well as Rockment and A/S N.P. Utzon, which were later sold).

1983: Tom Kähler was appointed Deputy Group President and Chief Operating Officer.

1985: Rockpanel and Spinrock introduced
Business Development developed decorative Rockpanel façade panels, which were introduced in 1985 together with a fibre business called Spinrock, which was later merged with Rockwool Lapis

1986: Claus Kähler retires

Claus Kähler retired as Group President in 1986 and was succeeded by his son Tom Kähler.

In 1988 the first factory outside Europe was acquired from the Lafarge-Group.

The third German factory, the Hiltrup factory near Münster was taken over from Bayer AG in 1985.

During the period of 1987 to 2001 the WHO classified mineral wool as possibly carcinogenic – however, the risk evaluation from two other UN-organisations showed that the use of mineral wool caused no problems in practice.

In Denmark statements from the doctors in The Danish Working Environment Service worried construction unions - and threats were made that all work would be stopped without warning on Danish workplaces using mineral wool.

Tom Kähler participated in a TV-debate with the director of The Danish Working Environment Service, Erik Andersen, and the next day The Danish Working Environment Service issued a reassuring statement that solved the crisis.

Hiltrup, Germany - the factory was taken over in 1985.
Milton near Toronto in Canada. The Canadian company was named Roxul Inc.

By the end of the 1980s the Rockwool Group had 13 factories in Denmark, Norway, Germany, the Netherlands, Wales, France and Canada.

The number of employees now totalled 5,293.


Claus and Tom Kähler around 1986, when Claus Kähler appointed his son Group President.


Rockpanel facade panels were introduced in 1985. Here shown at the Zorro Tower in the Netherlands.

Foto: Rigmor Mydtskov
The 1990s:  
Strong expansion in Central and Eastern Europe

The most extensive development project was carried out:  
The Rockwool Group was the first to launch the biosoluble mineral wool

In 1990 net sales were DKK 4,689 million.
The Group expanded to the east, where the need for insulation was enormous.
In 1991 Rockwool Germany took over GDR’s largest stone wool factory in Flechtingen near Magdeburg.
Poland’s largest stone wool factory in Cigacice in the western part of Poland was taken over from the Polish State in 1993.

1994: Legal actions in Germany
In May 1994 an expert committee of the German Ministry of Labour introduced a regulation according to which stone and glass wool should have a special composition in order to be considered safe.
The Rockwool Group took legal action against the Ministry of Labour, claiming that the authorities had to define which requirements the fibres should meet, instead of requiring a specific chemical composition.

In May 1994 Isover Germany announced that in the coming months they would shift both their glass and stone wool production to the required composition.
This composition resulted in a minor additional cost for glass wool – but an enormous competitive disadvantage for stone wool.

The most extensive development project
The Rockwool Group’s to date most extensive development project was carried out during these years, and in December 1994 Deutsche Rockwool was able to announce that in January 1995 they would introduce biosoluble mineral wool (HT) as the first company in the world.
This stone wool did not live up to the chemical formula but to an objective solubility criteria, which the Ministry of Labour had presented in the meantime.
By changing their fibres so that they lived up to the unprofessional

Flechtingen – the largest stone wool factory in GDR was taken over in 1991.
regulation first introduced by the authorities, Isover Germany lost a considerable part of its market for stone wool in Germany to the Rockwool Group.

**New factories in Poland and Hungary**

In 1995 the stone wool factory in Malkinia in the eastern part of Poland was acquired.

In 1997 the Gógánia factory in Hungary was acquired.

At the international climate conference in Kyoto, Japan, an international agreement to reduce the CO₂ discharge by 5% from 1990 to 2010 was discussed. Improved insulation was considered an important element.

Malkinia - the 2nd Polish factory was taken over in 1995.

The Russian factory near Moscow is the only factory with its own dentist's chair.

Cigacice - was taken over from the Polish State in 1993.
In 1997 RockDelta a/s was established.
RockDelta markets Green Sound Barriers for e.g. road noise and Vibration Boards for railway tracks.

1997: No basis for suspicion
In 1997 the EU determined that there was no basis for suspecting the biosoluble stone wool (HT) – also known as Roxul 1000 fibre – of being carcinogenic.

In 1998 the Bohumín factory in the Czech Republic was acquired.
In 1999 a Russian factory in Zheleznodorozhny in the Moscow region was taken over, so was the Italian factory in Iglésias in Sardinia and the Grand Forks factory in the south-western part of Canada.

By the end of the 1990s Rockwool International A/S had 21 factories in Denmark, Norway, Germany, the Netherlands, Wales, France, Canada, Poland, Hungary, the Czech Republic, Russia and Italy.

The total number of employees was 7,346.
RockDelta a/s was established in 1997 to sell green sound barriers for e.g. road noise and vibration boards for railway tracks. The picture shows vibration boards used in the old town of Freiburg, Germany.

Gógánfa in Hungary – was taken over in 1997.

In 1997 the first meeting of the Group’s international work council, the Rockwool European Forum, was held in Hedehusene.
The 2000s: Globalisation and system solutions

The Rockwool Group took over the first factory in Asia – and Eelco van Heel became COO. The WHO determined that stone and glass wool should not be classified as possibly carcinogenic any longer.

In 2000 net sales were DKK 7.62 billion.

The Malaysian factory in Melaka, Rockwool Asia Sdn Bhd, was acquired in 2000 and at the same time a whole new factory started production in Caparroso, in the Navarre region of Spain. This was the first new-build factory since the construction of the French factory in 1980.

In 2001 the WHO determined that there was no longer basis for suspecting normal stone and glass wool of causing cancer.

In 2001 the EU approved the fire classification system called EUROCLASSES. Unlike most of the former national systems EUROCLASSES clearly shows stone wool's superior fire safety compared to other products.

**2001: Eelco van Heel takes over**

Eelco van Heel was appointed Deputy Group President and head of the Executive Committee in 2001.

Deputy Group President, Chief Operating Officer.

The factory in Hiltrup ceased production in 2001.

At the end of 2001 the Rockwool Group had 22 factories in 14 countries and representation in more than 30 countries.

The number of employees now totalled 7,458.

In 2002 wool production was stopped in Larvik and in Hedehusene, whereas the Rockfon production continued in Caparroso, Spain – the first new-build factory since 1980 began production in 2000.
Hedehusene based on raw wool from the factory in Vamdrup.

**Systems solutions and know-how**

More complete building solutions was one of the focal points of the strategy after Eelco van Heel was appointed COO.

In 2003 the Rockwool Group launched the consultancy service BuildDesk.

BuildDesk was based on a software platform with calculation tools. The first software packages, which were introduced in 2003, enabled architects and engineers to calculate the energy performance of their buildings.

Melaka, Malaysia – the first factory in Asia, was taken over in 2000.

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**The history of the Rockwool Group:**

Per Bak has written the history of the Rockwool Group. He also has built up the Rockwool Museum in Hedehusene. Per Bak has worked for the Rockwool Group from 1960-71 and from 1976-97, where he retired as Personnel Development Manager in ROCKWOOL INTERNATIONAL A/S.

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The history of the Rockwool Group began in 1909 with a gravel pit on a very small Danish island. In 2003, the Rockwool Group is represented in more than 30 countries worldwide with production in 14 countries from Canada in the west to Malaysia in the east.

This booklet gives you the highlights of the history from the gravel pit to the World’s leading producer of stone wool.