Family Businesses

The Wallenbergs: where money meets Swedish science

One of the most powerful families in Europe offers a model for avoiding disputes

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Call it flower power for the 21st century. Inside a university in central Sweden, Magnus Berggren demonstrates how he placed an electronic circuit inside a rose. Using only organic material, the professor managed to make electronic wires inside the flower’s stem and even added logic gates that could turn the current on and off.

Prof Berggren, head of the laboratory of organic electronics at Linkoping university, says the development could lead to plants and trees being turned into solar energy producers with batteries stored in the stem. Another application could be to delay flowering so that roses and tulips reach shops and homes fresh. Yet the discovery almost didn’t happen. Many experts were sceptical, with one Swedish biologist describing it as “a stupid idea”, but Prof Berggren received funding to support his organic bioelectronics research from the Wallenberg family. The family’s main philanthropic vehicle, the Knut and Alice Wallenberg foundation (KAW), which celebrates its 100th anniversary this year, is the second-biggest backer of basic scientific research in Europe, and specifically in Sweden where it has made the Scandinavian country of 10m people a research powerhouse.

It is the foundation — and not the family — that owns stakes in companies such as Ericsson, Electrolux and Nasdaq. It is this that the Wallenbergs credit with giving them such longevity and avoiding the squabbles that have hampered other dynasties. “It would not have been possible to get to the fifth generation without it being a foundation,” says Peter Wallenberg Jr, 57, the chairman of KAW.

Peeling back the layers

On a crisp winter morning in Norrkoping, 100 miles from Stockholm, Mr Wallenberg is on his annual visit to see what the foundation’s money has bought. Inside a small meeting room in the basement of the town’s visualisation centre, Anders Ynnerman is showing off a touchscreen table. With quick swipes, the professor in scientific visualisation is able to take the coffin of an Egyptian mummy called Neswau and peel back the layers to show successively the inner coffin, cartonnage, wrapping and finally the body. The technology even discovered the imprint of an amulet on the body, which, using 3D scanning, was made into an image and printed. It is on sale in the gift shop.

The technology, backed in part by the foundation, is used both in the CSI television series and real life to perform virtual autopsies. Bodies are put in a CT scanner and pathologists can then take away the skin, fat or muscles to investigate the cause of death.

Prof Ynnerman goes on to show other techniques he has developed for what he calls “the immersive visualisation of big data”. He shows a Siemens gas turbine that can be stripped away and twisted so that maintenance engineers can see, and be trained on, individual components. Buildings can be dropped into an interactive map to show how traffic flows change due to their positioning. And lifelike objects — such as drones or Ikea furniture — can be placed into pictures or films with extremely realistic lighting. Thirty-five of his students are working in Hollywood on effects.

“The foundation’s support has been instrumental in building things. They have appreciation for the whole process from basic research to bringing it to the people,” says Prof Ynnerman, who has also attracted funding from Nasa. Goran Sandberg, executive director of the foundation, says of the professor: “In order to keep a guy like that in Sweden you need to give him resources.”

The KAW foundation gave out about Kr1.8bn last year, equivalent to the entire amount it distributed from its inception in 1917 to 1991. Alice and Knut, who at the time was also Sweden’s foreign minister, had built up a fortune in stakes in Swedish companies but they had no children. So they put their investments — a relatively small endowment of Kr24bn or $2.7bn in its lifetime.

The Wallenberg foundations

Knut and Alice Wallenberg Foundation (1917) Research in medicine, technology and natural sciences
Marianne and Marcus Wallenberg Foundation (1963) Social sciences and clinical medicine
Marcus and Amalia Wallenberg Foundation (1960) Humanities with a focus on learning and the younger generation
Jacob Wallenberg Foundation (1960) To promote trade and industry
Dr Tech Marcus Wallenberg Foundation (1980) Education in international industrial entrepreneurship
Berit Wallenberg Foundation (1955) Art history and archaeology
Marcus Wallenberg Foundation for International Scientific Collaboration (1976)
Peter Wallenberg Foundation (1990) Teaching or education related to economics and technology
The Foundation for Economic History Research within Banking and Enterprise (1994)
Ruth and Richard Julin Foundation (1949) Non-profit private healthcare institutions

The Wallenberg family, descended through one of Knut’s brothers, have largely run the foundation and many of the companies since then, but without any ownership stake. Most of the public focus has been on how they run the companies in which they hold large stakes, which include the multinational

The BIG READ

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Family affairs: Scandinavia leads the way in foundation-building

Many of the biggest companies in Scandinavia from Ikea to Ap Møller-Maersk are controlled by foundations.

Created by company founders to ensure independence they are also used to avoid potential family disputes after their death. Ingvar Kamprad, 90, the founder of Ikea, for instance set up twin foundations in the Netherlands and Liechtenstein to control the flat-pack furniture empire in order to give it “eternal life.” His three sons play roles in the empire but not crucial ones and the foundations’ purpose cannot be changed.

Adherents of foundations argue that they provide stability and protection from acquisition. But critics say that without the sanction of a possible takeover, foundation-run companies can lack discipline.

“Throughout Scandinavia, foundations are having to adapt,” says one company adviser. “In Sweden, the family shareholders behind Maersk have played a larger role in recent months as part of the conglomerate’s break-up plans.”

“Their purpose cannot be changed. They are only a tool,” says another. “It’s a way of avoiding family disputes after the founding family’s death.”

For instance, the Porsche family, which controls Volkswagen, has, and Piëch families that control both Audi and Porsche. “With these families, you have no stake in the business,” says Fredrik Lundberg, a professor of family business strategy at Copenhagen Business School. “But for the Wallenbergs, who despite their power do not feature in lists of the richest Swedes, having a foundation avoids disputes over ownership and allows a few members of each generation to play the crucial roles.”

“Foundation ownership is common in Scandinavia but it is far from universally accepted. Marcus Wallenberg has said: ‘Frankly, some of the other family companies cannot understand. [They say] ‘Why are you doing this? You have no stake in the game!’’”

For Sweden, trying to put a stake in the future is vital. Says Mr Sandberg: “If you don’t have a stake in the future, you have no stake in the business.”

Need to adapt

A similar spirit is behind the foundation’s largest grant: SKr1.3bn over a decade for research into autonomous systems and software development. The project brings together not just researchers and universities but also companies, both inside and outside the Wallenberg sphere.

The aim is to recruit 150 PhD students, making it Sweden’s largest graduate school, with research into areas ranging from automated mining to autonomous ships.

“There was a lot of research in universities, and a lot in companies. This is bringing it together,” Mr Wallenberg says. Left unsaid is the idea that many of the Wallenberg companies, centred on traditional industries, could be put out of business if they fail to adapt to new technology.

A senior Swedish banker outside the Wallenberg sphere says: “The foundation work of theirs is hard to criticise. But there are always questions about the competence of each generation. You might gain experience by keeping it in the family but do you gain more competence? I doubt it.”

The foundation, however, is also seeing opportunities. Mr Sandberg, who admits that in pure money terms it is hard to compete with the likes of Stanford and Harvard, says that after the UK vote to leave the EU and the election of Donald Trump as US president “people are coming to us”.

Back at the Linköping laboratory teams of scientists are working on a variety of projects. One presents paper labels that incorporate sensors that can be used, for instance, to show Médecins Sans Frontières if vaccines have become unusable due to high or low temperatures in transit. Prof Berggren shows off small ion pumps that could be implanted in the heads of epileptic sufferers to deliver neurotransmitters to stop seizures within milliseconds.

Another group demonstrates paper that can conduct and store electricity.

For Sweden, trying to support not just leading researchers but some of Europe’s biggest industrial groups, the Wallenberg money is vital. Says Mr Sandberg: “If you can get the best minds to Sweden it will have the most tremendous effect on society.”