Merck as a Family Business since 1668

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HEALTHCARE, LIFE SCIENCE & PERFORMANCE MATERIALS

- 1668 founded
- 66 countries
- 50,000 employees
- €1.7 bn invested in R&D in 2015
- €15 bn est. sales in 2016
In 1668, Friedrich Jacob Merck purchased the Angel Pharmacy (Engel-Apotheke) in Darmstadt, which would become the historic core of the company. This makes Merck the world’s oldest pharmaceutical and chemical company. The Angel Pharmacy exists to this day and is a state-of-the-art pharmacy that is still owned by the Merck family.
In 1887, Merck opened its own office in New York, which gave rise to the subsidiary Merck & Co. three years later. As a result of World War I, this subsidiary was expropriated in 1917 and has been an independent company ever since.

**Merck – the original** holds the global rights to the Merck name and brand. Exceptions are Canada and the United States, where we operate as EMD Serono, MilliporeSigma and EMD Performance Materials.
What we do

**Healthcare**

*Prescription medicines* to treat, for example, cancer, multiple sclerosis and infertility, *over-the-counter pharmaceuticals* for everyday health protection or to provide fast relief of colds and pain, as well as innovations in the areas of *allergies* and *biosimilars*.

**Life Science**

Innovative *tools* and *laboratory supplies* for the life science industry that make *research* and *biotech* production easier, faster and more successful.

**Performance Materials**

A wide range of specialty chemicals, such as *liquid crystals* for displays, *effect pigments* for coatings and cosmetics, or *high-tech materials* for the electronics industry.
Healthcare
Our key therapeutic areas

Oncology

Erbitux®
Colorectal cancer, head and neck cancer

Neurodegenerative diseases

Rebif®
Relapsing multiple sclerosis

Fertility

Gonal-f®
Infertility

Luveris®/Ovidrel®
Female infertility

Endocrinology

Saizen®
Growth hormone disorders

Serostim®
HIV-associated wasting

CardioMetabolic disorders

Glucophage®
Type 2 diabetes

Concor®
Cardiovascular diseases

Euthyrox®
Thyroid disorders
Many couples need help in making their dream of becoming parents come true. Merck is the global market leader in fertility medicine.

An estimated 2 million babies have been born thanks to products we offer, such as Gonadofollitropin alfa (Gonal-f®).
In 2015, we invested nearly €1.4 billion in Healthcare R&D in order to develop even better treatment options. More than 2,300 experts work at our research hubs in Darmstadt, Boston, Beijing and Tokyo, and we maintain close partnerships with biotech companies and universities.
LIFE SCIENCE
Life Science

Our solutions enable scientists to spend more time advancing the promise of science; our technologies detect the previously undetectable; and our products make it possible to monitor live cells in intricate detail. In effect, we empower science. Our customers can rely on us to help them to meet the highest quality standards. Our products help pharmaceutical and biotech companies to develop and manufacture drugs safely, effectively and cost efficiently.

Global market leader in bioprocessing tools

One of the leading suppliers of laboratory chemicals, lab water instruments and consumables

Leading supplier of chromatography products
Life Science Business

- Over 300,000 products
- €3.4 Bn total global revenues in 2015
- 19,000 employees
- Over 1 M customers globally
- 72 M visits to Sigma-Aldrich website alone
- ~18 M lines shipped annually
- 2x more unique web visitors than nearest competitor
- 72 manufacturing sites worldwide
- 130 distribution centers
- Over 66 countries present
- Over 1 M employees worldwide
- Over 30,000 products
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- 3.4 Bn total global revenues in 2015
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PERFORMANCE MATERIALS
Performance Materials

Performance Materials develops innovative high-tech chemicals for sophisticated applications.

These include liquid crystals for displays, effect pigments for coatings and cosmetic products, specialty chemicals for the semiconductor industry, and functional materials for solar panels.
Performance Materials
Our products

- Liquid crystals and photoresists for LCD televisions, smartphones, tablet computers, and other displays

- Dielectrics, colloidal silica, lithography, photoresists, yield enhancers, edge bead removers and other ancillary products for the production of integrated circuits

- Effect and functional pigments for coatings, plastics, foods or cosmetics as well as functional materials for specialist applications

- Materials for organic (OLED) and inorganic (LED) light emitting diodes and functional material for electronics and energy solutions
iPhone 7: IC Materials benefits from recent launch

- **A10 processor: TSMC**
  - Deposition materials (PDMAT, TMA, ...)
  - Silica materials (Klebosol)

- **LPDDR4 RAM (3GB): Samsung**
  - Dielectric materials (PHPS), ...

- **Wlan/bluetooth module: Murata**
  - Lithography Materials, Process materials

- **NAND Flash: Toshiba or SK Hynix**
  - Dielectric materials (PHPS), Silica materials (Klebosol)

- **Power management: Texas instruments**
  - Process materials, in future Ormet, ...

- **Pressure sensor: Bosch**
  - Lithography materials (Thick film resists), Process materials

- **Other components:**
  - Most of them use Lithography materials and process materials

- **Fingerprint sensor: TSMC + Xintec**
  - Lithography materials (Thick film resists)

- **Camera module: Sony (Primary & Secondary)**
  - Lithography materials for CMOS sensor
In 1816, Emanuel Merck took over the Angel Pharmacy and initiated the transformation from a manual pharmacy craft to a research-based industrial company. He started the **industrial-scale manufacture** of his products, offered a collection of alkaloids for researchers and physicians, and established business relations in other European countries.
Merck – number of employees since 1855

Potential for further growth!!!
Merck Family Information

- Currently 253 family members
- Aged between some days and 95 years
- Average age 37 years
- 156 family shareholders
- Family expected to have approx. 450 members in 2040
- 80% living in Germany, 17% in Europe, rest in US and Australia
- All family members have regular jobs
Why did the Family and the Company survive for 13 Generations?

Potential explanations:

• Modesty of the family as a whole and of its members
  – regarding dividends
  – regarding its influence on the company

• „Company first“ – the interest of the company takes precedence over the interest of the family and its individual members

• History of unity, not of quarrelling unlike many other families

• Attitude of trust vis-a-vis management and staff in general

• Admitting external managers at top level from 1920 on - highly unusual at that time. Since 2000 no family members on executive board

• Culture of ownership as trustees for future generations

• Capability to attract highly qualified, dedicated, loyal and innovative staff
Why did the Family and the Company survive for 13 Generations?

... but above all due to the capability

- to understand the permanently changing nature of the world
- to be able to re-invent oneself on a permanent basis
- to accept the permanent need for change to ensure the future of the company for generations to come
We understand that this is demanding a lot from our staff because the human nature is generally averse to change... but we balance

Need for permanent change

Merck values
Stable owner: Merck Family

The proof of our concept – 348 years of success!
The Merck Family is not just the majority shareholder

- The Family is not just a shareholder but General Partner, owning 70% of the company, delegating its management rights to other General Partners – the Executive Board.
- To balance unlimited liability without management rights, E. Merck KG has kept the right to appoint executive board members and a wide range of information and approval rights.
- “Best of two worlds” – Combination of Family and Public Company. Adherence to values and long-term perspective / transparency and efficiency.
The Bodies of the Company and the Family

Family Board – current composition / duties

- 12 members, 3 female, 9 male
- average vote of family 71 %
- 4 members of 12th generation
- average age 52

- Looks after the family’s interests
- Defines the entrepreneurial will of the Partners in matters of fundamental importance
- Passes resolutions on dividend payments
- Elects the members of the Board of Partners
- Votes on acquisition/divestment plans above EUR 500 mill
Family Board – election/composition

• Each member of the Family Board represents the whole family!

• Each member of the Family Board needs at least 50% of the family’s vote!

• Family clans do not play any role whatsoever!
Board of Partners – current composition

- 9 members, 1 female, 8 male
- 5 family members, 4 external experts
- average age 61 years

- Main non-executive Board of the Merck Group (like a Supervisory Board)
- Appoints member of the Executive Board
- Monitors the operational management of Merck KGaA
- Professional expertise
- Approves investments, acquisitions and divestments over EUR 100 mill
Executive Board of E. Merck KG

• Coordinating board composed of Executives appointed because of specific functions at E. Merck KG and Merck KGaA

• Monthly update given by the Chairman of the Executive Board and the CFO

• Identification of topics of committee relevance

• Exchanging ideas prior to passing resolutions

• Agreeing on agenda items
Neither the Merck family, nor its leading representatives, i.e. Chairman Family Board and Chairman Board of Partners interfere into day-to-day (operational) business of the company!
Analysts have not always liked this near-conglomerate nature of Merck and would have preferred focussing on either chemicals or pharmaceuticals, but the success and transformation during the last years and the share price performance are proof that the financial markets understand and endorse Merck’s strategy.

Source: Consorsbank; Green line: MSCI World
The Merck Brand has changed over Time

1747
1870
1910
1940
1951

1968
2001
2015

Our aspiration to be leaders in science and technology has never changed!