

# Factsheet New Innovation Center

## 350 years of curiosity

Merck KGaA Darmstadt, Germany is a leading science and technology company in Healthcare, Life Science and Performance Materials. Around 53,000 employees use their curiosity to develop technologies that improve life and make our customers and business associates more successful. In 2017, Merck KGaA, Darmstadt, Germany generated sales of € 15.3 billion in 66 countries.

Since 1668, Merck KGaA, Darmstadt, Germany has been working to advance innovation. Over the years, the requirements have changed. Today, innovation needs an environment where curious people with diverse backgrounds can come together, exchange, imagine the next 350 years and grow their ideas to viable new products and services.

## Room for ideas to evolve

Complementary to R&D in our business sectors, the Innovation Center aims to develop entirely new businesses and technologies beyond our current scope, bringing people, technologies, and skills together from different areas under one roof. Mixing different perspectives and thoughts into ideas and projects creates products and services outside the existing business that will help Merck KGaA, Darmstadt, Germany succeed in the future.

***“With the Merck KGaA, Darmstadt, Germany Innovation Center we build a creative and agile environment where curious minds can come together to create new technologies for the business of tomorrow”. Stefan Oschmann, CEO Merck KGaA, Darmstadt, Germany.***

Since April 2015, the modular Innovation Center has served as a prototype for the final Innovation Center. To give new ideas and promising innovation projects even more room, we are now opening our new Innovation Center, as the center piece of the Darmstadt site’s development as Merck KGaA, Darmstadt, Germany global headquarters.

An ongoing exchange, open discussions and mutual knowledge acquisition have always been the key to our success. This philosophy is also visually apparent at the Innovation Center of Merck KGaA, Darmstadt, Germany, which is not only an office building but a hub of innovation. Due to its unique open architecture, the Innovation Center is designed to combine workspaces with public spaces. The



various areas invite employees and visitors to exchange their ideas in a welcoming setting, engage in discourse and collaborate across disciplines and functions.

- **Level 1 (ground floor): Lounge and Coffee Shop** provide a warm welcome to visitors of the building and a first view on Merck KGaA, Darmstadt, Germany innovation approach. The **auditorium** hosts up to 250 guests.
- **Level 2: Our Co-Creation Space** fosters creative thinking and collaboration via workshops and other open exchange formats. A **scientific multimedia library** offers information on business, science, patents and innovation topics. Searching for journals and e-books is voice-based, and checking out happens automatically. The offer is completed by providing access to virtual reality and 3D applications available in the science environment.
- **Level 3-5:** The **Project areas** in an open space design host start-ups and Merck KGaA, Darmstadt, Germany project teams to collaboratively work on innovation projects outside of our current scope.
- **Level 6:** The **Innovation Center Makerspace** primarily supports innovation projects and startups by rapid prototyping using a variety of tools and technologies, including 3D printers, laser cutters, Augmented and Virtual Reality devices, electronics and sensing kits, and traditional tools and materials. The Makerspace also maintains a network of prototyping partners throughout the company and externally, as well as a space for showcasing external innovative tools and gadgets.

A **Re-Creation Area** offers individuals the option to work in a quiet environment or recharge their creative powers.

The new Innovation Center is also a flagship for quality and achievement in sustainable building: it was built according to the Gold Standard of the international LEED® (Leadership in Energy & Environmental Design) Green Building.

In the construction of the building, a number of cutting-edge Merck KGaA, Darmstadt, Germany performance materials have been used:

- **The Media Wall** in the Foyer, a colorful installation of moving monitors, consists of **72 Liquid Crystals Displays using Merck KGaA Darmstadt, Germany PSVA technology** (Polymer Stabilized Vertical Alignment). The panels display crisp and bright images even in the high ambient light of the entrance hall.
- In the passage between the Innovation Center and the Restaurant, the OLED-Installation "The Light Cloud" accompanies the visitors with a vivid flow of light. It consists of several hundred of individually-addressable, rectangular lighting panels containing Merck KGaA, Darmstadt, Germany OLED materials. Like a living organism, the installation reacts to the actual processes and activities in the building, visualizing the continuous flow of ideas created.
- **Perforated ceiling panels** have been powder-coated with **Merck KGaA, Darmstadt, Germany effect pigments** that are normally used in car colors. The pearl-white color formulation was custom-made for the Innovation Center and has never been used in a building before.
- The light inside the Innovation Center changes over the course of the day: The so-called **Human-Centric-Lighting illumination system** is fitted with **luminants that comprise Merck KGaA, Darmstadt, Germany LED**

**material** and creates a natural atmosphere that is attuned to the human biorhythm.

## More than a building

The Innovation Center of Merck KGaA, Darmstadt, Germany links a creative working environment with a culture of openness and exchange between employees and external startups, visionaries and companies from around the world.

In deciding where to focus, we analyze current megatrends to determine the **Innovation Fields** in which we see potential for new business. Our first innovation field “Bio-sensing and Interfaces” focuses on the integration of electronics with the human body with novel sensing modalities. This will enable faster and more accurate (remote) monitoring and treatment of health in numerous areas utilizing data analytical tools. It also enables such concepts as value based pricing.

We strive to develop innovation projects starting with the initial idea all the way to a functioning business model beyond our current portfolio. The Innovation Center encourages employees across all business sectors to become an active driver of innovation by participating in our **internal ideation initiatives**:

- **Innospire:**  
The biggest global bottom-up innovation initiative Merck KGaA, Darmstadt, Germany follows a holistic approach with multiple evaluation stages. Employees’ ideas are collected online and multi-functional teams are formed to mature the most promising ideas to business cases. Finally, the top winners are selected by the Merck KGaA, Darmstadt, Germany board– all within 9 months.
- **Open Campaign:**  
A dynamic, flexible ideation approach that accelerates internal ideas within weeks into innovation projects. Besides offering an open channel to submit ideas at any time we also run specific challenges. Through its short-term focus, we can follow customer needs, innovation trends, or the latest innovation fields quickly.
- **Think Tanks:**  
Employees can apply for a 3 months residency program in the Innovation Center – analyzing current trends and technologies in selected innovation fields to generate new ideas and initial business concepts for innovation projects.

The most promising ideas sourced through these ideation channels become **innovation projects**. For a project’s successful scale-up to sustainable business we provide

- project hosting in the Innovation Center and financial funding to allow full focus on the innovation project
- a protected ecosystem, clear governance and decision making following a lean stage gate process
- Dedicated support and training

Project example:

- **LicriEye: restoring clear vision**  
People aged 65 years have a fifty-fifty chance of being affected by a cataract –

clouding of the natural eye lens. Vision can only be restored by cataract surgery where the clouded lens is removed and replaced by an artificial lens. However, currently available lenses often fail to provide accurate vision for the patient. LicriEye has developed an artificial, re-adjustable lens which promises patients the restoration of 100 % of their vision and has the potential to improve millions of lives. More info: [www.licrieye.com](http://www.licrieye.com)

To **spin in external ideas** and opportunities for open innovation to our projects and business sectors, we establish strong connections to the startup community and external partners across industries.

- Our Accelerator program aims to connect early stage start-ups to our innovation projects and our business sectors for co-development. During a 3-month period they receive funding of up to 50k€, office space in the Innovation Center, and training.
- The goal of working together with external partners, from Technology Transfer Offices to established industry players and SMEs, is to launch joint innovation projects. Collaborating in innovation beyond Merck's boundaries offers the benefit of getting access to key markets and technologies faster.

Project example:

cubuslab, Accelerator alumni

In collaboration, cubuslab and the Merck KGaA, Darmstadt, Germany Performance Materials division provide a smart laboratory software platform bridging the gap between a traditional electronic laboratory notebook software (ELAB), responsible for planning and archiving experiments, and the execution in the laboratory (done manually until today). E.g., the process of a balanced dosage application during an experiment is now run autonomously. In addition, the seamless integration of processes and documentation into an existing ELAB is now possible for the first time. Merck KGaA, Darmstadt, Germany scientists can plan an experiment in the familiar environment of ELAB and run a guided procedure and monitor all steps in real time via an iPad – due to automated synchronization.

Our **Innovator Academy** runs needs-based training sessions and workshops for idea-givers, project teams, Think Tanks, and startups to unleash their innovation potential and spark ideas. The trainings, available offline and online, focus on ideation, innovation methodologies and business development.

## Facts & Figures

- Floor space: 7,100 sqm (5x the size as in the former Innovation Center), 6 floors incl. a co-creation space, a multimedia library, a makerspace, and a re-creation area
- 2 years construction time, € 69 million construction costs
- Official external inauguration celebration: during the 350 years celebration ceremony of the company on May 3, 2018
- Number of startups hosted: 40 since starting the program in September 2015 (incl. 10 startups hosted at present)
- Number of internal innovation projects currently hosted: 16
- 8 Think Tanks developed 9 new exciting innovation projects since starting in 2015, with 2 additional ones being in progress.