



EXCELLENT CONDITIONS FOR START-UPS IN GÖTTINGEN, GERMANY

Flexible lab concept for start-up success

The Life Science Factory (LSF) was built in 2022 on the site of the former Sartorius factory in Göttingen, Germany. Encompassing 3,300 square meters, the LSF offers researchers space to explore their start-up ideas outside of the academic field. Open offices, a prototyping workshop, and state-of-the-art laboratories provide optimal conditions for start-ups to drive research, accelerate market launches, and increase their competitiveness. The LSF offers everything they need: peer exchange, equipment, media access, security, and flexibility.

Task: efficient operation and flexible use

Nurturing life science start-ups requires more than modern office space. What is needed, first and foremost, are suitable labs that can be used flexibly, i.e., shared labs or flex labs. They are easy to customize and can quickly be converted to meet new requirements. In addition, it was essential to meet structural and safety-related requirements in accordance with German and European standards and to ensure an efficient energy supply that keeps pace with demand. Another challenge: The LSF had to be move-in ready in nine months.

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Due to the flexible concept, the laboratories can be adapted to different users.

Solution: a complete concept from Siemens for all areas

Siemens delivered a winning concept: All labs and their components, including fume hoods and room and primary system controls, are integrated in the building management platform Desigo CC and can be easily controlled and monitored. To meet new laboratory requirements, the rooms are divided into very small segments. This allows operators to make changes to the room layout at any time, even during operation and without rewiring. For example, it is possible to quickly merge two separate labs into a single lab.

The Critical Environment Technology (CET) laboratory solution, based on our building automation system Desigo, ensures that lab operations are energy-efficient and safe. Air flows and room pressure values are continuously measured, monitored and adjusted according to room use (for example, lowered at night). In addition, Desigo Room Automation provides demand-based lighting and shading control throughout the building. The Desigo CC Powermanager module monitors energy consumption. It is linked to our cloud-based energy and asset management platform Navigator and allows consumption to

be documented and analyzed at any time. Human Centric Lighting, which simulates natural daylight and automatically adjusts lighting conditions to the biorhythms of the building's occupants, improves well-being and productivity.

A complete concept incorporating building automation, fire protection and security solutions ensures maximum safety: Unsafe laboratory conditions, such as faulty fume hood exhaust behavior, are indicated right at the fume hood, allowing users to react quickly. The Sinteso fire detection system offers earliest possible fire detection and reports fires as soon as they start. A fire damper solution and the Transliner intrusion detection system round out the security concept.

Benefits: flexibility meets safety and energy efficiency

Thanks to a complete concept from Siemens, the Life Science Factory building gives start-ups maximum flexibility. The modular infrastructure allows researchers to quickly get started on lab experiments. If adjustments are needed, they can be made via drag and drop – without external support. In addition, the Siemens portfolio meets all requirements for energy efficiency,

Highlights

- Critical Environment Technology Laboratory Solution: high-precision volume flow controllers, DXR2.E17 controllers for room pressure control, demand-based air flow control, auto-zero feature for calibration of differential pressure sensors
- Building management platform Desigo CC for central control
- Desigo Room Automation, including Human Centric Lighting
- Consistent user interface and a central point of contact for all project requirements
- Coordinated interfaces and pre-configured applications

safety and sustainability, satisfying the criteria for certification according to the DGNB (German Sustainable Building Council) and ensuring compliance with legal standards. In just nine months, Siemens was able to implement a comprehensive concept for the LSF that combines flexibility, energy efficiency, safety and comfort – in no small part thanks to close cooperation with internal and external planners.

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