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Nota di contenuto	Cover; Title Page; Copyright; Contents; List of Contributors; Preface; Part I Laboratory Building and Laboratory Equipment - Subjects of Laboratory Design of Building and Equipment; Chapter 1 Introduction: Laboratory Typologies; 1.1 Purpose; 1.2 Science Direction; 1.3 Fields of Activities; 1.4 Working Methods; 1.5 Physical Structure; 1.5.1 What is the Conclusion Resulting from the Evaluation of the Lab Allocation Tree?; 1.5.2 Use-Specific and Building-Related Needs and Requirements; 1.5.3 Determination of the Areas for Independent Buildings or Special Components 1.5.4 Determination of the Areas as Restricted Areas1.5.5 Areas with Locks and Access Area; 1.5.6 Determination of Areas with Special Requirements Regarding Fire and Explosion Protection; 1.5.7 Determination of Areas for the Laboratory Equipment; 1.5.8 Determination of Areas for Special Laboratories; 1.5.9 Determination of Standard Laboratory Areas; 1.5.10 Conception Laboratory Building; 1.6 Conclusion; Chapter 2 Requirements and Determination of Requirements; 2.1 Area Misuse through Wrong Grids; 2.1.1

Determination of Requirements of Workplaces and Storage Space for Extra Equipment
2.1.2 Flexible Laboratory Space
Chapter 3 Laboratory Concept and Workstations; Chapter 4 Determination of User Needs - Goal-Oriented Communication between Planners and Users as a Basis for Sustainable Building; 4.1 Work Areas; 4.2 Work Flows and Room Groups; Chapter 5 Corporate Architecture - Architecture of Knowledge; 5.1 Image-The Laboratory as a Brand; 5.2 Innovation- The Laboratory as the Origin of Knowledge; 5.3 Excellence: The Laboratory as a Magnet for High Potentials; Chapter 6 Scheduler Tasks in the Planning Process; 6.1 Project Preparation; 6.2 Integral Planning Teams
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6.4 Planning Process; 6.5 Execution Phase; 6.6 Commissioning; 6.7 Conclusion; 6.8 Best Practice; 6.8.1 Project: Center for Free-Electron Laser Science CFEL, Hamburg-Bahrenfeld; 6.8.2 Project: Max Planck Institute for Aging Biology, Cologne, Germany; Chapter 7 Space for Communication in the Laboratory Building; 7.1 Definition of Terms; 7.2 Historical Development; 7.3 Development in the Modern Age- Why and When Were These Ideal Conceptions Lost?; 7.3.1 Why Is Communication Important in the Laboratory Building?; 7.3.1.1 Communication Promotes Knowledge and Innovation
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8.1.5.2 Escape and Rescue Routes

Sommario/riassunto

The first comprehensive guide to modern laboratory planning in ten years to address both construction and operating aspects. The 30 editors and authors are affiliated with the International Institute for Sustainable Laboratories (I2SL) and with the European Association for Sustainable Laboratory Technologies (EGNATON), which has also endorsed this ready reference. This expert team covers the entire lifecycle of a laboratory facility, starting with the site layout and the planning of the building, followed by the planning of such areas as housing for laboratory animals, clean rooms and produ
