

Steinbeis University Berlin SHB  
SGIT Steinbeis Global Institute Tübingen

**Master of Science  
degree program**

**“Global Technology Management”**

Job-integrated and interdisciplinary study program at the interface  
between technology and management



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## Words of welcome, President of Steinbeis University Berlin

Dear ladies and gentlemen,



Steinbeis University Berlin is Germany's largest private higher education institution recognized by the state. Our university cooperates with reliable and established business and academic partners all over the world. The unique character of our educational philosophy lies in the fact that we offer our clients not the conventional education that is divorced from practical reality, but tailored, flexible, customized, efficient and deeply integrated into professional activities programs and trainings. With us, you can acquire and develop the key competencies and qualifications required for successful and productive management in today's business environment.

At the time of the growing influence of globalization, information pressure and open competition, market-oriented innovations that are ready for implementation become the decisive prerequisite for long-term entrepreneurial and managerial success. The innovation process implies a constantly updated synthesis of experience, best practices and new knowledge. It can be characterized by determination and courage in the application of new ideas; it is aimed at overcoming the gravity of traditions and stereotypes. Addressing and embracing these realities, our university supports employees of all age groups and all professions in their desire to continue education and develop new skills and competencies. We see the need to update and enrich the person's system of ideas about the world around us as a natural condition for professional progress. Therefore, we provide access to solid, progressive and, most importantly, useful theoretical knowledge and practical experience.

Education is the starting point of development; without it, today is problematic, and tomorrow is simply inconceivable. Education is the master key to the stable, long-term success in a rapidly globalizing society that is transforming to a qualitatively new state: society of integrated knowledge. That is why lifelong learning becomes a prerequisite for the implementation of innovations and an integral part of the high competitiveness of both an enterprise in general and each of its employees in particular. The effectiveness of knowledge transfer requires the availability of reliable innovative structures, methods, forms and technologies of teaching. We have developed such methods and structures, we are successfully applying them. The integration of lifelong learning and education into our clients' professional activities is not a pure theoretical stance, but a working formula for success. This is the central aspect of the Steinbeis University Berlin educational concept.

***Johann Löhn***

***Professor, Honorary Doctor, President of Steinbeis University Berlin***

## Words of welcome, Director of Steinbeis Global Institute Tübingen



Our main partners in the Master's program are those enterprises that have a tradition of sustainable growth. These are companies and organizations that value qualified personnel and invest in the best employees in order to help them develop their competencies. Together with leading companies we have developed the management concept of integrated management and leadership: IMLead®. This approach ensures innovation, organizational competitiveness, a high degree of adaptability and, at the same time, corporate stability. The current degree program is always pivoted around a unique project at the interface of technology and management that is developed by each of our students. This means that our sustainable educational concept has customized, adaptable and flexible content taking into account the requirements and conditions of each particular business situation (students' professional background, organizational peculiarities of the sponsoring company, training objectives, etc.).

The educational process at SGIT is fully synchronized with the ongoing business activity. In other words, training is carried out in such a way as to be seamlessly blended into our students' main professional activity. We call this approach the "**integrated development of competences**", which contributes to the practical consolidation of knowledge. At the organizational level, our educational program is a prerequisite for a direct "investment return" through an individual employee's increasing efficiency already during the training period.

For each student, a theoretical and practical basis for their training in the form of a project is developed in cooperation with a representative of the sponsoring company. Professional guidance in the project implementation is provided by the experts from Steinbeis University Berlin. Seminars and workshops are prepared and conducted by invited experts from various business sectors and academic partner organizations in order to ensure the highest degree of practical relevance of the knowledge obtained by students. In this way, both the company and the personnel sent for training receive benefits in the form of qualified support and consulting during the entire period of study and writing/defending the Master's thesis.

The high standards of the SGIT program as well as the organizational network of the Steinbeis conglomerate allow us to train specialists in virtually all areas of management and production. Furthermore, scientific and project activity under the guidance of our experts contributes to the development of our students' personal, social and communication skills.

***Bertram Lohmüller, Ph.D.***

***Professor and General Director of Steinbeis Global Institute Tübingen***

<http://steinbeis.education/en/>

## 1. General description/outline of the Master's program

The Master's program "Global Technology Management" was developed and is implemented taking into account the requirements, educational standards and philosophy of Steinbeis University Berlin. The degree program specializes in management.

Degree: Master of Science (M.Sc.).

Qualification: Master of Science in Management.

Specialization: Global Technology Management.

The normative duration of the program: 2 years (4 semesters), including project and transfer works. The program is worth 120 ECTS credits.

The program "Global Technology Management" complies with the applicable European educational standards of Master's programs. The language of instruction is English.

## 2. Conceptual basis

The Master's program "Global Technology Management" at Steinbeis Global Institute Tübingen is focused on training students in both management and technologies for efficient business activities on the international level. The project-oriented approach forms the framework of the degree program. The conceptual basis can be characterized as an integration of the theoretical and practical educational components. This implies that students receive relevant knowledge and develop the target professional skills and competencies in the context of a project activity, in writing transfer/term papers and Master's theses in line with the objectives pursued by the sponsoring company and supported by the SGIT experts.

### 3. Main goals and objectives

The degree program “Global Technology Management” is an innovative educational product. It is aimed at training professional managers, analysts and strategists. In general, the program focuses on developing managerial and technological competencies. The particular target skills are, for example, the analysis of technologies and their influence on the political and socio-economic environment at the micro- and macroeconomic levels, the efficient organization and optimization of business processes, the methodology of technologies transfer, various techniques for innovation management, etc.

The professionals (i.e. SGIT Master students) and organizations (i.e. companies/bodies sponsoring their project activities) can achieve the following goals:

**Studying technologies** (basic and advanced levels, depending on the project implemented). The students receive fundamental knowledge in the following technology areas: digital, information, energy (including classical, renewable and combined), industrial, automotive and mechanical engineering, health and environmental protection, micro- and biotechnologies. Depending on the objectives and requirements of the jointly approved project activity, some modules covering further technological fields can be added or the modules planned can be expanded and enhanced for more detailed (advanced) study. Thus, the students get a general overview of the main principles, conditions and mechanisms of modern technologies application, development and management. This approach secures the understanding of the current trends and issues in the target fields as well as the identification of important cross-disciplinary links and prospects for technological interaction. At the same time, the participants of the program have an opportunity to study the most relevant areas of technological knowledge in detail by means of additional educational modules, workshops and company visits. Our internal and invited experts are engineers and managers with profound practical experience.

**Mastering the knowledge of economics and management** due to an ample use of practically-oriented case studies and online modules (web-based sessions: WBTs), i.e. educational software the main functional tasks of which are:

- Boosting learner autonomy, individual decision-making and intrinsic motivation
- Offering an opportunity for more detailed study of the most relevant program subjects and areas of knowledge
- Consolidating the acquired knowledge and assessing the target skills by means of tests, assignments and self-assessment blocks
- Evaluating the growth of the students’ professional competencies
- Developing operational and strategic skills, etc.

**Strategic planning, developing and mastering analytical skills** are achieved through interactive assignments in the workshops and discussions with the internal and invited experts/specialists, for instance during a “discussion-café”; in the context of writing transfer and project works reflecting real business conditions and requirements; in the course of online economic games based on the principles of modelling and simulation, etc. The main tools and activities are:

- Studying the techniques of strategic and marketing analysis
- Mastering the basic principles of risk management
- Getting acquainted with testing methodologies, for example, “Technology Road Map”, “Quality of Function Deployment”, “Technology radar”, etc.
- Studying efficient, tried and true ways of identifying the main internal and external stakeholders (including the hidden ones) and testing methods and techniques for enhancing professional interaction and strengthening communication channels with them
- Developing personal and organizational competencies, team player skills.

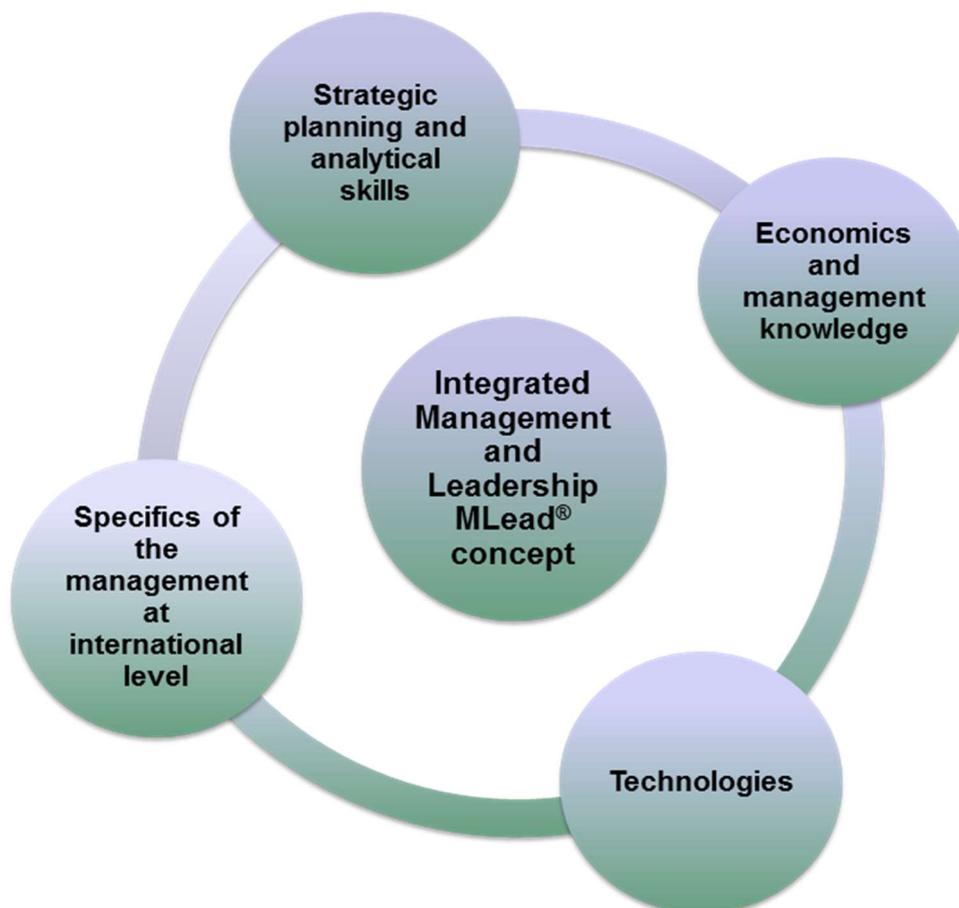
**Studying the peculiarities of business and management on the international level** by integrating the international contacts of the Steinbeis conglomerate and on the basis of the international experience of our Institute in the context of research projects (R&D) implementation. SGIT is successfully carrying out joint projects with a number of foreign and local partners in various areas of technology management, such as renewable energy, artificial intelligence and automated management, urban development, energy audit, “SMART” urban design and “green buildings”. We undertake research activities for commercial and municipal sectors of economics and provide consulting services based on the core competences of our experts and specialists. The overall goal of studying the peculiarities of business and management on the international level can be specified through the following provisions:

- Studying the principles and foundations of European economy in terms of international integration and open competition
- Analyzing the specifics of doing business in the political, legal and socio-cultural contexts of different countries
- Understanding various national interpretations of the key political and economic principles of international relations
- Mastering testing methods for analyzing the economic risks of doing business in various countries and regions
- Studying ways of creating a favorable image of your company/organization in the eyes of foreign partners and consumers
- Getting acquainted with the peculiarities of the business culture in various countries and developing business negotiation skills on the international level

**Studying and practically testing the logic and core principles of the integrated management and leadership (IMLead®) concept:** The IMLead® concept was developed by Steinbeis Global Institute Tübingen, based on the principles of synergy and “open” systems functioning. It reflects a holistic perception of the management process in the context of the managerial subject-object interaction. Its practical basis is the multi-level and detailed analysis of a number of German enterprises and organizations that successfully operate on the international level. The concept is an effective analytical tool that allows the identification and optimization of the management activity in relation to the main managerial objects, such as human resources, business processes, technologies, strategy, information and financial flows, etc.

The achievement of the system of these goals is secured in our Institute by the application of approved and highly effective methodologies and educational tools, involvement of qualified teaching staff, development of a flexible and customized educational plan, and due to practice-oriented and project-based training. The outcome is a high level of motivation and interest typical of our students.

*The system of goals realized in the education process at SGIT*



#### 4. Relevance and comparative advantages

Nowadays, when all spheres of personal and professional life are integrated and interconnected, it is necessary to prepare a new generation of analysts and managers who are able to think globally and out of the box. Efficient management today implies the ability to recognize risks and use opportunities of the rapidly changing social and economic environment. Moreover, under the conditions of open competition, a modern leader is challenged to act creatively and innovatively.

In this respect, managers, experts and analysts who have a holistic set of professional competencies that allow to make managerial decisions despite the information pressure and variability are highly demanded on the labor market.

The Master's program "Global Technology Management" at SGIT addresses the burning issues by training such personnel with deep theoretical and applied knowledge, experience in group scientific and project work, who are able to confidently navigate and make decisions in various spheres of international business.

**The main advantage of our degree program is the qualification multiplied by practically-oriented knowledge and the ability to develop relevant skills and competencies without interrupting and diverting from the core professional activity.**

The comparative advantages of the degree program can be summed up as follows:

- *A flexible and customized training schedule designed to meet individual students' goals and address their unique working conditions*
- *The possibility of simultaneous training in the areas of management and technologies*
- *The possibility of mastering and introducing advanced managerial tools, methods and principles into the sponsoring companies due to the students' research activities*
- *Experiencing the leading German companies and organizations, and getting an insider's view of their business processes*

The program is aimed at motivated students - employees of companies and organizations committed to advancing their professional performance, wishing to obtain new qualifications and/or to make an international career, etc.

Education at SGIT is about:

- Sustainable interaction with the experts of Steinbeis University Berlin and invited experts from higher education institutions and various business sectors and industries from all over the world
- The possibility of enlarging on the obtained knowledge and developing professional skills by means of distance learning (web-based trainings: WBTs)
- The opportunity to experience various enterprises during company visits organized by the Institute
- Placement possibilities with our international and local partners.

As a result, the graduates of the Master's program "Global Technology Management" are ready to launch or advance their career in international management positions.

Our students have the necessary knowledge and competencies to work in private, state and international commercial and non-profit organizations, including financial and investment bodies, trade, manufacturing and technology companies, scientific organizations of various industries and countries.

SGIT students and graduates hold the following positions:

- heads and managers of international departments, representative offices and branches of international companies;
- managers, experts and consultants of companies engaged in foreign economic activity;
- specialists of public services and international organizations responsible for designing and executing technological projects related to foreign economic activity;
- analysts and researchers in the field of international business management;
- heads of divisions, departments and companies responsible for the introduction of technological innovations and efficient technology application.

## 5. Application requirements and admission criteria

The applicants for the Master's program "Global Technology Management" are expected to have a diploma of higher education (Bachelor's or Specialist's degree).

This diploma can have been obtained in any area. As a rule, our students have a technological background. This can be demonstrated by a study in natural science, engineering, information technology. Also students from other faculties can be accepted, e.g. from business, economics, social sciences, law. In this case it is necessary to verify the technological background. This is possible by working for one year in a technological firm or in a department with technological orientation, training in specific technologies in line with the job (e.g. as a sales expert for technical products or services) or with a technical training.

In case of the previous degree in economics, and if the subjects offered in the SGIT Master's program coincide with the subjects completed during the Bachelor's or Specialist's studies, the respective credit points may be recognized and transferred. For such students some modules can be counted as optional instead of being compulsory.

The language of instruction is English. Consequently, the applicants should possess the level of English language skills and competence that would enable them to:

- Process and analyze general educational information, scientific articles, legal documents, reports and statistical data of international companies, etc.
- Communicate with experts, critically assess data and formulate their own position on a topic
- Actively interact with their fellow students while engaging in group tasks
- Write transfer and project works.

Students are expected to pass oral and written examinations in the course of their studies. The type of examination is specified in every individual module.

The expected level of English competence corresponds to IELTS (3-5 points) or TOEFL (30 points). The certificates in questions should be provided as part of the application documents.

If a candidate does not possess any of the certificates mentioned above, he/she is subject to a telephone or Skype interview conducted in order to assess the level of English competence.

The following application documents should be provided in English:

- Curriculum vitae
- Motivation letter
- Filled out application form (SGIT template) with a signature

- High school diploma (notarized and verified translation into English)
- University diploma (notarized and verified translation into English)
- Digital photo in the .jpg format (size 320x240 px)

The samples and templates of the application documents are available upon request.

Additionally, applicants are encouraged to provide:

- Diplomas, certificates of further education, awards and grants
- Publications, such as articles, reports, etc. in the electronic form (as well as links to the materials published online)
- Letters of recommendation from the employers/scientific supervisors, etc.

## 6. Structure of the program

The Master's program "Global Technology Management" consists of the following blocks:

- Educational and specialist training (compulsory disciplines and subjects)
- Optional educational block (additional disciplines and subjects)
- Distance learning
- Transfer and research papers (to be submitted in the written form and presented orally)
- Assessment block: Oral and written examinations, tests
- Master's thesis (including a presentation of the research results in the form of a scientific discussion, argumentation and defense)

*Workload (in hours) and the number of ECTS credits:*

#	Activity	Days	Hours	CP
1	Compulsory resident modules. Transfer reports and term papers	205	1845	98
2	Self learning	120	1080	
3	Project work and Master's thesis	76	684	22
	<b>Total</b>	<b>401</b>	<b>3609</b>	<b>120</b>

The compulsory resident modules are aimed at developing general scientific and professional competencies and cover the first year of education (the first two semesters).

*"Global technology management" program: General description*

**Master of Science (M.Sc.)  
in Global Technology  
Management**

Course of Study with Compulsory Attendance	Theory	Self-Studies		Project Documentation / Project Work / Master Thesis	Benefits and opportunities
Key Technologies					Project-orientated and Integrated education
Technology Management			+	1 Project Description	Modular educational program with flexible schedule
Technology Transfer			+	7 Transfer Project Reports	Project supported by Business mentor (company)
Marketing Strategies for Technologies			+	4 Project Study Reports	Assistance in getting practice and administrative support
Profitability of Technologies			+	7 Exams	Network of Steinbeis conglomerate
Basic Knowledge in Economy, Management Technology and Law			+	2 Simulations	Distance learning opportunity
Scientific Work			+	3 Oral Exams/ Case Studies	Study supervisor
Project,- Knowledge-and Competence-Management			+	1 Master Thesis	
				<b>120 Credit Points German Master's Degree</b>	

The normative duration of the Master's program is two years (four semesters). The students have an opportunity to extend their education up to two more semesters. Such an extension does not incur any additional fees. SGIT will assist in providing all the documents necessary to confirm the need to increase the duration of studies.

The final examination is the oral defense of the Master's thesis.

The students are trained according to a customized plan, approved by the supervisor and head of the Master's program. A student's project, educational plan, schedule, requirements and tasks are individually tailored.

*Table showing the educational basis and transfer papers*

<b>Compulsory modules of the program</b>	<b>Exami- nation</b>	<b>Tranfer - paper</b>	<b>Study- project paper</b>
Scientific Work	✓		
Applied Technology	✓		
Business Administration and Economics	✓		
Law	✓		
Business Process Management	✓	✓	
Global Sourcing	✓	✓	
Integrated Management & Leadership	✓	✓	
Technological Megatrends	✓		✓
Future Technologies*	✓	✓✓	
Global Project management	✓		✓
Innovation Management	✓		✓
International Marketing of Technologies	✓	✓	
Technology transfer	✓	✓	
Strategic Technology Management	✓		✓

\* Information, Digital and Communication Technologies, Microsystems Technologies, Energy Technologies (traditional, renewable, mixed), Biotechnology, Technologies in Health Care, Technologies of Environmental Protection (water treatment, soil protection etc.), Technologies in Automotive and Mechanical Engineering

All research papers including the Master's thesis should be based on a real-life business situation of the jointly approved project activity.

## 7. Organizational aspects, the main forms and modes of instruction

The program is modular. Individual modules can be completed flexibly, i.e. if a student cannot attend the courses in a particular module due to professional or personal reasons in the first year, they can complete the module in question in the second year of their studies. However, the absence from a compulsory course should be discussed and agreed on with the supervisor.

The workload for the resident courses comprises one week in a month. The students are supposed to attend the lectures, seminars and workshops according to the approved schedule. The other three weeks in a month are reserved for the students' project functions within their sponsoring company. They also have an opportunity to develop their knowledge and skills by engaging into activities on the e-Learning educational platform (distance learning) and web-based sessions (WBTs).

The main forms and modes of instruction at SGIT are:

1. Lectures, during which the main theoretical concepts of the relevant modules are presented and an analytical review of the topical issues is provided
2. Workshops, round tables and presentations of the leading international business practitioners
3. Seminars, which address and analyze the complex and controversial aspects of business and management. The seminars rest on presentations and debates, as well as group work
4. Autonomous work, preparation of reports on the key problems and activities of international companies
5. Individual and group research projects aimed at the scientific and practical treatment of specific problems of international business
6. Conferences/research seminars
7. Self-study of the theoretical and practical material in the form of homework, assignments, essays, preparation for seminars, implementation of research projects and coursework
8. Consultation hours with experts
9. Getting acquainted with local technological companies: Company visits organized by the Institute.

The module assessment is conducted in the form of written/oral exams and differentiated tests. In order to monitor the acquired knowledge, the students will be expected to prepare reports, write theoretical and applied essays, and pass intermediate and final module exams.

*...The main philosophy behind the SGIT R&D activity is to link up technology topics with management. SGIT has an extensive network of contacts to foreign institutions and profound experience in international projects. Currently, several research projects are being conducted with partners from Argentina, Brazil, Russia, Romania, Hungary, Slovakia and Slovenia. In Argentina, we are co-operating with the University of La Plata in a Master's course. In Brazil, there are collaborative projects with Universidad de Federal Fluminense (UFF) in Niteroi and Instituto Superior de Administração e Economia (ISAE) in Curitiba. The students from Brazil profited from our seminars on urban development, green building and energy efficient buildings that were organised in Germany. In Russia, SGIT has stable partnerships with Saint Petersburg Technical University, Tomsk Technical University and Kazan Technical University. Currently, several national and international research projects funded by the German Federal Ministry of Education & Research (e.g. Danube Biomass, Palette Plus, Polyculture fish and crayfish) are being developed at SGIT.*



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