Annual Report 2014
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Ladies and Gentlemen,
Dear members of the iimt world,

The elapsed year, was characterised by numerous highlights. The Executive Programmes, educational programmes at the highest quality standards, have been further modernised. Students and lecturers can newly benefit from a combination of distance learning and face-to-face lessons. This teaching method allows students to be partially independent geographically and offers a state-of-the-art learning experience. All courses were conducted magnificently, which is certainly a result of the valuable inputs and support of more than 70 teaching professors and lecturers from leading Universities, business schools, industries and governments. They bring an enthusiasm and a functional expertise developed over years of experience in their fields to the classroom, together with stimulating real-life perspectives and insights.

Besides the successful conduction of the iimt Executive Programmes, a Management Training for skyguide managers as well as an ICT day for Swisscom trainees was organised by the iimt. Not only a great number of projects in the Executive Programmes side have been realised, but the Chair of Management in ICT was also active in different sectors.

Several research projects have been considered, various projects were led successfully and other projects were concluded as planned. One of these projects is the smart living lab project, which was officially initiated in September 2014. The smart living lab project is a cutting-edge platform that combines several lines of research related to the living standards of the future. It brings together the skills of the Ecole Polytechnique Fédérale de Lausanne (EPFL), the School of Engineering and Architecture (HEIA-FR) and the University of Fribourg (UniFR). Within the University of Fribourg, the iimt has taken a leading role and is conducting and combining research in the fields of law, human-machine interaction and socio-economic aspects.

Numerous research findings were published and presented at national and international conferences. Besides all the research projects, the Chair and its team also held its University Master courses in Energy Systems Management, Strategic Project Management and Innovation & Technology Management.

All these iimt activities have been realised thanks to the valuable cooperation with our industry partners and members of the iimt world. Loyal partners, who have leading positions and are investing in people, education and research.

We would like to take the opportunity to thank all students, lecturers, alumni and partners for the continuous confidence they have placed in us in 2014. We are certain, that the upcoming year will be again full of important milestones, both in research as well as in education.

One highlight will certainly be the 20th anniversary of the iimt in 2015, which will be duly celebrated. A moment to look back on the iimt’s history as a unique and renowned competence centre in the field of Information & Communication Technology as well as in the energy sector, and certainly an opportunity to look ahead.

We look forward to another year of fruitful cooperation, new challenges and activities with you.

Many thanks to everyone!

Walter Steinlin
President of the iimt

Prof. Dr. Stephanie Teufel
Director of the iimt
Who we are

international institute of management in technology
The iiMt is a leading competence centre for Information and Communication Technology (ICT) and Utility Management, offering executive training programmes and research. Through its highly developed international network of partners, from both industry and the academic world, the iiMt constantly improves its competences and takes an excellent and competitive position in the national and global market.

The iiMt combines the most recent theoretical management concepts with practical understanding of the international ICT and utility sectors, giving insights into widely different cultures and approaches, and enabling accurate evaluation of conditions in other markets.

Objectives and Commitment
The iiMt’s commitment is to prepare participants for high-level management careers in an increasingly global ICT and Utility environment. The iiMt Executive Programmes blend the experience and expertise of an innovative teaching team to develop participants’ leadership qualities in both domestic and international business.

Executive Programmes
The iiMt offers unique and specialised Executive Programmes in ICT or Utility Management as the Executive MBA, Executive Diploma (DAS), Executive Certificate (CAS), Specialised Courses and Customised Company Courses.

Chair of Management in ICT
The Chair of Management in Information & Communication Technology (ICT) is part of the Faculty of Economics and Social Sciences at the University of Fribourg. The Chair offers university courses, supports bachelor, master and doctoral theses, and conducts research.

Research Fields
The Chairs research team works together with industry partners, its research thus is not confined to the classical "ivory tower". Based on the Fribourg ICT-Management framework, the research team aims to answer challenging questions in the academic research fields of:

- Energy System Management
- Innovation and Technology Management
- Information Security Management
- Project Management

Research Projects & Partners
The Chair holds active roles in several national and international organisations. The research conducted by the Chair is mainly driven by industrial projects. Hence the Chair enjoys invaluable support from several membership organisations, as well as strong cooperations with different Universities in Switzerland and abroad. Within the last years, the Chair has accomplished research projects and published its results in international journals and at various conferences.
In the year 2014, several new students started their educational programme at the iimt. Whilst some started with single modules in different subject areas, others embarked with an ExecutiveCAS, ExecutiveDiploma or Executive MBA in ICT or Utility Management.

The flexibility of the iimt Executive Programmes, is one of the most valuable advantages for the students. Participants can choose whether they are willing to do part-time studies or follow a full-time study programme. The flexibility benefits to many students. They are capable to integrate their study programme into daily work and combine it with their private life. In less busy periods in their companies the students can attend more courses at the iimt. Conversely, if they have hectic times in their daily business work, they can drop iimt courses and attend the course modules at their convenience.

70 lecturers from different countries have taken part into last years’ iimt Executive Programmes. Professors and lecturers with a strong academic and teaching record have been acting as lecturers in the iimt Executive Programmes and offered participants the most advanced training available. They carried out teaching and activities (examinations, supervision of executive projects) to support the iimt’s Executive Programmes. A good balance between theory and practice is recognised due to the participation of scientific lecturers (45% of all lecturers are from Swiss and international Universities) and experts from the industry (55% of all lecturers work in national or international companies and organisations).

As the iimt course rooms are in the same building as the iimt offices, the organisation of the course weeks and all other events during the academic year (welcome coffee, Master-classes, Award Ceremony – Leaders Launch, year-end aperitif), is supported by a good team spirit and networking amongst participants, iimt staff, lecturers, and members of the iimt Alumni Network.

**Joint courses with LL.M students**

Another innovation in 2014, was a joint course with a group of LL.M. students from the Law Faculty of the University of Fribourg.

Within four days, the students got an insight into the field of Business Ethics and Corporate Communication. Altogether they built a class of 23 persons, representing around 10 nationalities. Many students benefited from this special mix and enlarged their knowledge as well as their personal network.

**skyguide IMT Programme**

For two days in September and two days in October, three iimt lecturers shared their know-how with 20 skyguide managers. The first day in September focussed on the subject area “Strategy”, the second day on “Economics & Finance”. In October, the lecturers introduced the participants to the subject areas of “Organisational Behaviour” and “Change Management”. The courses were given in English and conducted in Biel and Spiez.

This cooperation was initiated by Prof. Dr. Robert Zaugg, former lecturer at the iimt. Once again, it was shown how strong the connection between the members of the iimt world is, and how valuable the exchange of experience can be.

**ARES Conference**

Another highlight of the elapsed year, was the 9th International Conference on Availability, Reliability and Security (ARES) which was hosted at the iimt from the 8th until the 12th of September. The main focus of the ARES conference was to highlight the various aspects of security, with special focus on the crucial linkage between availability, reliability and security. The iimt had the opportunity to welcome more than 200 ICT specialists in Fribourg.
The iimt is regularly analysing the existing structure of the courses. The aim is to offer the best possible, best realisable and most attractive course structure for our students and lecturers.

**Modernised course structure since March 2014**

In March 2014 the iimt course structure was modernised. The first modernisation concerned the Executive CAS programme which consists now of 7 instead of 10 course modules.

The second modernisation was important for the lecturing. With the aim to make the courses even more attractive, the iimt integrated e-learning lessons in all its course modules.

The third modernisation affected the typical class week. Examinations are conducted on Monday afternoon since March 2014 and there are no courses on Saturday anymore.

**Some examples of the preparatory lessons in different Subject Areas:**

- Preparing a case study at home or in group
- Reading some chapters from a course book
- Filling out an introduction test for students
- Online tool for students before the course starts
- Online sessions with the professor

Some impressions from iimt lecturers about the new course structure:

**Organisational Behaviour & HRM**

“I think that the pre-activities are a great idea, as it enables the lecturers to focus on the core material a lot better and quicker. I also felt that the pre-activities put students in the mind-set for the class and therefore, increases their readiness for and interest in the lectures. I have spoken with Amanda who is doing the pre-activity for module 3 and we both feel that this structure should be kept in the future.” Prof. Dr. Kerstin Alfes.

**National & International Economics**

“In my case it was case studies readings. In-class group works were based on these readings. I am not sure that all participant read the documents before the class. I will make clear next year that they have no choice but to read them in advance: the time allocation given during the two days for team to respond to specific questions related to these cases will be quite limited: therefore, they cannot succeed if they discover the case in class.” Prof. Dr. Philippe Gugler.

**Project Management**

“The pre-activity was excellent as we did not have questions that were too basic; this allowed a high level of discussions. I would not change the programme and the eLearning software as I believe everything is working perfectly. The only comment would be to inform the students one month in advance about the eLearning, and send a reminder one week before the course starts.” Mr. Jean Binder.
Executive MBA, Executive Diploma, Executive CAS Projects

List of all Executive MBA Projects

Benfares, Rachid (2014)
Agile and Waterfall: A hybrid approach for competitive advantage

Krummen, Adrian (2014)
Einführung der Cloud bei Swisscom ITS - Marktanalyse, Definition, Einführung

Sager, Mathias (2014)
Internet of Things and Big Data: Cooperative Smart Home Data Governance

Shirley, Ian (2014)

List of all Executive Diploma Projects

Langer, Rino (2014)
Advantages and challenges of working in virtual teams

Zurkinden, Patrik (2014)
Strategieklärung und Erarbeitung einer Balanced Scorecard für den Bereich Projekte und Technik bei SBB

List of all Executive CAS Projects

Siegenthaler, Daniel (2014)
Effiziente und effektive Produktentwicklung in einer KMU im Sektor der industriellen Elektronik
Best Paper Award:
Every year, the Best Paper Award aims to reward the best written Executive MBA or Executive Diploma project of the previous year, based on different criteria: according to the topicality, the academic and scientific aspects, the overall impression, the connection to the domain of ICT or Utility, the interest of the target audience and the global interest of the publication.

The following four students have distinguished themselves in writing their Executive MBA thesis in 2013 and were candidates for the Best Paper Award:

- Christian Giger
- Daniel Schneuwly
- Gregory Steulet
- Claude-Alain Vannay

The committee decided unanimously and concordantly which thesis shall win the Best Paper Award 2013.

All projects have been evaluated by the committee, which is composed by representatives from the industry and the academic world. The committee consists namely of:

Prof. Dr. Reiner Wolff (President)
University of Fribourg

Mr. Werner Dreyer
Swisscom (Schweiz) AG

Mr. Daniel Huber
University of Applied Sciences Bern

Dr. Bernhard Kessler
Revendex

Prof. Dr. Stephanie Teufel
iimt - University of Fribourg

Winner of the Best Paper Award 2013 - Daniel Schneuwly
Absichern gegen ungünstiges Wetter: Fallbeispiel Jungfraubahnen Holding AG
Participants
A total of 37 participants attended the Executive MBA, Executive Diploma and Executive CAS classes in 2014. Moreover, several persons participated in Specialised Courses at the iimt.

Entry survey 2014
An entry survey has been filled out by the new students. This entry survey gives information about personal and professional data of the new intake as well as about their expectations regarding the courses.

New students at the study programme
As in previous years, the iimt courses were attended by more men than women. In 2014, around 80% of the new students were men and 20% women.

20% of the new students are younger than 30, 40% are between 31 and 35 years old and 40% are between 41 and 45 years old.

Background & position of the new students
At the beginning of their studies, 20% of the participants occupied a position in the top management, 40% in the middle management and 40% in the lower management.

The new students have an average work experience of 8.6 years. 40% of them have a higher education in Engineering, 20% in Economics, 20% in Social Sciences and 20% named a higher education in other sectors.

Current position in management
17% of the new students were working in the field of “Marketing and Sales” as well as in the field “Research and Development” and in the field “Education and Human Resources”. 17% were working in the field of “Information Management and Software Applications”. Most of the new students (33%) were working in other fields of work.

To the question why they began further studies in ICT or Utility Management, 50% answered that they wanted to enhance their career opportunities. 10% wanted to stay up-to-date and 10% chose to do an Executive MBA programme by suggestion of the employer and for other reasons. 30% of the students answered that they have chosen to do an Executive MBA programme as a personal need for further education.

The most frequent indicated reasons for their choice of the iimt as an educational partner were the flexibility of the course programme, the modular course structure and the strong focus on ICT or Utility Management.

![Bar chart showing students with university degree](image1)

![Bar chart showing why choose study at iimt](image2)
Final survey 2014
After the students completed all courses and their thesis, a final survey has been conducted. The final survey provides information about changes in the personal and professional environments of the new iimt graduates. In the year 2014, 5 out of 7 graduates filled out the final survey.

Recommendation for the iimt
All graduates were very satisfied with the study programmes at the iimt and would recommend the iimt. 58% of the students recommend the iimt absolutely, without any doubt. 42% recommend the iimt as well, but with a minor reservation as the iimt is specialised in ICT and Utility Management.

All students cherished the flexibility of the course structure, the variety of the Subject Areas, the course content and the international network of lecturers and experts from the academic and business world.

Change in professional position
For 67% of the graduated students the professional position has not changed. 33% of the graduates got a job in a new field of work. The graduates answered that the iimt Executive Programmes contributed to this change.

Importance of the teaching methods
The importance of the teaching methods shows that the case studies are most important for the students. The different lecturers and the small individual exercises have also been pointed out as significant for their studies.

I did and do further recommend the programme as the structure and content (focus on ICT) is providing for a kind of unique value proposition. While representing a serious programme, the institute was able to create kind of familiar community, personal, supportive environment. Furthermore, the clear rules were applied appropriately and even special situations such as studying parts from abroad was enabled, what was for my case required and very much appreciated how the iimt did support that.

Mathias Sager, former Executive MBA student
Marketing Activities
The main goal of the iimt marketing activities was to strengthen the iimt’s position as a leading competence center in ICT and Utility Management. Besides the acquisition of new students and the interexchange with existing and potential partners and in order to increase the visibility of the institute, the iimt participated actively in different networking activities.

Partners & Associations
The exchange of know-how and the cooperation with renowned national and international companies is essential for the iimt, and an additional benefit for all the members of the iimt world. The iimt is offering different and flexible partnership possibilities with numerous benefits for partner companies.

The iimt is proud to count on the valuable cooperation with the following partners:

Platinum Partners
Groupe e SA and Swisscom (Schweiz) AG are long-term Platinum Partners of the iimt and are taking an active role as leaders in all educational subjects concerning their employees. Additionally the iimt is collaborating with both partners in the field of research, lectures and events.

Gold Partners
Gold Partners are investing in education and their own human capital. They benefit from a certain amount of free modules, which can be used for employees of the Gold Partner Company. Furthermore, several advantages and the positioning in the academic world are guaranteed.

Silver Partners
The iimt could further count on last year’s Silver Partner, Brandnew and revendex. They have become Silver Partners of the iimt world and therefore contribute to high-level quality education.

Bronze Partners
The iimt is exchanging knowledge with all its Bronze Partners with the main goal of strengthening the two-way network.

The iimt cooperates with the following Bronze Partners:
- asut
- Axpo
- Banque Privée Edmond de Rothschild S.A.
- BOC
- Campana & Schott
- efmd
- Electrosuisse
- excelsis Business Technology
- GITI - Groupement des Ingénieurs en TIC
- HEIA – Haute École d’ingénierie et d’architecture Fribourg
- Hostpoint
- Münchner Kreis
- PMI Project Management Institute Switzerland Chapter
- Swissgrid

Media Partners
In 2014, the iimt cooperated closely with its Media Partners:
- CRM Finder
- Cloud Finder
- ICT Kommunikation
- Security Finder

Donors
Several Donors joined the iimt network and invested in the general continuing education programme and its quality.
iimt Activities - Marketing & Communication Activities

Event-Highlights

ICT-Networking Party - 22nd January 2014
Once again, the iimt was host of a table at the legendary ICT Networking Party and invited partners and members of the iimt world. More than 1300 ICT specialists, politicians, industrialists and researchers met for a get-together in Bern.

asut Seminar - 26th June 2014
As the iimt is closely collaborating with asut, the iimt had the opportunity to present the institute and its Executive Programmes during the asut Seminar in Bern, to which approximately 500 ICT specialists, experts and interested persons participated.

iimt & iimt Alumni Masterclasses
Also in 2014, the iimt organised, in cooperation with the iimt Alumni Network, different Masterclasses and was pleased to welcome top speakers who shared their know-how with a great number of participants in the following topics:

- 30.01.2014 - Efficiency in customer service
- 13.03.2014 - ICS and risk management
- 05.06.2014 - M2M Smart Solutions
- 17.09.2014 - Mastering the change in the grid
- 20.11.2014 - Social collaboration

Social Event - 4th October 2014
During the Social & Fun Event 2014, the participants had the opportunity to discover the city of Fribourg with a tiny train and the butterfly effect in a revolutionary and interactive exhibition. After the guided tour, some refreshments offered the opportunity to network and to meet classmates, lecturers and other members of the iimt world.

Powerage - 3rd - 5th June 2014
During three days, the iimt had the opportunity to present its Executive Programmes in Utility Management at the Powerage in Zürich, to a tremendous number of people active in the energy sector. Furthermore, the iimt had the possibility to present its research activities in this field to potential industry partners.

Swisscom ICT Workshop - 24th October 2014
In cooperation with the Swisscom HR department, the iimt organised a workshop for Swisscom trainees in Bern. More than 45 employees participated in this interactive and innovative workshop with the motto “ICT - gestern war heute noch morgen”

External Events
Furthermore, the iimt participated at the following events:
- Carriers Lunch, 26.01.2014, Bern
- PWC Womens Breakfast, 26.03.2014, Bern
- Carriers Lunch, 17.04.2014, Bern
- Electrosuisse Congress, 07.05.2014, Olten
- Electrosuisse General Assembly, 15.05.2014, Lucerne
- Carriers Lunch, 12.06.2014, Bern
- Parlamentariertagung, 13.06.2014, Basel
- ITG Event, 18.06.2014, Biel
- First Monday Lunch, 07.07.2014, Fribourg
- Carriers Lunch, 02.10.2014, Bern
- Kick-off Event smart living lab, 09.10.2014, Fribourg
- Energy Networking Party, 30.10.2014, Spreitenbach
- First Monday Lunch, 03.11.2014, Fribourg
- Carriers Lunch, 13.11.2014, Bern
- asut member Apéro, 27.11.2014, Bern
- Cluster Energy, 10.12.2014, Fribourg
iimt Leaders Launch - 28th November 2014

A unique happening full of interesting discussions and amazing people in a great atmosphere: the Leaders Launch - Talk & Dine Event 2014 took place on the 28th of November. The event combined the graduation of the Institute’s executive students and a fascinating panel discussion.

Around 70 persons took part in this event and gathered at the University of Fribourg. This was a perfect occasion to bring together Graduates, their families, academics and leaders from the industry. Seven students graduated and received the titles: “Executive MBA in ICT Management”, “Executive MBA in Utility Management”, “Executive Diploma in ICT Management”, “Executive Diploma in Utility Management” or “Executive CAS in ICT Management”. In addition, the ceremony also presented two Awards: the “Best Paper Award”, and the “Best Management Summary”.

The Graduates, future managers, have completed their study programme at the iimt while working; they gained the analytical, functional and interpersonal skills necessary for success in a management environment and an increasingly complex, global business.

After a short break, under the motto “Energy turnaround - What about Switzerland’s pioneer role?”, five top speakers from the industry discussed the critical issue and the role of Switzerland regarding the energy turnaround. Even though Switzerland is a leader in innovation, it is not necessarily the case in the energy field. A discussion with Frédéric Gastaldo (CEO Swisscom Energy Solutions SA), Dr. Matthias Gysler (Chief Economist Swiss Federal Office of Energy SFOE), Kurt Lüscher (CEO Energy 360° SA), Dr. Tobias Reichmuth (CEO SUSI Partners SA), Niklaus Zepf (Head of Corporate Development Axpo Holding SA), under the moderation of Stefan Sagmeister (Editor energate gmbh) took place.

In the late afternoon, the participants had the opportunity to interact, to meet new people and to network around a hearty appetizer.
iimt Activities - Marketing & Communication Activities

Media Presence
In 2014, our Media Presence included Press Releases, iimt Newsletter, Advertisements, Portraits & Editorial Articles, the iimt Website and the Social Media platforms.

Press Releases
The iimt sends press releases to the Swiss press on the occasion of new partnerships, important news or special events. The following press releases have been published:

- New course structure
- Talk & Dine - Leaders Launch

Portraits and Editorial Articles
The iimt also took the opportunity to present the institute in several publications. Additionally to the institute, the research’s projects in ICT and Utility were presented throughout the year. The publications appeared in the French and German speaking part of Switzerland. In the following newspapers, magazines and on online portals, the portraits, interviews and articles were published:

- ECHO Magazine
- Electrosuisse/VSE Bulletin
- Energate
- Energie-Rundschau
- Freiburger Nachrichten
- ICT Kommunikation
- Karriere
- ses newsletter – Unifr
- SwissICT
- Unireflets
- University annual report

iimt Newsletter eSignal
The iimt Newsletter eSignal has been sent four times to students, lecturers, partners, alumnis and other interested persons, which represents approximately 4500 persons.

Advertisements
Throughout the year, the iimt placed advertisements in different Swiss magazines, newspapers and newsletter. They contained several information about the Executive Programmes, the iimt and its research activities. Following newspapers, magazines and newsletter were thus reached:

- Agefi
- asut
- CCIF-HIKF
- Cloud Finder
- CRM Finder
- Electrosuisse/VSE Bulletin
- Energie-Rundschau
- GITI
- Handelszeitung
- ICT Kommunikation
- ISSS
- kmédia
- Market
- Security Finder
- Swiss Engineering
- swissfirms
- Swiss IT Magazine

News Website www.iimt.ch & Social Media platforms
The website is an important platform with helpful and supporting information, as well as news to all persons composing the iimt world. In 2014, a new, dynamic, interactive and responsive website has been launched. The new website concept has been well received and got positive feedbacks.

Furthermore, the iimt informed stakeholders through the Xing, LinkedIn and Facebook profile about events and highlights.
Teaching Activities

**Strategic Project Management - Spring Semester**
“Strategic Project Management” is a Master of Arts in Management & Information Management course based on the methods of PMI. The course aims at providing the students with all the necessary theoretical and practical aspects needed to handle any project’s unique combination of people, processes and communication. It is taught in German but with a written documentation that is entirely in English.

Following the PMBOK Guide, the ten knowledge areas, which encompass integration management, scope management, time, cost and quality management as well as human resource and communication management and finally risk and procurement management were covered. Since the course tried to avoid the ivory tower by integrating industry in the course as well, several project managers from a wide range of firms animated the lectures with their presentations. Dr. Bernhard Kessler (revidex), Dr. Wolfgang Straub (Deutsch Wyss & Partner), Kai Wilhelm and Marion Scherzinger (Campana & Schott) lectured.

The overall feedback of the course was again thoroughly positive. Again a large number of students (34) were inspired, especially the number of female participants increased enjoyably. More and more former students do a certification at PMI, where our course is accepted as a theoretical part of the examination.

**Energy Sector Management - Spring Semester**
“Energy Sector Management” is a Master of Arts in Management & Information Management course which aims to build up the students’ competencies in planning and controlling of enterprises acting in the energy sector. Due to liberalisation, a rethinking has to take place also on the management level. Key words are: market-orientated competition in infrastructure networks, security of electricity supply as a constraint, technological change by the invention of smart grids and the Crowd Energy Concept. Highlights of the course were the presentations of Rafael Zweifel, and the wide variety of student’s presentations.

The overall feedback of the course was thoroughly positive. The number of participants increased (27) and the variety and quality of presentations and written papers was very high.

**Innovation & Technology Management - Autumn Semester**
“Innovation & Technology Management” is a Master of Arts in Management & Information Management. The rapid change of technologies and the high economic/financial pressure precipitate to new challenges for the management in the information and communication sector (ICT). This master course focuses on the management of these challenges by providing insights in innovation and technology.

The learning objectives are

- clarifying the terms and the effects within the economy (especially ICT) on a micro and on a macro level,
- understanding of methods to deal with innovation and technology management, and
- applying the innovation process according to real scenarios.

Doing so, the course uses numerous case studies (e.g. Microsoft, IBM, Apple, Philips Lightning, Hybrid Honda or Boeing Dreamliner) and the active involvement of students through discussions and simulations. Eventually, the students are provided with tools and methods to overcome these management challenges, which they applied in a short self-elaborated innovation idea/paper. Furthermore, the goal was to improve presentation techniques, ability to work in teams and the skill of interdisciplinary work. Mario Gstrein and Yves Hertig supported the course very well.

This Master course enjoys again great popularity. A large amount of very good and innovative ideas have been developed and introduced. Some students got the opportunity to compete at ideas@iimt.
Bachelor, Master & Executive Programmes Theses
In 2014, the following Seminar, Bachelor, and Master theses were supervised by the Chair of ICT-Management:

Master Theses
Crameri, S. (2014)
The Handling of Social Media in the Swiss Luxury Industry: An Empirical Analysis of the 15 Most Valuable Luxury Watch Brands in Switzerland

De Nardi, E. (2014)
Bewertungshilfe bei IT Outsourcing Vertragserneuerungen

Gerber, P. (2014)
Die organisatorische Aufstellung des Produktmanagements in einem Unternehmen mit internationaler Ausrichtung Eine Handlungsempfehlung für IT-nahe Unternehmen im Dienstleistungssektor

Guetg, M.-D. (2014)
Meter-Data-Management - Standardisierung, Potenziale und Risiken

Kunina, S. (2014)
Die kommunale Auswirkung auf den liberalisierten Energimarkt

Scherzinger, M. (2014)
Vergleich von Projektmanagement-Fähigkeiten in Schweizer Versicherungen

Wattendorff, B. (2014)
Businessplan und Innovation: Eine Untersuchung über vorhandene Korrelationen dieser Variablen

Bachelor Theses
Karlen, S. (2014)
Case Study: Measuring Service Quality in a Pharmaceutical Contact Centre

Seminar Theses and Internships
Frère, V.L. (2014)
Vergleich zwischen zentraler und dezentraler Stromversorgung

Perler, S. (2014)
SCART-Projekt

Rexhaj, H. (2014)
IT-Unternehmensarchitektur

Executive MBA Theses
Benfares, R. (2014)
Agile and Waterfall: A Hybrid Approach for Competitive Advantages

Sager, M. (2014)
Internet of Things and Big Data: Cooperative Smart Home Data Governance

Executive Diploma Theses
Zurkinden, P. (2014)
Strategieklärung und Erarbeitung einer Balanced Scorecard für den Bereich Projekte und Technik bei der SBB

Executive CAS Theses
Siegenthaler, D. (2014)
Effiziente und effektive Produktentwicklung in einer KMU im Sektor der industriellen Elektronik

Seminars for Graduates and Ph.D. Students
In parallel with the lectures at the University, a series of in-house seminars for Ph.D. students were organised at regular intervals by Prof. Dr. Teufel in the year 2014. Participants were recruited from internal and external assistants as well as from connected institutions and organisations to present their research activities.
Chair of Management in ICT

Research Activities
The research team aims to answer academically challenging questions in its fields of research. At the same time, it focuses on bridging the gap between theory and practice. The Chair’s research covers the following areas:

- Energy Systems Management
- Management of Information Security
- Innovation and Technology Management
- Project Management

The specific research projects are carried out by the research team and external doctorates under the direction of Prof. Dr. Stephanie Teufel. For 2014, it should be emphasised that the research area Crowd Energy was successfully established. Crowd Energy is the collective effort of individuals or profit or non-profit organisations, or both, pooling their resources through online information and communication technology applications (ICT-applications) to help to implement the energy turnaround. The basic concept, which was developed by Prof. Dr. Teufel, has been very successfully presented at the 2014 International Conference on Smart Grid and Clean Energy Technologies. As a result of the conference presentation Prof. Dr. Teufel has been invited to conduct a special edition of the Journal of Electronic Science and Technology about Crowd Energy as a guest editor. The special section will be published in 2015.

In the research project SAIL (Social Media Performance Monitoring) the topic “Social Media Performance” is investigated, especially in the light of non-profit organisations and public administrations. Social networks have long been known and regarded as one of the pillars for innovative developments in society and technology. The rapid development and availability of new digital tools of Web 2.0 creates a new quality in terms of form and content, but also temporal relevance of cooperation and communication through social media. It is shown that questions about performance (accuracy, completeness, cost, and speed) are difficult to answer. Web Analytics respectively social media analytics is technically well-founded in terms of social media; there are numerous solutions for data collection (quantitatively). In general, the enormous flood of data makes the access to (individual) information traces possible. This, however, allows no or only weak performance statements, especially if performance is not only seen as Click-Through-Rate (CTR) but as ACCS quadruple (“accuracy, completeness, cost, and speed”). It must be taken into account that the flood of data has strong quality variations and inaccuracies. Within the SAIL project a state of the art analysis for social media performance measurement is conducted and first ideas for the definition of appropriate KPIs are developed and introduced. The project was granted by ‘Forschungspool’ of the University of Fribourg.

In the research project NCS-M7, the Chair works in close cooperation with the Swiss Confederation, represented by OFCOM, on competence build-up, skills and best practices to avoid cyber risks. The protection of information and communication infrastructures from cyber risks is in the national interest. The awareness of society and especially the players from business and government agencies regarding cyber risks is a crucial factor in risk management. For this, the target groups must be identified and specified. The project has three objectives: i) the target group business is refined to recognise experts from the individual segmentation stages and hence possibly also to identify best practices; ii) for the identification of best practices a set of appropriate criteria is defined; iii) in a non-representative survey a short first impression will be given regarding the sensitisation to cyber risks in the target audience business. Generally, under cyber risks all kinds of risks associated with information and communication technologies (ICT) are understood: not a specific risk is meant but a group of risks made up of the different technologies used, the attack profiles, and uncontrollable external circumstances. In consequence, risk assessment emphasises not only on criminal activities but also, for example, on natural disasters. Accordingly, a distinction is made between defensive methods and protection methods. The focus of the project is the criminal aspect of cyber risks. The project is granted by the Federal Office of Communications (OFCOM).
Research Activities

The TREASON (The Rebound Effect of Social Networks) project focuses on the challenges that Social Networks impart on an organisation, specifically looking at what risks and how these risks impact an organisation. User-generated or organisation-generated events, on such a public medium, can have a tangible and intangible rebound effect (both positive and negative); the result of which can mean the organisation is exposed to additional unforeseen and unexpected risks. Such incidents can have a short-term and long-term impact on the operations and/or brand of the organisation. The aim of the research is threefold:

Firstly, to determine the Social Networking risks that each industry sector considers most significant; to help organisations understand which issues are important to address (in a specific industry).

Secondly, the factors that risk assessment methodologies should take into consideration regarding Social Networks, which influences the risk and impact on an organisation. Finally, to provide a method to determine and track the long-term impact of an incident, so that an organisation can assign scarce resources promptly and effectively.

Ultimately, this will allow an organisation to manage the risk and impact of Social Networks more efficiently and effectively.

In 2014 the Chair started the ideas@iimt project as an outcome of the University course Innovation and Technology Management. ideas@iimt offers the students the possibility to realise their own (business) ideas. Up until now, creative students could only talk about their ideas, receiving input during coffee breaks or short consultation hours without being able to take it further.

Now, with the establishment of “ideas@iimt”, students can receive a working place, time, resources, coaching and a network with competent partners and coaches to develop and create their own ideas. With its easy access for entrepreneurial students, "ideas@iimt" will bridge a gap in the promotion of innovation strategy within the Canton of Fribourg.

On the following page, you can learn more about ideas@iimt and the first ideas.
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ideas@iimt

Johann Wolfgang v. Goethe once said: “Knowing is not enough; we must apply. Willing is not enough; we must do”.

The iimt followed Goethe’s advice: since 2014 the Chair offers all students the unique possibility to develop their business idea in the “pre-incubator” ideas@imt. Willing and innovative students get coached, challenged and drilled during 4-6 months to develop their, at the beginning mostly good but incomplete, business ideas into a game changing one. These highly motivated students will not only apply their theoretical gained knowledge at the University courses, but will face and be challenged by the different facets of an entrepreneur.

The main goal of ideas@iimt is to give this “doing-”possibility to motivated students and to prepare them and their ideas for a) different Innovation & Startup Awards and b) the integration into other incubators.

Philipp Zimmer is the first ideas@iimt-fellow. His business idea, “FitCoins”, seeded in the spring semester in the Master Course “Innovation & Technology Management”.

Persuaded by his idea, he started the programme in the iimt pre-incubator. In cooperation with Prof. André Rotzetta (School of Engineering and Architecture Fribourg), he developed a prototype of an electricity-generating gym-bike to test the user acceptance of his idea. The prototype will be ready for use at the beginning of the spring semester 2015.

The ideas@iimt programme attracted already six other students in its first year of existence. Surely, there will be a lot of coaching and networking activities for the Chair team but on the other side the iimt is looking forward to see “knowing”-students enhancing their skills and becoming “doing”-entrepreneurs.
The smart living lab project is a cutting-edge, inter-disciplinary, interinstitutional platform that combines several lines of research related to construction technologies: material sciences and fluid mechanics, renewable energy production systems that take into account aspects that are related to the occupation of a building, living space and housing, such as comfort, health and air quality. It aims to be a center of national scope, recognised on an international level and involving a variety of players and institutions.

It brings together the skills of the Ecole Polytechnique Fédérale de Lausanne (EPFL), the School of Engineering and Architecture (HEIA-FR) and the University of Fribourg (UniFR) in the areas of technology and materials, as well as law and human sciences.

The smart living lab will allow the canton of Fribourg to associate its image to EPFL’s worldwide brand and network, and to position the canton and the blueFACTORY site both in Switzerland and internationally in the field of innovative technologies - one more step towards the establishment of the National Innovation Park.

As the iimt is the leading institution within the University of Fribourg for the smart living lab project, one of the major tasks in 2014 was the initialisation of the project. Not only was the constitution of the leading committees a central point, but the composition of the research groups within the University of Fribourg was another.

At the University of Fribourg, three research groups of approximately fifteen researchers will bring their knowledge to the table within the coming years.

The following research topics will be covered by the University of Fribourg:

- Construction law, especially the creation of regulations, which will allow to integrate innovation and sustainability issues into construction
- Human-machine interaction in buildings, to explore the relationship between the individual and the smart building he inhabits
- The Low Carbon Society/Crowd Energy and its integration into the economic, private and public sectors, taking into account society’s socio-technological changes, economy and politics energy turning point.

The first professors and doctoral students’ positions were advertised in 2014 and have already been filled. The recruitment process will go on in 2015, in order to create a dynamic, innovative research team for the smart living lab project. Simultaneously, contributions to conferences and publications related to energy and the built environment of the future have already been drawn-up and published.
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Publications
Annually, the research team publishes its research results in international journals and conferences, whereby the scientific papers are subject to double-blind peer-review processes.

Reviewed Papers


Books & Chapters in Books


Research & Project Reports
D. Feichtner, A. Steinhauer, B. Teufel, S. Teufel: NCS M7 Abschlussbericht. iimt, University of Fribourg, 2014

Presentations & Articles
S. Teufel, Y. Hertig: ideas@iimt: Betreuung und Coaching von innovierenden StudentenInnen. ICTkommunikation online, 2014.

S. Teufel: Weiterbildungs-Wirrwarr – was wirklich zählt! ICTkommunikation online, 2014.


Invited Talks

Interviews

S. Teufel: 5 Fragen an Prof. Dr. Stephanie Teufel. swissICT Magazin, Nr. 5, 2014.

S. Teufel: ICTK Fragen an Frau Prof. Dr. Teufel. ICTkommunikation, 2014.

A list of publications can be found on www.iimt.ch. Furthermore, dissertations as well as results from scientific surveys and other research projects are regularly published in the iimt University Press.
Membership of Organisations
In 2014, Prof. Dr. Stephanie Teufel has been active in the below-mentioned organisations:

- **asut**
  President Fachkommission Ausbildung (until 2014)
  Member (since 1999)

- **energate messenger Switzerland**
  President of the Advisory Board (since 2014)

- **Excelsis Business Technology AG**
  Member of the Administrative Council (since 2005)

- **ICTnet**
  Founder member (since 2001)

- **ICT Switzerland**
  Member of the Commission “Education” (since 2006)

- **KPMG**
  Member of the Steering Committee for the certification SCESm071 (since 2007)

- **SCNG**
  Special Interest Group of PMI Chapter Switzerland
  Member (since 2010)

- **Security-Finder Schweiz**
  Member of the Advisory Board (since 2011)

- **World Summit Award Mobile Content**
  Eminent National Expert Switzerland (since 2012)

Further Memberships
- **GI - Gesellschaft für Informatik**
- **SI - Schweizerische Informatikgesellschaft**
- **ISSS - Information Security Society Switzerland**
- **Münchner Kreis**
- **SGB - Schmalenbach-Gesellschaft für Betriebswirtschaft**
- **IFIP - International Federation for Information Processing**
- **efmd - European Foundation for Management Development**
- **PMI - Project Management Institute**
- **Electrosuisse**
- **IT Valley Fribourg**
- **SIRA - Swiss Informatics Research Association**
- **VHB - Verband der Hochschullehrer für Betriebswirtschaft**
Programme Committees, Conferences & Academic Reviews

Prof. Dr. Teufel was also very active as a member of various programme committees for different national and international academic conferences and as academic reviewer.

ABICT 2014 – 5th International Workshop on Advances in Business ICT. Warsaw, Poland, 2014. Reviewer and member of the program committee.

AITEM 2014 – 12th Conference on Advanced Information Technologies for Management. Warsaw, Poland, 2014. Reviewer and member of the program committee.

ARES 2014 – 9th International Conference on Availability, Reliability and Security. Fribourg, Switzerland, 2014. General Chair and member of the program committee.

DA CH Security 2014. Graz, Austria, 2014. Reviewer and member of the program committee.


ICSGCE 2014 – International Conference on Smart Grid and Clean Energy Technologies. Dubai, UAE, 2014. Reviewer and member of the program committee.

ICSNC 2014 – 9th International Conference on Systems and Networks Communications. Nice, France, 2014. Reviewer and member of the program committee.


IDEAS 2014 – 18th International Database Engineering & Applications Symposium. Porto, Portugal, 2014. Reviewer and member of the program committee.


TrustBus’14 – 11th International Conference on Trust, Privacy and Security in Digital Business. Munich, Germany, 2014. Reviewer and member of the program committee.

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iimt University Press
The iimt University Press is part of the iimt and publishes on the webshop and on Amazon Dissertations, Executive MBA, Executive Diploma and Executive CAS Papers. Other Institute and Projects Reports are as well available. All documents can be purchased for CHF 20.-.

These books can be read on Kindles or Tablets, Smartphone and Computer through the App Kindle or by downloading the Paper on the Webshop.

In 2014, five Executive MBA, one Executive CAS and one Institute Report were published:

Executive MBA Papers
Giger, Christian (2014)
Wie sieht die Entwicklungsmöglichkeit der Entsorgungsunternehmen in der Schweiz aus? Eine Strategieanalyse anhand einer Waste-Company in der Schweiz
ISBN 978-3-905814-40-8

Hauser, Yannick (2014)
ICT as a main driver to sustain a new strategy development, analysis of a Security Services company
ISBN 978-3-905814-43-9

Executive CAS Papers
Riedo, Dominique (2014)
Entre macroéconomie et éthique, regards croisés sur la stratégie énergétique 2050 de la Confédération suisse
ISBN 978-3-905814-45-3

Institute Report
Steinhauer, Angela (2014):
Social Media Performance Measurement: Ein 'State of the Art' über die Erfolgsmessung von Social Media-Aktivitäten in Unternehmen mit speziellem Fokus auf NPO’s
ISBN 978-3-905814-46-0
iimt Advisory Board
The iimt Advisory Board is a consultative organ of the iimt. The main goal of the iimt Advisory Board is to help to strengthen the iimt’s position as a competence center for ICT & Utility Management.

Members of the iimt Advisory Board are partners, professors, lecturers, opinion leaders and ICT and Utility experts.

The members of the iimt Advisory Board act to promote the interest of the iimt in accordance with the objectives and mission and carry out these responsibilities personally. They will direct contributions to the iimt activities and will represent the iimt as delegates.

Members of the iimt Advisory Board
Mr. Walter Steinlin, President
Swisscom (Schweiz) AG, Institutional Relations
KTI, President
Member since November 2009

Adrian Bult
Chairman of the Board Swissgrid
Member since 2013

Dr. Fulvio Caccia
Fulvio Caccia Consulenze, Chief Executive Officer
Member since 2006 - Demission in November 2014

Mr. Thomas Rauber
TR Invest AG, Chief Executive Officer
Member since 2012 - Demission in December 2014

Deceased
Dr. h.c. Felix Rosenberg
Swisscom (Schweiz) AG, Executive Board
Member since 2006

Resigned
Dr. Fulvio Caccia
Fulvio Caccia Consulenze, Chief Executive Officer
Member since 2006 - Demission in November 2014

Dr. Paul Kleiner
Haslerstiftung, Chief Executive Officer
Member since 2009 - Demission in June 2014

Mr. Thomas Rauber
TR Invest AG, Chief Executive Officer
Member since 2012 - Demission in December 2014
Organisation - iimt Institute Council

Members of the iimt Institute Council

Mr. Walter Steinlin, President
Swisscom (Schweiz) AG, Institutional Relations
KTI, President

Prof. Dr. Philippe Gugler
University of Fribourg
Professor
Department of Economics

Mrs Petra Heumesser
Representative mid-level academic
University of Fribourg

Mr. Stefan Kälin
T-Systems Schweiz AG
Students representative

Dr. Bernhard Kessler, Vice-President
Revendex Group AG

Mrs Séverine Marmy
Groupe E SA
Responsible HR Management

Prof. Dr. Dirk Morschett
University of Fribourg
Professor
Departament of Business Administration

Prof. Dr. Reiner Wolff
University of Fribourg
Professor
Department of Economics

iimt Institute Council
The iimt Institute Council is responsible for the strategic orientation of the institute. It approves the annual programme of the direction, and all members have the aim to lead the Institute strategically to success. They will direct contributions to the iimt direction and have, at the same time, the function of the controlling body.

Objectives
The iimt Institute Council:
• approves the annual activities,
• approves the annual accounts,
• concludes partnership agreement with industry partners or partner Universities,
• elects subject area coordinators and other members of iimt commissions.
Organisation - iimt Scientific Council

iimt Scientific Council
The iimt Scientific Council consists of the professors responsible for the different subject areas. Together they are responsible for the content of the courses offered by the iimt.

Objectives
The iimt Scientific Council:
• encourages research in the domain of management in technology and utility,
• makes proposals on the programme structure,
• comments on the strategic concept of the programme.

The iimt Scientific Council is under the presidency of Prof. Dr. Stephanie Teufel, Director of the iimt and Professor at the University of Fribourg

iimt Subject Areas
Strategy & Innovation Management
Marketing Management
Organisational Behaviour & HR Management
Process & Excellence Management
Business Ethics
Managerial Finance
Management Accounting & Control
Information & Communication Technology
Utility Technology
Information Management & Decision Support
Law in ICT & Utility
National & International Economics
Project Management

Prof. Dr. Kerstin Alfes
Organisational Behaviour & HR Management

Prof. Dr. Thomas Friedli
Process & Excellence Management

Prof. Dr. Sascha Götte
Marketing Management

Prof. Dr. Philippe Gugler
National & International Economics

Prof. Dr. Michel Heinzmann
Law in ICT

Prof. Dr. Christoph Kaserer
Managerial Finance

Prof. Dr. Helmut Krcmar
Information Management & Decision Support

Prof. Dr. Alfred Mettler
Managerial Finance

Prof. Dr. Guido Palazzo
Business Ethics

Prof. Dr. Thomas Rautenstrauch
Management Accounting & Control

Prof. Dr. Stephanie Teufel
Info Management & Decision Support, Strategy & Innovation Management, Project Management
Organisation - iimt Staff & Commissions

**iimt Staff**

The iimt staff is delighted to welcome guests at the iimt and to make each stay as comfortable and unforgettable as possible. All staff members are happy to assist and to give a hand when needed and to answer any questions.

**Admission Commission**

Prof. Dr. Stephanie Teufel  
Director iimt, University of Fribourg

Mrs Petra Heumesser  
Head of Executive Programmes iimt

Prof. Dr. Philippe Gugler  
University of Fribourg

Dr. Bernhard Kessler  
revendex

Mrs Séverine Marmy  
Groupe E SA

**Best Paper Award Commission**

Mr. Werner Dreyer  
Industry Representative

Mr. Daniel Huber  
University of Applied Sciences Berne

Dr. Bernhard Kessler  
Industry Representative

Prof. Dr. Stephanie Teufel  
University Representative

Prof. Dr. Reiner Wolff  
University Representative  
President of the commission

**Members of the iimt staff**

**Management**

Prof. Dr. Stephanie Teufel  
Director

Petra Heumesser  
Head of Executive Programmes

Kirstin Stadelmann  
Head of Marketing & PR

**Marketing & Administration**

Melanie Ackermann (since September)  
Course Coordinator

Manuela Buchs (until August)  
Course Coordinator

Lisa Despont-Lenz  
Marketing & PR Manager

**Research**

Dominic Feichtner  
Junior Research Assistant

Mario Gstrein  
Research Assistant

Yves Hertig  
Research Assistant (since October)

Alexander Maciej Rossudowski  
Research Assistant (until October)

**Internship**

Richard Conrardy (January until November)  
Research Trainee

Simon Perler (until August)  
Research Trainee

Angela Steinhauer  
Research Trainee
Contact
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