What energy suppliers can learn from the mainframe computer industry

When I ran the time series analysis for my diploma thesis in 1982 I used an IBM 370 mainframe and it took many days. Today you download the input data from the internet and do the statistics on your iPad on a 20 minutes train ride from Berne to Fribourg. In the last 30 years we have faced the demise of mainframe industry heavies like DEC, Data General, Univac, NCR or Wang reflecting the transition of the IT industry to distributed computing. Nowadays we are used to decentralised computing and storage on PCs and mobile devices while using mainframes only for apps hosting and back-ups in the cloud via the web.

We do not need to look 30 years ahead to imagine the future of the energy markets: Low cost solar panels on roof tops, batteries and thermal storage decentralise our power production and storage already; while apps control demand and feed-in management via a smart grid - the web. The "mainframes" of the energy business provide large storage capacity and back-up energy, in particular by pump storage power plants and grid services – similar to cloud services for decentralised computing.

An equally fundamental shift as in the computer industry is happening in the energy sector: Business models are changing and new models arise with "asset light" and service focus. Imagine the same pace of technological progress in energy production and storage as in computing: If they do not adapt and learn from others we may see the demise of utility suppliers – as we have seen the decline of mainframe giants.

Text written by Dr. Günter Pfeiffer, Member of the iimt Advisory Board, Alpiq AG
iimt Website: Now on your mobile

In a fast paced world, it is imperative that information is quickly and easily available; at the iimt, we have recognised that the trend is towards accessing information using smartphones and tablets, and as such, we are proud to announce the launch of the “iimt Mobile Site”.

The “iimt Mobile Site” is designed to have the most current and relevant information directly available on the main page, though all the information from the main website is still accessible with additional navigation. Stay up-to-date and visit us at: m.iimt.ch

Horváth & Partners and the iimt

Horváth & Partners and the Chair of Management in ICT of the iimt, will cooperate in a research partnership over the next few years. Through this partnership, the research questions will focus on regulatory issues and challenges arising with the forthcoming energy change.

The energy revolution is a fundamental change for the power supply Industry. The performance of solar power and wind turbines is growing exponentially around the world, and strong growth is also expected in the coming years. This change will also be crucial for Switzerland. The proportion of renewable energy will continue to rise and a large portion of the production will fluctuate. This, though predictable, is not controllable. Due to the high proportion of renewable energy abroad, Switzerland is already feeling the change today.

The research partnership will focus on the regulatory framework of the Swiss energy market from the perspective of a complete supply from renewable energies. The political and social changes desired in the energy supply affect not only the technology, but also and especially the regulatory framework. The collaboration is expected to last three years. Both partners will bring their respective knowledge in the field of energy and Utilities in order to provide the energy suppliers with the appropriate tools for this energy revolution.

For detailed information please contact us: iimt@unifr.ch or Mr. Matthias Rauh: mrauh@horvathpartners.com
imt University Press
New Publications

The imt University Press regularly publishes Dissertations, Executive MBA and Executive Diploma Papers. Furthermore, Institute and Projects Reports are also available.

All documents can be purchased from our webshop or via our "App"; the direct links are available on the imt website.

Those following publications were recently published:

- “Le développement des NER comme alternative au nucléaire: risques et opportunités pour Groupe E”
  Bonvin Fabrice
  EMBA Project Paper

- “Development of a sustainability strategy for an eGovernment Innovation Center”
  Burneo Manuel
  EMBA Project Paper

Next Courses

Most people struggle when it comes to accounting and finance. Whilst we would like to have control of the financial aspects of our business (and private) life, we often hesitate to get ourselves into it. So why not change it?

We are offering a three weeks programme to help improve your knowledge. Experts around the topics of accounting & finance will lead you through six modules and equip you with the theoretical and practical know-how. So accounting and finance no longer needs to be feared.

We are pleased to inform you about our upcoming courses in June that are taking place as follows:

Managerial Finance

Module 1: 6th - 8th June 2013
Risk & Return; Valuation of Financial Assets; Cost of Capital; Capital Budgeting

Module 2: 10th - 12th June 2013
Financial Statement Analysis; Valuation; Capital Structure

Module 3: 17th - 19th June 2013
Evaluating Financing Alternatives; Risk Management Concepts; Derivatives and their Applications

Speakers:
- Prof. Dr. Christoph Kaserer, Technical University Munich
- Prof. Dr. Alfred Mettler, Georgia State University, Atlanta
- Kurt Meyer, Swisscom AG
- John Pawluk, Swisscom AG
- Serge Rotzer, Bank Vontobel AG
Management Accounting & Control

Module 1: 3rd - 5th June 2013
Using Financial Reports for Decision Making; Understanding Cost Accounting; Costing and Decision Making

Module 2: 13th - 15th June 2013
From Strategy to Budgeting, Management Control Systems; Performance Measurement

Module 3: 20th - 22nd June 2013
Transfer Pricing in Divisionalised Companies; Strategic Cost Management; Strategic Performance Management

Speakers:
- Jörg Blättler, Family Office Blättler Stauffacher
- Martin Buess, Zurich Insurance Company
- Matthias Karsupke, Alphapay (Swisscom Group)
- Prof. Dr. Thomas Rautenstrauch, University of Applied Sciences in Business Administration, Zurich
- Prof. Dr. Marco Passardi, University of Applied Sciences, Lucerne and University of Zurich

In September 2013 we will again offer courses with interesting personalities from the industry and academic world. Reach your objectives while taking into account the financial, legal and technical constraints in the energy sector.

Information and Communication Technology

Module 1: 2nd - 4th September 2013
Telecom: Infrastructure, Economics, Trends; Advanced and Multimodal User Interfaces; IT Networks: Threats and Trends; Securing the Network; IT and Sustainable Development; Sustainability Reporting in the IT Sector

Module 2: 9th - 11th September 2013
Information Security Management System; IT Security Concepts; Risk Analysis and Management; Business Continuity Management

Speakers:
- Katherine Foster, Une-bonne-idee.ch and Sustainability Consultant
- James Greene, DHC Dr. Heterich & Consultants
- Dr. Elena Mugellini, University of Applied Sciences, Fribourg
- Dr. Philippe Oechslin, Objectif Sécurité and Swiss Federal Institute of Technology, Lausanne

Corporate Communication

16th - 18th September 2013
Corporate Communication and Stakeholder Management; Corporate Identity, Image and Reputation; Communication Strategy and Practice incl. Media Relations; Crisis Management

Speaker:
- Dr. Graeme Lindsay, Amiens School of Management, France
Utility Technology

Module 1: 2nd - 4th September 2013
The electricity sector - open market, strategy and positioning; The generating company; The transmission company: European directive, cross-border electricity regulation, unbundling, capacity allocation mechanisms, ancillary services

Module 2: 9th - 11th September 2013
CO₂ Trading; Portfolio and risk management; The distribution company; Asset management: sales price versus assets, exercises

Module 3: 16th - 18th September 2013
Congestion management: power flow control and economics, social welfare; De-congestion management; Reliability and investment optimisation; Energy situation; Environment issues: impacts and guidelines

Speakers:
- Prof. Dr. Göran Andersson, Swiss Federal Institute of Technology, Zurich
- Dr. Lukas Küng, ewz AG
- Dr. Markus Leuzinger, Busarello + Cott + Partner AG
- Dr. Olof Nilsson, Vattenfall
- Dr. David Orzan, The Energy Consulting Group Ltd
- Dr. Dieter Reichelt, Axpo AG
- Prof. Hubert Sauvain, University of Applied Sciences, Fribourg
- Dr. Stefan Ulreich, EON AG
- Prof. Dr. Alexander Wokaun, Swiss Federal Institute of Technology, Zurich and Paul Scherrer Institut

Information Management & Decision Support

Module 1: 5th - 7th September 2013
The Role of IT: its Importance for Corporate Strategy; Fundamentals of Information Management; IT-Governance, IS-Controlling and Risk Management

Module 2: 12th - 14th September 2013
Implementing Information System in Organisations; Effecting Organisational Change; International IT Implementation; IT Service Management

Module 3: 19th - 21st September 2013
Data Warehouse Architecture; Customer Data Warehouse; Knowledge Discovery Process; Data Mining Techniques; Practical Sessions and Hands-on Training

Speakers:
- Prof. Dr. Tilo Böhmann, University of Hamburg
- Prof. Dr. Helmut Krcmar, Technical University Munich
- Prof. Dr. Andreas Meier, University of Fribourg
- Prof. Dr. George D. Smith, University of East Anglia Norwich, UK

For further information do not hesitate to contact us or visit our website www.iimt.ch

Course fee:
CHF 1'900.- (for 1 module)
CHF 3'800.- (for 2 modules)
CHF 5’100.- (for 3 modules)

Location: iimt, University of Fribourg

Course language: English

With the successful completion of a course, it is possible to credit the modules towards a future Executive MBA, DAS or CAS in ICT or Utility Management.
iimt Executive Programmes

Bring in offer
Recommend us against remuneration:
Share your experience!

The iimt offers current iimt students, graduates and lecturers the opportunity of actively promoting further education.

Recommend the iimt programmes to your friends, colleagues, family or anybody else; for each new student who enrols for one of the iimt Executive Programmes (Executive MBA, Executive Diploma or Executive Certificate), you will receive a remuneration in return.

It’s easy to recommend someone: Both of the agent and the new student need to fill out the Participation form for the Bring in offer and send it back to the iimt.

After receipt of the new student’s admission documents and the acceptance by the admission commission, both will get the remuneration after the first payment of the tuition fees.

What are the advantages of this offer?
• Benefit financially by recommending a new student
• Expand your network of friends
• Investing in your school will make your education worth even more

For whom is this offer valid?
• For current iimt students (enrolled for an EMBA, EDiploma, ECAS)
• For iimt alumni (graduated with an EMBA, EDiploma, ECAS)
• For iimt lecturers
• For new students enrolling for an Executive Programme who fulfil the admission criteria
• For all people interested in education in ICT or Utility Management

Amount of remuneration
For the admission of each new iimt student in ICT or Utility Management, the following remunerations will be paid to the agent and the new student:

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<th>Admission to the Executive CAS</th>
<th>Admission to the Executive Diploma</th>
<th>Admission to the Executive MBA</th>
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<td>For the agent</td>
<td>CHF 200.--</td>
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<tr>
<td>For the new student</td>
<td>CHF 200.--</td>
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New evaluation tool

With the start of the June courses, the iimt will launch its new evaluation tool.

Students will be able to complete the survey online to evaluate lecturers and whole courses. Furthermore, the entry & final survey (which is distributed to the students at the beginning and at the end of iimt studies) can be filled out online.

We have also adapted the list of questions taking into consideration previous student feedback. In addition, students now get a link to the survey by e-mail, making it easier, faster and better for the environment, to complete the survey. For each module and subject area, a questionnaire has been created. Furthermore, students can insert comments electronically (which helps decode some handwritings), as well as to choose if they would like to complete the surveys anonymously or not. Ultimately, the analysis of the surveys will stay the same.

We are looking forward to launching this new evaluation tool, and getting the first feedback.

About LimeSurvey:
LimeSurvey is an advanced online survey system to create quality online surveys. The software is downloaded 10,000 times every month and is used all over the world by companies, universities and individuals.

iimt Events

Masterclass - 5th June 2013
"Winning Together" - How collaboration across differences drives project success

Top speaker of this unique Masterclass is Andreas Dudas.

According to Worldbank studies more than 50% of all international projects in the infrastructure and power sector fail. This means they suffer either from substantial cost overruns or delays and therefore do not meet their specific goals. Research reveals that not only multi-billion Dollar projects failures, but also IT project failure, for example has been costing the global economy billions of dollars for years.

This masterclass shows on how you can build a shining coalition and networked organisation, which increases “share value through creating shared value” so as to run complex projects on time and budget.

The next iimt Masterclass will take place on the 5th of June at the University of Fribourg (Room B130). The presentation starts at 17:00 until 18:00, and is followed by an aperitif.

The participation is free of charge, registration is required (deadline 31st May 2013).

For further details, please visit our website.
Leaders Launch 2013
28th November 2013
Made in Switzerland
Between innovation & tradition

The Award ceremony 2013 - Leaders Launch: Talk & Dine Event - will take place on Thursday 28th November at the Gutenberg Museum, located near the Cathedral of Fribourg.

The programme starts at 13:30 with our annual Award ceremony where our graduate students will receive their degrees. The ceremony will be followed by an exciting panel discussion around the topic "Made in Switzerland - Between innovation & tradition".

Save the date and become part of a unique gathering, full of interesting discussions and amazing people in a great atmosphere.

Date: Thursday, 28th November 2013
Place: Gutenberg Museum, Fribourg

Programme:
13:30: Welcome coffee
14:00: Award Ceremony & Special Awards
15:30: Panel Discussion
16:30: Buffet & Networking

Masterclass - 11th September 2013
Energy Strategy 2050 as viewed by VSE/AES

Don’t miss the next Masterclass with top speaker Stéphane Rolle, and save the date: 11th September 2013, 17:00-18:00 followed by an aperitif. More information to come on our website.

Keep updated!

Social & Fun Event - 21st September 2013

As already announced in the last eSignal edition, the iimt Social & Fun Event will take place on Saturday 21st September. The iimt Staff and the Alumni Board members are organising an exciting programme with fun, activities and nice landscapes.

Save the date! The Social & Fun Event will start in the late morning and finish in the late afternoon. The exact location as well as the exact timetable will follow in the next weeks on our website.

Check out the website and stay up-to-date.
Join us for research projects!

Do you know the energy market of the future and which role you will play?
Are you familiar with the customer of the future energy market?
How do you operate with the customer of the future energy market?

SVEN - INNOVATION IN SMART VALUE ENERGY NETWORKS

The product “energy” takes more and more the backseat and the service facet is nowadays the decisive factor to stay competitive in the market. Innovation and customer orientated attitude are the essential capabilities for a “value added” service. Consequently, the industry undergoes a structural alteration towards a “Smart Value Energy Network” (SVEN). For existing energy supplier organisations, there are tremendous challenges ahead to position adequately within SVEN; especially in the context of improving network efficiency and emerging of new entrants (e.g. ICT). To date, the scenario of a (private) customer orientated view and the effects on the energy system have not been sufficiently investigated and further analyses would bring valuable insights.

Another point is the diffusion of service innovation in the market which is deterministic for the scope of energy supplier’s actions. By applying an industry specific simulation tool for the diffusion, best-worst-case intervals can be defined and allow for outlined scenarios to be verified. This kind of approach enables energy suppliers to take a consistent and holistic view, whereby a sophisticated strategic forecasting as well as risk assessment can be supported.

The iimt plans to launch the SVEN & InnoDiff project in cooperation with the FFHS (Dr. Marcel Blattner) and innovative players in the energy sector are welcome to participate.

If you are interested, please contact Mario Gstrein (mario.gstrein@unifr.ch)

Global Project Management

There are numerous projects that we encounter in our everyday lives, both in our personal and professional capacity. Projects come in a variety of sizes, each with a different scope, budget, timeline and stakeholders, and managing all these different aspects becomes crucial to the overall success of the project. Thus, Project Management is a fundamental skill that all students and employees should understand and learn.

However, as the world becomes more interconnected, projects are increasingly using globally sourced resources. This leads to additional aspects and complexities that need to be managed within the project, and are handled under Global Project Management.

Mega-engineering and construction projects are good examples of global projects and Global Project Management, with the “Busan-Goeje Fixed Link” project in South Korea used as a model in the course. The class focused on the additional aspects that the Busan-Goeje project encountered along the way, such as: tunnel design challenges and decision to be made across time zones; the large area of the construction site; people of different nationalities working on different section of the project, to name a few. All these additional aspects introduced extra complexity within project, and must be managed for the overall success of the project.

Overall, the class showed how Global Project Management must handle the additional facets created by a global project along with all the more “traditional” aspects of the project and Project Management.

Alexander Maciej Rossudowski
Research Assistant at the iimt
Internationally active companies are facing great challenges when it comes to communication between its own locations, and with customers and partners around the globe. Swisscom along with the scientific partner iimt examined how these companies use communication and collaboration (C&C) solutions in a study.

"A functioning international cooperation is the key factor for sustainable value creation in this globalised world," says Prof. Dr. Stephanie Teufel from iimt. The study shows that telephone conferencing solutions in international cooperation are standard today and one of the most important communication tools in working together across borders. In addition, approximately two-thirds of respondents use web or video conferencing. Innovative solutions like interactive flip charts are rarely used.

Significant differences can be seen when the use by industry is analysed. The service sector is leading in all categories, followed by wholesale Industry. The assumption that the IT industry has a high affinity for communication and collaboration solutions is confirmed. It stands out, especially, in use cases that directly affect the business processes (customer service, customer support, maintenance). However, it used below average in management meetings, virtual project workshops and partner communications. Across industries C&C solutions are still least used in customer service.

Small businesses with fewer than 100 employees and companies with 1000-2499 employees use new C&C solutions most often, and close to eight out of nine categories are above the average. In addition, companies with less than 100 employees, use C&C solutions above average in the areas of maintenance and customer service. Companies with more than 1,000 employees use C&C solutions above average especially for access to expert knowledge.

Sustainability aspects are not the focus: Regardless of industry and company size, the majority of respondents see the benefits of communication and collaboration solutions in the reduction of costs, increasing productivity, and the acceleration of work processes. The focus is not on the aspects of sustainability.

Seen as least beneficial in all industries. This is particularly significant in the retail sector and in manufacturing units. However, 40 % of those surveyed, measure the impact of C&C solutions on travel costs. Of these, more than 70 % are above the target value.

The Global Study:
The Global Study focused on companies with international locations, with headquarters based in Switzerland. The survey was conducted with 946 sent electronic questionnaires and six personal interviews. This results in 128 usable datasets.


For further information, please contact Dominic Feichtner: dominic.feichtner@unifr.ch
Successful completion of the SCART Project

The SCART Project - Social Media Culture Assessment and Reporting Tool - was carried out at the iimt during the period from April 2012 to March 2013. The main scopes of the project were social media and the human dimension in terms of the hazards and risks which arise through the usage of social media.

From the point of view of an IT department the technically secure integration of social media platforms in the organisation's ICT infrastructure is more or less guaranteed. However, especially in the case of social media we have to consider the human dimension in terms of a holistic security management. This means that social media guidelines are essential for an organisation. These guidelines are the basis for a social media security culture, and must be part of the overall organisational culture. For the management, it is extremely important to know whether the corporate culture is alive and thus the policies are understood and adhered to. To support this, a framework for social media guidelines was defined and the management process was described. On this basis a dynamic assessment and reporting tool was developed and implemented.

An effective way in dealing with the risks is the definition and the application of rules and policies. Thus, a framework for social media guidelines was defined. Due to the fact, that human beings (i.e. in terms of an organisation, the employees) are still the weakest link in the security chain, we know that the availability of pure social media guidelines is not sufficient. Extensive training for employees is necessary. Furthermore we need to have tools and mechanisms to evaluate and measure the success of the training continuously. The dynamic management tool that was developed supports this assessment and reporting process.

For details we refer to the conferences and publications that resulted from the project:

- J. Dicken: Dynamisches Management Tool für die Analyse der Social Media Kultur in Organisationen. iimt University of Fribourg Masterthesis, 2012.

The iimt and the members of the SCART project would like to acknowledge the financial support of this research by grants from Hasler Stiftung Switzerland.

The figure shows the dependencies between the stakeholders (employees, management, CSO) and the management process (diagnosis, planning, practice, evaluation), as well as the imbedding of the dynamic management tool SCART.
Did you know?
All you want to know about the innovative and traditional Switzerland!

In addition to the traditional Swiss Army knife and milk chocolate, Switzerland has invented many other things:

It is Maurice Koechlin, a french-swiss engineer, that we owe the idea of the construction of the **Eiffel Tower** in 1889, and not Gustave Eiffel, who subsequently acquired the patent. Mr. Koechlin also designed the metal frame of the **Statue of Liberty**, sculpted by Frederic Auguste Bartholdi.

The man behind the **zip fastener** was a swiss jurist Martin Othmar Winterhalter from St Gallen. He managed to find solutions to produce zips on an industrial basis in 1923.

In 1924, Alusuisse was the first company to produce **aluminium foil** to be used in food packaging.

Othmar Hermann Ammann, a swiss from Feuerthalen (ZH), assisted in the building of the **Golden Gate Bridge** in San Francisco (1933-1937), which is currently the ninth-longest span of a bridge.

In 1941, Georges de Mestral, an engineer from Nyon (VD), created the **velcro® fastener**. He got the idea for velcro® from cockleburs caught in his clothes and his dog’s fur.

In 1968, there was an American prototype for the **computer mouse**. But it was Logitech, based in canton Vaud, which was the first company to mass-market the mouse.

Source: http://www.swissinfo.ch

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**Article in the Electrosuisse Bulletin**

**Congratulation to Mr. Imfeld!**

Peter Imfeld, who graduated from the iimt with an Executive MBA in Utility Management in 2012, published a very interesting article in the latest Electrosuisse Bulletin. With the title “Entflechtung von Energieversorgungsunternehmen nach EU-Recht – Auswirkungen auf vertikal integrierte Unternehmen”, Mr. Imfeld presents in this article the results of his iimt EMBA-Paper.

You can read the article of the Electrosuisse Bulletin 5/2013 on our website or download the entire publication in our iimt University Press Webshop.

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**All the iimt staff wishes you a nice summertime!**