First time BencHEIT

Experiences from the first round of benchmarking

Oliver De Boni

Table of Contents

University of Zurich[UZH]

Zentrale Informatik

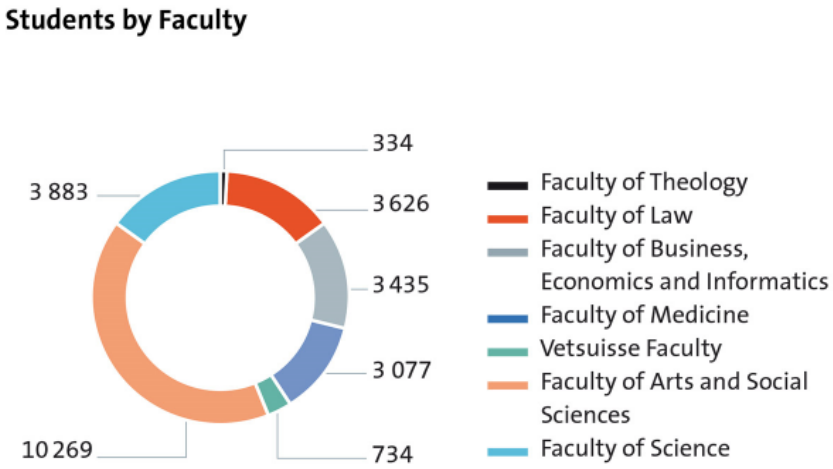
Introduction of UZH and Zentrale Informatik

Introduction

- Founded in the year 1833
- Europe's first university to be established by a democratic political system
- The University of Zurich (UZH) is Switzerland's largest university with the widest range of study courses
- Member of the "League of European Research Universities" (LERU)
- Twelve Nobel Prizes
- Placed among the top 100 institutions of higher learning in the most important rankings

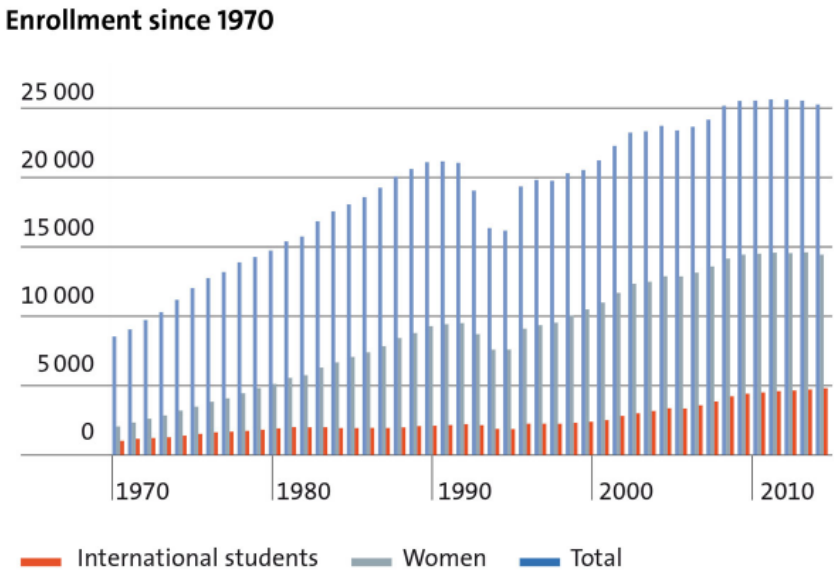
Facts and Figures

- 25’358 students
- 6’323 employees (FTE) and around 8000 headcounts
- Income 1’377 Mio CHF, Expenses 1’375 Mio CHF

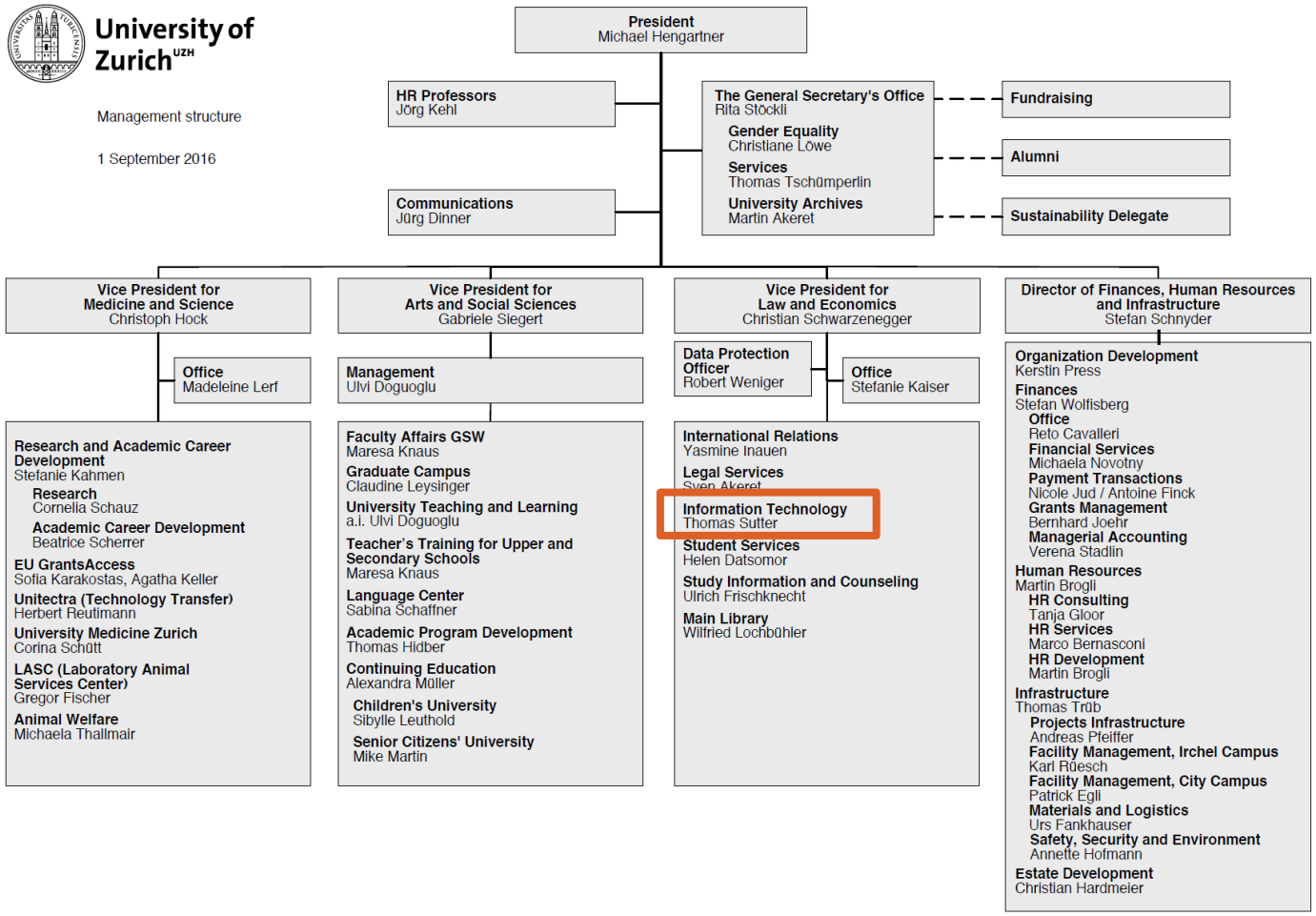


Facts and Figures

- 25’358 students
- 6’323 employees (FTE) and around 8000 headcount
- Income 1’377 Mio CHF, Expenses 1’375 Mio CHF



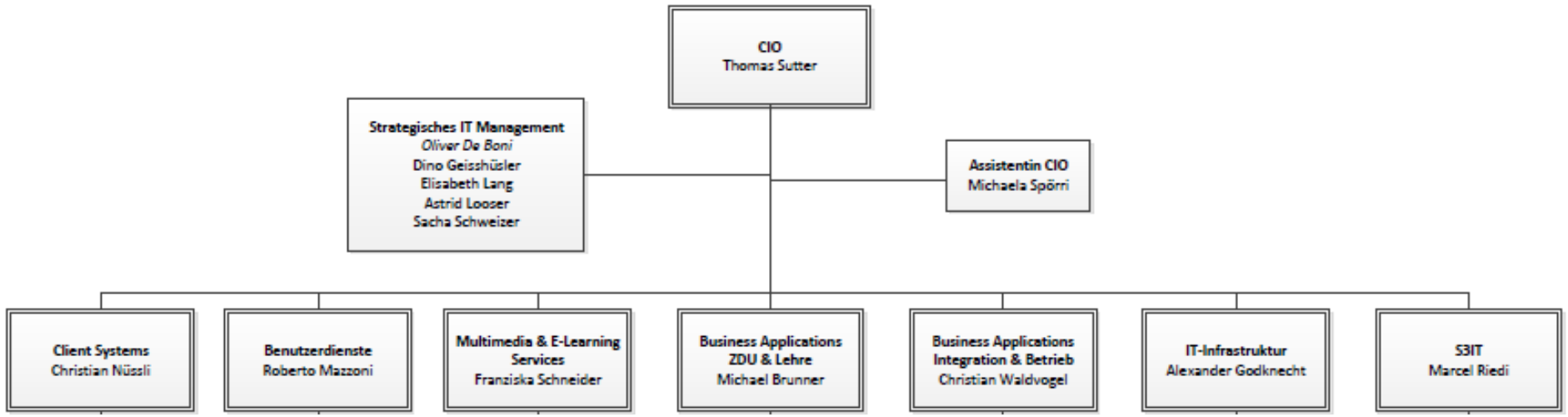
University Structure



Zentrale Informatik Structure

Universität Zürich[UZH]

Organigramm Zentrale Informatik



University of Zurich[UZH]

Zentrale Informatik

From Zero to BencHEIT

Data Gathering Process

- Data gathering by SIM, specific data requested from the department heads and consolidated by SIM
- Data doubled checked by the CIO (his strong involvement was key for sucess)
- Sources of data, estimations and calculations documented
- Started by March, finished by end of May

Sources

- Annual Report 2015
- Report of Academic Services 2015
- Administration Tools for Network Components, Servers etc.
- IT-Inventories
- Directory Services like Active Directory, LDAP Directory, Identity Management
- IT Service Management Software

Challenges

- No experience with benchmarking before
- Numbers often not available (maturity of the organization)
  - We had to figure out how to get the answers
  - Or we had to estimate
- Not always a clear understanding what numbers have been requested (e.g. Students FTE)
- Priority for Department Heads
- Publication date of the annual report
- Usability of the Sharepoint Plattform (but we had great support from the BencHEIT team)

Results and Specific Findings

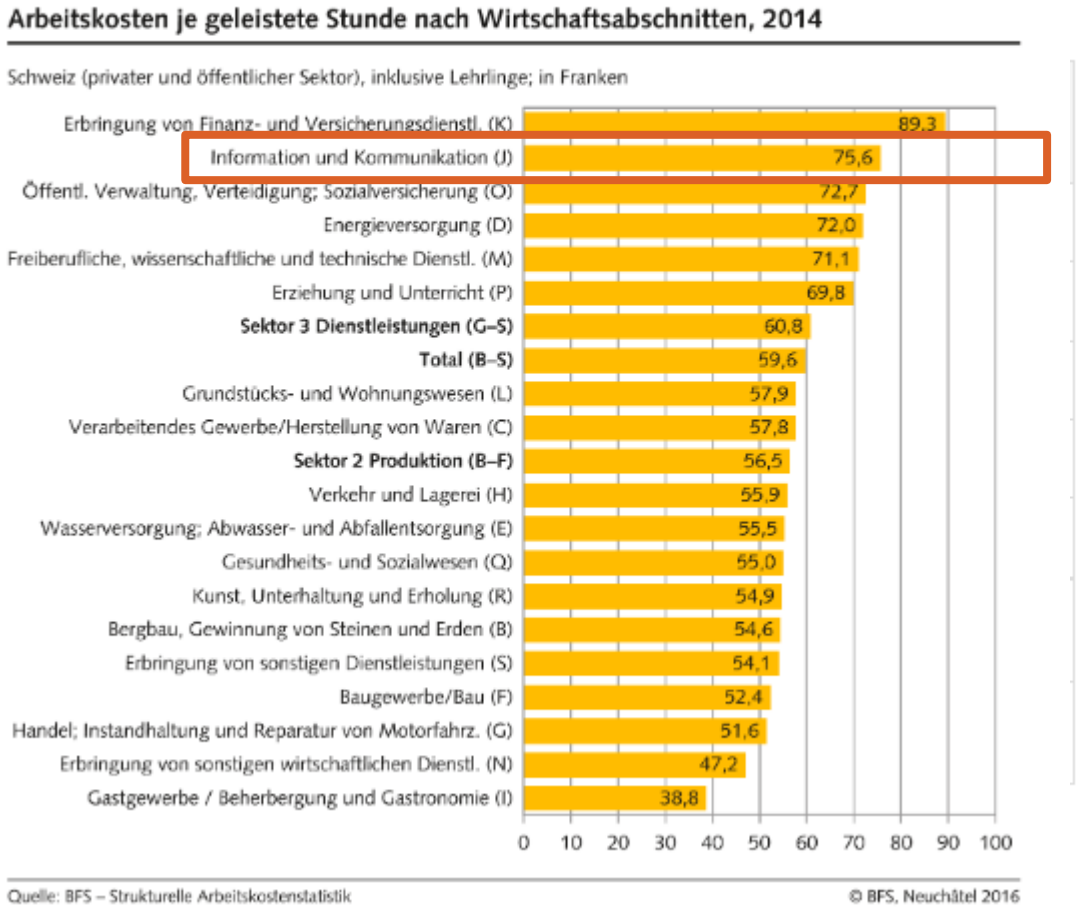
General Conditions

- High labour costs in Switzerland
- +180 locations
- Unknown number of IT staff within the faculties and institutes
- Often unknown what services other IT departments offer

Labour Costs

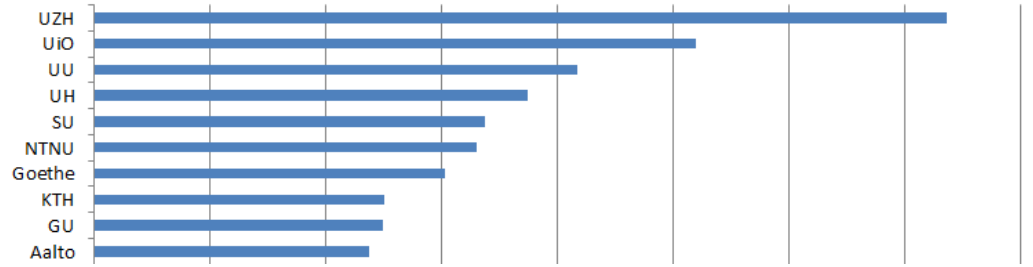
- Switzerland has more then the doubled labour costs than EU-28
- Labour costs are only comparable to Norway
- What about differences between sectors / industries?

Arbeitskosten je geleistete Stunde nach Wirtschaftsabschnitten (Diagramm)



Staff Costs

- Highest staff costs overall, even compared to Norway
- IT share of institution budget under average
- Very little outsourcing



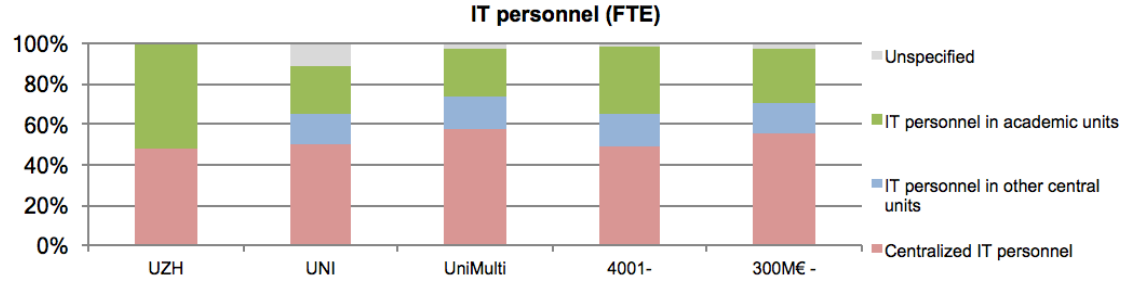
Costs by account	UZH	UNI	UniMulti	4001-	300M€ -
Hardware	8%	19%	18%	18%	18%
Software	13%	11%	11%	12%	11%
Staff	60%	46%	48%	50%	48%
Facilities	0%	6%	5%	6%	7%
Outsourcing	0%	13%	12%	11%	12%
Unspecified	19%	7%	8%	10%	8%

IT costs	UZH	UNI	UniMulti	4001-	300M€ -
Centralized IT costs	57%	49%	48%	44%	47%
IT costs in other central units	0%	20%	20%	19%	19%
IT costs in academic units	43%	28%	29%	36%	30%
Unspecified	0%	8%	3%	1%	3%
Average IT costs (million EURO)	**61.0 M**	**21.0 M**	**20.6 M**	**37.4 M**	**32.3 M**
IT share of institution budget	4.7 %	5.8 %	5.4 %	5.6 %	5.7 %
IT costs / (Staff+Student FTE)	1.9 K	0.6 K	0.9 K	1.1 K	1.1 K

Centralized vs Decentralized

- Centralized IT personnel under average
- No other central units

IT personnel (FTE)	UZH	UNI	UniMulti	4001-	300M€ -
Centralized IT personnel	48%	60%	58%	49%	55%
IT personnel in other central units	0%	18%	16%	16%	16%
IT personnel in academic units	52%	29%	24%	32%	26%
Unspecified	0%	13%	2%	2%	3%
Average IT personnel	**288**	**144**	**148**	**254**	**215**
IT share of institution personnel	4.6 %	4.2 %	4.1 %	4.4 %	4.4 %
Institution staff / IT personnel (FTE)	22	24	24	23	23
Students / IT personnel (FTE)	89	122	131	110	111



Service Costs

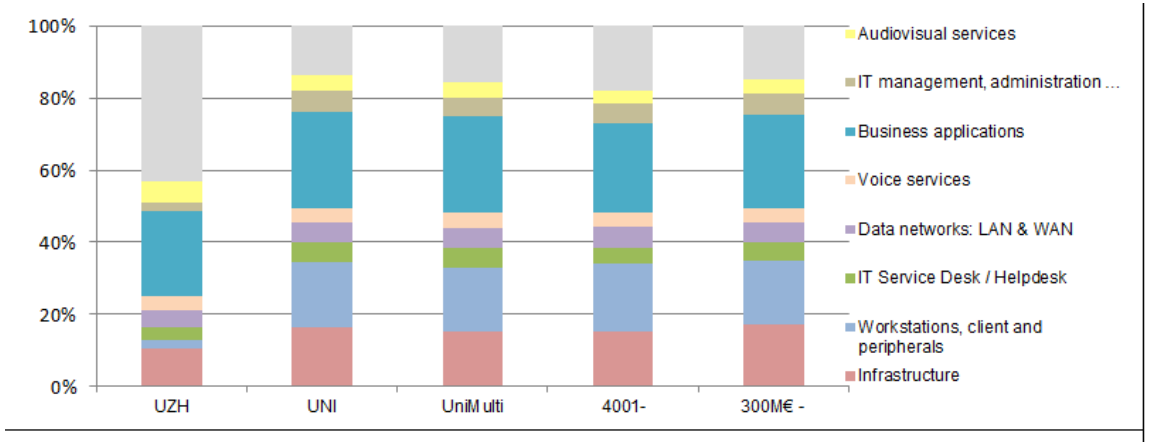
- Lower costs for Workstations, client and peripherals > not many managed clients at UZH
- Higher costs for networks, due to more than 180 locations?
- Business applications higher than norwegian institutions but in % in the average

Costs by service (1000 EURO)	UZH	UiO	NTNU	UiB	UiT
Infrastructure	6'482 k	9'941 k	11'194 k	3'955 k	3'373 k
Workstations, client and peripherals	1'365 k	9'316 k	12'612 k	4'850 k	3'260 k
IT Service Desk / Helpdesk (incl. Service Point)	2'156 k	4'872 k	2'579 k	1'207 k	2'306 k
Data networks: LAN & WAN	2'963 k	1'578 k	2'372 k	1'357 k	1'807 k
Voice services	2'252 k	1'186 k	1'895 k	1'405 k	679 k
Business applications	14'533 k	9'761 k	7'093 k	7'565 k	6'367 k
IT management, administration and information	1'272 k	3'954 k	3'605 k	1'685 k	1'191 k
Audiovisual services	3'722 k	2'728 k	2'440 k	883 k	2'984 k
Unspecified	26'247 k	2'830 k	958 k	20 k	199 k
Total IT costs	**60'992 k**	**46'165 k**	**44'749 k**	**22'926 k**	**22'167 k**

Service Costs

- Lower costs for Workstations, client and peripherals > not many managed clients at UZH
- Higher costs for networks, due to more than 180 locations?
- Business applications higher than norwegian institutions but in % in the average

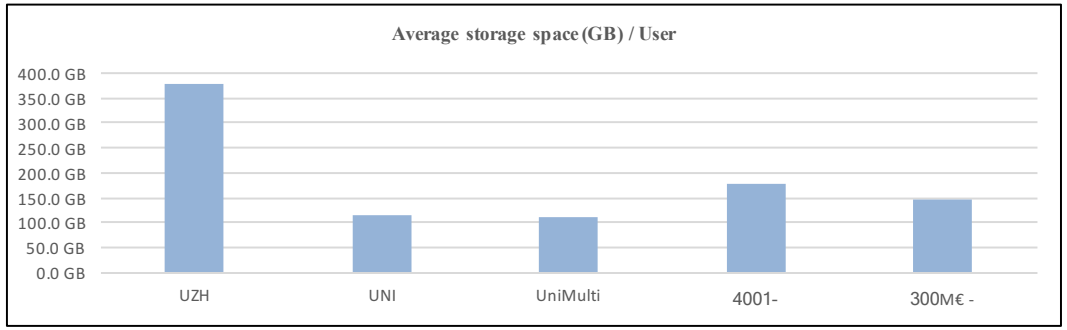
Costs by service	UZH	UNI	UniMulti	4001-	300M€ -
Infrastructure	11%	17%	16%	15%	17%
Workstations, client and peripherals	2%	19%	18%	18%	18%
IT Service Desk / Helpdesk	4%	5%	5%	5%	5%
Data networks: LAN & WAN	5%	6%	6%	6%	6%
Voice services	4%	4%	4%	4%	4%
Business applications	24%	28%	27%	25%	27%
IT management, administration ...	2%	6%	5%	6%	6%
Audiovisual services	6%	4%	5%	4%	4%
Unspecified	43%	14%	16%	18%	15%



Storage Numbers

- More storage space than other HEI
- Per user more that factor 3 compared to UNI and UNIMulti
- Per user more then factor 2 compared to 4001- and 300M€ group

Servers and storage	UZH	UNI	UniMulti	4001-	300M€ -
Average storage space (TB)	12'048 TB	2'757 TB	3'024 TB	5'833 TB	4'473 TB
Average storage space (GB) / User	377.0 GB	114.8 GB	112.3 GB	177.1 GB	147.5 GB
Number of fysical servers	483	206	203	355	316
Number of virtualised servers	971	578	556	869	830
Avearge virtualisation index	67%	74%	73%	71%	72%



University of Zurich[UZH]

Zentrale Informatik

Lessons Learned and Next Steps

Lessons Learned

We will definitely participate in the next round

- Wait until the recent Annual Report is available (for numbers related to the report)
- Inform the Department Heads early enough
- Next time it will be easier, but there are still white spots, so we have to:
  - Look into unspecified areas
  - Elaborate one some numbers, to check if we can get more accurate data

And now?

- View from outside helps for self-perception
- Increases maturity of the organization
- Good foundation for “setting the scene” and discussions on costs and human resources
  - CIO Presentation at Staff Meeting
  - CIO Presentation to the Executive Board of the University

- Still to do is to…
  - Look deeper into the Services and specific findings
  - Check some interesting findings with other Swiss Universities
  - Decide what numbers we could use as Key Performance Indicators (KPI)

Questions and Discussion

- Are the other data sources, than the ones I mentioned, in your organisation available?
- What do you do with the BencHEIT results?
- What kind of benefits did you have in your organisation?