

# IT Benchmarking in European Higher Education

EUNIS 2011

Dublin

15 June 2011



# Overview

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- Background
- Structure of the questionnaire
- First results





# IT Benchmarking

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- Benchmarking works by comparing one's own organisation with other organisations operating in a similar kind of environment
  - By benchmarking organisations can better identify where they are underperforming and why the best performance works better
- > The strategy of the organisation can be developed for organisational development



# Background – Helsinki University IT Benchmarking

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- Educause Core Data Service ([www.educause.edu](http://www.educause.edu))
  - broad IT survey for higher education -> data relatively easily collected via a web form
  - US based -> data not directly comparable to European higher education
- Finnish Ministry of Finance annual IT surveys
  - targeted for entire public administration (since 1980s)
  - doesn't pay attention to the special characteristics of the academic world
- 7 Finnish universities implemented a benchmarking survey in 2007
  - a heavy process but a lot of valuable information gathered
  - carried out by Compass Management Partners (tenders also from Gartner & Transcendent Group)
- need to monitor the results and costs of the operations in a way that the results are relevant and comparable
  - > a new benchmarking survey launched in spring 2011



# The New Survey - Planning

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- Spring 2010
  - Steering group together with HM&V Research consulting established an outline for the survey
- Autumn 2010
  - Enlarged steering group with Market-Visio (Gartner Sales & Delivery Partner) developed the questionnaire and metrics
  - Supplier: Dept. of Business Information Management and Logistics (Tampere University of Technology)
- Survey launched in March 2011



# IT Benchmarking 2011 – in Practice

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- The survey launched on 15 March via the networks of university & polytechnics IT directors (Fucio & Aapa)
  - A separate information systems survey concluded simultaneously
- Due date on 8 April (final deadline 21 April)
- Support services:
  - Helpdesk (phone & e-mail)
  - Web page <http://webhotel2.tut.fi/kk-bm/> (guidelines, FAQ)



# First Impressions

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- Response rate
  - Universities 81 % (13/16)
  - Polytechnics 76 % (19/25)
- Feedback questionnaire right after deadline
  - Feedback mainly positive -> the need for BM was clearly recognised
  - Some questions were seen a bit too detailed



# Current Status

on 12 June 2011

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- Validation of data ongoing
- First report available end of June
- > sent out to respondents for comments and complement
- Final report ready in early September





# Plan for the Next Round

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- Basic module that is repeated annually
  - > Slightly lighter than the survey this year
- In addition optional modules that can be repeated when necessary
  - > Eg. user satisfaction, helpdesk, IT governance and risk management
- European universities are invited to attend the benchmarking survey
  - > Aim is to create a survey that provides international comparison data for our needs



# Structure of the Questionnaire

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- Consists of four parts:
  - Background information
  - IT personnel FTE break down
  - IT budget break down
  - Volumes
- Division between:
  - Centralised IT (IT Center, IT Services, IT management)
  - Other centralised IT (units that provide IT also outside the unit such as central administration, libraries)
  - IT in faculties

The information covers the year 2010.



# Background

T2 University/higher education details		
T2.1	Is your institution university or polytechnic?	yliopisto
T2.2	University/higher education name in original language	Helsingin yliopisto
T2.3	University/higher education name in English	University of Helsinki
T2.4	Web site address	<a href="http://www.helsinki.fi/yliopisto/">http://www.helsinki.fi/yliopisto/</a>
T2.5	Country	Suomi
T2.6	Faculties	11
T2.7	Campuses	4
T2.8	Locations	62
T3 Finances		
T3.1	Total IT-budget/IT Spending	34 767 664.00
T3.2	Total operational budget	626 674 872.53
T4 Completed degrees and credits		
T4.1	Completed degrees in total (university education)	5805
T4.1.1	Lower degree (universities)	2854
T4.1.2	Higher degrees (universities)	2243
T4.1.3	Doctoral degrees (universities)	434
T4.2	Completed degrees in total (polytechnic education)	0
T4.2.1	Polytechnic degrees	0
T4.2.2	Higher polytechnic degrees	0
T4.3	Completed credits in total	
T5 Personnel and end-users		
T5.1	Total personnel (persons)	8670
T5.2	Total personnel (FTEs)	8214
T5.3	Student (persons)	36609
T5.3.1	Degree students	
T5.3.2	Other students (e.g. open education course students)	
T5.4	Student (FTE)	24213
T5.5	End users in IT	50132
T5.5.1	User accounts, employees	16383
T5.5.2	User accounts, students	31898
T5.5.3	User accounts, other	1851



# IT Personnel FTE Break Down

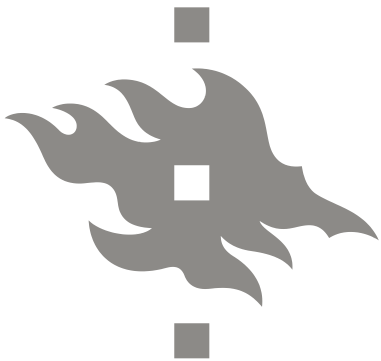
IT FTE BREAK DOWN (H)					
H	Please indicate the full time equivalent	Centralised IT (K)	Other centralised IT (M)	IT in faculties (Y)	Total
<b>H1</b>	<b>Infrastructure</b>				
H1.1	Mainframe				
H1.2	Servers	7.4	2.0	2.4	11.8
H1.3	Grid-computing			1.3	1.3
H1.4	Storage and varmuuskopointi	3.0	2.0	1.2	6.2
H1.5	System management	6.3	2.0	4.5	12.8
H1.6	Middleware	15.3		0.9	16.2
H1.7	Email, calender and other communications	6.1	1.0	0.1	7.2
H1.8	Other		5.0	3.4	8.4
<b>H2</b>	<b>Client and peripherals</b>				
H2.1	Clients / Computers	92.4	2.5	10.8	105.7
H2.2	Printing			0.2	0.2
H2.3	Other		1.0	0.1	1.1
<b>H3</b>	<b>IT Service Desk / Helpdesk</b>				
H3.1	Helpdesk	9.6			9.6
H3.2	Service Points	7.7		3.3	11.0
H3.3	other	1.5		0.3	1.8
<b>H4</b>	<b>Data networks</b>	6.1	1.0		7.1
H4.1	WAN			0.1	0.1
H4.2	LAN			0.2	0.2
H4.3	Other		1.0	0.4	1.4
<b>H5</b>	<b>Voice services</b>				
H5.1	Telephone exchange and infrastructure				
H5.2	Phone devices				
H5.3	Phone calls				
H5.4	Other				
<b>H6</b>	<b>Business applications</b>				
H6.1	Finance			0.1	0.1
H6.2	Human resources		0.5	0.1	0.6
H6.3	Facilities				
H6.4	Communications	1.1	3.0	1.6	5.7
H6.5	Records management	3.5	10.0		13.5
H6.6	Research administration				
H6.7	Other	18.1	18.6	5.6	42.3
<b>H7</b>	<b>IT management and administration</b>				
H7.1	IT management and administration	8.7	6.4	3.6	18.7
H7.2	Information security	1.7	1.0	0.5	3.2
H7.3	Enterprise architecture	1.0	3.0	1.0	5.0
H7.4	Other	7.6	2.0	0.2	9.8
<b>H8</b>	<b>Audiovisual services</b>	14.2		1.2	15.4
<b>H9</b>	<b>Other</b>	4.6	1.0	14.9	20.5



# IT Budget Break Down

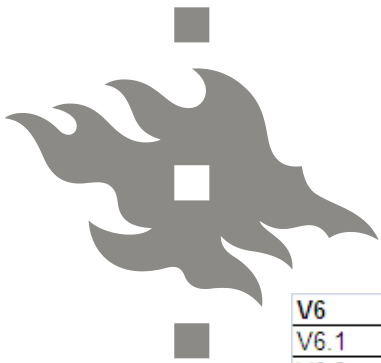
## IT budget break down (K, M, Y)

K	Centralised IT (total)	HW	SW	Staff costs	Occupancy	Outsourcing	Other	Total
<b>K1</b>	<b>Infrastructure</b>							
K1.1	Mainframe							
K1.2	Servers	139 797	16 558	439 478	155 944	165 719		917 496
K1.3	Grid-computing							
K1.4	Storage and varmuuskopointi	88 019		153 454	26 588	66 274		334 335
K1.5	System management		191 455	378 457	32 712	58 692		661 316
K1.6	Middleware	17 372	22 562	844 514	68 561	229 399		1 182 408
K1.7	Email, calendar and other communications		9 163	300 252	27 335	3 034		339 784
K1.8	Other	18 967				21 670		40 637
<b>K2</b>	<b>Client and peripherals</b>							
K2.1	Clients / Computers	376 258	583 191	3 714 062	908 307			5 581 818
K2.2	Printing	350				267 676		268 026
K2.3	Other							
<b>K3</b>	<b>IT Service Desk / Helpdesk</b>							
K3.1	Helpdesk	110 179	2 851	382 431	43 019	21 570		560 050
K3.2	Service Points			284 233	34 505			318 738
K3.3	other			80 744	6 722			87 466
<b>K4</b>	<b>Data networks</b>			333 620	27 335			360 955
K4.1	WAN	63 030						63 030
K4.2	LAN	82 995						82 995
K4.3	Other		6 568					6 568
<b>K5</b>	<b>Voice services</b>							
K5.1	Telephone exchange and infrastructure							
K5.2	Phone devices							
K5.3	Phone calls							
K5.4	Other							
<b>K6</b>	<b>Business applications</b>	3 652	215 754			32 314		251 720
K6.1	Finance							
K6.2	Human resources							
K6.3	Facilities							
K6.4	Communications			67 359	4 929			72 288
K6.5	Records management			249 675	15 684			265 359
K6.6	Research administration							
K6.7	Other			950 806	81 109			1 031 915
<b>K7</b>	<b>IT management and administration</b>							
K7.1	IT management and administration	650	4 428	563 942	38 986	61 169		669 175
K7.2	Information security	2 490	105 763	103 234	7 618	4 473		223 578
K7.3	Enterprise architecture			64 825	4 481			69 306
K7.4	Other			581 448	34 057	13 530		629 035
<b>K8</b>	<b>Audiovisual services</b>	18 661	1 251	675 306	129 285	10 220		834 723
<b>K9</b>	<b>Other</b>			328 329	20 613		818 549	1 167 491
	<b>Total</b>	<b>922 420</b>	<b>1 159 544</b>	<b>10 496 169</b>	<b>1 667 790</b>	<b>955 740</b>	<b>818 549</b>	<b>16 020 212</b>



# Volumes (1)

VOLUMES (V)					
V	Volumes (number, unless otherwise advised)	Centralised IT (K)	Other centralise	IT in faculties	Total
<b>V1</b>	<b>Mainframe environment</b>				
V1.1	Number of mainframes				0
V1.2	Total number of MIPS in mainframes (MIPS)				0
<b>V2</b>	<b>Server environment, logical servers</b>				
V2.1	non x86 servers (Unix)				0
V2.2	x86 servers (Windows)	147			147
V2.3	x86 servers (Linux)	126			126
V2.4	Other				0
<b>V3</b>	<b>Server environment, physical servers</b>				
V3.1	non x86 servers (Unix)	1			1
V3.2	x86 servers (Windows)	72			72
V3.3	x86 servers (Linux)	222			222
V3.4	Other	49	46	290	385
V3.5.1	<i>Virtuaalisointialustat (sisältyvät myös palvelinlaitteiden lukumäärään)</i>	20			20
V3.5.2	<i>Grid (number of</i>			2 812	2 812
<b>V4</b>	<b>Storage networks</b>				
V4.1	Size of raw storage FC (TB)	207	1	75	283
V4.2	Size of raw storage ATA (TB)	288	133	561	982
<b>V5</b>	<b>Data centers</b>				
V5.1	Area in total (square metre)	422		245	667
V5.2	Number of data centers	2		4	6
V5.3	Maximal capacity of data centers in total (kW)	300		390	690
V5.4	Power consumption, mechanical and refrigerating engineering in total (kWh)	2 628 000		3 416 400	6 044 400
V5.4.1	<i>Mechanical engineering, power consumption (kWh)</i>				
V5.4.2	<i>Refrigerating engineering, power consumption (kWh)</i>				

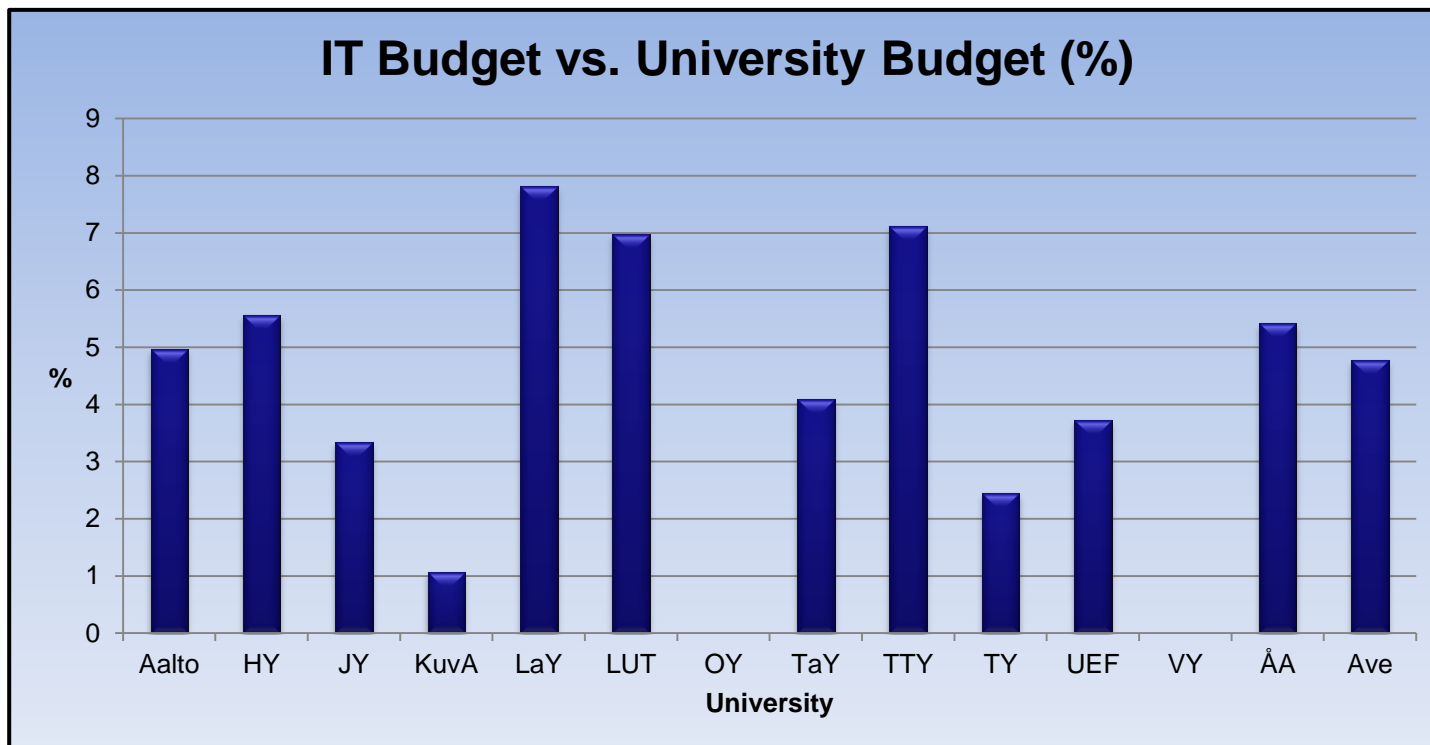


# Volumes (2)

<b>V6</b>	<b>Client and peripherals</b>				
V6.1	Desktops	10 472		528	11 000
V6.2	Laptops	4 443		272	4 715
V6.3	Smart phones	160	320	100	580
V6.4	Attached side printers	100	400	500	1 000
V6.5	Network printers / multifunction printers	0	982	20	1 002
<b>V7</b>	<b>Client and peripherals - purpose of use (desktops and laptops)</b>				
V7.1	Personal computer	13 015			13 015
V7.2	Computer laboratories or other common use	1 900			1 900
V7.3	Research laboratories			800	800
V7.4	Other				
<b>V8</b>	<b>Breakdown by operating systems</b>				
V8.1	Windows				13 132
V8.2	Linux				1 741
V8.3	MacOS				842
V8.4	Other				
<b>V9</b>	<b>IT Service Desk</b>				
V9.1	Number of tickets opened	83 846			83 846
V9.2	Percentage of tickets solved (%)	46			
<b>V10</b>	<b>Data networks</b>				
V10.1	Number of active LAN ports	22 500			22 500
V10.2	Number of simultaneous WLAN users	1 100			1 100
V10.3	Number of devices connected to WAN	26 500			26 500
<b>V11</b>	<b>Voice services</b>				0
V11.1	Number of fixed line connections / extensions	198	850	11 000	12 048
V11.2	Number of mobile connections: mobile phones	165	400	3 400	3 965
V11.3	Number of mobile connections: other mobile connections (mobile modems, SIM-cards for laptops)				0
<b>V12</b>	<b>Business applications</b>				0
V12.1	Finance		6		6
V12.2	Human resources		6		6
V12.3	Facilities		17		17
V12.4	Communications		23		23
V12.5	Records management		26	2	28
V12.6	Research administration		9		9
V12.7	Other	26	43		69



# First Charts (1)

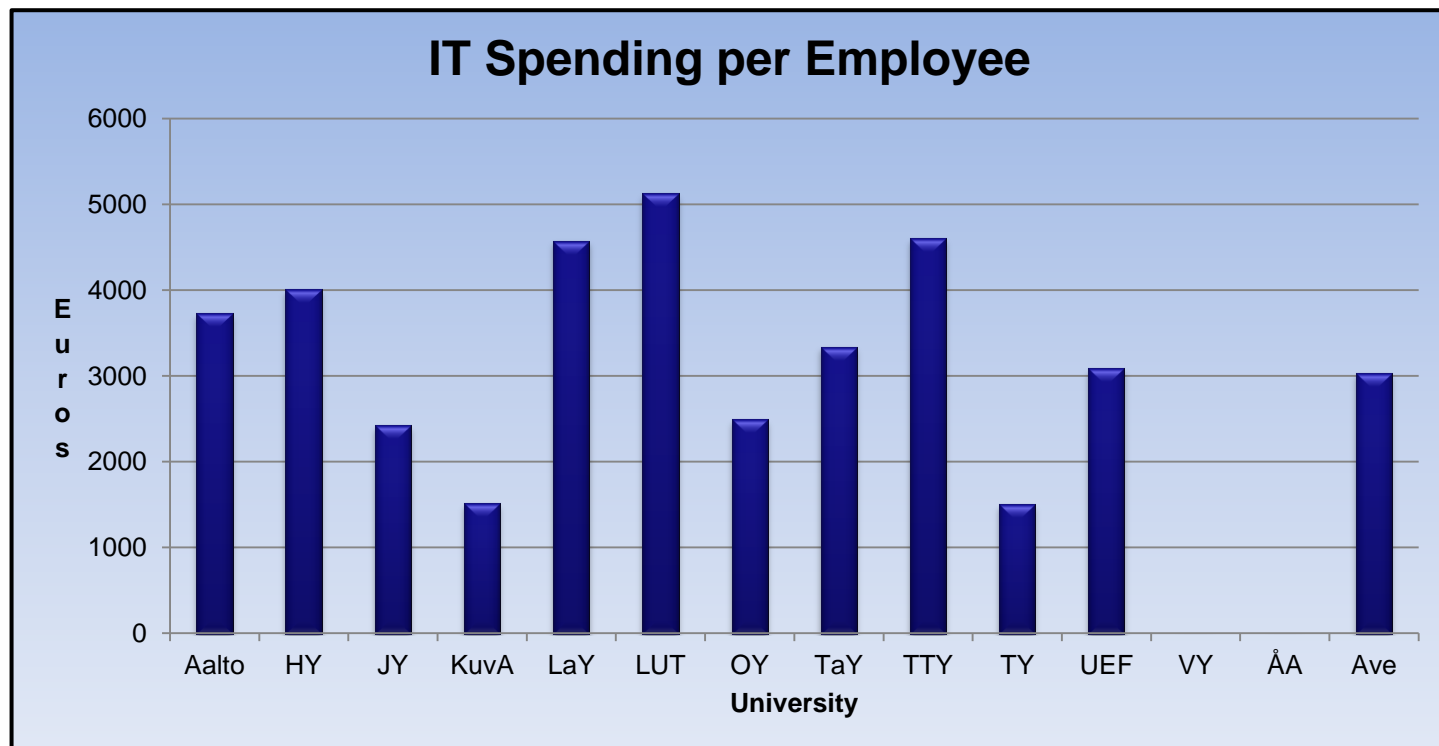


NB. Data not validated





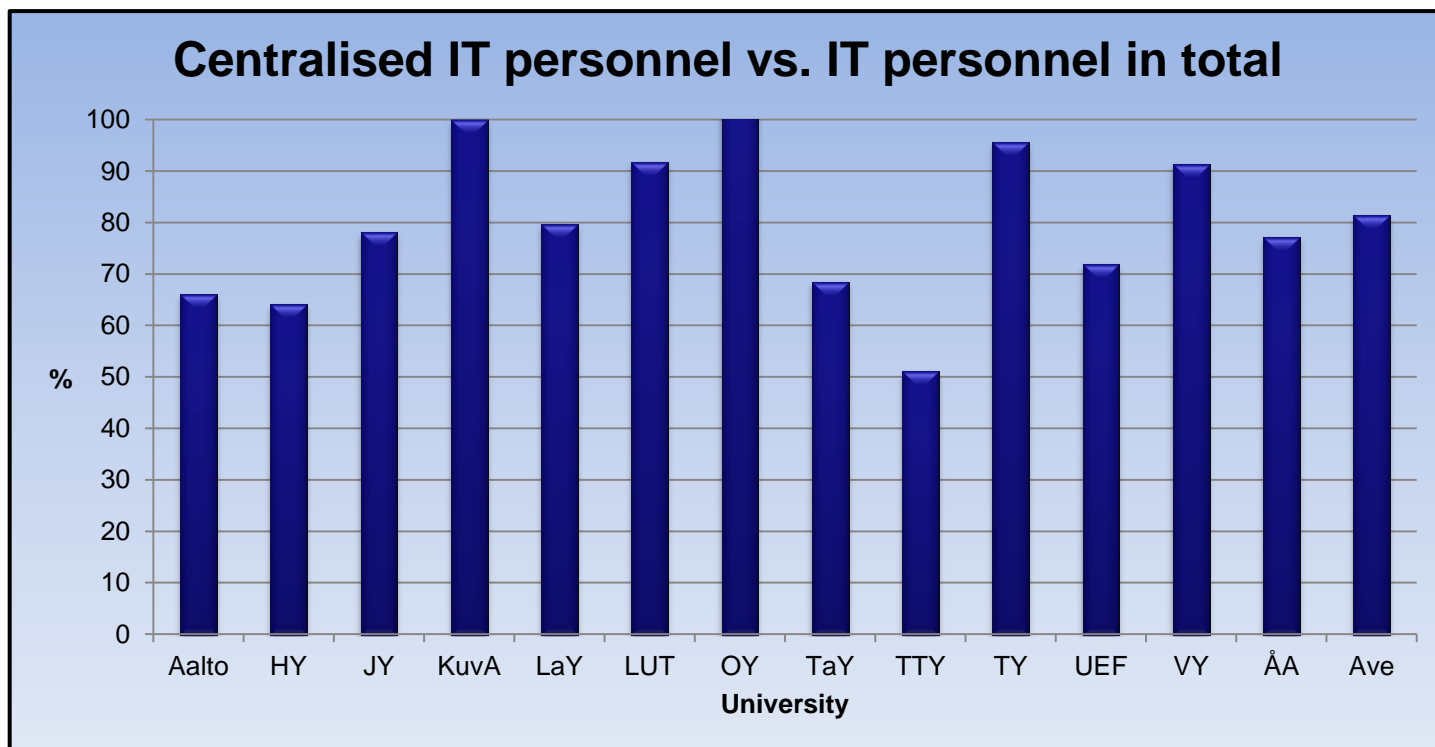
# First Charts (2)



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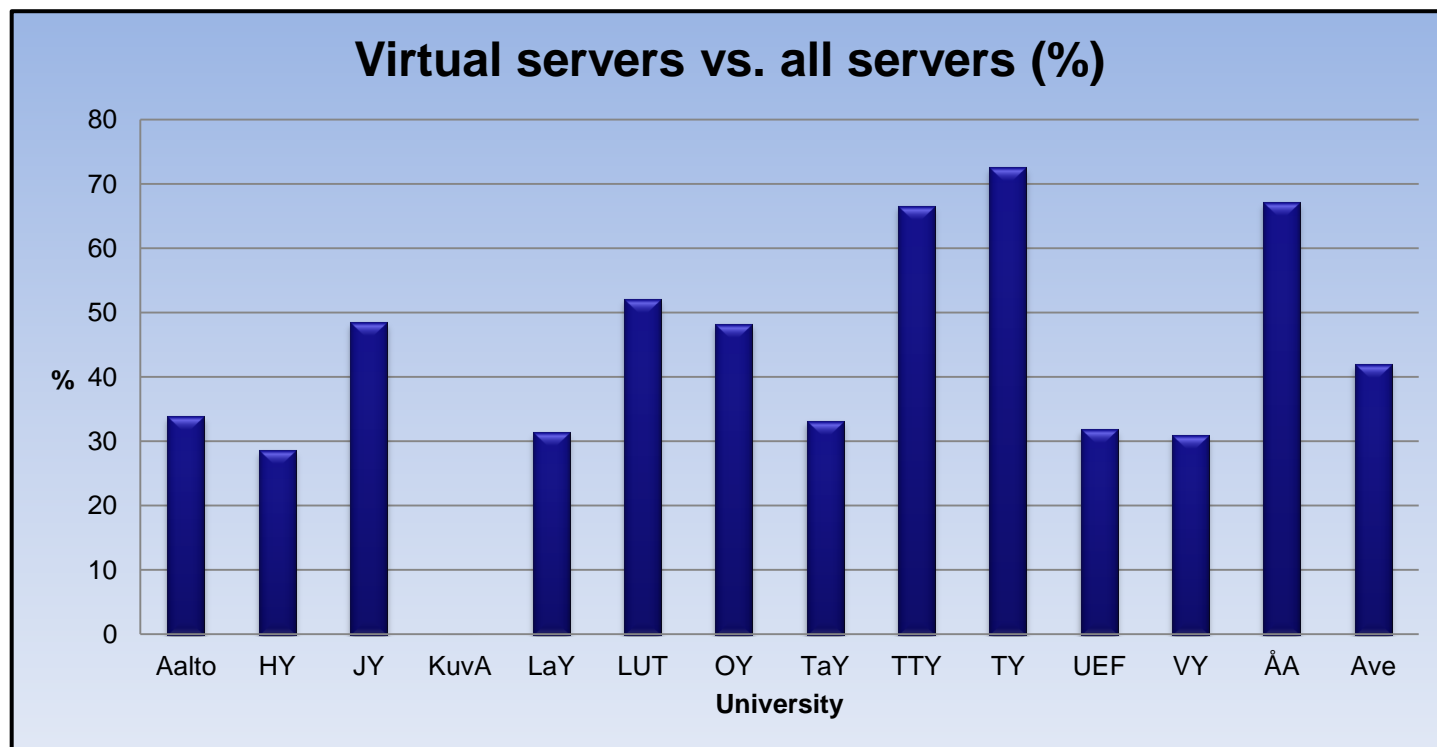
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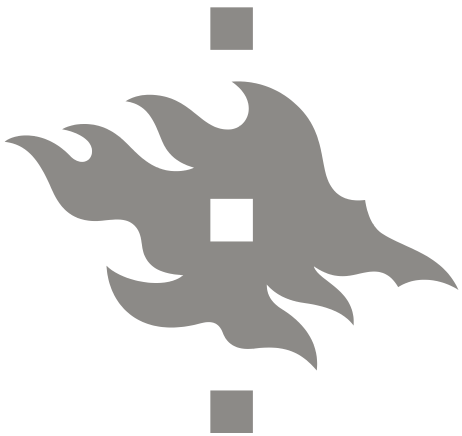
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# First Charts (4)



NB. Data not validated



# Thank you for your attention

**Interested in participating in the survey next year?**

**Please contact**

**[terhi.nikula@helsinki.fi](mailto:terhi.nikula@helsinki.fi)**

