2015 UNIVERSITIC

since 2006

U crue Universidades Españolas TIC
www.crue.org

Analysis of IT in Spanish Universities

Inphographic: http://rua.ua.es/dspace/handle/10045/54169

EUNIS BencHEIT **Workshop**

Dec 8th 2016
NTNU
Trondheim, Norway

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How we are organized

CRUE TIC Comisión Sectorial de las Tecnologías de la Información y las Comunicaciones	>120 members

IT Analysing, Planning and Governance Group (ITAPGG) 12 members	gti4u Team **Researchers** 10 members

UNIVERSITIC 9 years

What is UNIVERSITIC?

It is the name of…

- **An annual Survey**, which results are published in a report bearing also the same name.

- **A catalogue of IT indicators**, which includes 3 different kind of indicators: description, management and governance.

- **A knowledgebase**, which includes values from 9 survey editions

UNIVERSITIC is a catalogue

Divided into 3 tiers…

IT Governance

IT Management

IT Description

An integral vision of IT in a HEI !!!

1. Teaching and Learning

2. Research

3. Management Processes

4. Information Management

5. IT Training and Culture

IT Description Axes

1. **IT Resources**

2. **IT Projects**

3. **IT Services**

4. **IT Management**

5. **IT Quality, Regulations and Standards**

6. **Collaborations**

IT Management Axes

1. **Responsibility**

2. **Strategy**

3. **Acquisition**

4. **Performance**

5. **Conformance**

6. **Human Behaviour**

IT Governance Principles
(ISO 38500)

Principles: 6
Objectives: 30
Variables: 128
Indicators: -

IT Governance

Axes: 7
Objectives: 21
Variables: 142
Indicators: 26
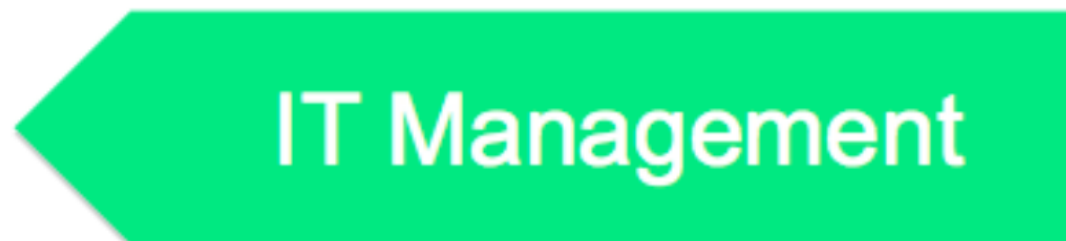
IT Management

Axes: 5
Objectives: 15
Variables: 71
Indicators: 26

IT Description

UNIVERSITIC is a survey…

- **Designed by and for IT Directors**

- **Includes cost and volume indicators but most of them are best practices indicators**

- **We put our focus on Services and IT Management**

UNIVERSITY INNOVATIVE

EFFICIENCY
Getting the most out of the available resources

64 universities

1,337,167 students

+ 90% of university students

102,520 faculty (academic staff)

51,239 administration and services staff

	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
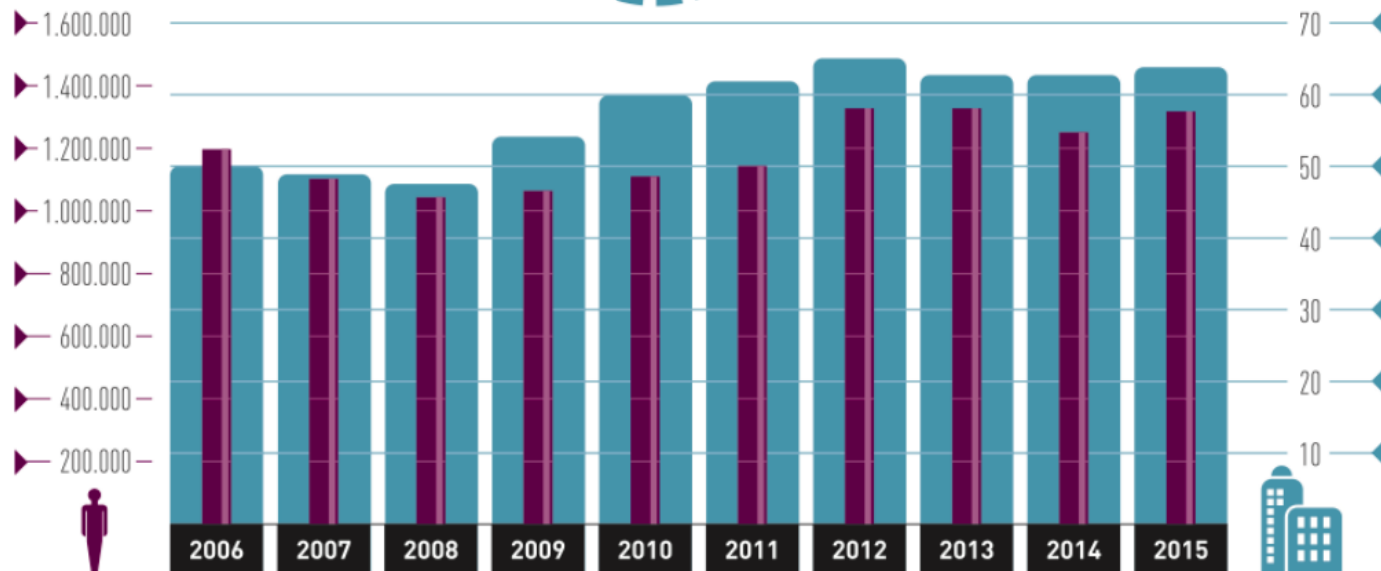
3.62% average budget allocated to **IT** by universities

220,000,000 euros devoted to centralised **IT**

50% staff costs

4,830 specialists in central services

2,953 permanent staff (FTE)

50% non-staff costs

28%	new investments
15%	hardware maintenance
21%	software maintenance
36%	outsourced services

437 temporary staff

719 IT specialists in other services

721 outsourced

Investment / Academic

450
400
350
300
250
200
150
100
50
0

2006 2007 2008 2009 2010 2011 2012 2013 2014 2015

euros
220
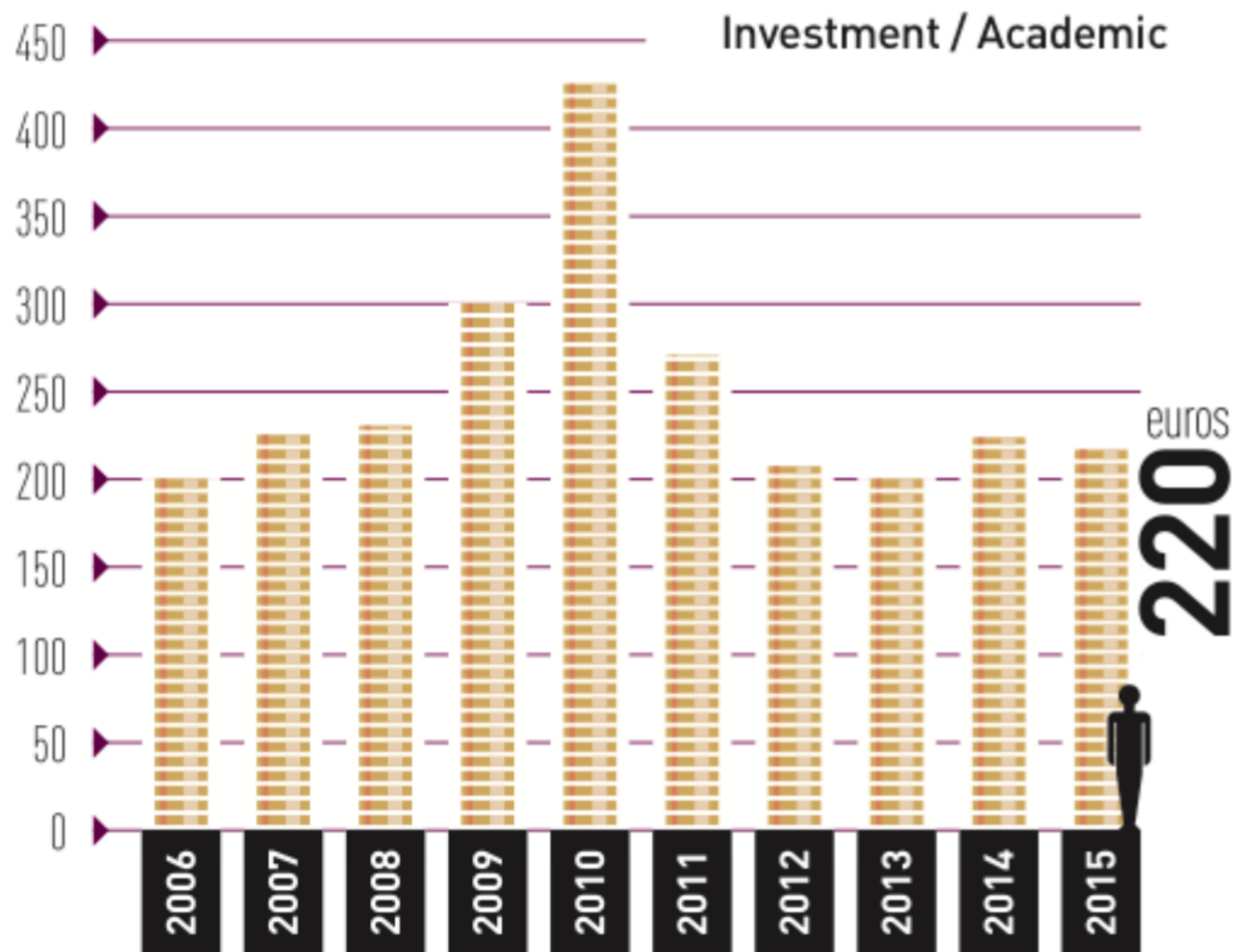
IT manager's time distribution

26%
on designing and planning strategies

26%
on designing projects and supervising management

25%
on user assistance and resolving incidents

23%
on other matters (training, supplier assistance, etc.)

SERVICE

Providing students, teachers and managers with the equipment and services they need to work under the best conditions

183.000

computers available to students (computer rooms, open-access computer rooms and laptops)

Complemented by the students' own personal equipment (BYOD), which also require services (wi-fi network, programs, etc.)

440,000,000
wi-fi connections per year

9 million x university x year

118 IT services

average % of services offered by universities

4 IT-supported research — 66%

7 IT-supported teaching — 85%

64 IT-supported management — 73%

5 identity management — 84%

11 web and digital content publication — 78%

7 communication services — 85%

13 collaborative working and mail tools — 69%

7 workstation assistance — 93%

100%
80%
60%
40%
20%
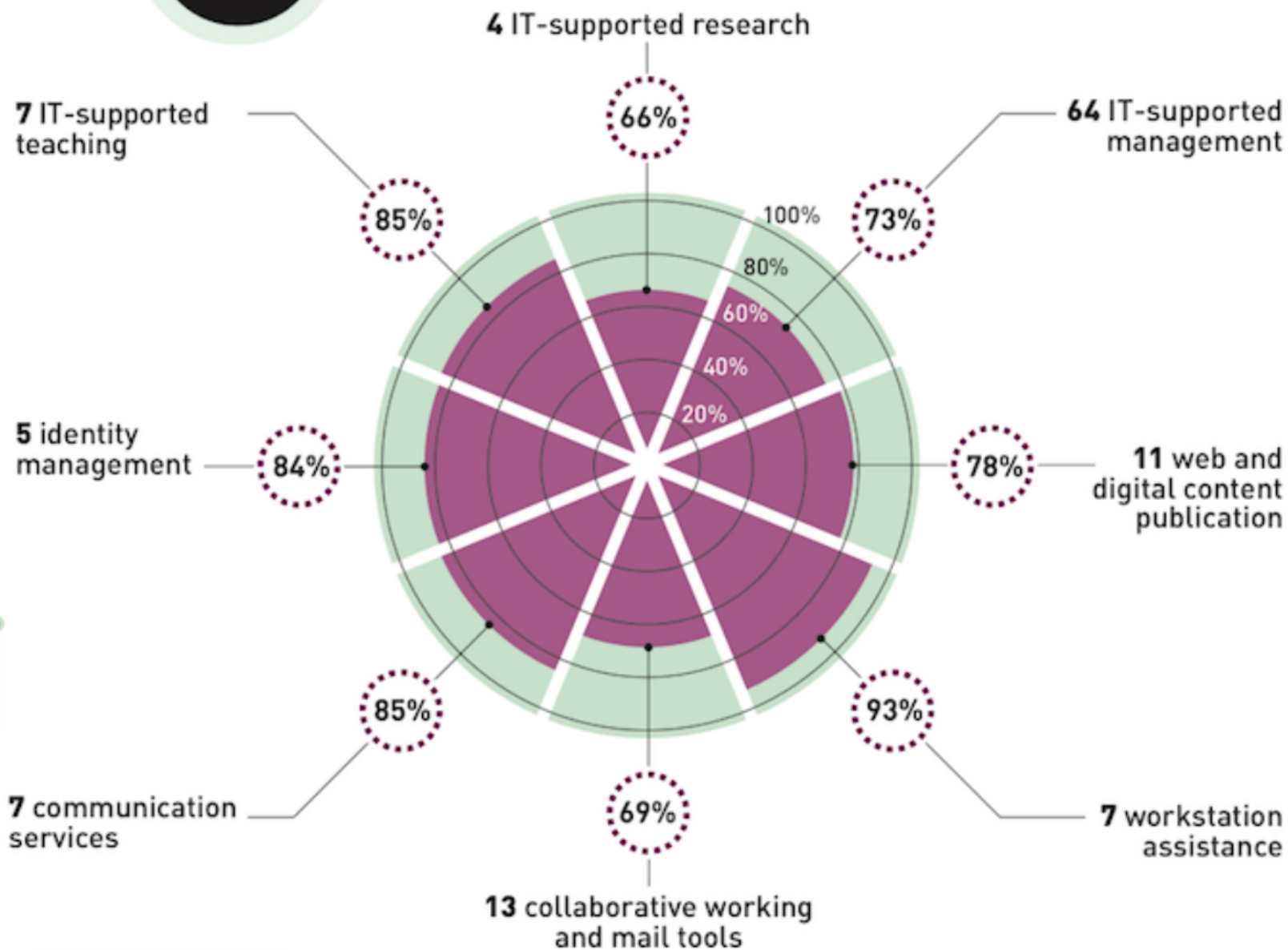
Provision of services

26% SLA

12% cloud

19% open source

Typical elements of electronic administration

% of universities that have implemented or are developing them

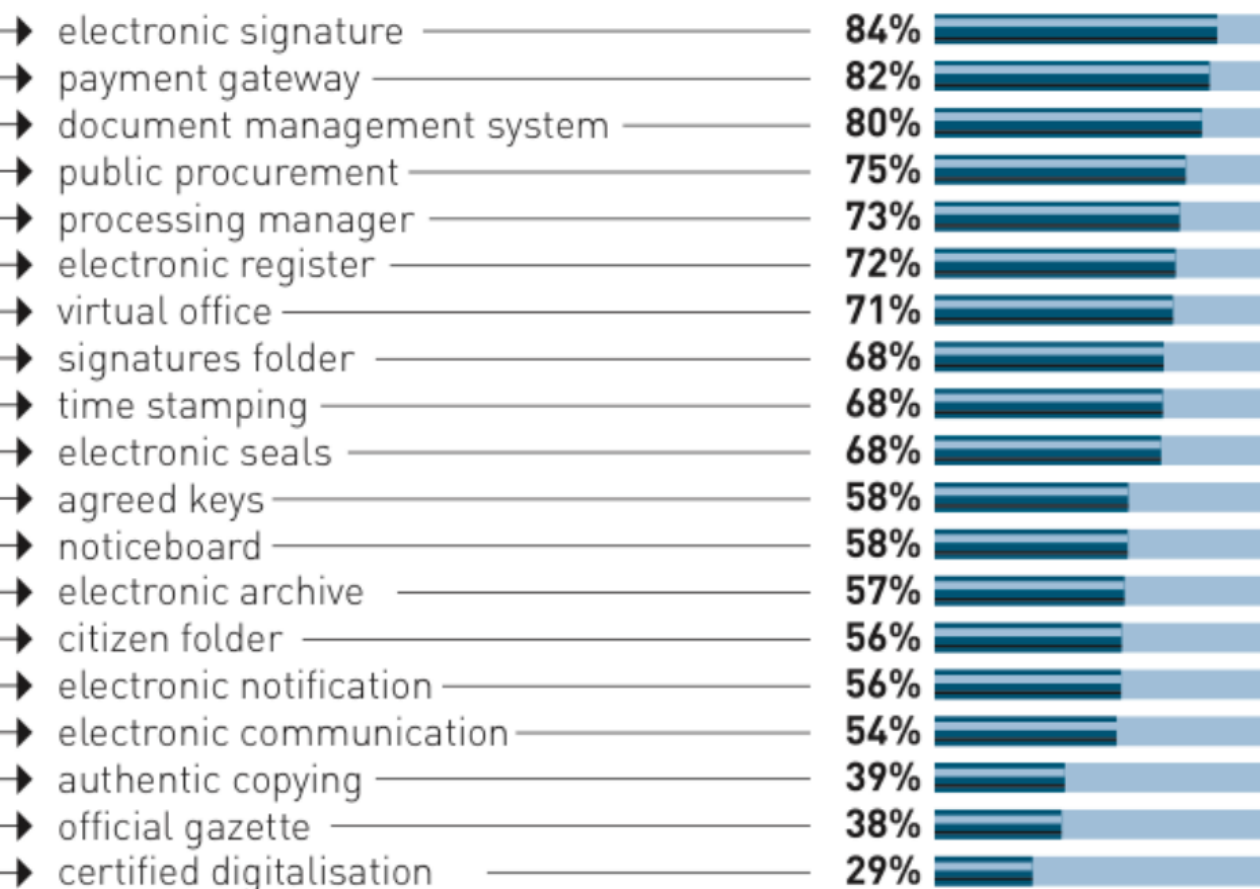| Element	%
electronic signature	84%
payment gateway	82%
document management system	80%
public procurement	75%
processing manager	73%
electronic register	72%
virtual office	71%
signatures folder	68%
time stamping	68%
electronic seals	68%
agreed keys	58%
noticeboard	58%
electronic archive	57%
citizen folder	56%
electronic notification	56%
electronic communication	54%
authentic copying	39%
official gazette	38%
certified digitalisation	29%

UNIVERSITY DIGITAL

TRANSFORMATION

A new university thanks to IT

26,411 classrooms

Basic	**66.32%**
Avanced T1	**8.98%**
Avanced T2	**3.65%**
Avanced T3	**1.68%**
Without IT equipment	**19.37%**

Internet connection

multimedia projector

digital board

content recording and/or real time streaming

local network connected to the digital board
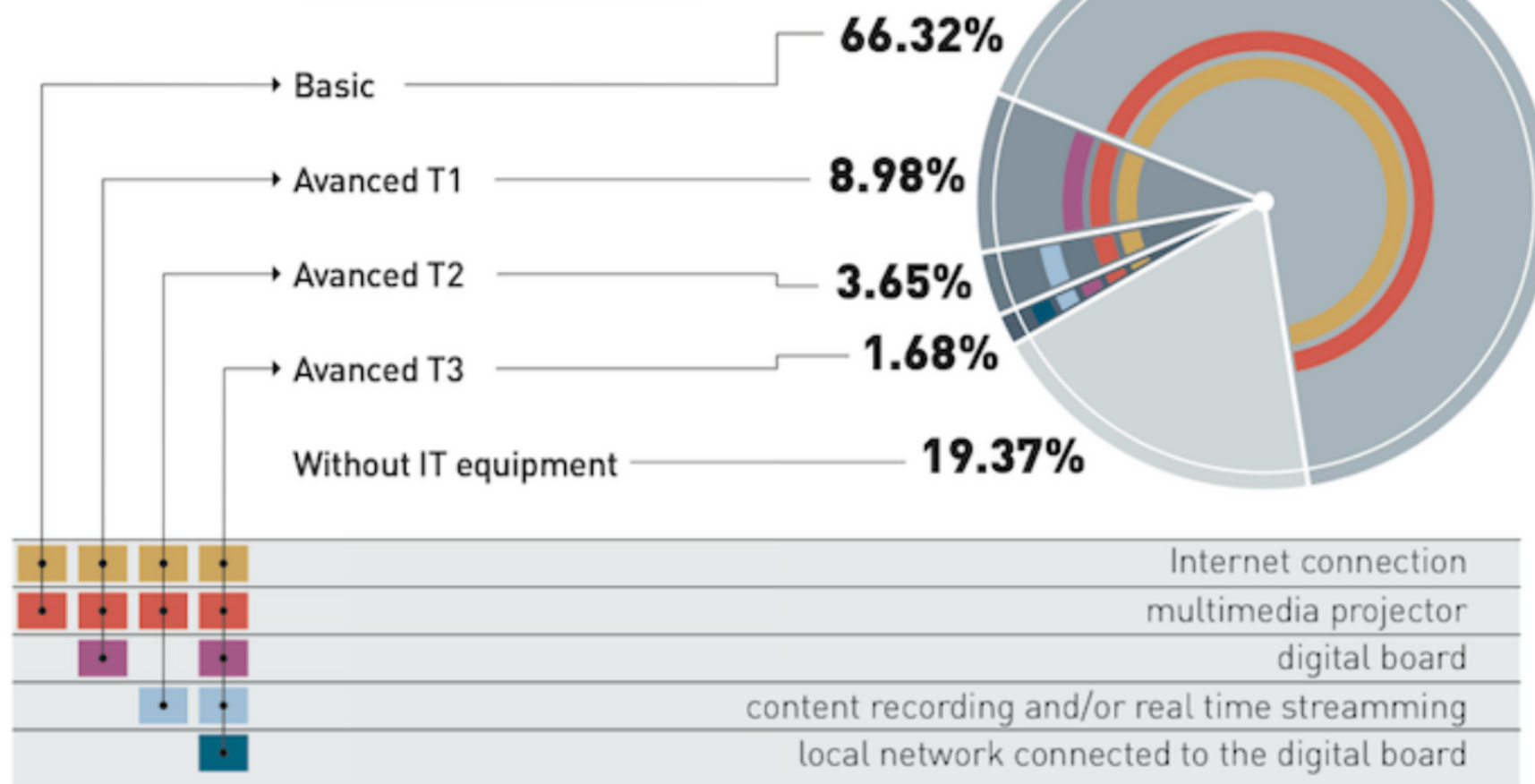
IT teaching support services
% universities offering them

Service	%
elearning	98%
managing software licences for learning	97%
computer rooms for learning use	95%
open-access computer rooms	92%
multimedia classrooms	84%
creating learning content	76%
doing and correcting exams	63%
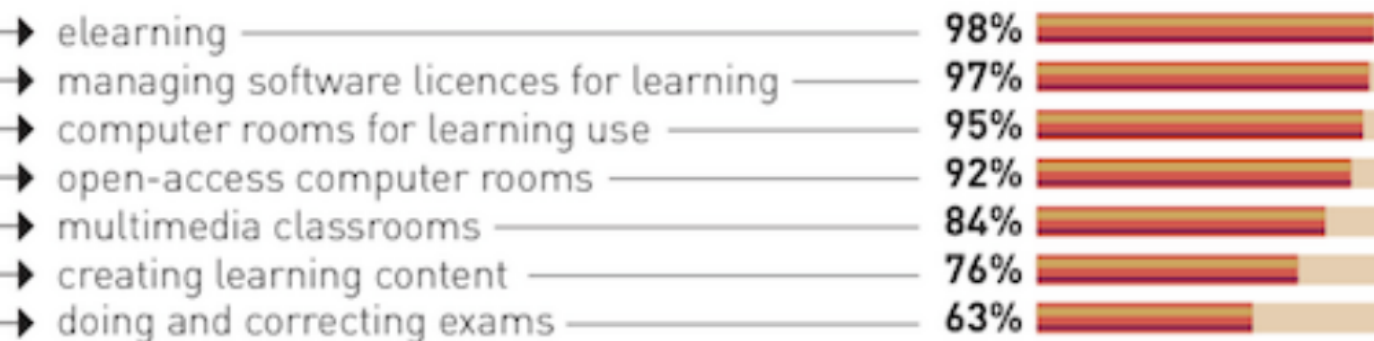
1,230 videoconference rooms

almost **50%** belong to only one distance learning university

532 distance learning qualifications ▶ **8%** of those offered
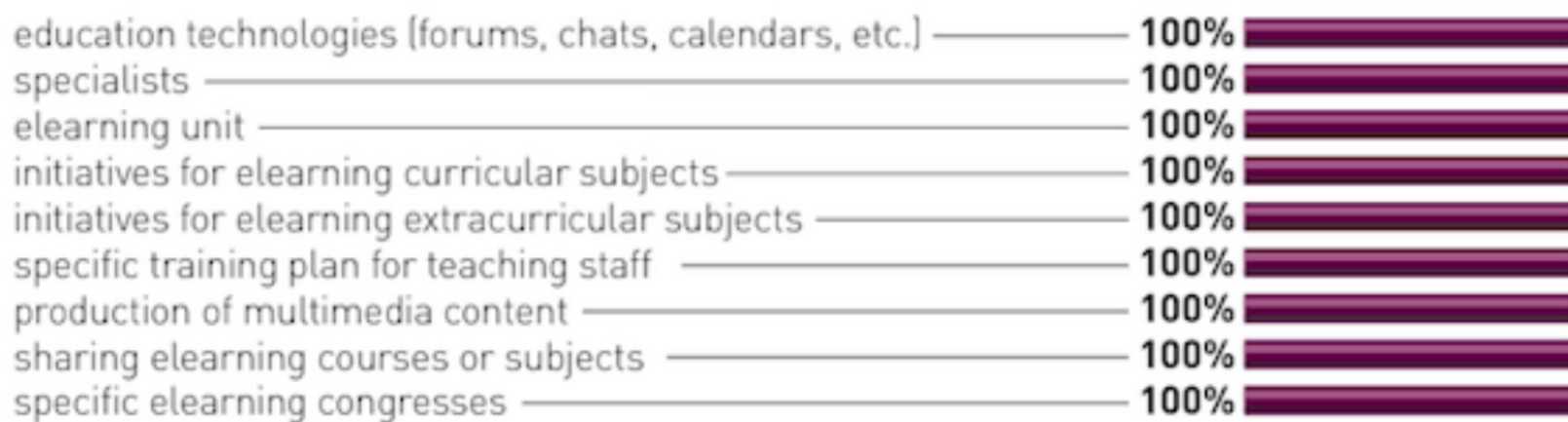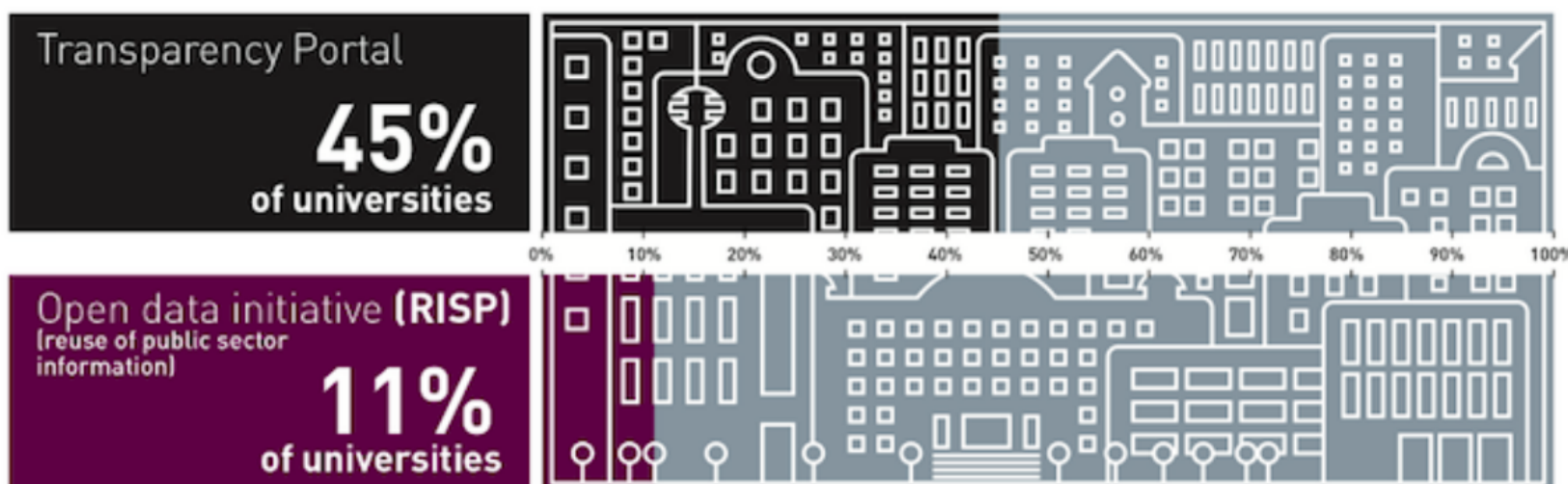
21 good practices in elearning

9 implemented in all universities

education technologies (forums, chats, calendars, etc.) — **100%**
specialists — **100%**
elearning unit — **100%**
initiatives for elearning curricular subjects — **100%**
initiatives for elearning extracurricular subjects — **100%**
specific training plan for teaching staff — **100%**
production of multimedia content — **100%**
sharing elearning courses or subjects — **100%**
specific elearning congresses — **100%**

12 % of universities offering or developing them

content adapted for mobile devices — **97%**
multimedia digital repository — **92%**
recording rooms — **90%**
digital rights policy — **82%**
training for staff specialising in elearning — **70%**
specific training plan for students — **69%**
content quality criteria — **67%**
lecturers' networks — **60%**
incentives for lecturers — **54%**
training for companies — **48%**
university radio station — **44%**
university television station — **43%**

TRANSPARENCY

Accountability to society, easy access to information
and publicity for governance actions

Transparency Portal
45%
of universities

Open data initiative (RISP)
(reuse of public sector information)
11%
of universities

0% 10% 20% 30% 40% 50% 60% 70% 80% 90% 100%

80%
university **websites** reach a
recommended level of accessibility
for public authorities **(AA or AAA)**

AAA 15.79%
AA 64.91%
A 17.54%
none 1.75
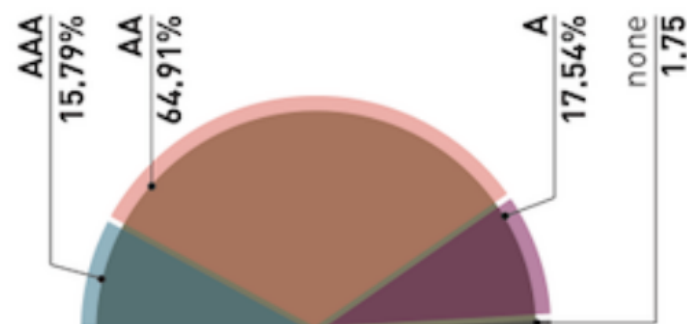
87%

have an **institutional content repository**

Communication with the public

8 channels considered

5 channels used (on average)

distribution lists	98%
publication on social networks	95%
corporate diary	90%
dealing with queries on social networks	75%
intranet notifications	71%
CRM software	44%
use of social networks as CRM	32%
online chat	23%

have published the procedure for assessing and prioritising IT projects or annually design their **IT project portfolio**

50%

have a **decision-making** circuit for preparing IT initiatives

88%

have **information and training processes** so users can actively participate and understand the change the new projects involve

88%

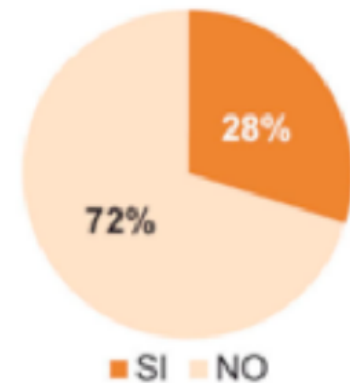**governing teams** have updated information on the state of IT
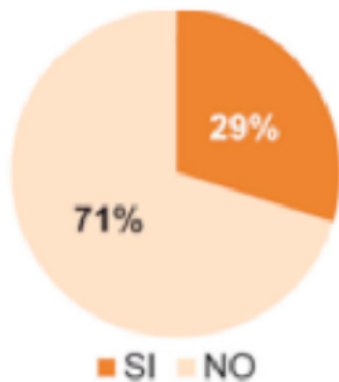
96%
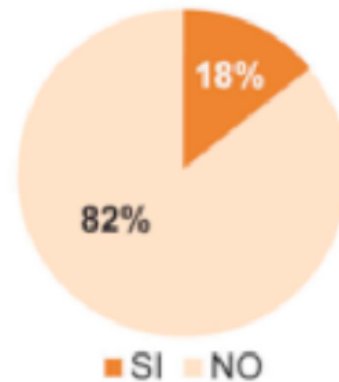
IT Governance Best Practices...

Responsibility
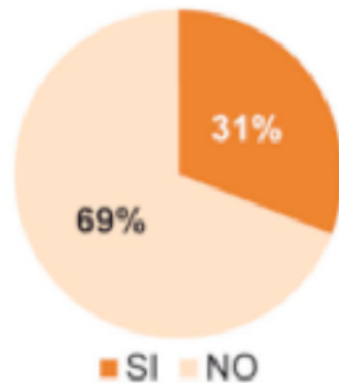
- SI: 31%
- NO: 69%
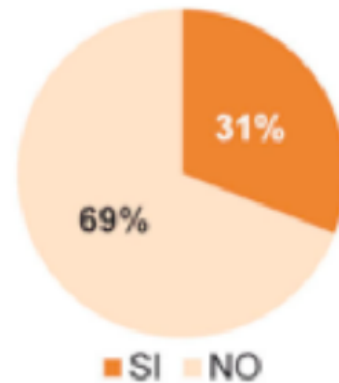
Strategy

- SI: 31%
- NO: 69%

Acquisition

- SI: 28%
- NO: 72%

Performance

- SI: 29%
- NO: 71%

Conformance

- SI: 18%
- NO: 82%

Human Behaviour

- SI: 21%
- NO: 79%

UNIVERSITIC

since 2006
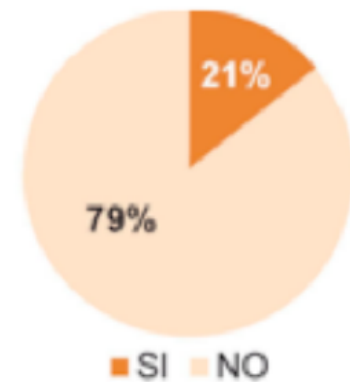
working with international surveys

crue Universidades Españolas TIC
www.crue.org

gti4u Investigamos en Gobierno de las TI
We research in IT Governance
www.gti4u.es

Latam & HE IT Benchmarking in Europe

Latam

- Two Editions of *UNIVERSITIC Latam*
- 15 HEIs have participated in 2013 and 42 in 2014.

- Last year, only one IT Governance project was implemented (CONFACAUCA University – Colombia).

HE IT Benchmarking in Europe

PROPOSAL: a new European IT indicators catalog…

- Which includes the main common IT indicators from our national surveys

- Each national system could keep their own surveys and feed the common system with the needed values

- Publish a final report with European results

HE IT Benchmarking in Europe

UNIVERSITIC
as a source for trans-national benchmarking

- A small subset of real UNIVERSITIC's indicators has been selected for use or adoption in trans-national benchmarking.

- As a first step, this subset of indicators has been extracted in order to show the possible results of using the model proposed.

- This is only an example, data have been anonymized and some of the indicators have been estimated as its meaning differs slightly between UNIVERSITIC and the trans-national model.

Context indicators

	Total staff	Number of students in official courses.	University's total budget.	Completed ECTS
	NPDI+NPAS	NESTUDIANTES	PRESUPUESTOTAL	NASIGNATURAS*5
AVERAGE	2.721	24.177	169.384.164 €	19.522
MINIMUM	218	244	9.686.564 €	1.590
MAXIMUM	10.024	170.682	518.120.000 €	73.040
UNIVERSITIES ANSWERING	52	52	47	51

IT resources and management indicators

	Amount of technicians working full-time in centralised Computing Services	Centralised computing services budget, excluding staff costs (in euros).	Total budget for centralised computing services (including expenses and staffing and expressed in euros)
	NTECNICOSTICC	NPRESUTI	PPRESUTOTALTI
AVERAGE	50	2.559.950 €	5.058.680 €
MINIMUM	4	118.193 €	317.292 €
MAXIMUM	163	12.029.210 €	19.400.000 €
UNIVERSITIES ANSWERING	61	46	42

CIO on the Board

CIO on the governing board

	BEGRESTI	
YES	40	71%
NO	16	29%
UNIVERSITIES ANSWERING	56	

Examples of data analysis I

	IT staff vs Total staff	IT budget vs Total budget	IT staff vs IT budget (€ per IT person)	IT staff vs Number of students (students per IT person)
AVERAGE	2,07%	3,44%	98.900 €	456
MINIMUM	0,48%	0,88%	22.932 €	61
MAXIMUM	5,30%	10,19%	230.952 €	1575
VALID DATA	61	42	42 €	61

Examples of data analysis II

	IT staff vs Total staff		IT budget vs Total budget	
CIO in the governing board	YES	NO	YES	NO
AVERAGE	1,9%	2,5%	3,1%	4,3%
MINIMUM	0,5%		0,9%	
MAXIMUM	5,3%		10,2%	
VALID DATA	40	16	40	16

IT staff vs Total staff
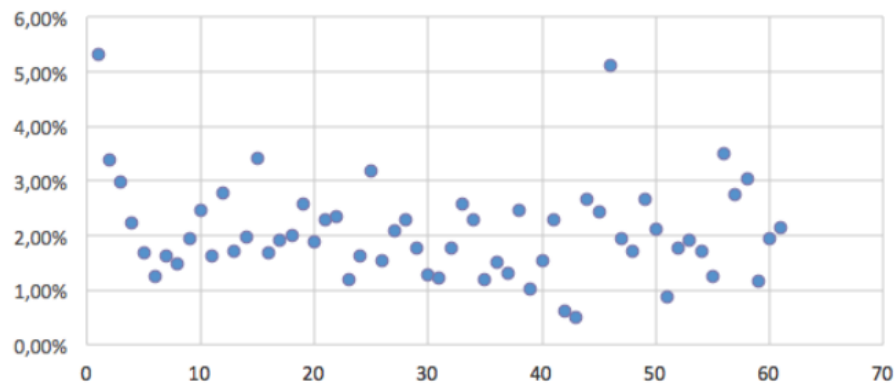
IT budget vs Total budget
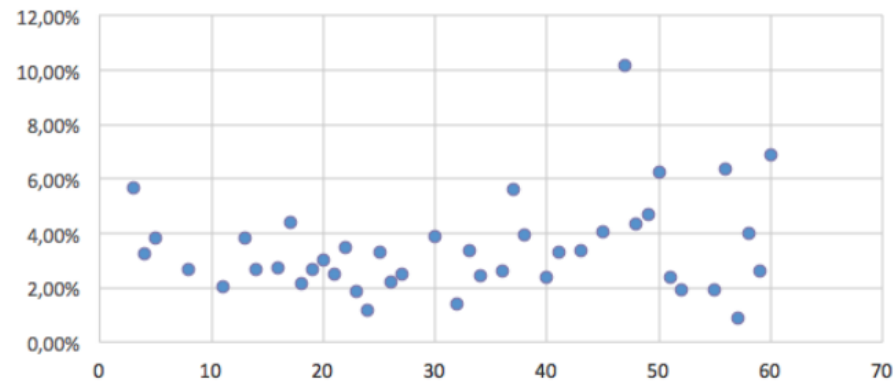
IT staff vs Number of students

IT staff vs IT budget

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since 2006

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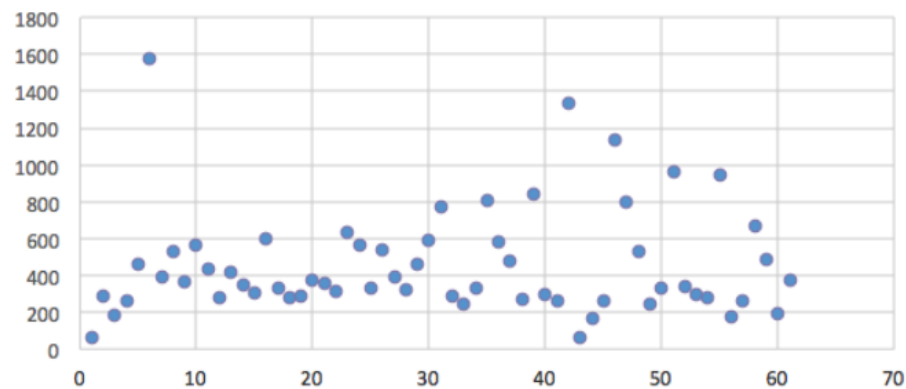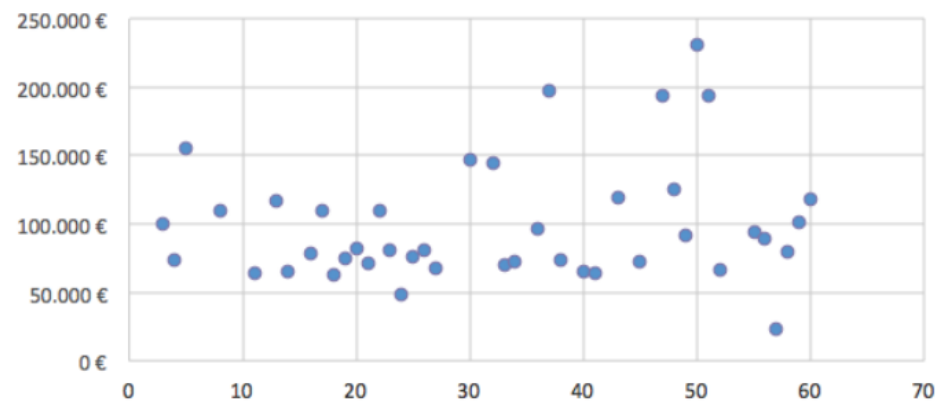
Analysis of IT in Spanish Universities

Thanks

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