

La Gobernanza TI de las universidades

JAVIER UCEDA ANTOLÍN
Universidad Politécnica de Madrid

javier.uced@upm.es

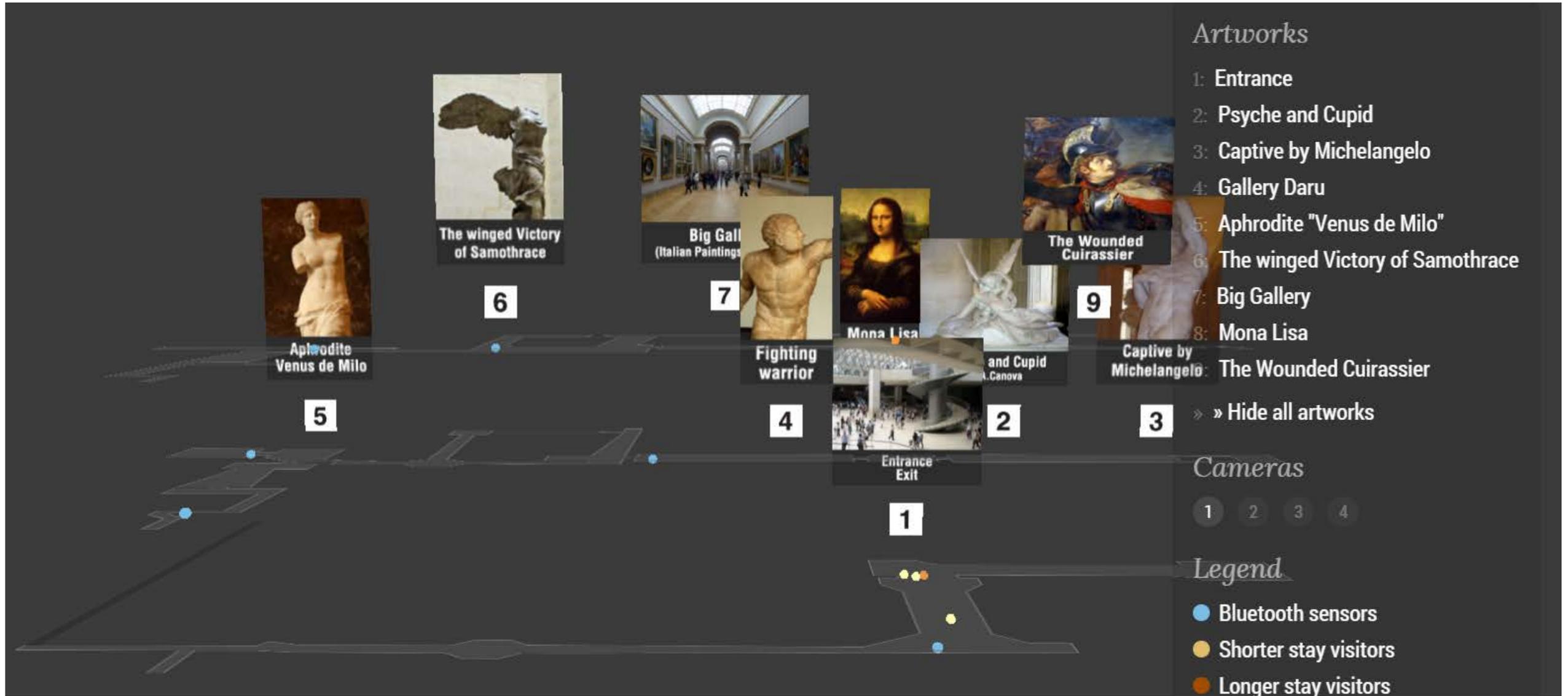


POLITÉCNICA

"Ingeniamos el futuro"

CAMPUS
DE EXCELENCIA
INTERNACIONAL

Louvre Museum's DNA



Home	Overview	Academics	Faculty	Student Life	Admissions
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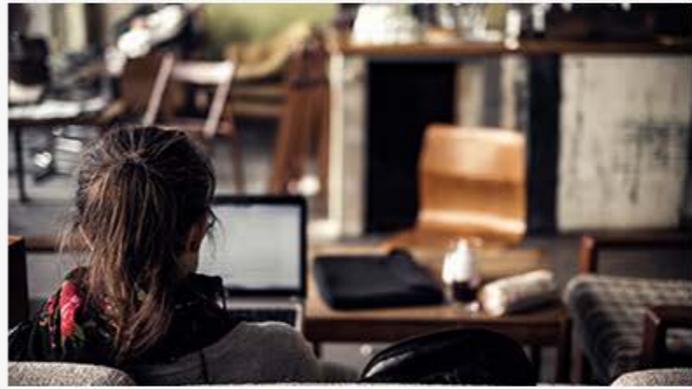


Feature
Documentary Short



Experience student life at Minerva

We invited award-winning documentary filmmaker Shaul Schwarz to live with our Founding Class students. The result is an in-depth view of student life at Minerva.



What will define your academic path?

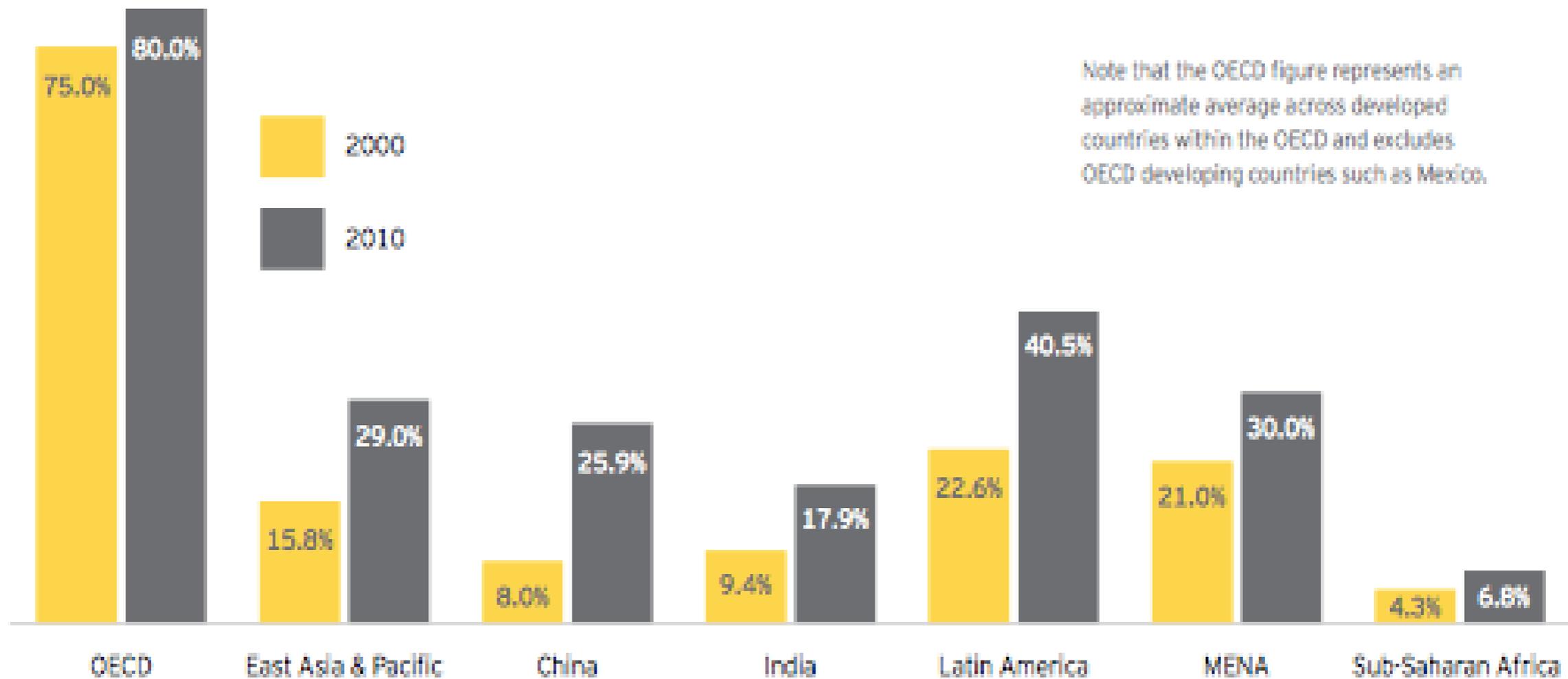
Minerva prepares you for a future of global innovation and leadership. Our rigorous academic program is designed to reinforce essential concepts and critical cognitive skills. Through deep, interdisciplinary study, you gain subject matter expertise while building a diverse knowledge base. This pedagogic approach develops the ability to adapt in a rapidly changing world.

La Sociedad de la Información, la Sociedad del Conocimiento está cambiando nuestras vidas, está cambiando la universidad tradicional



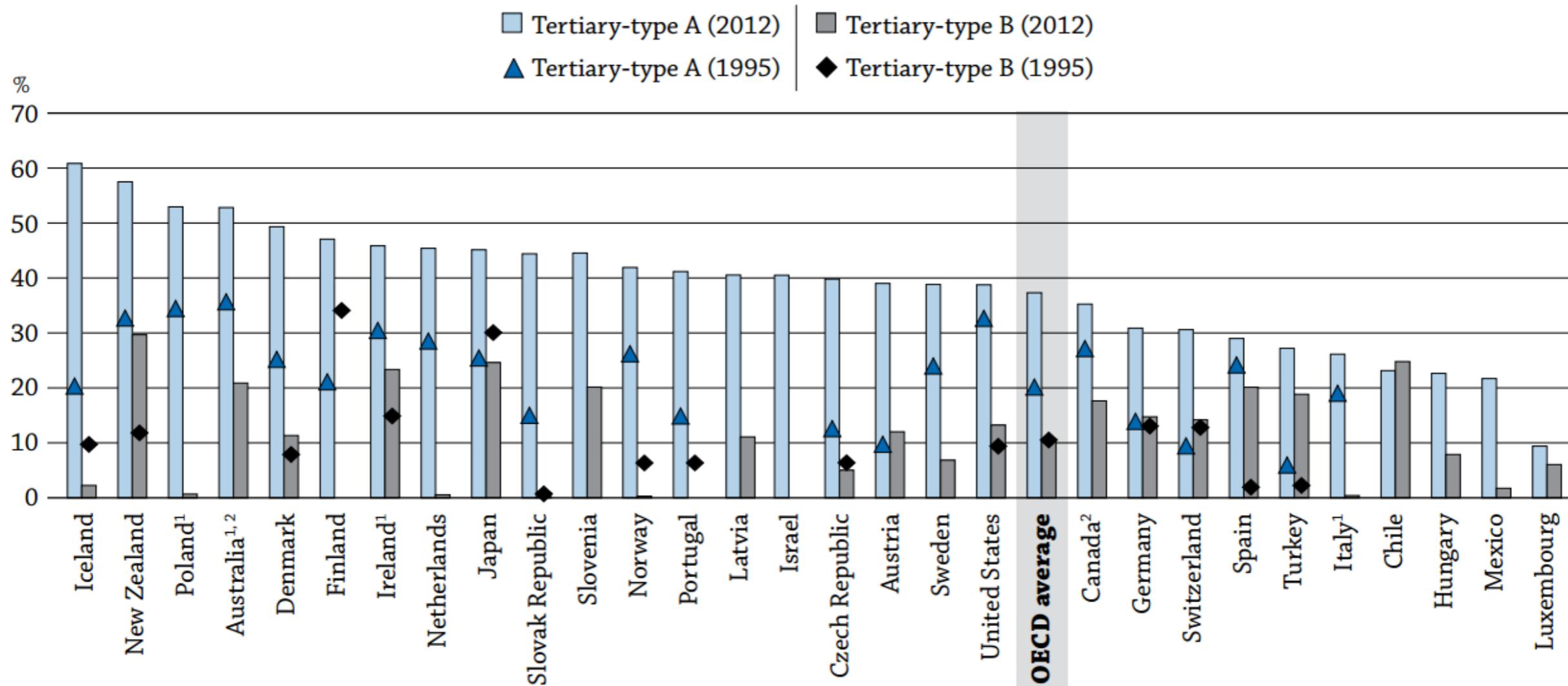
Tertiary education participation rates

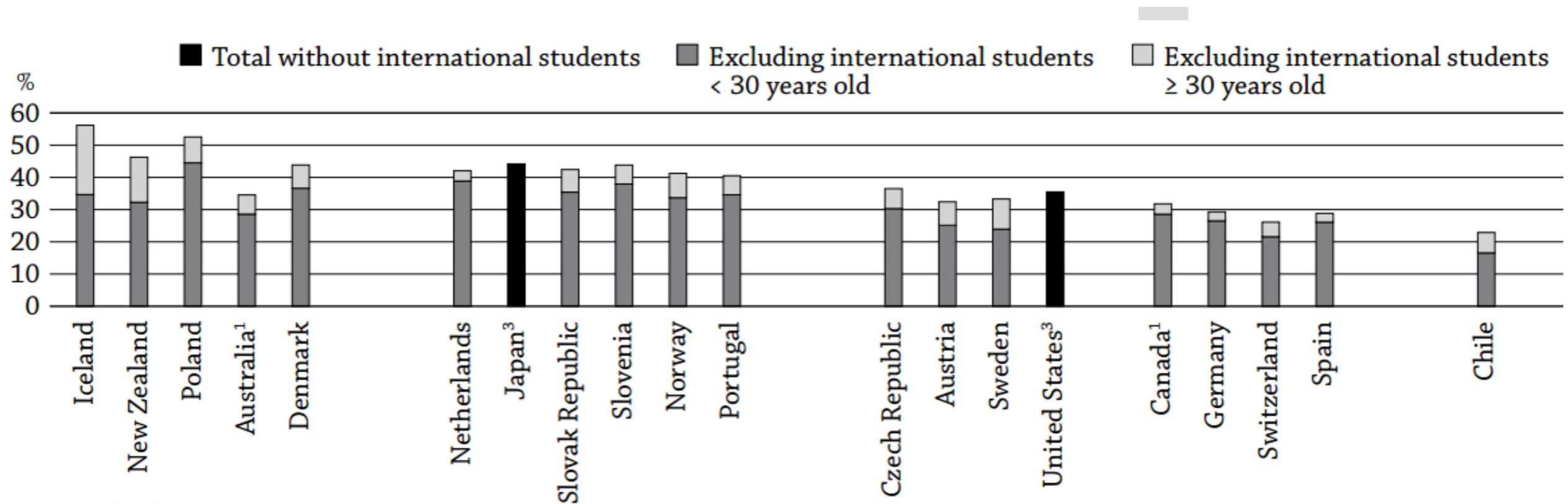
Figure 2: Tertiary education participation rates (Proportion of 18-22 years olds in post secondary education)



University of the future. EY Australia.2012

Chart A3.2. First-time graduation rates in tertiary-type A and B education (1995 and 2012)





1. Year of reference 2011.

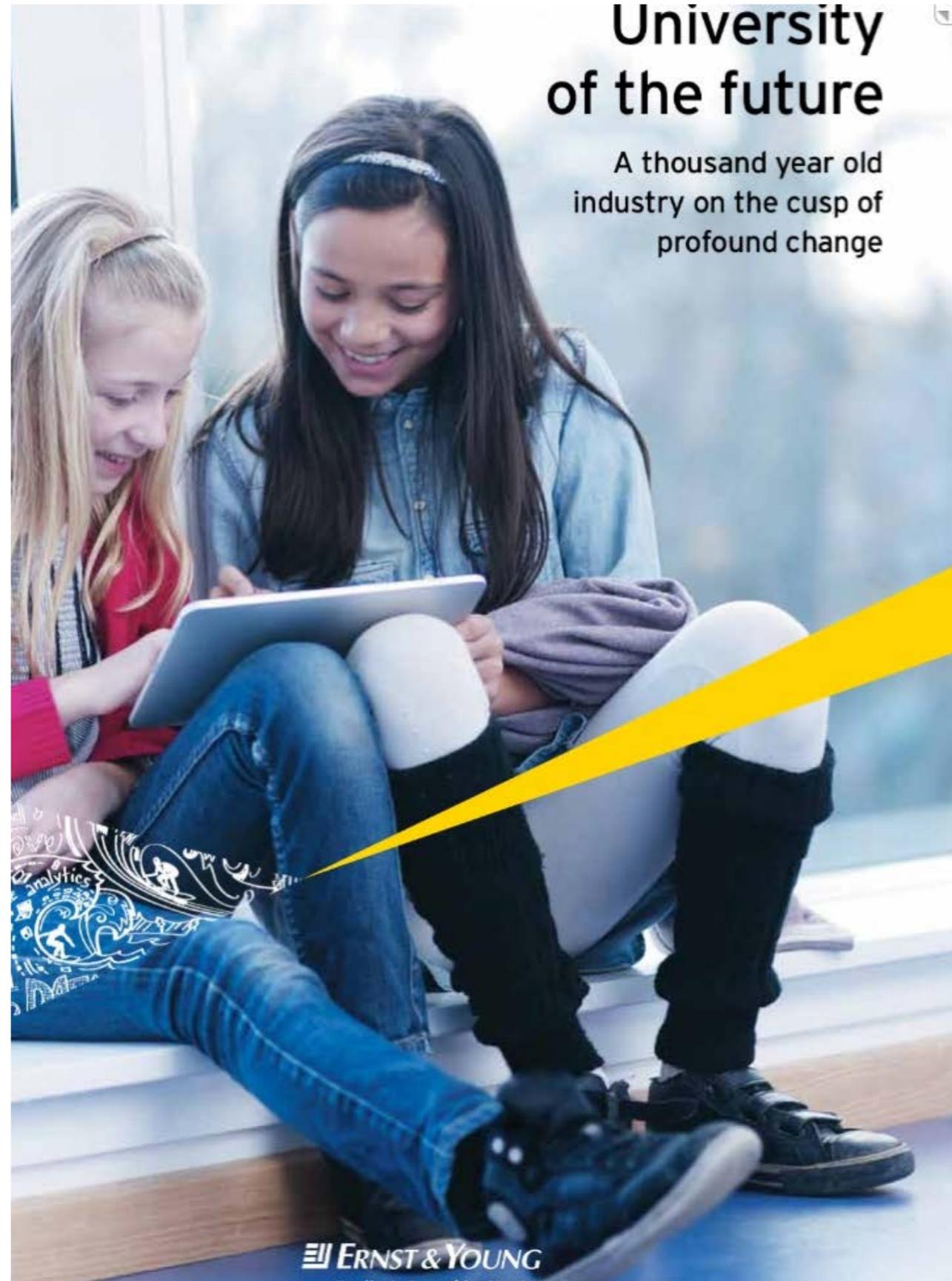
2. Graduates for international students are missing.

3. Graduates by age are missing.

Countries are ranked in descending order of the total graduation rates for tertiary-type A education in 2012.

Source: OECD. Tables A3.1a and b. See Annex 3 for notes (www.oecd.org/edu/eag.htm).

StatLink  <http://dx.doi.org/10.1787/888933115502>



University of the future

A thousand year old industry on the cusp of profound change

 ERNST & YOUNG


11 de diciembre de 2014

“Our major competitor in ten years time will be Google if we are still alive”

University of the future. EY Australia.2012

***“The traditional university model is the analogue of the print newspaper
..... 15 years max you´ve got the transformation”***

University of the future. EY Australia.2012

The current Australian university model, a broad-based teaching and research institution, with a large base of assets and back office, will prove unviable in all but a few cases.

Digital technologies will transform the way education is delivered, supported and accessed, and the way value is created in higher education and related industries.

University of the future. EY Australia.2012

Los cambios serán impulsados por cinco tendencias

- Democratización en el acceso al conocimiento.
- Competencia por estudiantes y recursos de todo tipo.
- Las tecnologías digitales.
- La movilidad global.
- Integración con la empresa.

University of the future. EY Australia.2012

KIC ICT Labs

EIT ICT Labs



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Education

- Doctoral School
- Master School
- Open Educations
- Summer Schools

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[VISIT DOCTORAL SCHOOL](#)

Breeding Entrepreneurial Talent Through Broad Educational Activities

EIT ICT Labs has the ambition to renew European higher education in ICT by cross fertilising cutting edge technical education with robust innovation and entrepreneurship education. EIT ICT Labs focus is on particular education activities such as the Master School and Doctoral School. Strong industrial involvement in the educational programmes as well as substantial hands-on experience on innovation and entrepreneurship are important. EIT ICT Labs educational activities enhance capacity for creativity, risk taking



KIC Innoenergy



WHY A NEW EDUCATION IN ENERGY?

Europe's need for highly skilled and entrepreneurial graduates, in particular masters and PhDs, will continue to grow in the years ahead. Europe not only needs employees but also future employers and entrepreneurs.

To meet these needs KIC InnoEnergy has gathered the **best technical universities, business schools and energy related corporations in Europe**, which together propose to you a completely new approach of education, that combines the best technical training in energy with transferable skills in innovation and entrepreneurship.

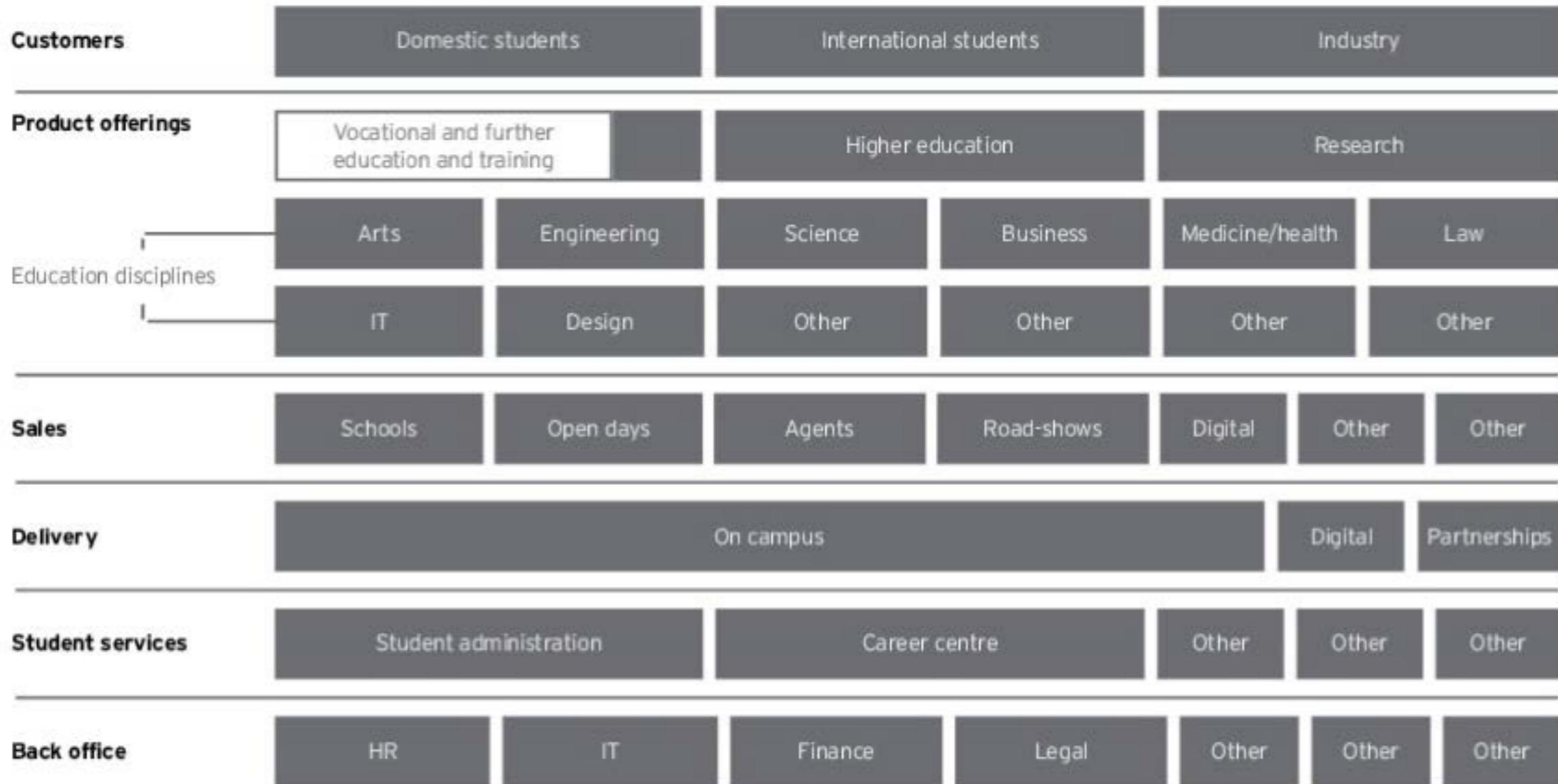
KIC InnoEnergy also offers a **PhD school with several thematic tracks** and a Post Master programme as well as self-assessment learning material and life-long education for industry.

For questions regarding KIC InnoEnergy's educational offer, please contact the coordinators of the Masterschool of the Phd School.

E-mail

WHY SHOULD STUDENTS CHOOSE OUR MASTER PROGRAMMES?

Figure 7: Current model – established universities



Source: Ernst & Young

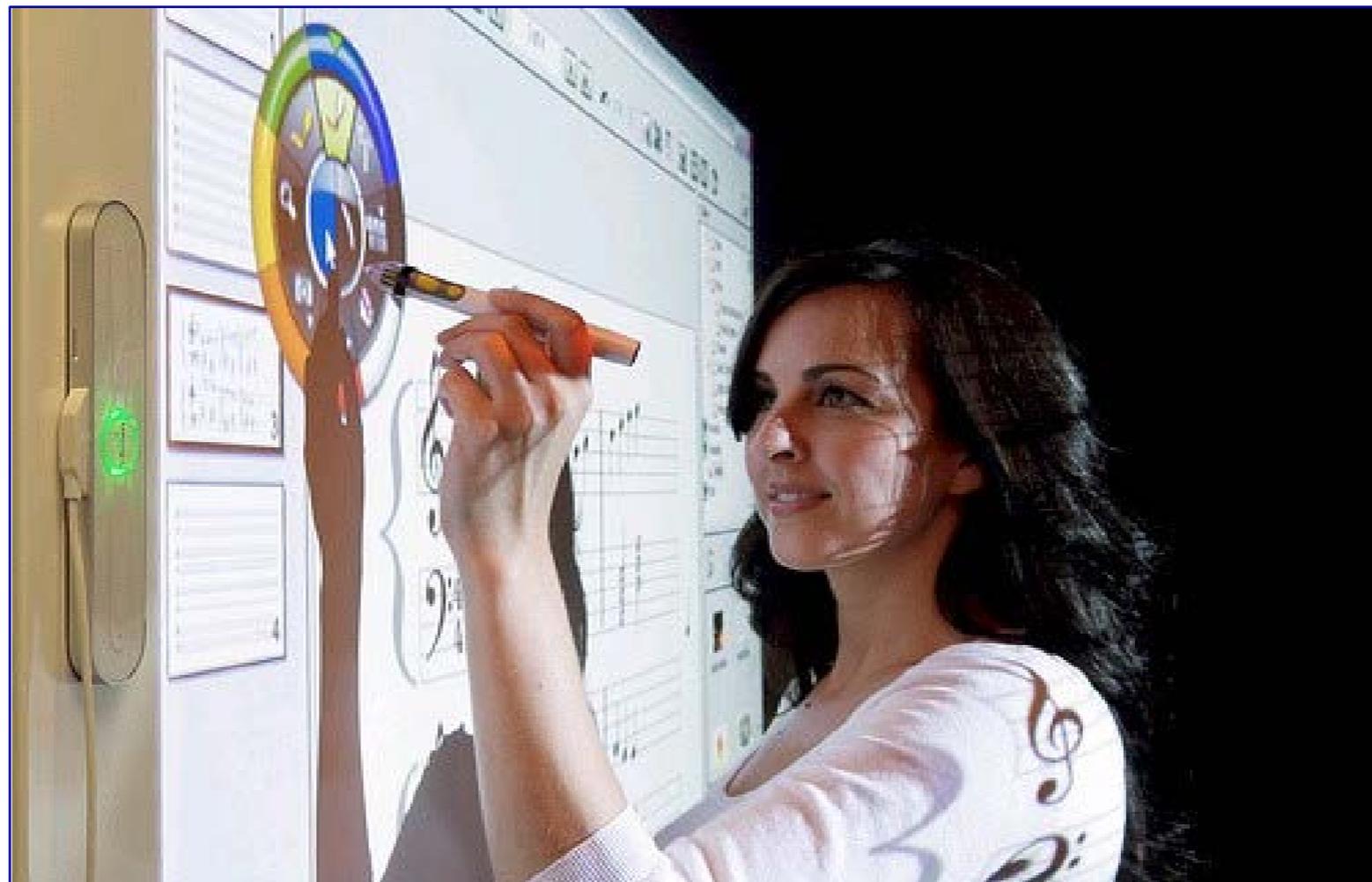
Legend  Current area of focus

In the current model most Australian universities:

- ▶ Serve a broad mix of student segments – school leavers. mature age students.
- ▶ Deliver and manage the vast bulk of student services and back-office

Tecnologías para una educación mejorada

- Seleccionada en 2012 como una de las Top 10 emerging technologies por el Consejo para la agenda global en tecnologías emergentes del World Economic Forum



Tecnologías para una educación mejorada

- Población joven creciente con necesidades de educación.
- Educación conforme a las exigencias de la sociedad del conocimiento.
- Sistemas personalizados basados en TI.
- Modelos educativos centrados en el estudiante.
- Pensamiento crítico y creatividad.
- Internet y los materiales en abierto como factor clave.
- El nuevo escenario propicia el aumento de la educación fuera del aula.

Global Agenda Council on the Future of Universities 2012-2014

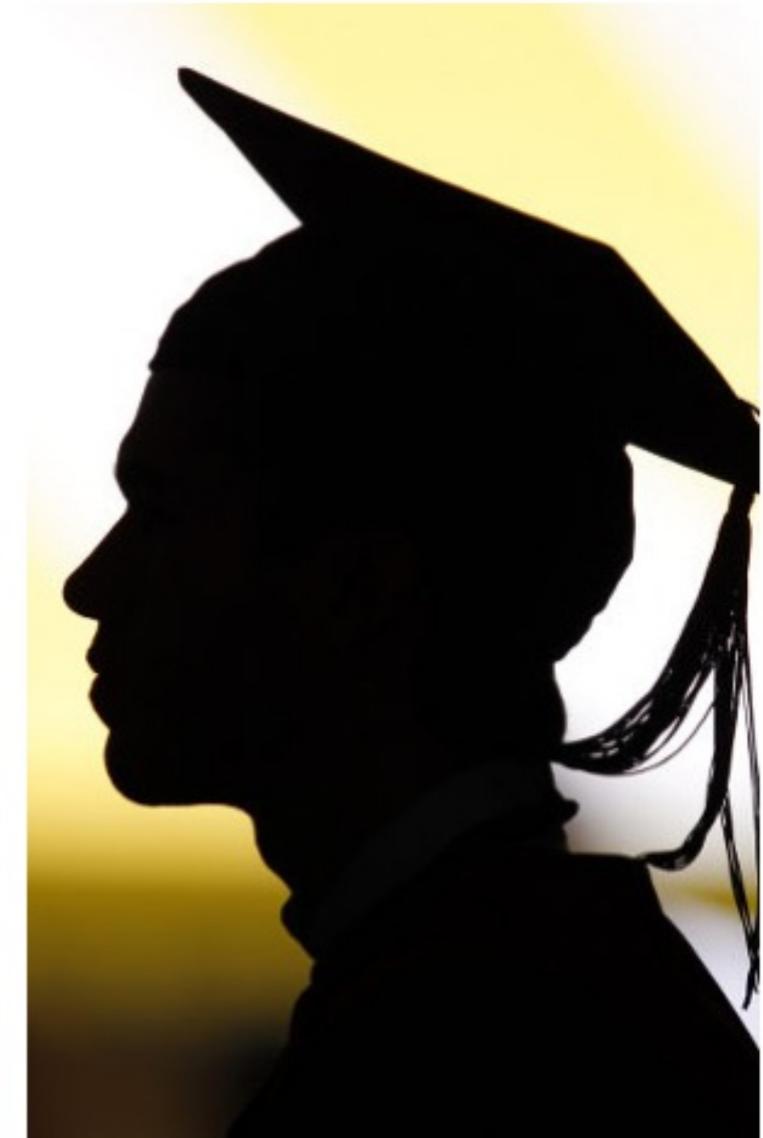
The challenge

Higher education and research face the pressure of globalization, competition and commercialization. The rising cost of higher education in the Western world, combined with increasing strains in the job market and a poor economic environment, contribute to these pressures. According to CourseSmart, an e-textbook provider, tuition in the United States has increased 1120% since 1978. It is no surprise, therefore, that the recent boom in massive open online courses (MOOCs) has occupied debates and newspaper columns over the past 12 months. Directly or indirectly, the boom in MOOCs is putting higher education on the spot, along with the larger research sector. The speed at which change will happen has yet to be determined, but there is agreement that change will be deep, and that the universities which will be able to turn their challenges into opportunities will thrive.

What the Council is doing about it

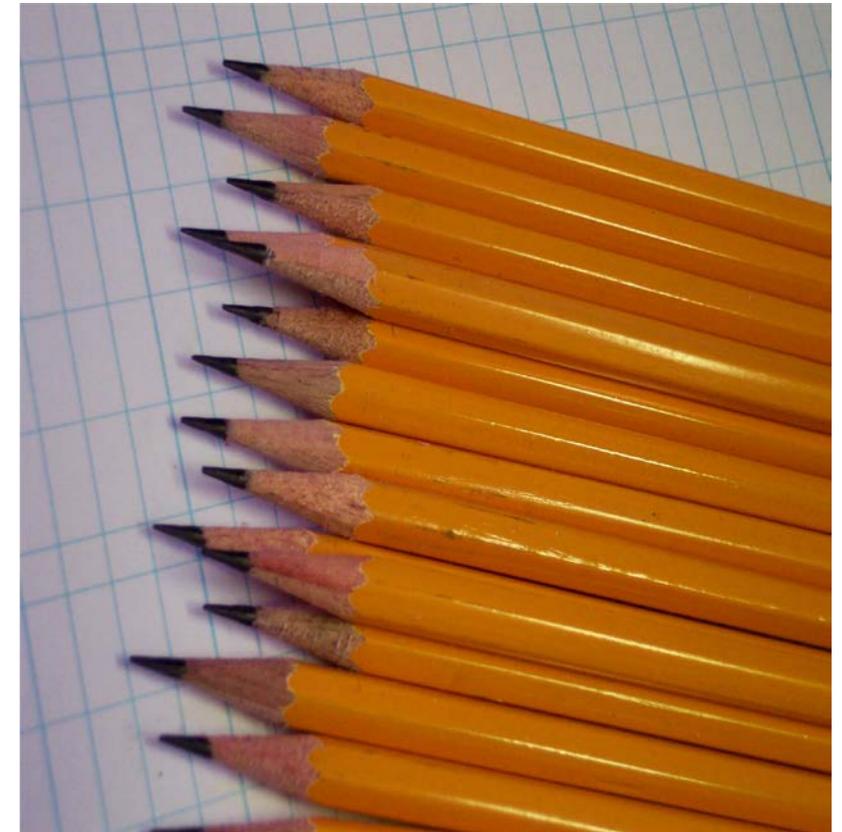
The Global Agenda Council on the Future of Universities has identified three broad challenges and opportunities:

1. The roles of technology and online education, which are testing the entire learning and teaching model
2. The evolving roles of research and knowledge creation, which are under pressure from technology, funding and governance issues, new players and other factors, and which may no longer only be the prerogative of universities



Global Agenda Council on the Future of Universities 2012-2014

- The roles of technology and online education, which are testing the entire learning and teaching model.
- The evolving roles of research and knowledge creation, which are under pressure from technology, funding and governance issues, new players and other factors.
- The challenge of values of the university and the social contract it holds with society in a world that is more global.



¿Cómo será la Universidad del futuro?

- La educación online tendrá una importancia creciente
- El estudiante será el centro de los métodos educativos
- Las universidades no tendrán un modelo único.
- El tsunami de la enseñanza online afectará a la distribución de recursos en las universidades.
- Las universidades con costes y matrículas más altas buscarán ofrecer una experiencia diferente

¿Cómo será la Universidad del futuro?

- Se abrirá el debate entre lo que ofrece un grado y lo que ofrece un certificado.
- Las universidades de más éxito ofrecerán un equilibrio entre los sistemas tradicionales y los nuevos modelos educativos.

Algunos hechos relacionados con las TICs

- Gran parte de la **innovación educativa** en las universidades se apoya en las **TICs**.
- La distribución de **materiales en abierto** está suponiendo una **revolución** provocando en la red un flujo creciente de recursos de aprendizaje.



Fuente: Tendencias TIC para el apoyo a la docencia universitaria. Sectorial TIC de la CRUE

Algunos hechos relacionados con las TICs

- Los nuevos modelos de producción y sus canales de distribución permiten a cualquiera, y mucho más a las universidades, convertirse en **generadores de contenidos multimedia**.
- La **movilidad** creciente de los estudiantes aumenta las exigencias de **interoperabilidad** de los sistemas empleados, tanto en asuntos administrativos como en docencia.



Fuente: Tendencias TIC para el apoyo a la docencia universitaria. Sectorial TIC de la CRUE

Los Cursos Masivos On-line en Abierto (MOOCs)

MOOCs

- On-line.
- Abiertos a cualquier usuario.
- Masivos. Cientos de miles de estudiantes por curso.
- Globalmente distribuidos.
- Gratuitos (a menos que se pida un certificado).
- Basados en la utilización intensiva de plataformas de apoyo a la docencia.
- No precisan de estudiantes a tiempo completo.

Se está produciendo un cambio hacia la cultura digital

- Gestión de la **visibilidad en la web**.
- Uso generalizado en las universidades de **plataformas para la gestión de recursos de aprendizaje**.
- Generalización de la **producción de contenidos en abierto**.
- Presencia de las universidades en **las redes sociales**.



11 de diciembre de 2014

Algunas conclusiones parciales

- En general, las universidades españolas se encuentra bien dotadas y organizadas desde el punto de vista de las infraestructuras y de los servicios que prestan a la comunidad universitaria.
- Desde la perspectiva de la gestión y el gobierno de estos recursos, existe un gran margen para mejorar.
- La universidad del futuro deberá incorporar un mejor gobierno de las TI como condición imprescindible



¿Es el Gobierno TI la solución a algunos de los retos de las universidades?

Importancia del Gobierno TI

- Las universidades, en referencia a esta cuestión, no son diferentes de otras organizaciones.
- La gestión TI, en la mayor parte de las universidades, se ha centrado en lograr una administración eficiente de los recursos tecnológicos como soporte al resto de servicios universitarios.
- No basta con concebir a las TI como un elemento táctico, gestionado verticalmente de forma aislada.
- Deben tener carácter estratégico, alineando la estrategia TI con los objetivos globales de la universidad.

Condiciones para un gobierno TI efectivo

- Establecer la estrategia TI alineada con la estrategia general de la universidad.
- Identificar responsables de planificación, toma de decisiones y planificación TI.
- Establecer un sistema de gestión por proyectos, priorizando inversiones.
- Gestionar los riesgos.
- Evaluar el rendimiento de las acciones y proyectos puestos en marcha.
- Cumplir normas e implantar estándares.

EDUCASE recomienda

- Facilitar la colaboración entre universidades.
- Desarrollar modelos de gobierno TI específicos para las universidades.
- Difundir las buenas prácticas.
- Incluir en los currículos de los estudiantes aspectos relacionados con el Gobierno TI.



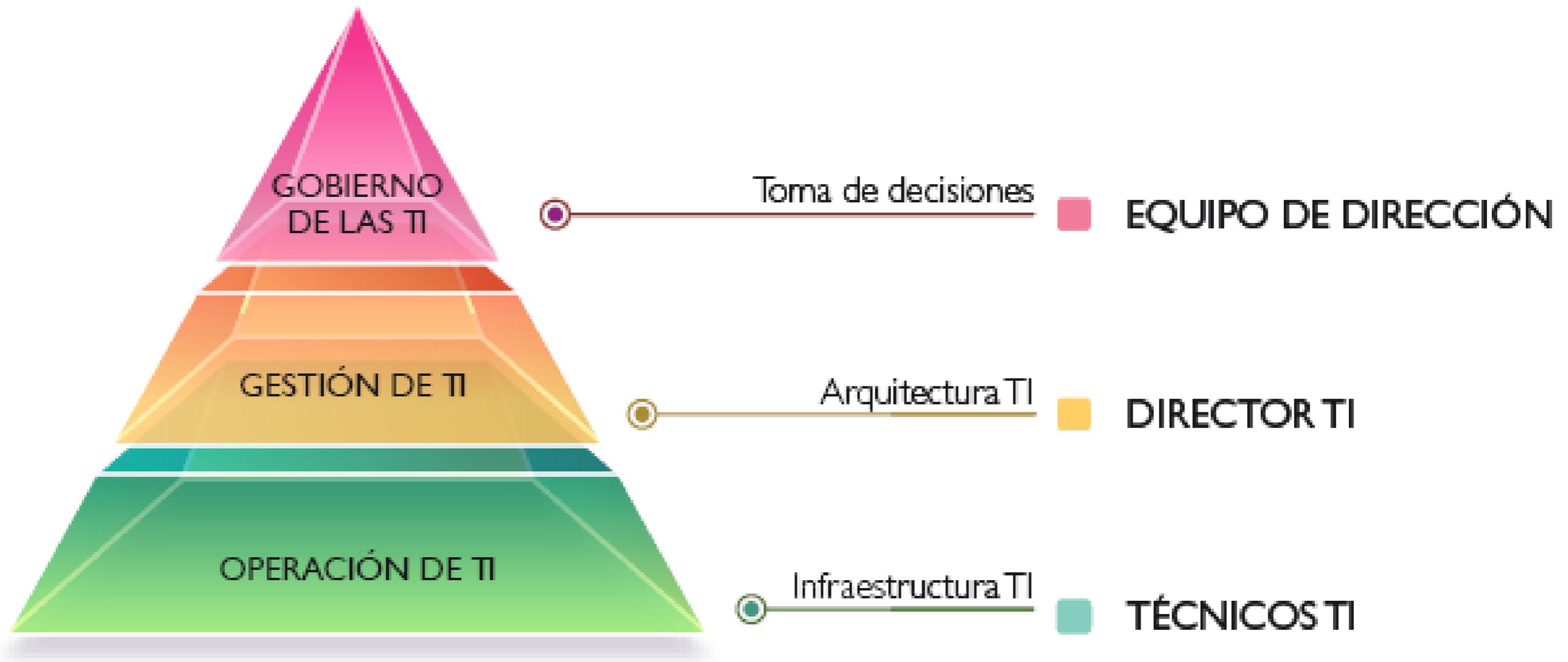
Sectorial TIC de la CRUE



- Elaborar un modelo de gobierno TI para universidades.
- Poner en marcha un proyecto piloto para algunas universidades.
- En función de sus resultados, valorar su recomendación al resto de universidades.

2. ¿Qué es el gobierno de las TI?

Principales conceptos



- About ITS
- Projects
- Services
- Facilities
- Support
- Learning
- Resources
- IT Standards
- Security
- IT Governance
- A to Z List

Quick Links



IT Governance

The University of Memphis has established an IT governance structure that is organized using a top level Policy & Planning Council, six advisory committees, and several representative technical and work teams.

I. T. Policy & Planning Council (ITPPC)

The I.T. Policy & Planning Council serves as the senior advisory group to the CIO on Information Technology (IT) issues, reviews and endorses IT planning, and provides recommendations to the President for policy related IT matters.

[ITPPC - Agendas and Minutes](#)

Information Security Advisory Committee (ISAC)

The Information Security Advisory Committee is a senior level advisory committee to the CIO responsible for reviewing, developing and prioritizing information security policies and procedures regarding access to University data, including research sensitive information, consistent with relevant federal and state legislation, university business and academic information security policies and procedures; shall help facilitate internal and external communications regarding the use and access of University data.

[ISAC - Agendas and Minutes](#)

Teaching & Learning Advisory Committee (TLAC)

The Teaching and Learning Technologies Advisory Committee shall advise the CIO and the Provost on technologies and issues related to teaching and learning; will advise the Center for Teaching and Learning (CTL) in teaching and learning initiatives; shall develop and review academic technology standards, guidelines, and policies; shall advise on priorities for academic technology initiatives; provide a forum for investigation and advises on new teaching and learning technologies, and facilitate communications regarding academic teaching and learning initiatives.

[TLAC - Agendas and Minutes](#)

Related Topics

Governance Structure

- [ITS Extended Governance](#)
- [ITS Governance Structure](#)
- [ITS Governance Technical Teams and Work Groups](#)

Technology and Higher Education Reports

- [IT Governance in Higher Education](#)
- [Decentralized IT Governance](#)
- [2014 Horizon Report](#)

TechQual+ Surveys

- [FY2012 TechQual+ Survey](#)
- [FY2013 TechQual+ Survey](#)
- [FY2013 TechQual+ Summary and Action Plans](#)
- [FY2014 TechQual+ Survey](#)

ITS Strategic Planning

- [FY2014 ITS Strategic Plan](#)
- [FY2014 ITS Strategic Plan Follow-up](#)
- [FY2014 ITS List of Completed Projects](#)

Vendor Integration Checklist

- A [list of stakeholders](#) who should be consulted before integrating third-party software or hardware at the Enterprise level.

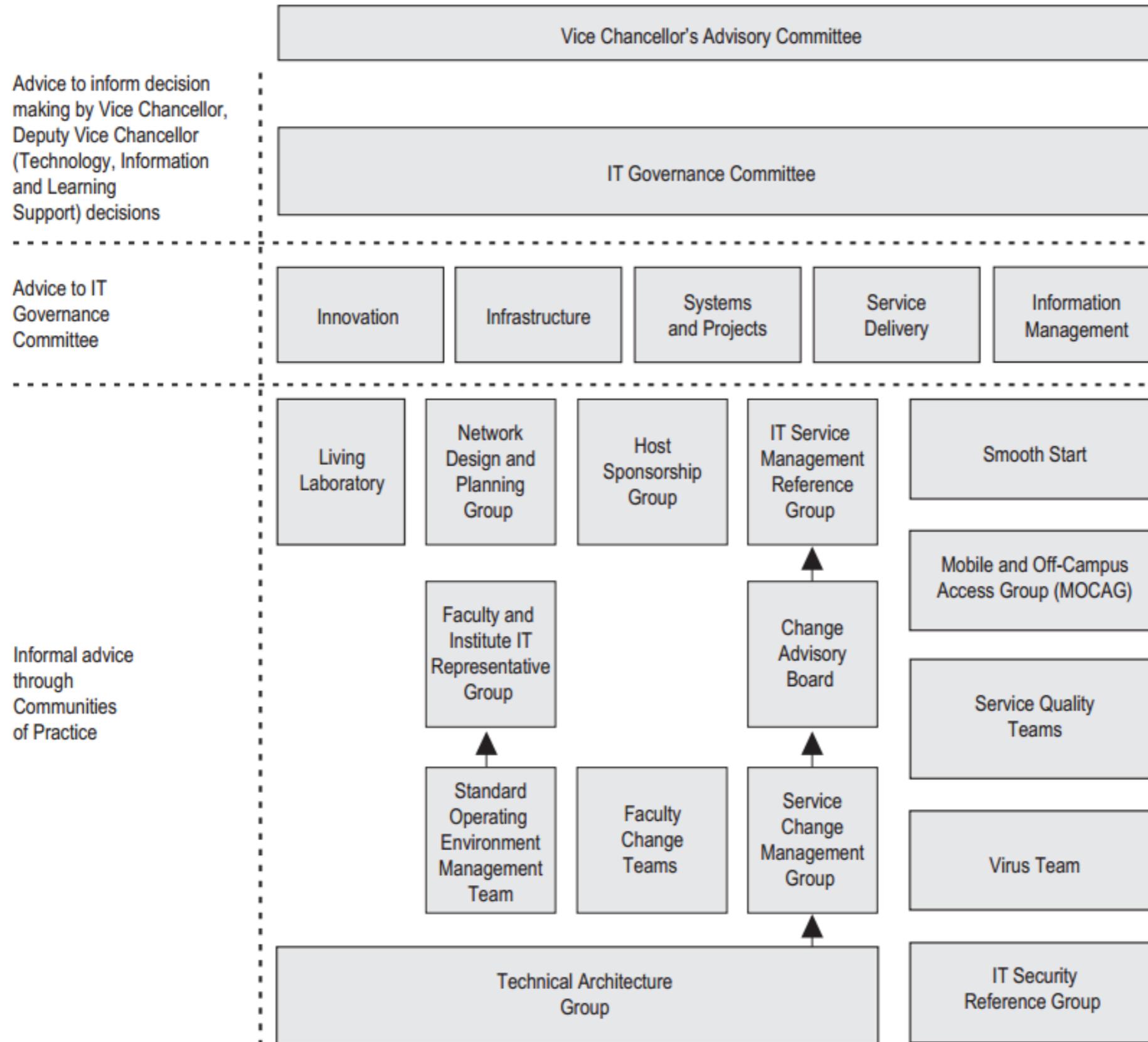
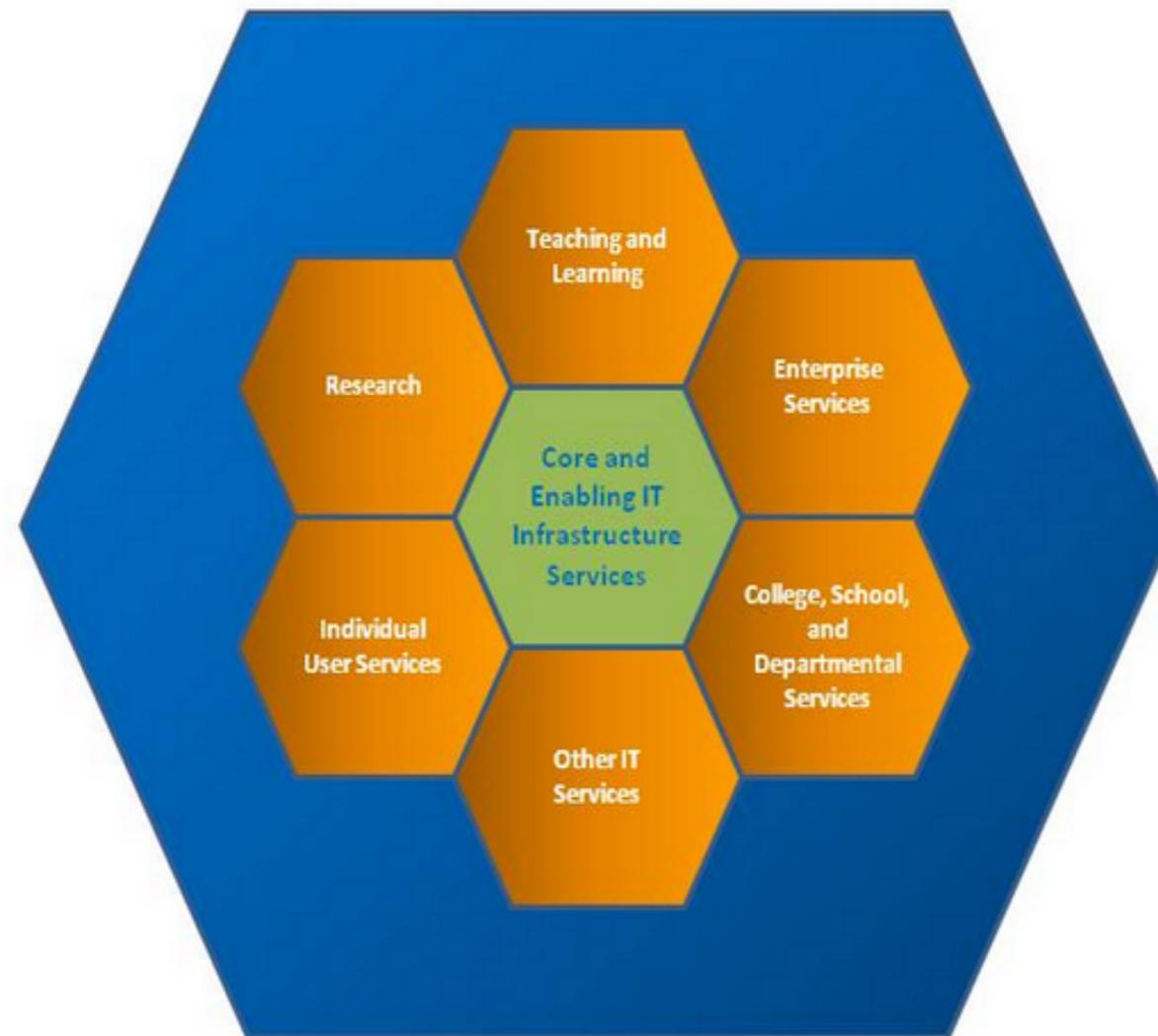


Figure 1. QUT's ITG Structure⁹

IT governance describes who makes which decisions, who provides inputs and analyzes the issues, who sets priorities, and who settles disputes when there is no clear consensus. Good governance processes are actively designed and well understood by participants, fostering timely decisions that are communicated effectively. Because UT Arlington is a large, complex research university, the variety of segments of the entire educational enterprise at UTA that are touched by IT is large. The diagram below depicts the variety of IT services that are addressed in IT Governance:



Technology Services Governance



THE UNIVERSITY
of ADELAIDE

[Technology Services Home](#) / [ICT Governance Home](#)

[Technology Services Home](#)

ICT Governance Home

[ICT Governance Principles](#)

[University ICT Architecture Committee](#)

[University ICT Investment Committee](#)

[Technical Design Authority \(TDA\)](#)

[Governance Terminology](#)

IT Governance Framework

The University has adopted an IT Governance Framework based on best practice that places great importance on communication and engagement with the University community and ensures that staff and students have a leading role in formulating IT strategy and investment. The IT governance framework;

- Articulates the roles of the various management and governance bodies across the University in IT strategy and decision making,
- Assigns clearly defined delegation for effective and efficient decision making and performance monitoring,
- Encompasses a broad focus on overall IT capability, and
- Enhances strategic decision making capacity and support direction setting in key areas such as the University's enterprise architecture and the Associate Deans (IT) model.

The framework was originally implemented with the drafting of [guiding principles](#) and the formation of three committees:

- [University Information and Communications Technology Committee \(UICTC](#) - The UICTC was disbanded in late 2012 and its roles and functions taken over by the Vice Chancellor's Executive.),
- [University Information and Communications Technology Architecture Committee \(UICTAC\)](#), and
- [University Information and Communications Technology Investment Committee \(UICTIC\)](#).

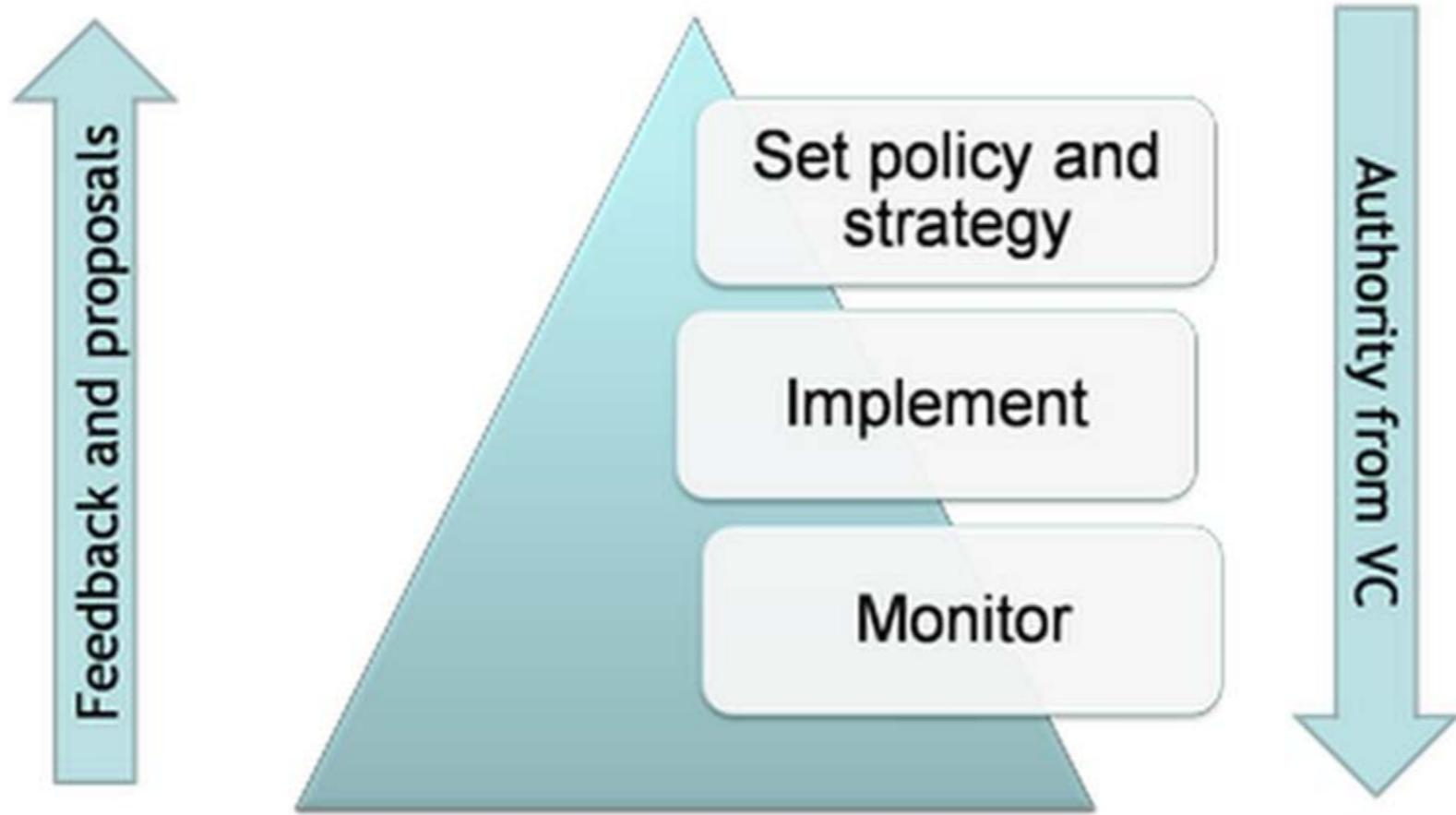


11 de diciembre de 2014



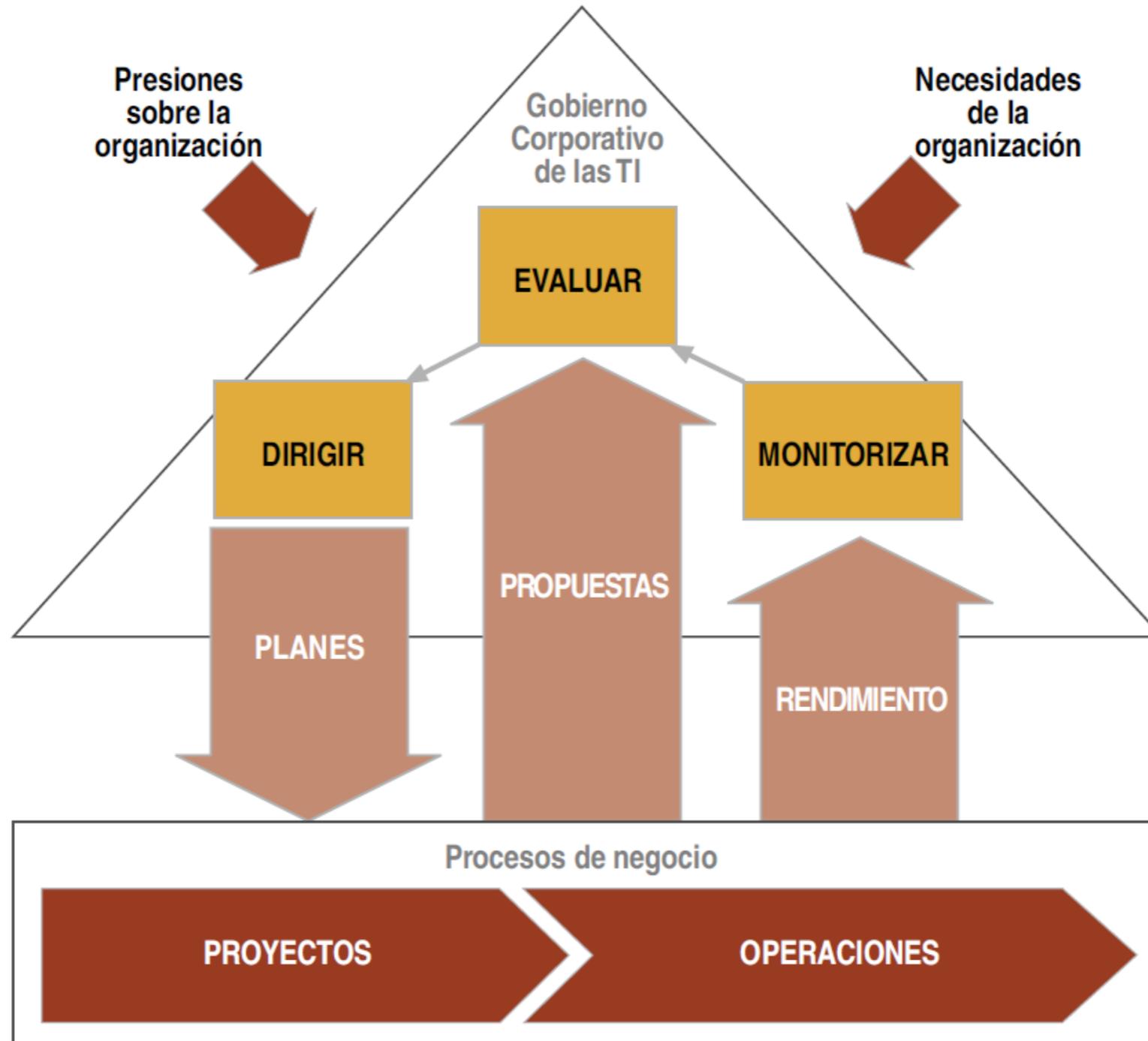
POLITÉCNICA

A three layered approach



Gobierno TI

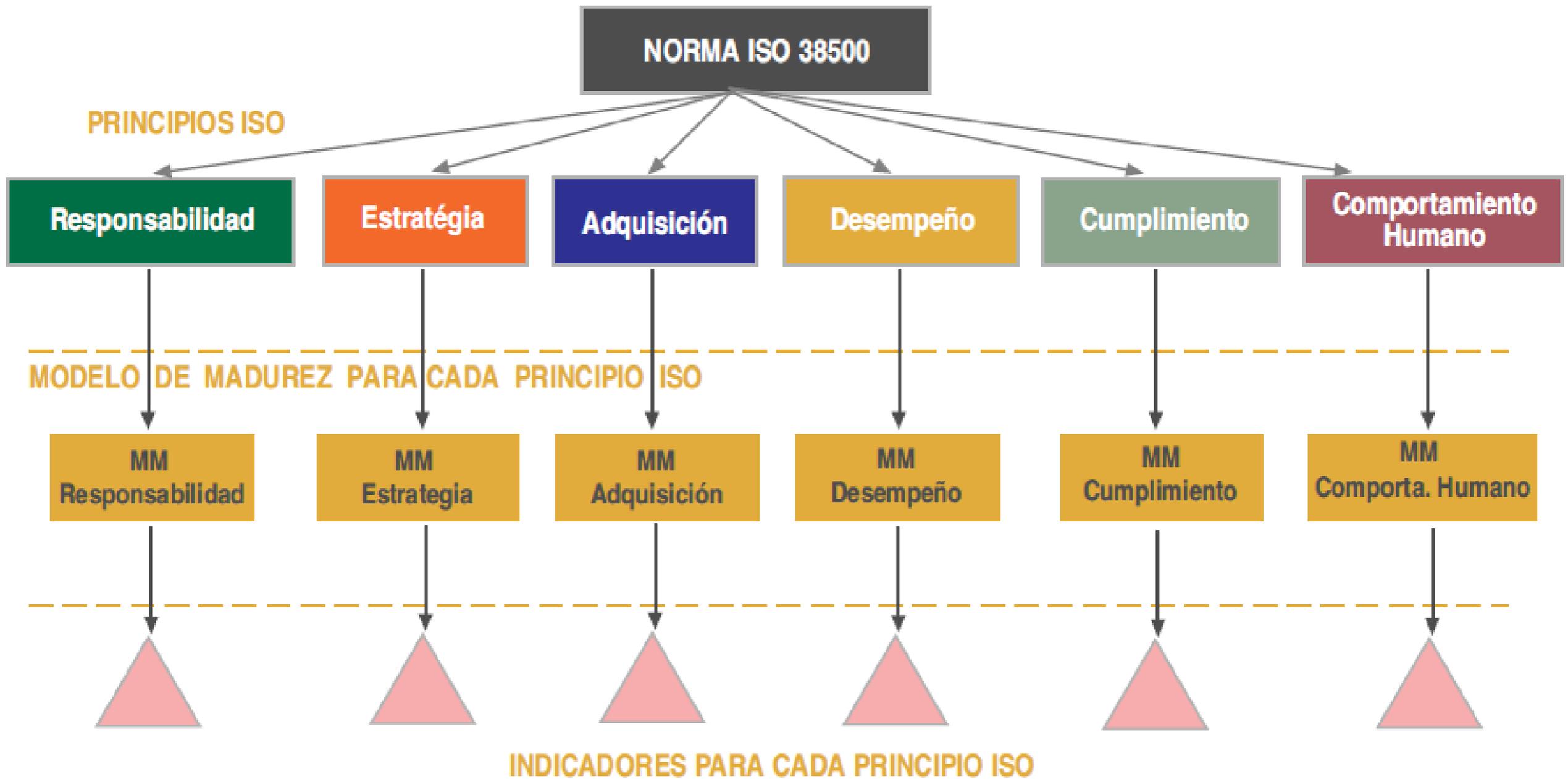
Figura 8.1. Modelo de Gobierno de las TI de la norma ISO 38500
Adaptado de ISO 38500 (2008)



Gobierno TI

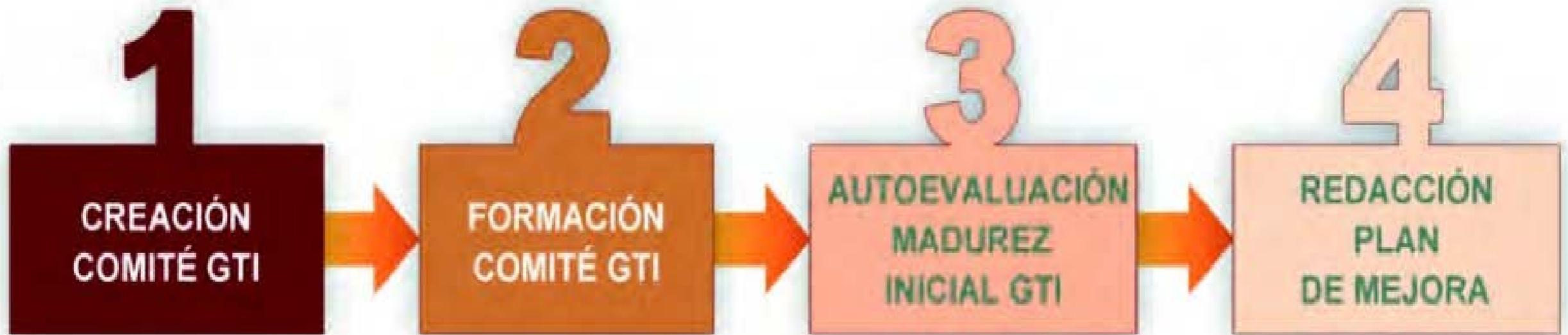
Figura 10.1. Motivos por los que se decide implantar un sistema del gobierno de las TI en una universidad

Elaboración propia



Gobierno TI

Figura 3.1. Etapas del Proyecto de Arranque de gobierno de las TI
Elaboración Propia a partir de Van Grembergen y De Haes (2008)



Conclusiones

- Las TICs y su innovación constante están condicionando y condicionarán el funcionamiento de las universidades.
- La cultura digital en la universidad avanza inexorablemente, la dificultad está en la gestión del cambio.
- El gobierno TI en las universidades es una pieza clave al servicio de este cambio.
- Los nuevos modelos educativos apoyados en las TICs impulsan sistemas personalizados y fuera del aula.