



Observatorio

Universidad de Murcia - Santander

I Congreso TUI

Informe de tendencias en Tarjeta Universitaria Inteligente



UNIVERSIDAD DE
MURCIA



First USC Congress

Report on trends of the University Smart Card

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1.Presentation

José Antonio Villasante

Director General of Santander Universities Global Division. Banco Santander

The University Smart Card, **USC**, has come a long way and seen a wealth of change from the first card launched in 1996 to the card incorporated in the mobile which is currently in use in universities in Spain, Chile and Brazil. Yet the search has always been for versatile use and easy implantation of both the **USC** itself and the services it can afford universities.

Created to respond to university needs, the **USC** can incorporate all the functions of the earlier cards, making it easy to adopt while opening up the way for new developments and the incorporation of the latest trends, like social networks and mobiles.

The number of services associated to the **USC** has also grown with its implementation, and now permits not just visual identification of the students and university staff but another services such as:

- Reserving library books.
- Control of access to buildings, offices and parking areas.

The I International University Smart Card Congress was held on 16 and 17 May 2013 at the University of Murcia and was attended by 169 people from 11 countries, 61 universities and 14 businesses.

This USC International Congress had two main aims:

1. To inform the universities of the latest projects, technological advances and the evolution and trends of the **USC**.
2. To foster networking and collaboration among all the universities of the countries with the **USC** in any and all university spheres, since it is this collaboration that will enable us to improve our universities and work towards the internationalization our students demand of us.

In order to get yet more out of this congress and the conclusions issuing from the debate, we have decided to draw up this report in which the aim is not just to provide a summary of the event but also a brief report on the conclusions, trends and future lines of the **USC** in universities. Thus, the congress can serve both those universities which were able to attend and participate and any other university or institution that wishes to know more about the conclusions drawn from the talks during the congress.

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2.Introduction

José Antonio Cobacho Gómez
Chancellor of the University of Murcia

The USC Project

In 1995, a group of persons with clearly innovative intentions for the university world signed a collaboration agreement between the Banco Santander and a University, the University of Cantabria, which was the beginning of the University Smart Card project (**USC**).

The aim of the project was to incorporate state-of-the-art technology into university procedures, eliminating the traditional plastic or cardboard card, and so facilitate management and access to services, while opening the doors to the incorporation of financial services inside and outside the campus. Furthermore, since it was the first university smart card, it sought to be a point of technological reference for other universities.

However, with just six agreements signed with other universities in 1997, the initial project began to go much further and became the seed for today's Santander Universities program, which since then has supported research, development and innovation in universities all around the world.

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3. Background

Indeed, the program has become a strategic axis for the Banco Santander and today the division can count more than 1,040 agreements with universities in over 20 countries. More than 150 million euros were invested in 2012 and 2150 million euros have been put up since the beginning.

The project came of age in 2002 with the incorporation of JavaCard technology, and it has continued to grow since and now over 6 million USCs have been issued in more than 260 universities in 12 countries and is supported by five centres of research, innovation and development known as USC Research Centers (or "*Observatorios TUI*" in spanish).

The USC Research Centers

From the very beginning a need was detected to drive innovation from the universities themselves, which would be responsible not only for passing on to the Banco Santander the needs of the universities but also for informing about future trends and the following steps the project needs to follow.

With the incorporation of the USC Research Centers the relation between the Banco Santander and the universities can go further and generate a link with research, improvement and continuous evolution that serves as a springboard for new **USC** - based projects, services and applications.

Examples of the projects driven by the USC Research Centers include the adoption of JavaCard technology, design of the WG10 applet, the introduction of instant printing procedures or, more recently, the development of a management system for the issue of cards.

Both the presentations and the videos of the congress can be found at www.ObservatoryUSC.com/ier-congreso-internacional-USC.

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4. Congress Program

11:30 Opening Ceremony

José Antonio Cobacho Gómez, *Chancellor of the University of Murcia*

Alfredo Albaizar Fernández, *Director of Santander Universities, Spain, Banco Santander*

11:50 Impact of the USC in Universities

Andrés Pedreño, *Professor of Applied Economics and Director of the Institute of International Economy of the University of Alicante*

12:10 Situation and advance of the USC in the world

Vicente Prior, *Director of Products and Channels, Global Division Santander Universities, Banco Santander*

12:30 New systems related to the USC for Universities

“New free international system for managing USCs and the circuit”

Jesús Ruiz Martínez, *Director of Open Innovation in Corporate Technology of Banco Santander.*

“APP USC. All the USC services in your mobile”

Juanjo González, *Head of the ATICA Projects and Applications Section, University of Murcia, Spain*

13:10 “Cashless campus solutions in the United Kingdom”

Richard Poynder, *Director of the “Higher Education Smart Card Association” HESCA, United Kingdom.*

13:30 Presentation and advance of results, 1st study on the implementation of the USC in the University System

Samuel Baixauli, *Coordinator of Economics of the University of Murcia and Lecturer at the Faculty of Business and Economics at the University of Murcia, Spain.*

16:30 USC success stories, experiences and services in universities

“A case of use and good practice with the USC in the various Univali Campuses”

Mário Cesar dos Santos, *Chancellor of the Universidade do Vale do Itajaí (UNIVALI), Brazil*

“New years of USC use in UNICAMP”

Edmilson Bellini Chiavegatto, *Director of the IT Service of the Universidade Estadual de Campinas (UNICAMP), Brazil*

“U.PORTO Card Project”

Luis Valente, *University of Porto, Portugal*

17:30 Round table, future trends in the use of USC

Raime Bustos, *Director of the Observatory of the Monterrey TEC University, Mexico*

Cristiano Costa, *Director of the Observatory of the Universidade do Vale do Rio dos Sinos, Porto Alegre, Brazil*

Jorge Lanza, *Director of the Observatory of the University of Cantabria, Spain*

Thiago Diogo, *Director of the Observatory of the Universidade Federal Fluminense de Rio Janeiro, Brazil*

Raúl Rubio Velázquez, *Partner of Baker & McKenzie*

Bertrand Michaux, *Global Account Director at Gemalto*

Moderator. Tomás Jiménez García, *Director of the USC International Observatory and Director of ATICA of the University of Murcia*

18:20 Presentation of the prize to the winner of the 1st USC creativity and ideas competition

Antonio Calvo-Flores Segura, *Chairman of the USC International Observatory and Vicechancellor for Economy and Infrastructure at the University of Murcia*

Luis Rodríguez de la Fuente, *Banco Santander Murcia Regional Director*

09:30 Success stories, experiences and services of the USC in universities

“Using the USC as payment for Transport”

Pedro Palominos, *Pro Chancellor of the University of Santiago de Chile (UDESANTIAGO), Chile*

Jorge Villalón, *General Director of SEGIC of the University of Santiago de Chile (UDESANTIAGO), Chile*

“Electronic administration in the UPF: E-signing with the USC”

Mar Gil, *Coordinator of the Student Information Point at the Universitat Pompeu Fabra, Spain*

Xavi Herrero i Angl , *Head of the Electronic Administration and Identity Management Area of the Computer Service of the Universitat Pompeu Fabra, Spain*

“E-signature services through mobiles, USC and server in the University of Murcia”

Rosana S nchez Mart nez, *Head of the Development, Applications and Methodologies Service, Applied Information and Communications of the University of Murcia, Spain*

10:20 Santander Universities and the USC in Spain

Amador Fraile Palacios, *Director of USC and Commercial Development in Spain. Global Division Santander Universities, Banco Santander.*

10:35 Presentation of the “Gold USC, USC Projects Awards 2014” Award

Antonio Calvo-Flores Segura, *Chairman of the USC International Observatory and Vicechancellor for Economy and Infrastructure at the University of Murcia.*

11:30 Presentation of the USC Research Centers and their main projects

USC Observatory of the Tecnológico de Monterrey, Mexico

Raime Bustos, *Director of the TEC Monterrey Observatory*

Observatory of the Universidade do Vale do Rio dos Sinos (UNISINOS) of Porto Alegre, Brazil

Cristiano Costa, *Director of the Observatory of the Universidade do Vale do Rio dos Sinos, Porto Alegre*

Observatory of the Universidade Federal Fluminense of Rio Janeiro, Brazil

Thiago Diogo, *Director of the Observatory of the Universidade Federal Fluminense of Rio Janeiro*

OTTIUC. University Smart Card Technological Observatory of the University of Cantabria, Spain

Jorge Lanza, *Director of the University de Cantabria Observatory*

USC International Observatory, Spain

Antonio Calvo-Flores Segura, *Chairman of the USC International Observatory and Vicechancellor for Economy and Infrastructure at the University of Murcia.*

13:00 Closing ceremony

José Antonio Cobacho Gómez, *Chancellor of the University of Murcia*

Vicente Prior, *Director of Products and Channels, Global Division Santander Universities, Banco Santander*

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5. Description of the congress

The congress comprised 4 main blocks:

1. Impact and situation of the **USC** in the universities.
2. Presentation of new solutions and USC-related services.
3. Success stories in the introduction of the **USC** and the services set up in different universities.
4. Trends and future lines of the **USC**.

The following sections deal with the blocks individually.

5.1. Impact and situation of the USC in the universities

The first speeches dealt with advances in the **USC** project over the years in Spain and the other countries, revealing clear growth both in the number of universities issuing the USC and the number of students and staff using it.

Special attention was placed on the global reach of the project, the millions of people around the world benefiting from it and its clear vocation to be service to universities.

The benefits the **USC** brings universities were also highlighted:

- A single card covers all the day-to-day keys and devices used in the university: entry to buildings, offices, parking lots, payments, etc.
- It democratizes and orders access to resources. When resources are limited their correct use has to be controlled and priority in the use of services is given to members of the university.
- It facilitates the introduction of electronic administration in universities. Its technical features mean that certificates and keys for e-signatures are securely stored.

The benefits for electronic administration are huge:

- The elimination of queues saves time for the user and the university.
- Economic savings in procedure handling.

- Greater university effectiveness and efficiency.
- 24/7 opening hours for services.
- Fewer journeys, since procedures can be processed from anywhere with no need to go to the university offices. Any procedure can be done from the home by legally valid e-signature, using a reader and the **USC**.
- Procedures can be authorized.

At the moment the level of electronic administration in universities is very varied since many specific university factors and legal issues pertaining to each country come into play.

The international presence of the Banco Santander with its global technological infrastructure may be a plus point here by favouring the sharing of good practices among countries, with the ensuing benefits for universities and society at large.

The direct impact of the **USC** was reported for 4 aspects of university life:

- University running.

The USC improves effectiveness and efficiency by facilitating the introduction of e-administration, which automates processes, saves paper and eliminates queues, etc.

- Student and researcher mobility

- Student exchanges with other universities.

There is ongoing work to define a standard so that when students or teachers go to other universities they will be able to use their home university **USC** to access services at the host university.

- It reduces the need for users to be present when complying with university procedures, so allowing students to combine studies with other activities.

- Integrating the **USC** to public transport in the cities.

- Economic saving and more efficient administration

- No copies of keys are necessary (for example to enter buildings, offices, parking lots, research areas ...).

- A reduction in administration time in handling access to systems, since everything is done automatically.

- Electronic administration means an important saving in paper and in the time devoted to performing processes.

- Fewer tasks to be carried out by the office worker, since these can now be done by the users with their **USC** (e.g. collect a bicycle from an automatic bicycle sharing point, get a printout from a photocopier ...).

- etc.

- Building student loyalty and a feeling of belonging to the university

The **USC** plays an important role in accrediting membership of a specific university. In doing so it builds loyalty among students, who can continue to belong to their university even after they have left it. They can thus continue to acquire new knowledge and collaborate and research with former members and with the university which, at the same time, favours the transfer of knowledge generated at universities. Furthermore, the **USC** provides a variety of benefits and purchasing discounts for the university members which are valued by the university and are important in building loyalty.

Aspects to be improved that were addressed in the congress included:

- Problems arising from the USC issuing process in some countries. The Banco Santander and the USC Research Centers are working on solutions to these, as is borne out by the following two projects presented during the congress:

- On-the-spot issue of **USCs**: this was done as each attendee registered at the congress. The aim is to introduce this in universities to cover renewals and as an alternative to the traditional issuing method in times of enrolments.

- NEXUSC: this project aims to introduce a fully automatic system for issuing managing **USCs** that is based on open sources and that will be integrated with the *backend* of each university.

- The development and setting in motion of services is unequal among universities and there is no common introduction method for all countries. Some offer a wealth of services (access control, e-signature, payments, reservations..) while others use them solely for basic visual identification.

During the congress the **USC** study was presented:. This seeks to analyze the real situation regarding **USC** use in Spain by making a detailed map of existing services and by pointing out the problems, needs and expectations of each university so that the Banco Santander, the USC Research Centers and universities can define and work on improvements.

Although the study currently includes only universities in Spain using the **USC** (55 in total), a small group of universities has been included in the latest edition in order to adjust the study to include more countries in future editions, which would allow for a comparison of the university systems in various countries.

An important indicator of the current situation of the **USC** in universities is how students rate it. According to the questionnaires on satisfaction conducted by the Banco Santander with students at various universities in each country, the mean rating was 7 points out of 10 (December 2012), while the rating rose to 7.4 among students who use the **USC** weekly (69.3 % of students). The table below summarizes the main indicators of student satisfaction with the **USC**

Overall rating	7,0	8,9	5,9
Rating among students who use the USC weekly	7,4	8,9	6,5
Rating among students who do not use the USC	5,6	7,7	4,5
Satisfied students (ratings > 7)	67%	94%	46%
Total rejection (ratings of 1)	3%	7%	1%
Students who use the USC weekly	69%	100%	49%
Students who use the electronic purse weekly	26%	65%	7%
Students who use the debit function weekly	25%	64%	10%
Students who have obtained discounts with the USC	54%	89%	26%
Mean rating of the services	6,5	8,9	1,9
Students satisfied with the services (rating > 7)	63%	90%	48%
Total rejection of the services (ratings of 1)	10%	17%	2%
Perception of delivery time < 3 weeks	56%	73%	23%
Have information about the USC	53%	81%	34%
Students with information about specific campaigns	16%	30%	8%
Students providing open feedback in the survey	42%	77%	22%

Data provided by the Banco Santander from a study made with 11 universities in 2012.

5.2. Presentation of new USC-related solutions and systems

During the congress various technological solutions being worked on by the Banco Santander and the USC Research Centers were presented, with the aim of their being used free by all universities.

On-the-spot issue (I + I)

The I+ I system set up by the Banco Santander allows completely personalized **USCs** to be issued on the spot by universities. USCs can be of different appearances and each will contain different, personalized information.

Attendees at the Congress were able to see the system at work thanks to a pilot run which issued **USCs** on the spot to identify those attending.

169 cards were issued; 130 during the registration process alone.

The system is now up and running at the University of Murcia.

NEXUSC - New free international system for managing USCs and for improving the issue process

NEXUSC is the new, fully automatic platform that manages the issue of **USCs**. It is designed to be used by all universities that have the **USC**.

Thanks to open software technology the platform can manage and issue **USCs** on the spot at no cost.

The platform comprises two big modules.

- the FMM (File Manager Module), which includes the sending of **USC** requests from the universities to the bank, their reception by the bank and the replies sent by the bank to the universities.
- the USCM (University Smart Card Module), which enables each cada university to manage **USC** requests individually, and allows automatic connection with the FMM which feeds any modifications back into the module.

This module is not for compulsory use by the universities. If they already have a card management system they can call the FMM, thanks to the web services this has available.

USC in mobiles: USC App

USC App is an application for mobile telephones designed as a platform for university members to be able to access **USC**-related services. The QR code printed in the card is read, enabling the user to link his or her **USC** with this *App* and access certain services, depending on the university and the group to which the user belongs.

Some of the services available are:

- Access to notifications and novelties relating to the **USC**.
- Access to basic information about (my) **USC** (state, expiry date, renewal date, when to collect it, etc.).
- Consulting reservations of sports facilities, computers, printers.
- Access to user's personal data.
- Consulting points of interest regarding the university.
- Information on free parking spaces on the campus.
- Access to benefits and promotions.
- etc.

Both the architecture and the infrastructure of **USC** App are of a “multi-university” character, making incorporation of new universities onto the platform as simple as possible. Thus, a university that wishes to provide services via the platform only needs to develop the web API web of the services it wishes to offer.

USC App Reader

This mobile phone application enables establishments and organizations offering advantages to their **USC** users to accredit their identity. It thus becomes possible to access more detailed information about the user and his or her relation with the university when applying a promotion (card expiry, the groups of which he or she is a member, home university, etc).

Traders and organizations can make use of the platform by posting their offers on the promotions site of the **USC** (<http://promociones.observatoriotui.com>).

Pilot attendance control at events made during the congress lunch

During lunch on the first day of the congress a real pilot was run on attendance control at the event, using the congress accreditation **USC** and the QR code it incorporated.

During the pilot a mobile terminal with a QR code reader was used to show the speed of reading (less than one second per read) and the agility and possibilities provided by linking **USC** with this technique to, for example, control participant attendance at large university events.

5.3. Success stories in the introduction of the USC and of the services started up in universities

During the congress various success stories related to the use of the **USC** in universities were presented, and these can be consulted through the congress presentations and videos. Some are given below:

Unification in the USC of all the existing faculty cards at the University of Porto

The University of Porto (UP - Porto, Portugal) presented its project "U. Porto Card" in which, thanks to the **USC**, it has been able to bring together in one card all the different types of card (including different designs) of its 14 faculties.

As a result, they have been able to incorporate transversal services across the whole university, something which was previously impossible. Up and running services include control of access to libraries, printing, photocopying, etc. The services are being introduced progressively into all faculties.

Using e-signatures and advances in electronic administration

There were two success stories here, both from Spanish universities: the Pompeu Fabra University and the University of Murcia.

Both projects reveal the huge potential of e-signatures and the good uses that both universities are making of this feature.

Although both projects have points in common, in terms of both solutions (electronic registry, electronic invoice ...) and processes (signature of academic minutes, electronic site ...), each stands out for its own reasons:

- The Pompeu Fabra University gives all its students an electronic certificate within the **USC**, which means it has been able to set up services for students that require e-signatures.
- The University of Murcia can boast a wealth of applications (digital signature service, certified digitalization, tagging...) and processes with e-signatures, and the huge use being made of these - up to 150,000 e-signatures a month.

Link to public transport at the University of Santiago de Chile

The University of Santiago de Chile has enabled its **USC** for use on all public transport in the city (mainly buses and underground). Thanks to this, **USC** holders no longer have to carry various cards; the university card serves to top up credit, pay and use "Transantiago" transport.

All the user has to do is enable the service since all the cards are issued with this option pre-installed.

This link with public transport, presented by the University of Santiago de Chile, is not limited to that university; in almost all countries there are universities which have a similar system in effect, e.g. the universities of Cantabria, Santiago de Compostela or Burgos, in Spain, or the Federal Fluminense or Do Vale do Itajaí (UNIVALI) universities in Brazil.

The USC in university canteens and refectories in the Universidade Estadual de Campinas (UNICAMP – Campinas, São Paulo, Brazil)

The **USC** is widely used in the UNICAMP, but where it is noteworthy is in the canteens and refectories, all of which use it to control and grant access to the installations by identifying the user. The sale of meals is exclusively via **USC** credits, which can be obtained at specific points.

Access and payment in eating places are important since they benefit students and universities alike, as access to installations is improved and the use of cash, with all the tasks it involves, is eliminated.

5.4. USC trends and future lines

During the congress various **USC** trends and future lines were addressed:

Evolution towards mobile telephone use in the services offered by the USC.

One of the most discussed trends was the evolution of the **USC** towards mobile phones. This occurred not only in the presentations on the **USC** App or the NFC pilots that some universities like Instituto Tecnológico de Monterrey (Mexico) or the Catholic University in Murcia (Spain) have brought in, but also in the debates arising in the round table sessions, in the question and answer sessions and even during the breaks and over lunch.

Today's society is changing and the presence of mobile devices is such that the **USC** cannot ignore this as university members continue to demand improvements and changes in this sense.

In an ever nearer future we will see students using their mobile telephones to carry out all the operations that they perform today with the **USC**. This means that universities will have to update and adapt their systems and the Banco Santander and the USC Research Centers are working to anticipate and facilitate this development.

Improving the issuing process and reducing stamping times

One of the most repeated requests for improvement on the part of the universities is to update the **USC** issuing process, making it more agile, reducing problems, providing information on the state of applications, improving security and, especially, avoiding sending any physical paper or document.

The NEXUSC project was presented at the congress. This aims to make **USC** issue a fully automatic, paper-free process which can be used freely and worldwide by all universities.

Extension of the e-signature and the electronic administration services in the universities.

As was apparent from the presentations and as has been indicated in previous sections, the implantation of the e-signature varies greatly from university to university on account of the number of factors that can affect setting up electronic administration processes. These may be:

- technical.
- economic.
- organizational, pertaining to the university.
- legal, pertaining to the country where the university is.
- the certification providers of each country.
- etc.

A clear intention on the part of the universities to invest and improve in this area was perceptible during the congress. They will seek to offer services related to e-signature and electronic administration since the benefits are there for all and for all to see.

The technology underlying the e-signature is relentless in its evolution. Today cryptographic **USCs** can store the electronic certificate safely.

Another advance that is ongoing, and one which was treated in depth at the congress is the evolution towards the centralized e-signature through specific servers (HSM), which will facilitate e-signature use from various mobile devices.

Unification and sharing of solutions among universities

An issue addressed throughout the congress was the need to share knowledge and solutions among universities and the advantages to be gleaned from doing so. This will mean resources are used more effectively without various universities devoting time and effort to the same problem.

This collaboration will not only improve the efficiency and effectiveness of the universities, but will also generate a better service to students and be cost-saving. Another plus of for universities collaborating through the **USC** is that this can open the doors to stronger collaborations in research, shared studies, student exchanges and the like.

New methods of payment associated to the USC and mobile phones

Today, a large percentage of students do not have a financial card and neither can universities oblige them to have one, but, in order to improve management in the universities, new payment systems avoiding the use of cash in universities and that improve online payments for the services need to be set up.

The current **USC** includes a WG10 electronic purse WG10 which is starting to become outdated, so new alternatives need to be found that benefit university members and universities. Two main lines warrant attention:

- Payments through mobile devices. This is a clear trend in the general market and one which universities cannot afford to ignore.
- Use of banking standards, like universal prepayment systems that do not require students to have a bank account.

Social networks

Today the importance of social networks is almost on a par with that of the Internet. The classical vision of these networks upholds the creation of communities comprising the greatest number of members possible and offering a variety of tools and applications to gain user loyalty.

In order to create a successful community, it is recommendable that the university or the centre issuing the **USC** designs an attractive architecture for participation in the social network so that users can share content and information independently and so contribute to generating new information.

In the case of the **USC** and the universities it is not so much a question of building loyalty among users in their own social network as one of getting the maximum out of the most successful social networks, with which **USC** holders (mainly students) are already familiar, and so open up a channel for communication and feedback that will conform a **USC** community of users. Therefore, it is beneficial to inform **USC** holders of the existence of that community in the social networks, for example when they obtain their card.

Various conclusions were drawn during the congress on the current situation and on the future of this technology and these services, and the main ones were:

Disparity of services in the universities

Although today most universities use the same technology in their **USC**, the level of services offered is very unequal, with a large number offering almost no services while others have many up and running. This issue directly affects the added value of the **USC**, which is directly proportional to the services the universities offer.

Evolution toward mobile phones

One of the most repeated issues raised during the congress was that the natural evolution of access to services offered by the **USC** would be via mobile phone. This was on account of:

- the widespread penetration of Smart phones among university members.
- user demands to access services from their mobile phones.
- the technological advances in mobile phones and devices.

Although the evolution of the **USC** towards the mobile phone is a matter of just a few years, the change is ever nearer and the Banco Santander and the USC Research Centers are rising to the challenge.

In this trend toward mobility, it seems that NFC technology is leading the way with its incorporation by the vast majority of mobile phone manufacturers: Android, Windows Phone and Blackberry; however, its non adoption by Apple is generating some uncertainty, given

that company's large world market share and the impossibility of bringing in generalized services to universities using this technology.

There are currently 4 pilots in use in universities in Spain, Mexico and Brazil.

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6. Conclusions

Advances in e-signatures and electronic administration

During the congress it became apparent that there is still much to be done in the universities in terms of using e-signatures and electronic administration.

The overall role of the Banco Santander and the USC Research Centers may be useful in this sense, as they can not only foster the sharing of solutions and projects among universities using the **USC**, but can also help in carrying out projects that will make it easier to get electronic administration up and running in the universities.

The need to inform better about the services the USC provides

As shown in Chapter 5, the students' rating of the services offered by the **USC** is high, although it is of concern that only 53% of students state they have information about the **USC** and its related services. There are, moreover, big differences from university to university:

Have information about USC	53%	81%	34%
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As can be seen, this 53 % drops to 34% in one of the universities surveyed, indicating the need to communicate better with the students to make them aware of the services the **USC** offers.

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7. Interview with Richard Poynder

1. How do you think the USCs have helped to improve university services and management?

The USC has formed a useful focal point for universities wishing to implement Smart Campus Card schemes. I do not believe that a single, standard card can be used by all universities, primarily because of the diversity of their existing legacy applications. The USC could usefully publish statements of best practice for the smart card production, design and main applications (e.g. Access Control and Cashless Campus).

2. Of all the services the USC provides, which do you see as the most important?

Bringing universities together to share experiences and lessons learned is a valuable service. In some countries (e.g. in South America and the Iberian peninsula) the universities may have more uniform systems, making the services of USC Observatory of particular benefit. Again, statements of best practice may be of more use than a standard smart card.

3. What do you believe is the future of the USCs in universities?

USC can continue to provide valuable services to universities, provided it can absorb and promote new and innovative technologies – where they are of real benefit. These might include biometrics and the replacement of smart cards by NFC-enabled (or possibly BLE-enabled) mobiles. Promotion of the Santander Card will continue to be effective and successful only if the Santander products and services reflect the changing needs and aspirations of universities not currently in the USC orbit.

I also believe that the USC needs a much clearer definition. What exactly is it? To what extent is it a vehicle to promote Santander's payment products and convert students to become Santander customers? The USC website does not make these matters clear (and much of the site is not readily available in English).

Perhaps most importantly, what problem is USC trying to solve?

4. Do you believe that at some time in the future the plastic part of the USC will disappear?

One day, of course. Eventually, the mobile will replace cards, but only over a long period. In the meantime, universities should prepare for several years of dual operation, with their systems able to accept and process both proximity (ISO14443) cards (DESfire) and NFC-enabled mobiles. Until EVERY student, visitor and staff member has a compatible smartphone, cards will still need to be accommodated. The Santander cards should always be single chip only, operating through the contactless interface, in a DESfire environment. This card will also need to overcome some barriers:

- a) Instant issue and reissue on site*
- b) Clearer data ownership and accessibility rules*
- c) Lower-cost card readers*
- d) Easier EMV compliance procedures*
- e) More flexible exterior design constraints*

5. How can the USC serve to strengthen collaboration between universities?

Separate USC “chapters” should be established in geographical regions where common language/culture/university structures exist (e.g. the UK, Scandinavia, Southern Africa). Leading universities in each designated region could promote smart technology, best practices and the migration to new technologies and methodologies.

6. Do you think the USC will somehow be able to foster student exchange between countries?

I am not really competent to answer this question. I think the correct answer is probably that the USC cannot, in its present form and with its present remit, do this effectively.

7.1. Brief curriculum

Richard Poynder, an English chartered accountant, is the owner of Smartex Limited. Smartex, founded in 1993, established the world’s widest network of membership-based associations whose main purpose is networking, education and promotion for smart technology, biometrics and NFC. Smartex also provides independent consultancy to universities wishing to implement or expand smart campus card schemes. Richard has worked in this capacity with over 20 HEIs.

Since 2002, Smartex has operated HESCA (the Higher Education Smart Card Association) in the UK. HESCA has nearly 30 leading university members, as well as the main product and service providers to this sector.

The congress is over and this report does not aim to be a one-off action but a call for continuity that will:

- serve as a point of union and networking among universities.
- disseminate success stories, new solutions available to universities, the evolution of technology, future trends and new **USC**-related services.
- be a discussion forum for members to put forward improvements and air expectations.
- help the Banco Santander and the USC Research Centers detect the problems and needs of the universities.

In short, what is sought is to enable continuous evolution and improvement in the universities.

In 2014 the 2nd edition of the Congress will be held in Murcia April 10-11.

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8.Future editions

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9. Photographs of the event