

Campus Card System Survey Report

Current State-of-the-Art in Campus Card Systems



**European Campus
Card Association**

Commissioned by the European Campus Card Association in May 2016, the survey reflects the views and opinions of 181 educational institutions from 28 countries. Its primary aim was to establish the current state-of-the-art in campus card systems and obtain an insight from the educational members on their vision with regard to their future needs and requirements of eID credentials.

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Enhancing Campus Card and ID Credentials throughout Europe

Acknowledgement

I would like to express my sincere thanks and gratitude for the time and efforts made by the individuals in all the educational institutions who responded to the survey. Their contribution and willingness to share their views and opinions on campus card systems has resulted in valuable information been available on the future needs and requirements of eID credentials and campus card systems.

I would also like to thank our partner organisations the European University Information Systems (EUNIS), the National Association of Campus Card Users (NACCU) and Santander Universities for their assistance in distributing the survey.

In conclusion, I thank all my colleagues on the ECCA Board and our corporate members for their assistance and support in the formulation, distribution and promotion of the survey.

Eugene Mc Kenna

ECCA Research Standards & Innovation

INTRODUCTION

The European Campus Card Association (ECCA) is dedicated to providing a networking platform for its members (both educational and corporate) that facilitates the on-going development of partnerships and the exchange of information between higher education institutions and the campus card industry. This enables problem solving and supports the development of secure identification credentials and campus card transaction technologies. It is therefore important that our association keeps abreast of the knowledge base and the technological advances of the campus card industry to ensure that we can continue to provide our members with a valuable insight into both the current state and the future needs of the industry.

As part of this process, ECCA commissioned a survey in April 2016 to determine the current state-of-the-art and the potential future requirements for eID credentials and campus card systems in Europe and beyond. The findings from the survey, which involved 181 education institutions from 28 countries, reflects the views and opinions of a wide range of educational institutions. These findings will assist ECCA's research and innovation programme, particularly in the area of establishing common platforms to facilitate the interoperability of campus systems, together with promoting the concept of a common eID solution that will achieve interoperability between institutions on a cross-border basis.

BACKGROUND AND OBJECTIVE

The aim of the survey was to establish the current state-of-the-art in campus card systems and obtain an insight from the educational members on their vision with regard to their future needs and requirements of eID credentials to support campus wide multifunctional card transactions. The traditional campus ID card has now evolved into a multi-function smart card that provides an eID and a secure key, which allows access to a range of essential services, enabling them to be operated in a cost effective way. In addition, the campus card can also be used with mobile devices in a hybrid mode to access service. The on-going advances in technology continues to provide additional options that include the mobile phones and NFC devices.

The objective of the survey focused on establishing the current state-of-the-art of the following:

- (i) Details on existing Campus Card system
- (ii) Card Issuing, Personalisation and Requirements
- (iii) Value load and Payments
- (iv) Mobile devices and Applications
- (v) Interoperability and standards
- (vi) Card Validation, Authentication and Self Service Kiosks
- (vii) Details and plans of campuses without a card system

The survey questionnaire, which involved 32 questions, was designed to facilitate responses from campuses with and without a campus card system. As part of its strategic focus on serving the needs and requirements of its membership, ECCA will undertake further online surveys, which will aim to keeping abreast of the knowledge base and the technological advances of the campus card industry.

SURVEY RESULTS

Survey Configuration

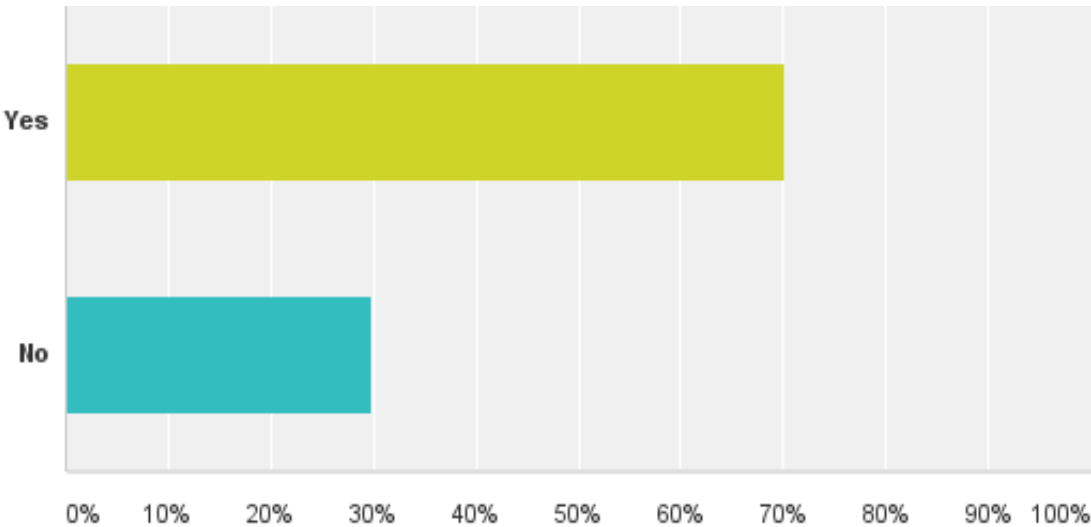
- (i) Question 1 was applicable to all educational institutions.
- (ii) Questions 2 to 27 were applicable to educational institutions with an existing campus card system.
- (iii) Questions 28 to 32 were applicable to educational institutions that had no campus card system.

Section A- Details of your existing Campus Card system

Question 1: Does your institution currently have a campus card system in operation?

Answered: 181 Skipped: 0

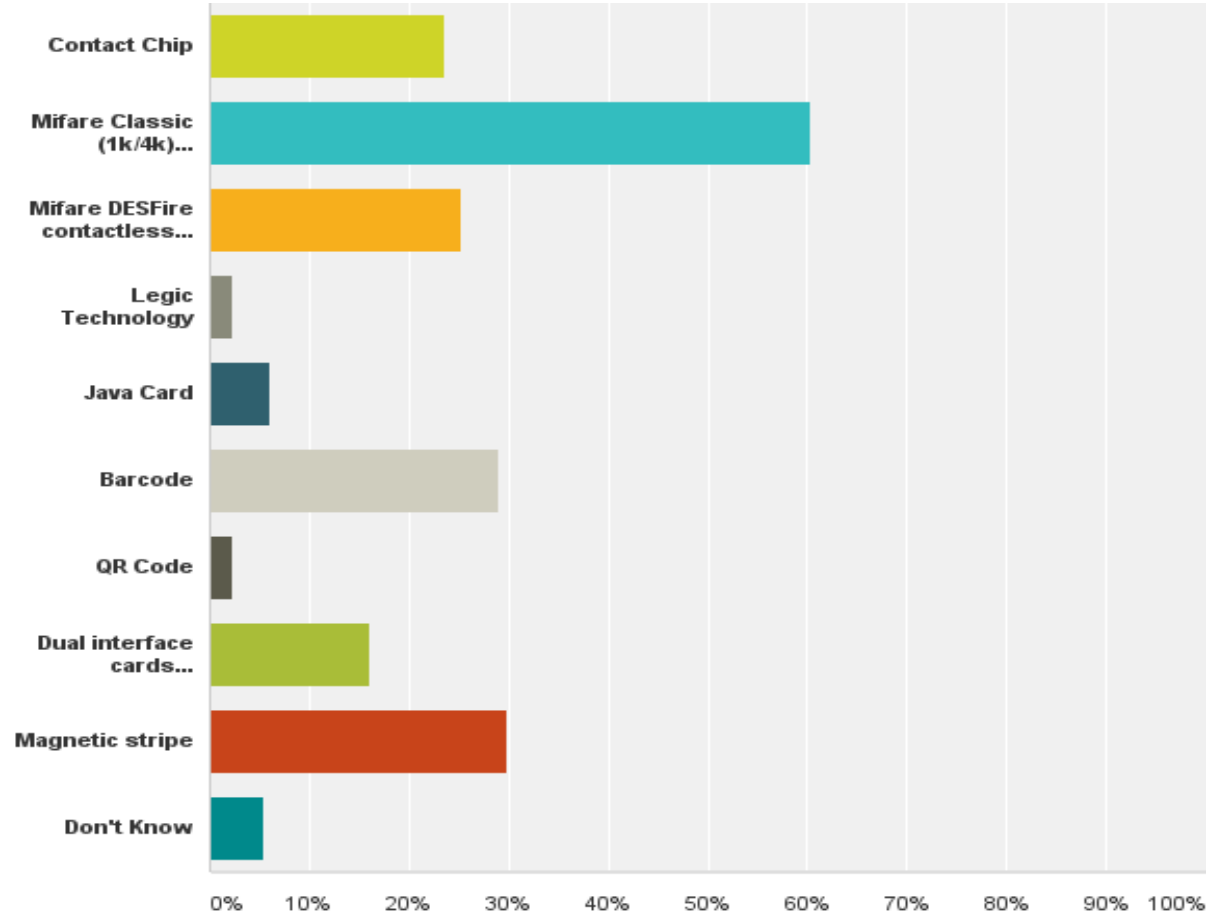
Answer Choices	Responses	
Yes	70.17%	127
No	29.83%	54
Total		181



Question 2: Select the card technologies that your campus card use?

Answered: 131 Skipped: 50

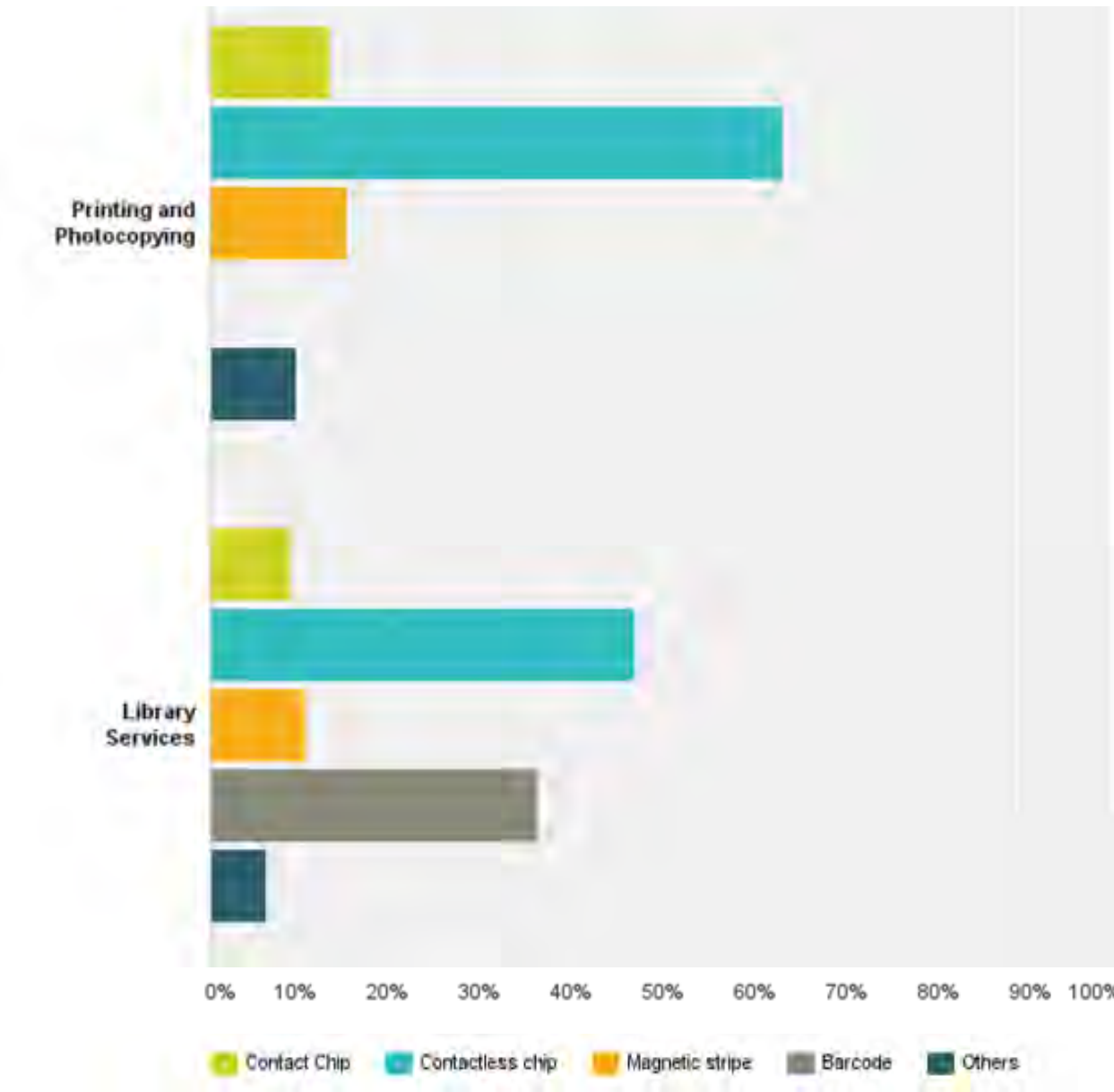
Answer Choices	Responses	
Contact Chip	23.66%	31
Mifare Classic (1k/4k) contactless chip	60.31%	79
Mifare DESFire contactless chip	25.19%	33
Legic Technology	2.29%	3
Java Card	6.11%	8
Barcode	29.01%	38
QR Code	2.29%	3
Dual interface cards (contact/contactless)	16.03%	21
Magnetic stripe	29.77%	39
Don't Know	5.34%	7
Total Respondents: 131		



Question 3: Typical applications and services that can be accessed using the campus card are listed below. As appropriate, please select the card technology used to access the relevant application or service

Answered: 131 Skipped: 50

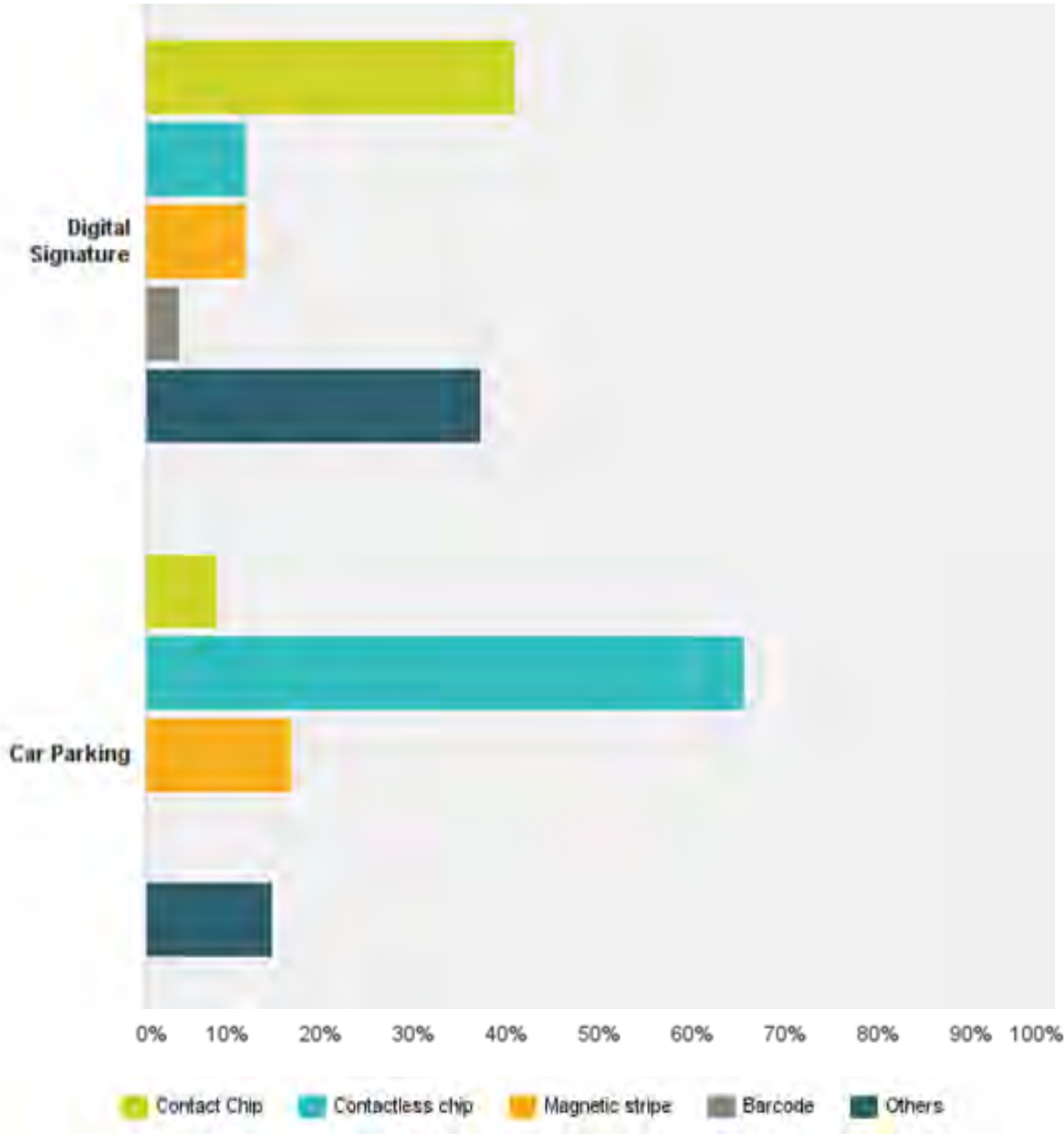
	Contact Chip	Contactless chip	Magnetic stripe	Barcode	Others	Total Respondents
Printing and Photocopying	13.33% 14	63.81% 67	15.24% 16	0.00% 0	9.52% 10	105
Library Services	8.93% 10	47.32% 53	10.71% 12	36.61% 41	6.25% 7	112



Question 3 (cont.): Typical applications and services that can be accessed using the campus card are listed below. As appropriate, please select the card technology used to access the relevant application or service

Answered: 131 Skipped: 50

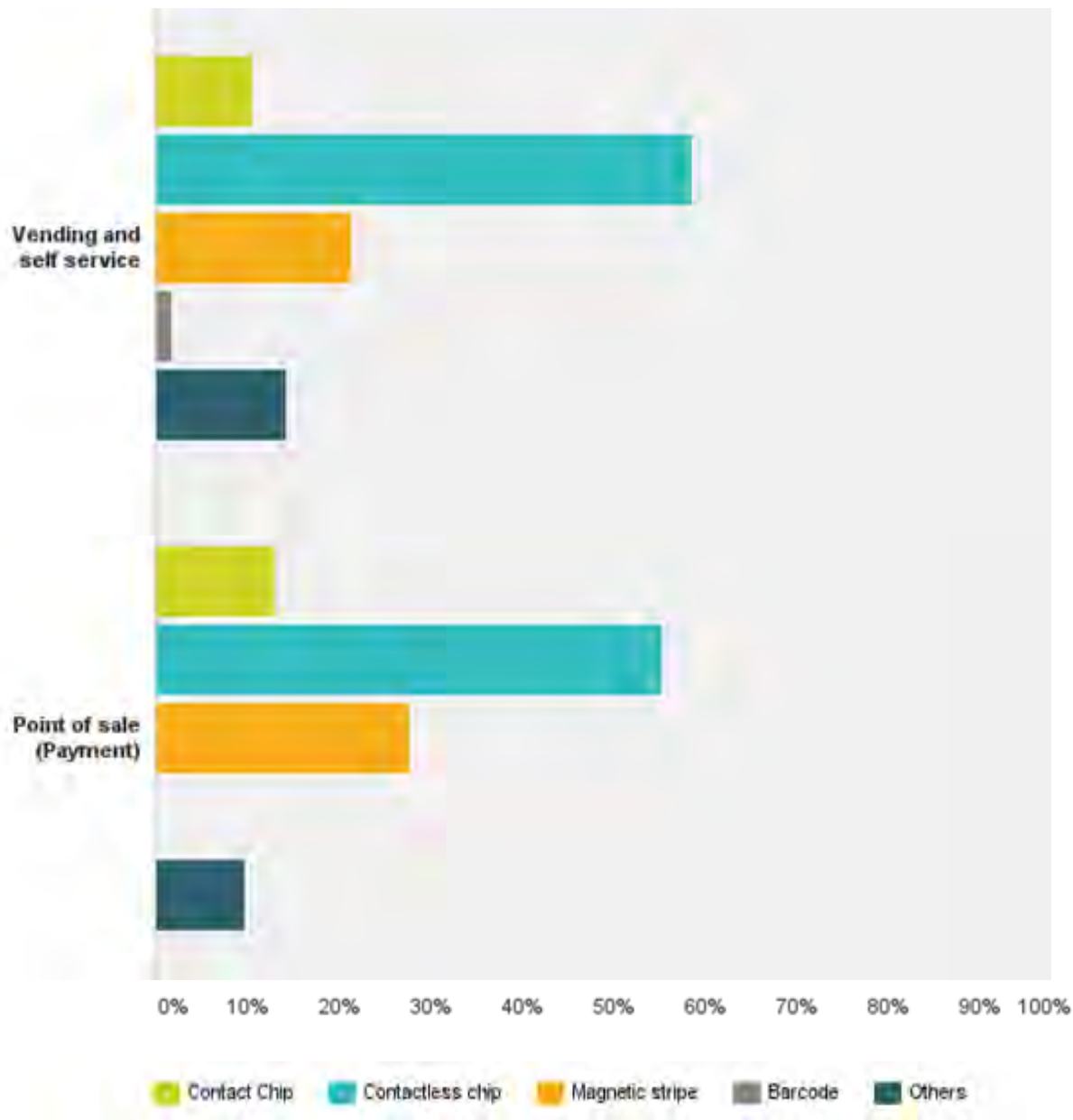
	Contact Chip	Contactless chip	Magnetic stripe	Barcode	Others	Total Respondents
Digital Signature	40.74% 11	11.11% 3	11.11% 3	3.70% 1	37.04% 10	27
Car Parking	8.00% 4	66.00% 33	16.00% 8	0.00% 0	14.00% 7	50



Question 3 (cont.): Typical applications and services that can be accessed using the campus card are listed below. As appropriate, please select the card technology used to access the relevant application or service

Answered: 131 Skipped: 50

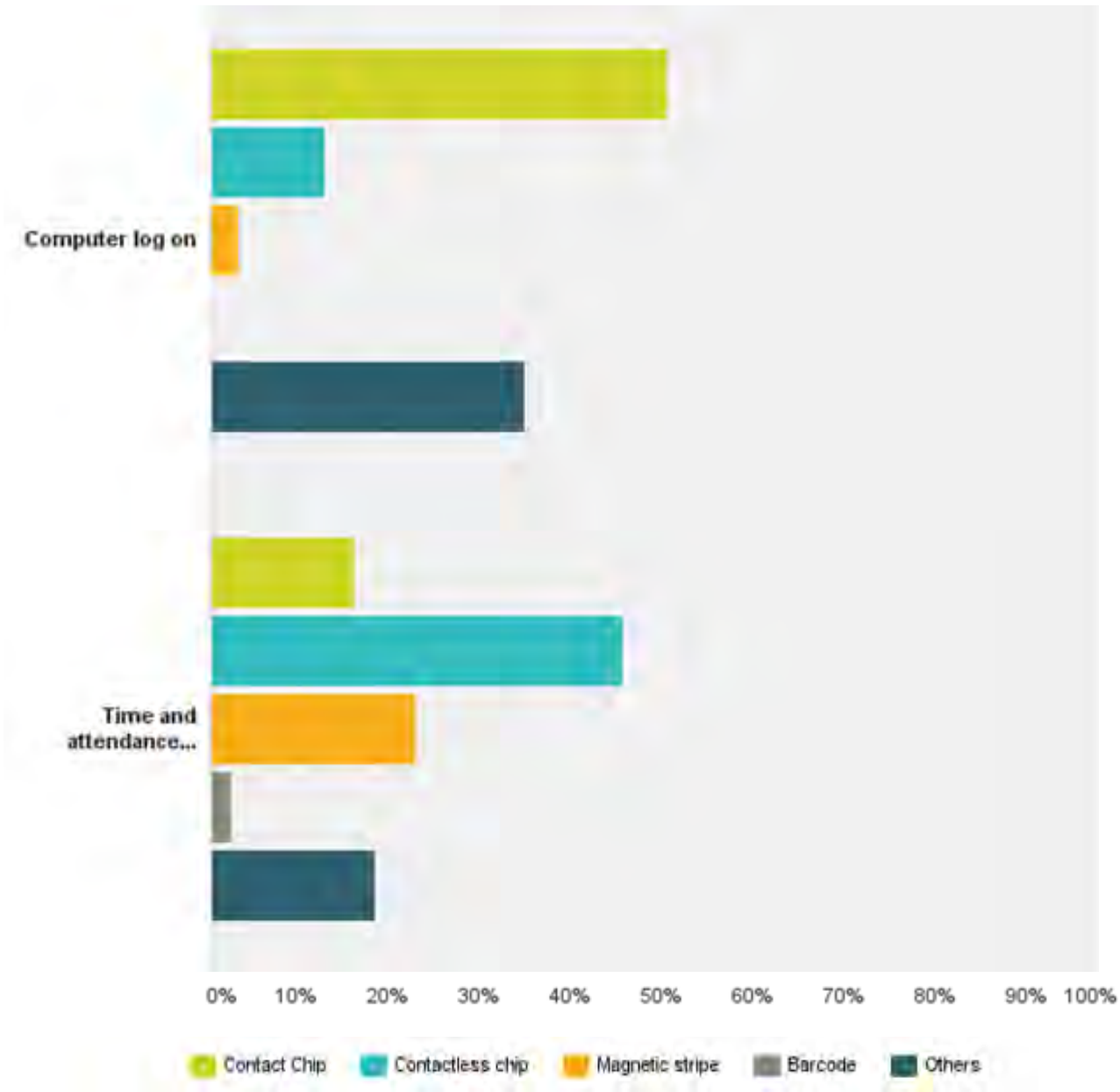
	Contact Chip	Contactless chip	Magnetic stripe	Barcode	Others	Total Respondents
Vending and self service	10.91% 6	60.00% 33	21.82% 12	1.82% 1	14.55% 8	55
Point of sale (Payment)	13.33% 8	56.67% 34	28.33% 17	0.00% 0	10.00% 6	60



Question 3 (cont.): Typical applications and services that can be accessed using the campus card are listed below. As appropriate, please select the card technology used to access the relevant application or service

Answered: 131 Skipped: 50

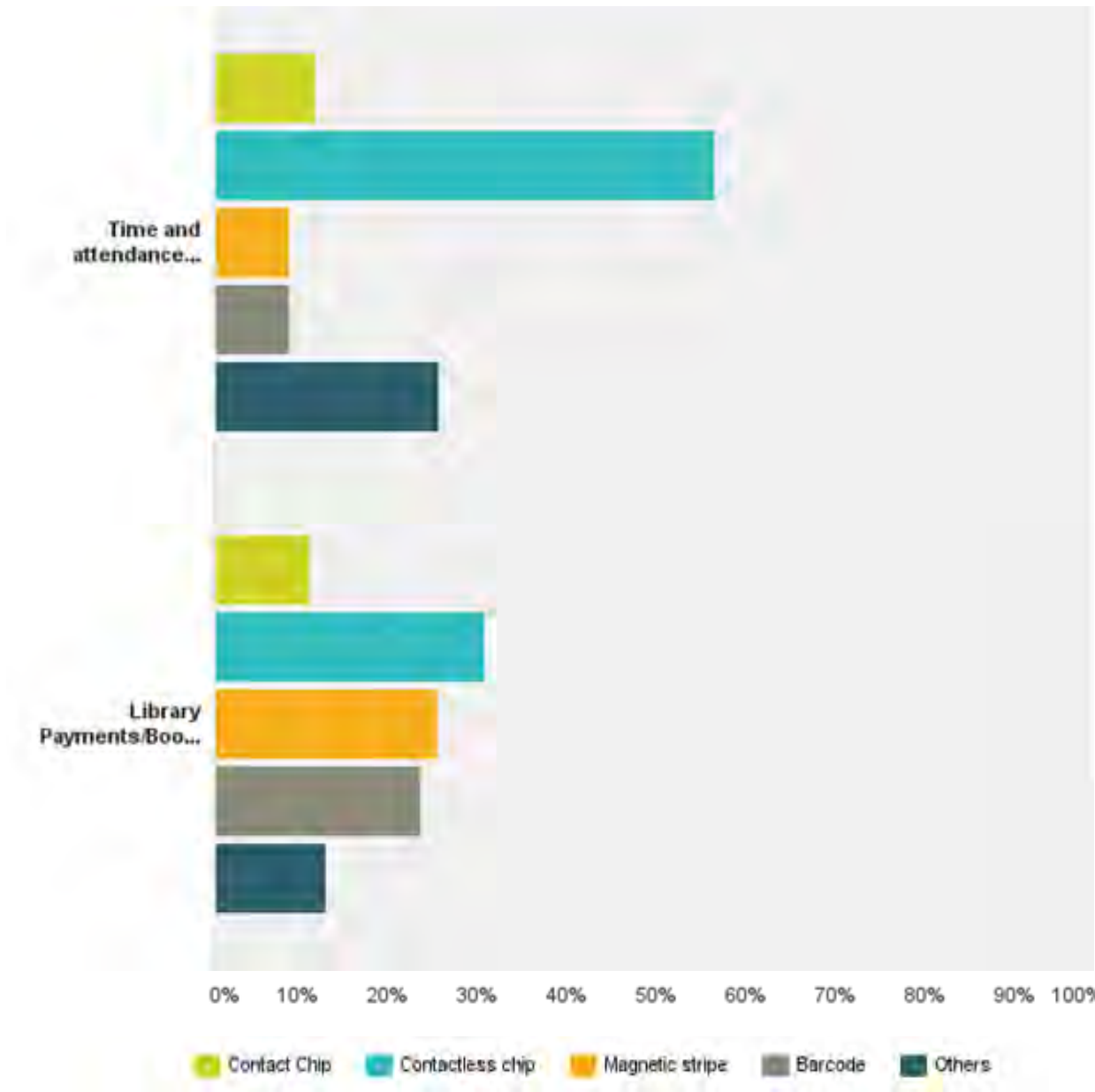
	Contact Chip	Contactless chip	Magnetic stripe	Barcode	Others	Total Respondents
Computer log on	51.61% 16	12.90% 4	3.23% 1	0.00% 0	35.48% 11	31
Time and attendance (Staff)	16.28% 7	46.51% 20	23.26% 10	2.33% 1	18.60% 8	43



Question 3 (cont.): Typical applications and services that can be accessed using the campus card are listed below. As appropriate, please select the card technology used to access the relevant application or service

Answered: 131 Skipped: 50

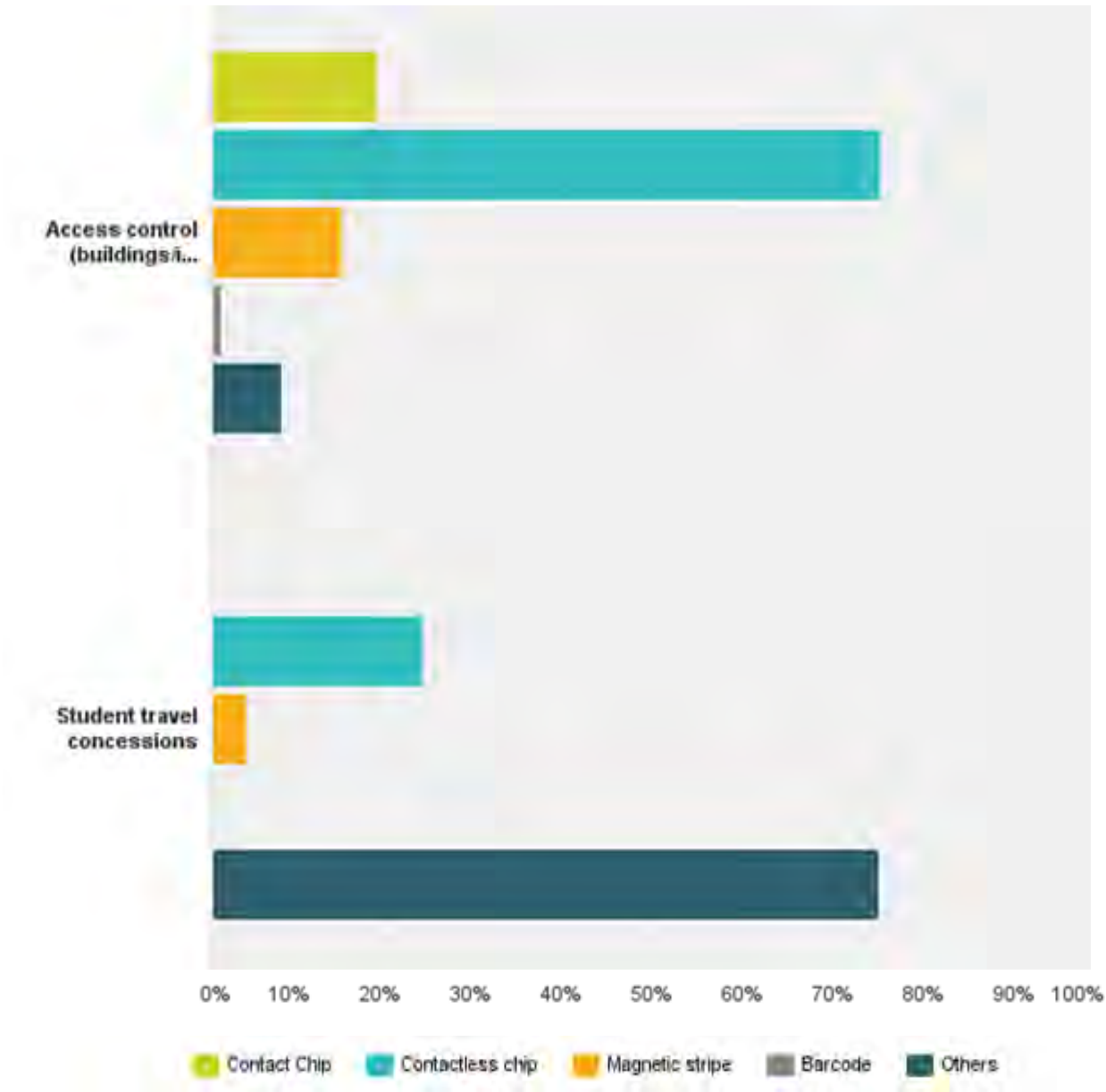
	Contact Chip	Contactless chip	Magnetic stripe	Barcode	Others	Total Respondents
Time and attendance (Students)	11.43% 4	57.14% 20	8.57% 3	8.57% 3	25.71% 9	35
Library Payments/Bookings	10.91% 6	30.91% 17	25.45% 14	23.64% 13	12.73% 7	55



Question 3 (cont.): Typical applications and services that can be accessed using the campus card are listed below. As appropriate, please select the card technology used to access the relevant application or service

Answered: 131 Skipped: 50

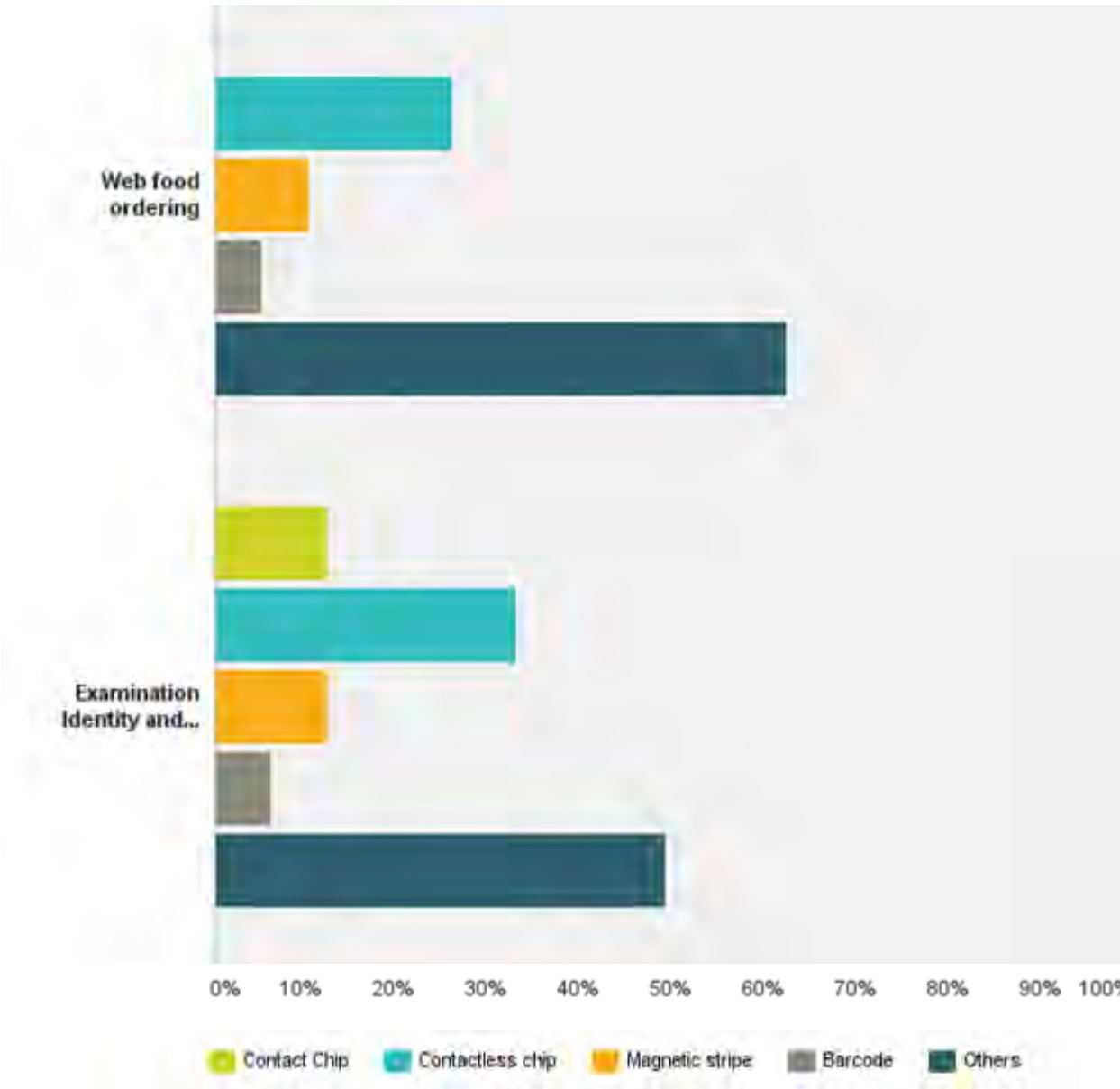
	Contact Chip	Contactless chip	Magnetic stripe	Barcode	Others	Total Respondents
Access control (buildings/infrastructure)	18.81% 19	76.24% 77	14.85% 15	0.99% 1	7.92% 8	101
Student travel concessions	0.00% 0	24.00% 6	4.00% 1	0.00% 0	76.00% 19	25



Question 3 (cont.): Typical applications and services that can be accessed using the campus card are listed below. As appropriate, please select the card technology used to access the relevant application or service

Answered: 131 Skipped: 50

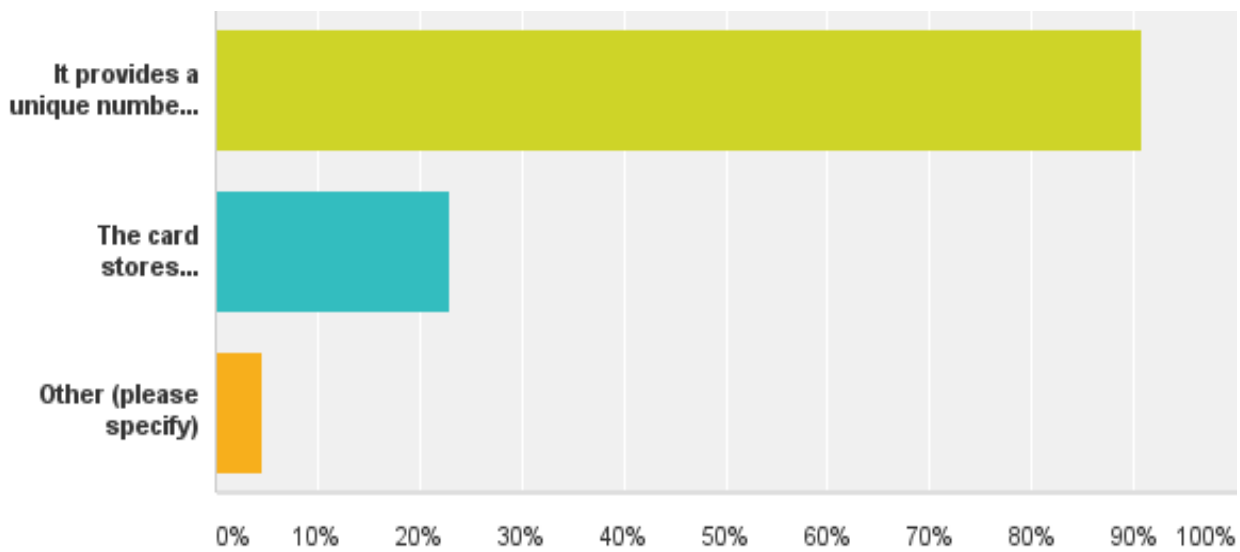
	Contact Chip	Contactless chip	Magnetic stripe	Barcode	Others	Total Respondents
Web food ordering	0.00% 0	26.32% 5	10.53% 2	5.26% 1	63.16% 12	19
Examination Identity and Authentication	12.50% 6	33.33% 16	12.50% 6	6.25% 3	50.00% 24	48



Question 4: When using the campus card to access applications and services, what is the main function of the card in this process?

Answered: 131 Skipped: 50

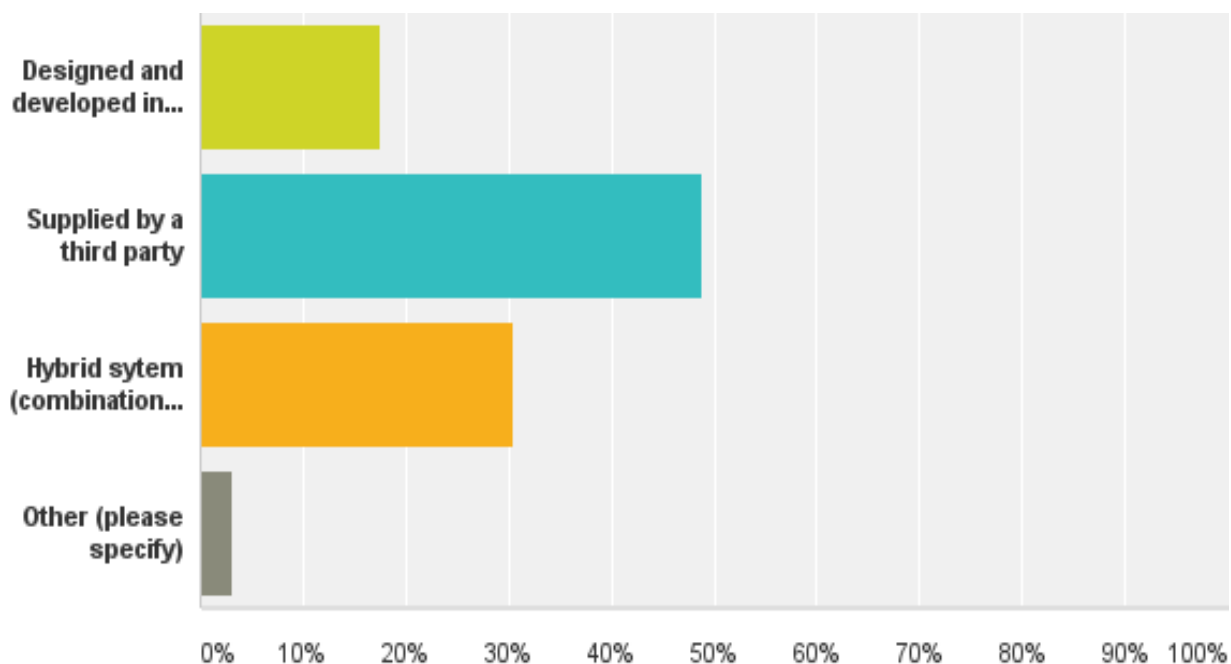
Answer Choices	Responses
It provides a unique number (i.e. Mifare UID, card serial number, student identification number, etc.) which are validated by the campus card back office system	90.84% 119
The card stores authenticated information locally, to enable offline operations, secure transactions, etc.	22.90% 30
Other (please specify)	4.58% 6
Total Respondents: 131	



Question 5: How was your campus card system developed?

Answered: 131 Skipped: 50

Answer Choices	Responses	
Designed and developed in house	17.56%	23
Supplied by a third party	48.85%	64
Hybrid sytem (combination of in-house development and third party supplier)	30.53%	40
Other (please specify)	3.05%	4
Total	131	

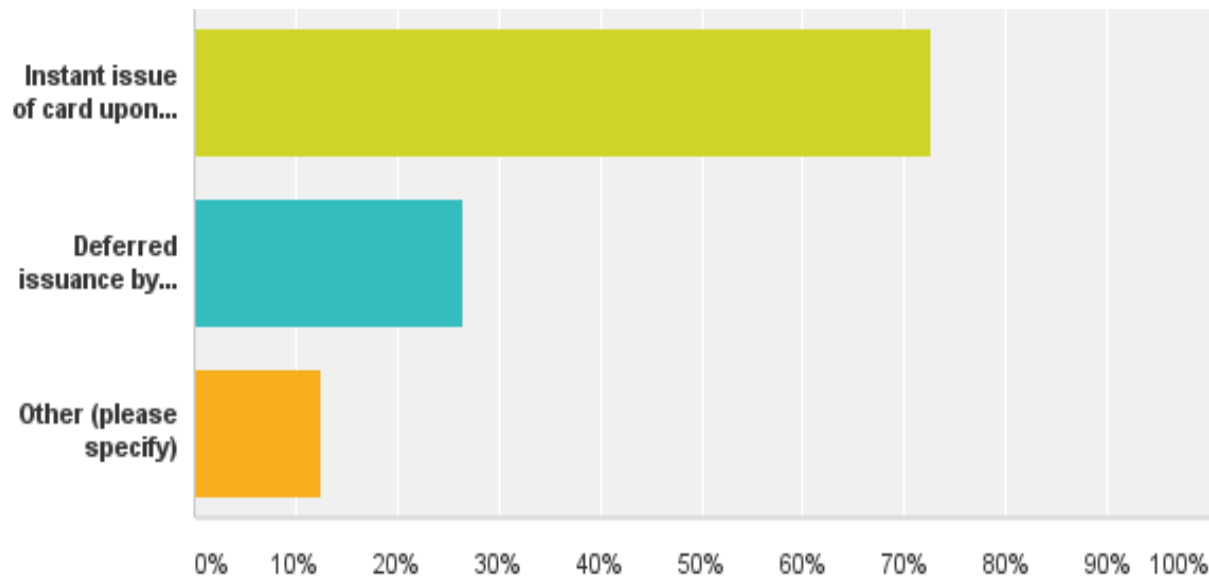


Section B- Card Issuing, Personalisation and Requirements

Question 6: Please select the card issuing procedures currently in place on your campus?

Answered: 128 Skipped: 53

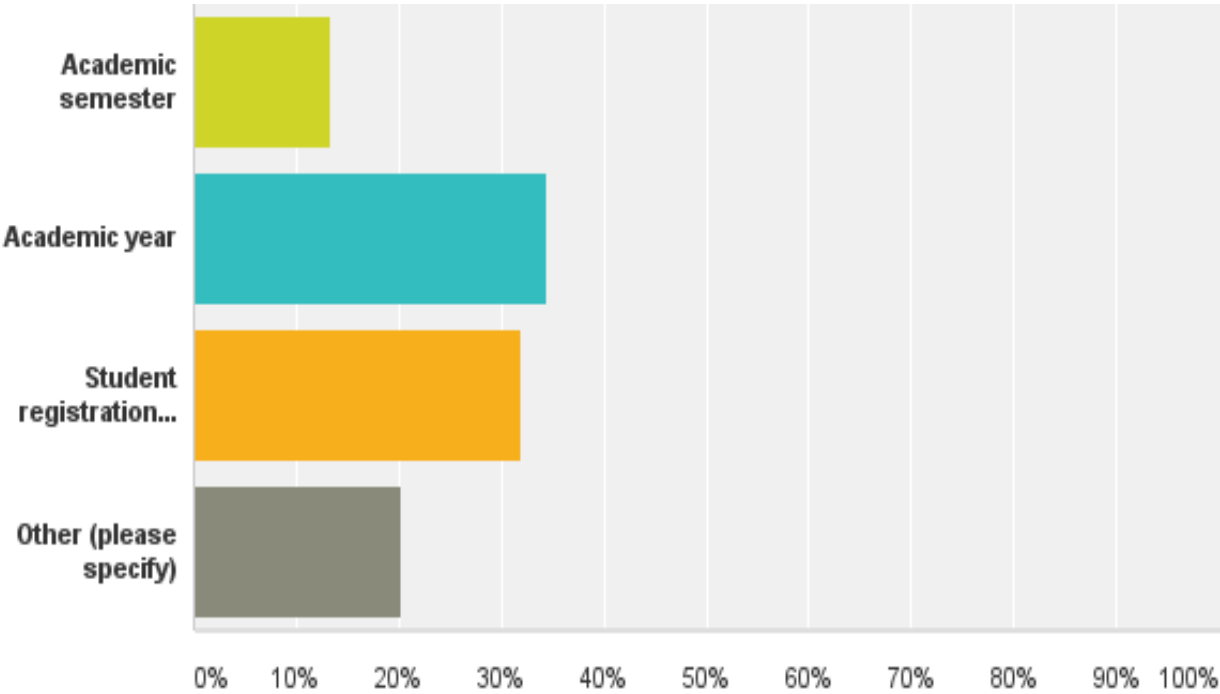
Answer Choices	Responses	
Instant issue of card upon registration	72.66%	93
Deferred issuance by centralised batches	26.56%	34
Other (please specify)	12.50%	16
Total Respondents: 128		



Question 7: What is the expiry date of campus card (card validation duration)?

Answered: 128 Skipped: 53

Answer Choices	Responses	
Academic semester	13.28%	17
Academic year	34.38%	44
Student registration expiry (end of final year)	32.03%	41
Other (please specify)	20.31%	26
Total		128



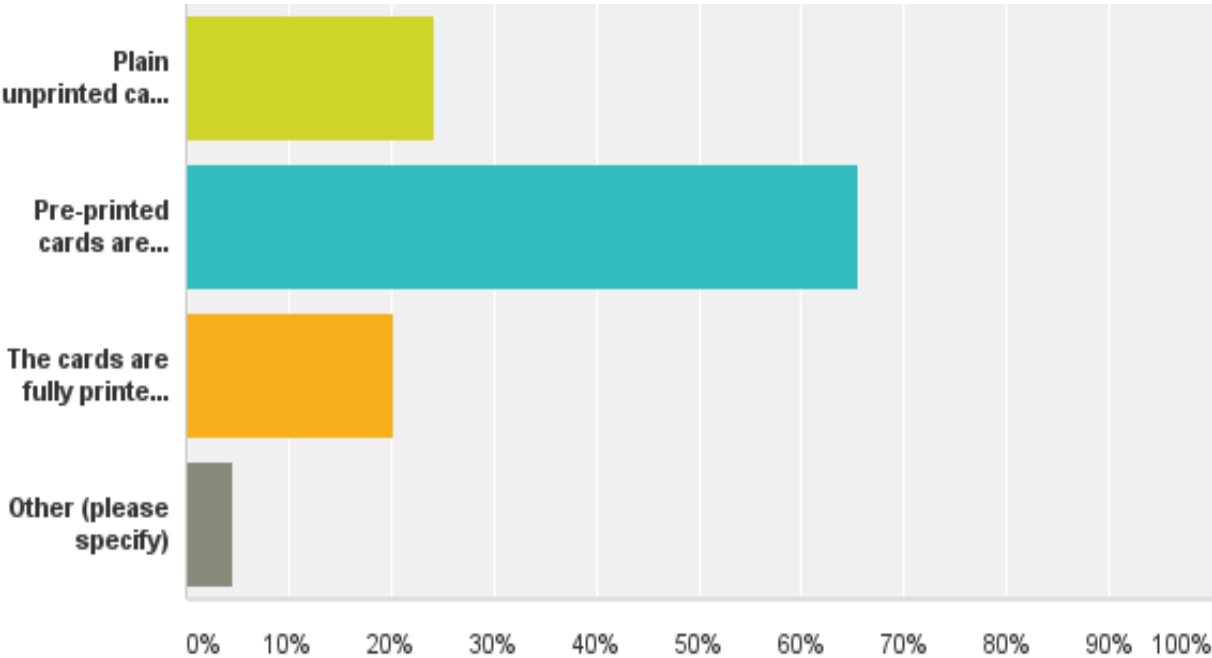
Question 8: Card issuing and personalisation processes vary considerably from campus to campus. Practices include:

- (i) Plain unprinted cards sourced directly from the manufacturer/vendor and fully printed on campus
- (ii) Mixed printing which involves sourcing pre-printed cards and completing the final stage of printing (personalisation) on campus.

Please select the process that is used in your campus?

Answered: 109 Skipped: 52

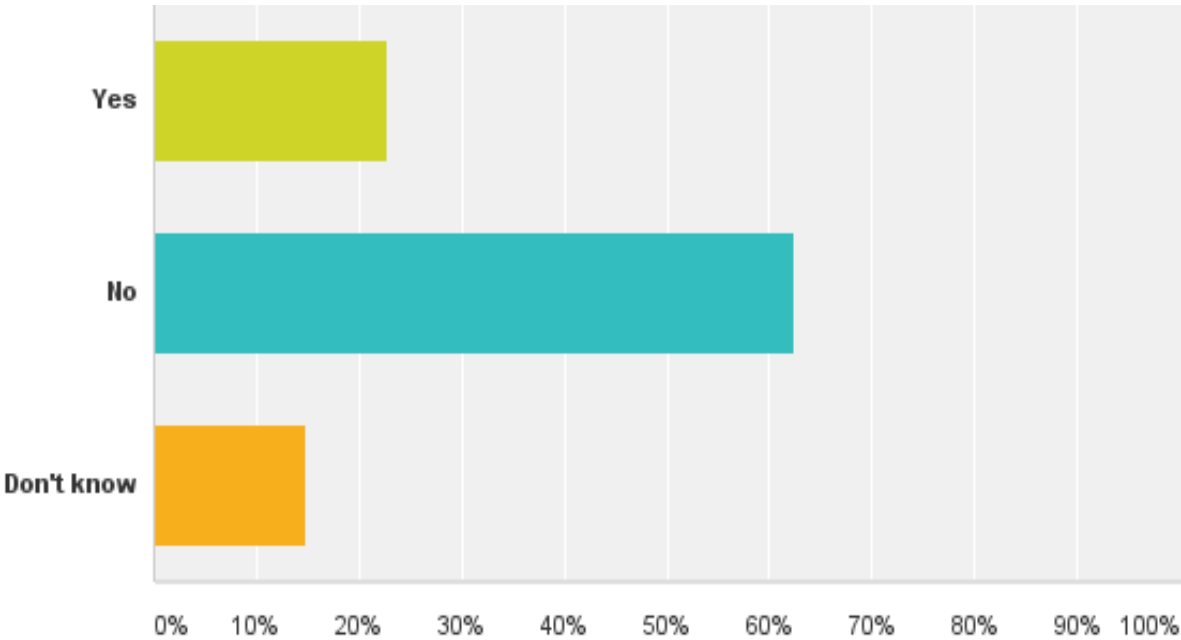
Answer Choices	Responses	
Plain unprinted cards are personalised and printed on campus	24.22%	31
Pre-printed cards are personalised and part printed (personalised information) on campus	65.63%	84
The cards are fully printed by a vendor off campus in batch form	20.31%	26
Other (please specify)	4.69%	6
Total Respondents: 128		



Question 9: The Campus ID card should be considered as one of a number of tokens that staff or students can use to access services/facilities on campus. Other tokens can include key rings, wrist bands, USB devices, RFID devices, mobile phones, HF tokens and proximity devices. Can your campus system facilitate the use of multiple tokens per user?

Answered: 128 Skipped: 53

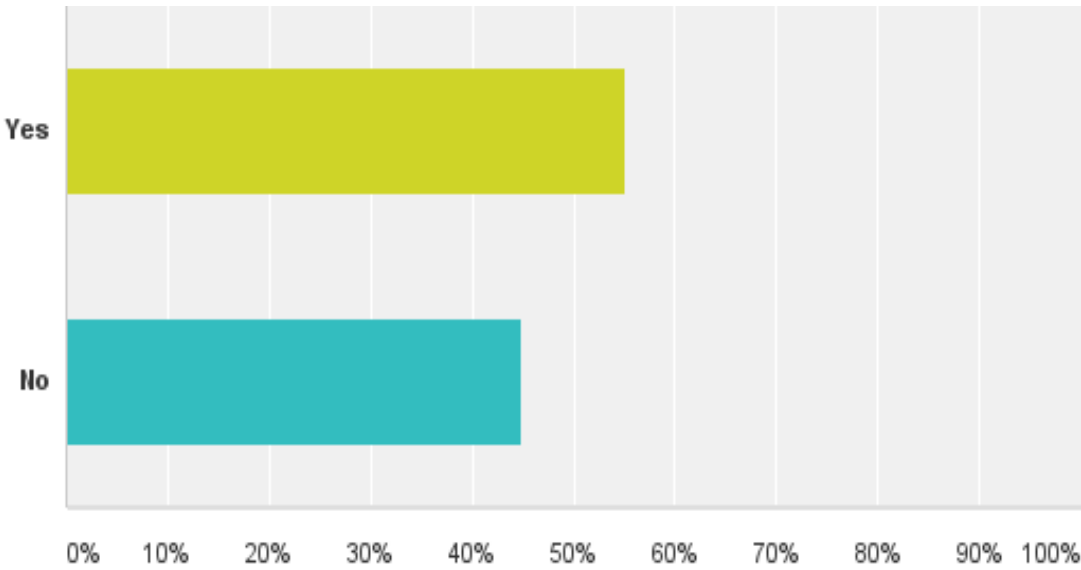
Answer Choices	Responses	
Yes	22.66%	29
No	62.50%	80
Don't know	14.84%	19
Total		128



Question 10: Can all tokens be issued as part of the card issuing process?

Answered: 29 Skipped: 152

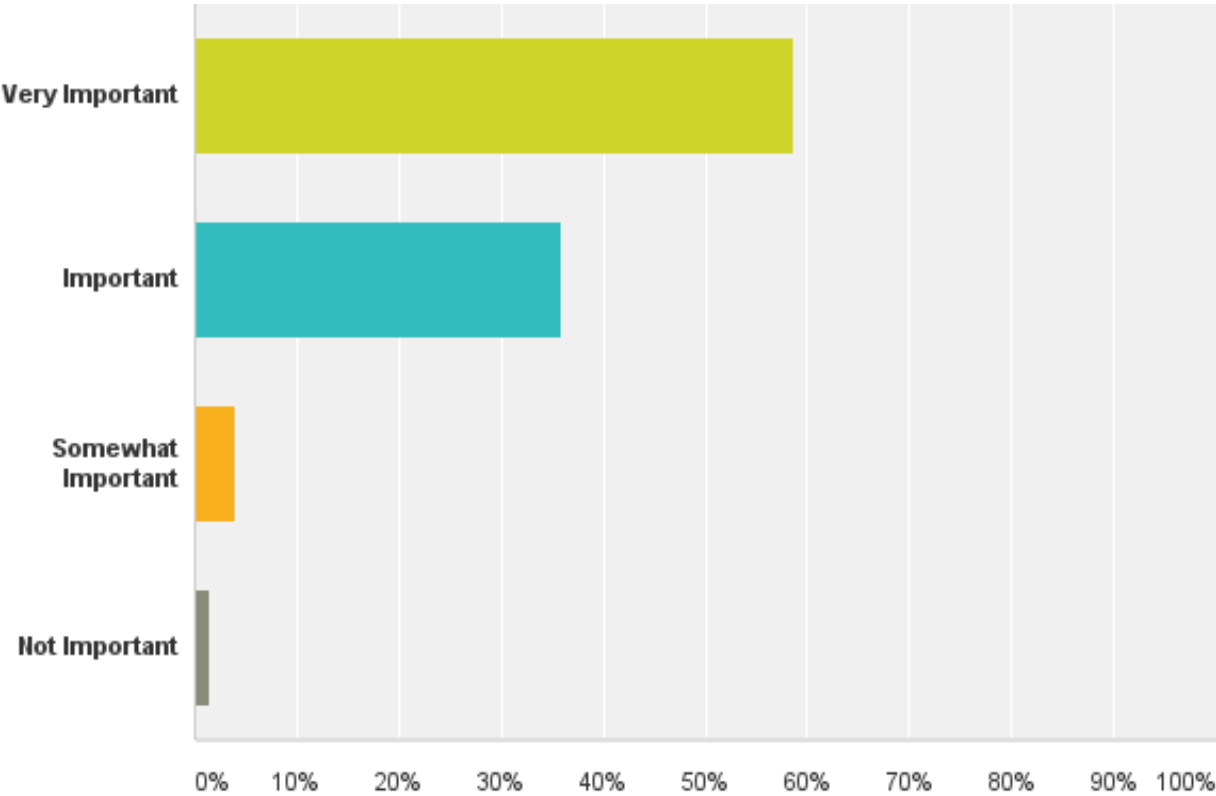
Answer Choices	Responses	
Yes	55.17%	16
No	44.83%	13
Total		29



Question 11: Please rate the importance of providing students and staff with a secure ID credential which enables secure identification and authentication.

Answered: 128 Skipped: 53

Answer Choices	Responses
Very Important	58.59% 75
Important	35.94% 45
Somewhat Important	3.91% 5
Not Important	1.56% 2
Total	128

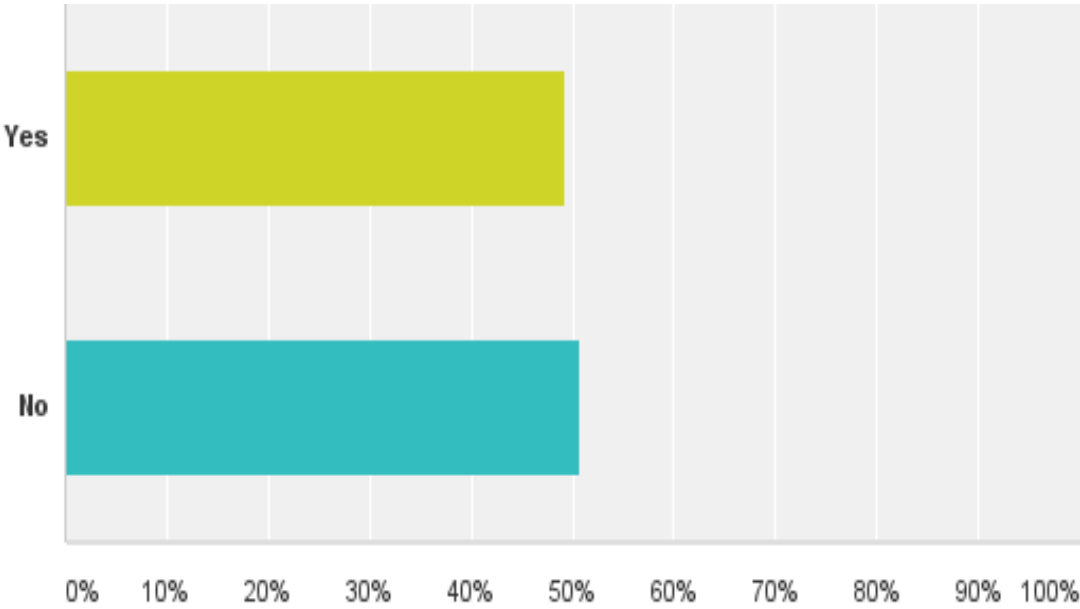


Section C - Value load and Payments

Question 12: Do you add value (top-up funds/credit) onto your campus card or back office account?

Answered: 128 Skipped: 53

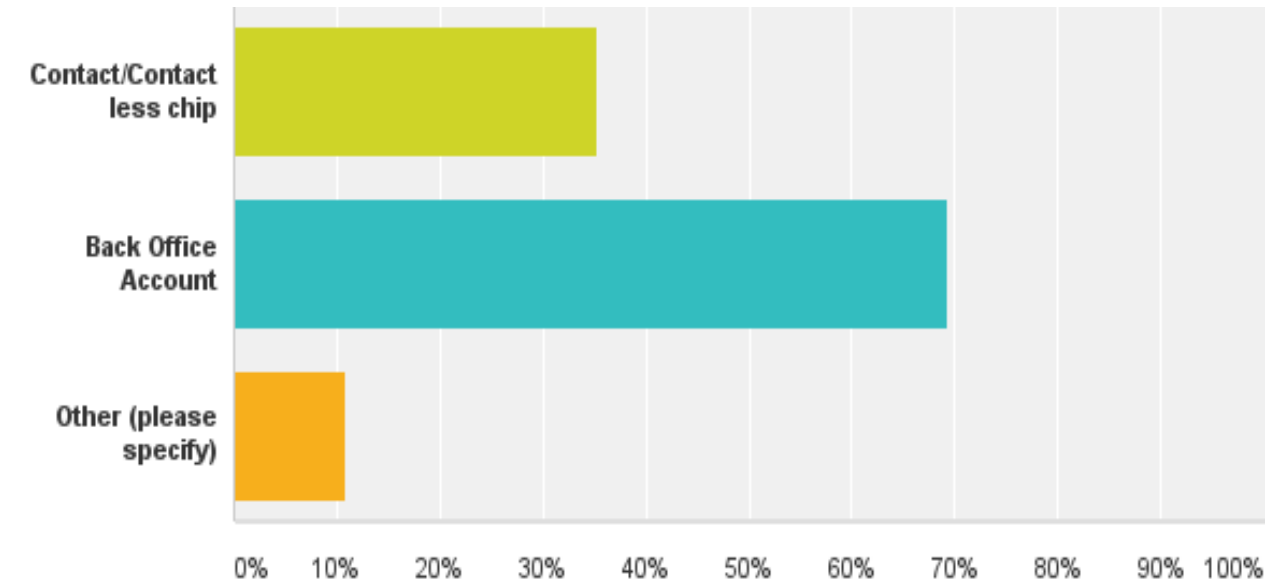
Answer Choices	Responses	
Yes	49.22%	63
No	50.78%	65
Total		128



Question 13: Where is the value (top-up funds/credit) stored?

Answered: 65 Skipped: 116

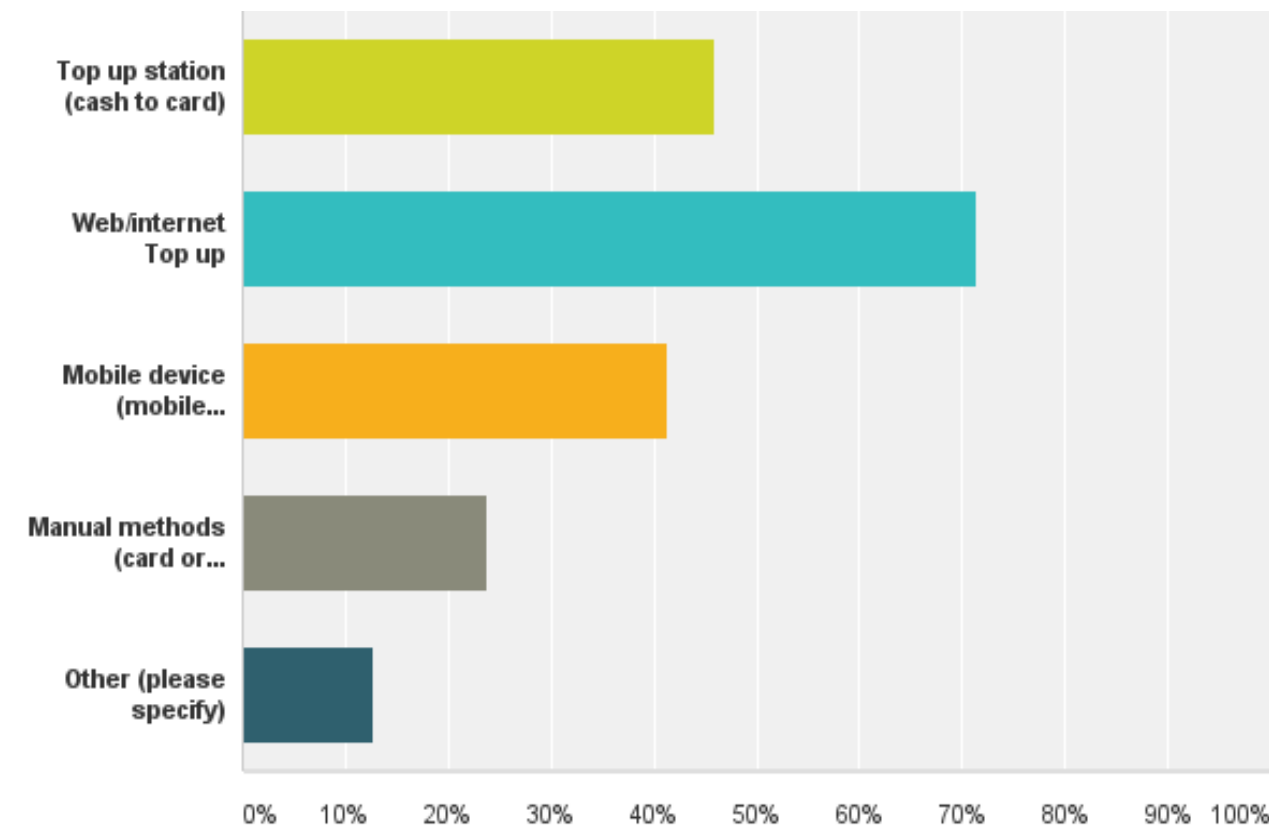
Answer Choices	Responses
Contact/Contactless chip	35.38% 23
Back Office Account	69.23% 45
Other (please specify)	10.77% 7
Total Respondents: 65	



Question 14: How do you add value onto your campus card or back office account?

Answered: 63 Skipped: 118

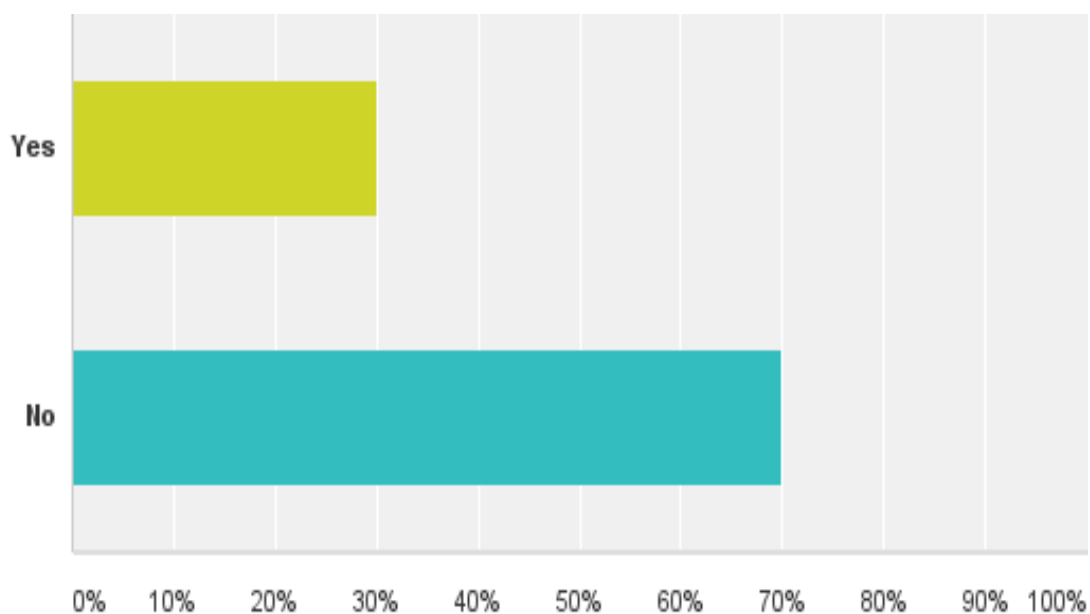
Answer Choices	Responses
Top up station (cash to card)	46.03% 33
Web/internet Top up	71.43% 45
Mobile device (mobile phone/tablet application)	41.27% 26
Manual methods (card or administration office)	23.81% 15
Other (please specify)	12.70% 8
Total Respondents: 63	



Question 15: Is there a requirement or justification for using a campus card off-campus to purchase products?

Answered: 63 Skipped: 118

Answer Choices	Responses	
Yes	30.16%	19
No	69.84%	44
Total		63

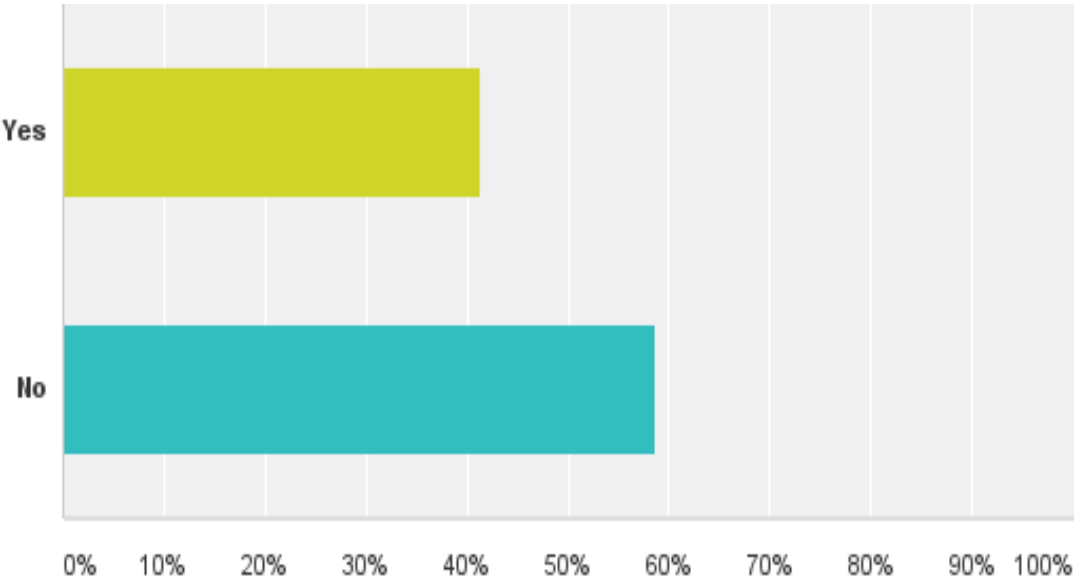


Section D - Mobile devices and Applications

Question 16: Are mobile device applications used on campus? (A mobile device can be defined as any handheld or small computer e.g. smartphone; tablet)

Answered: 128 Skipped: 53

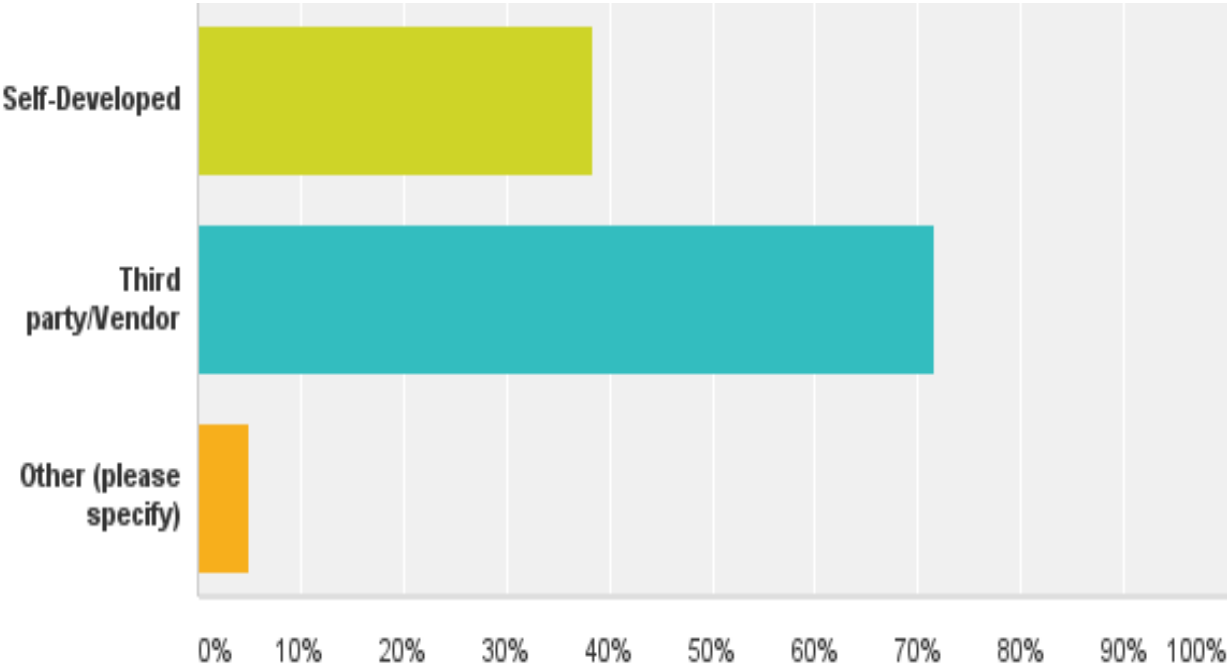
Answer Choices	Responses	
Yes	41.41%	53
No	58.59%	75
Total		128



Question 17: Please state the development source of the mobile device applications.

Answered: 60 Skipped: 121

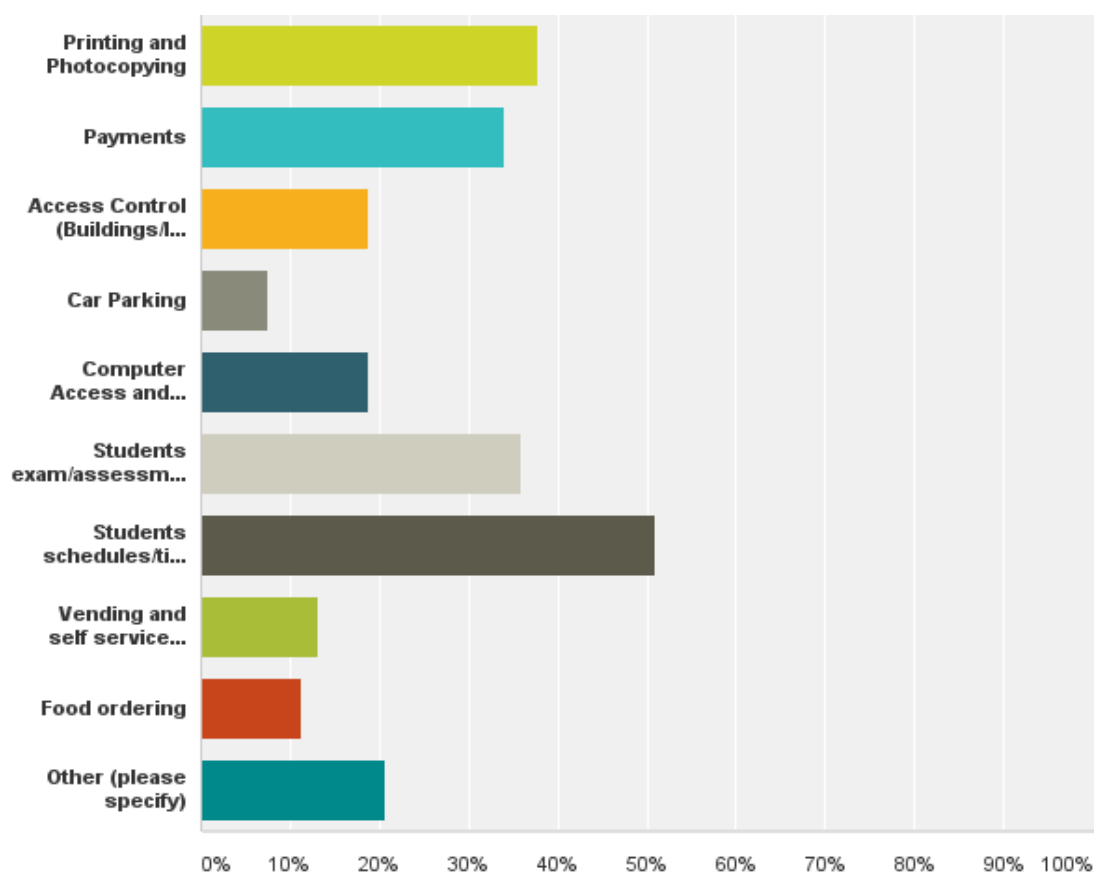
Answer Choices	Responses	
Self-Developed	38.33%	23
Third party/Vendor	71.67%	43
Other (please specify)	5.00%	3
Total Respondents: 60		



Question 18: What services are accessible through mobile device applications?

Answered: 53 Skipped: 128

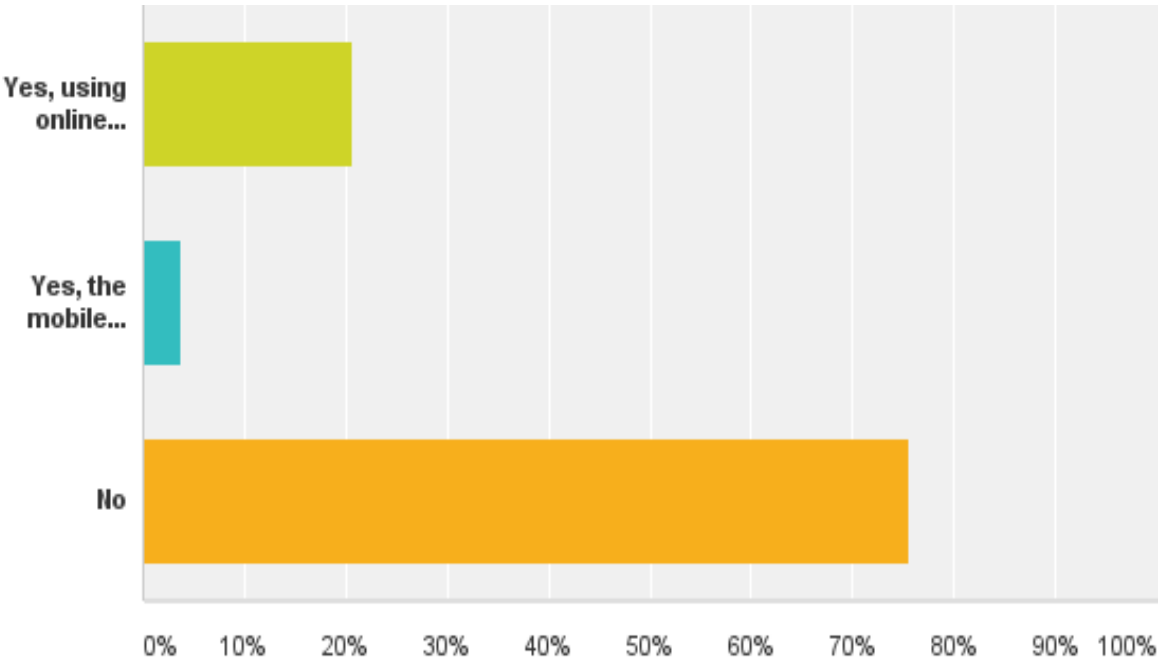
Answer Choices	Responses	
Printing and Photocopying	37.74%	20
Payments	33.96%	18
Access Control (Buildings/Infrastructure)	18.87%	10
Car Parking	7.55%	4
Computer Access and authentication	18.87%	10
Students exam/assessment marks	35.85%	19
Students schedules/timetables	50.94%	27
Vending and self service devices	13.21%	7
Food ordering	11.32%	6
Other (please specify)	20.75%	11
Total Respondents: 53		



Question 19: Can you enable/activate the campus card using a mobile device application?

Answered: 53 Skipped: 128

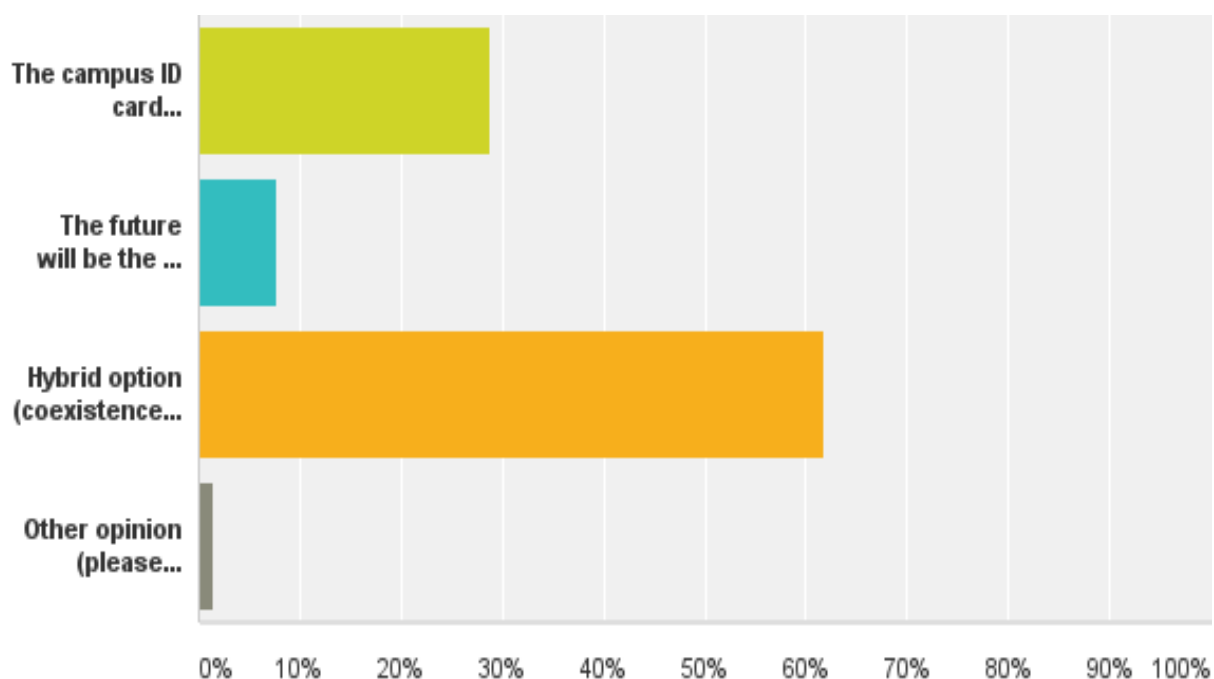
Answer Choices	Responses	
Yes, using online services, requiring no interaction with the campus card	20.75%	11
Yes, the mobile application interacts with the card through NFC	3.77%	2
No	75.47%	40
Total	53	



Question 20: In the future, technology will facilitate the embedding of the typical ID credentials in a secure mobile device application. Please give your opinions on this potential option.

Answered: 128 Skipped: 53

Answer Choices	Responses
The campus ID card incorporating smart chip technology will continue to provide campus ID credentials for many years and therefore mobile devices will NOT replace the traditional campus ID card	28.91% 37
The future will be the use of mobile devices for the provision of secure campus ID credentials	7.81% 10
Hybrid option (coexistence of the ID card and mobile devices to provide secure ID credentials)	61.72% 79
Other opinion (please specify)	1.56% 2
Total	128

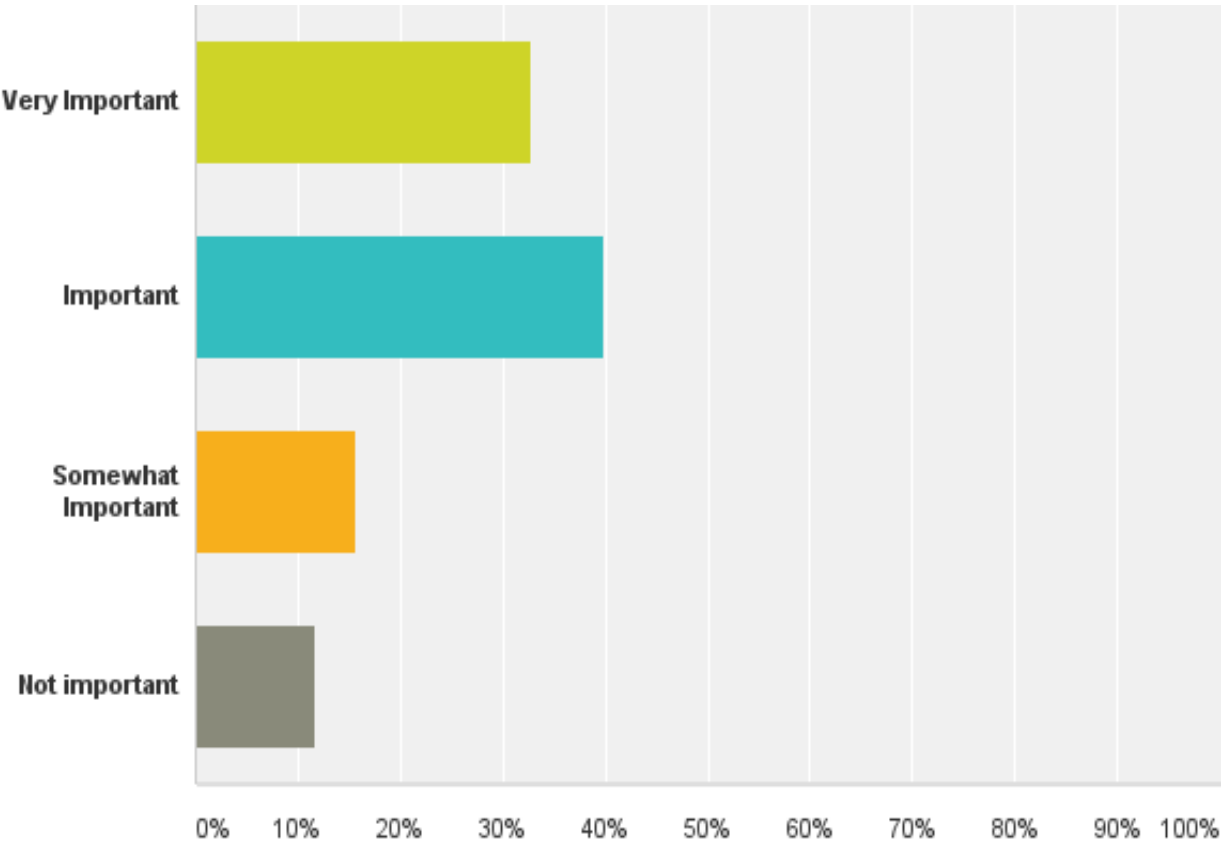


Section E- Interoperability and standards

Question 21: Please rate the importance of campus card interoperability?(Interoperability definition: Students/Staff can use their campus card in other education institutions)

Answered: 128 Skipped: 53

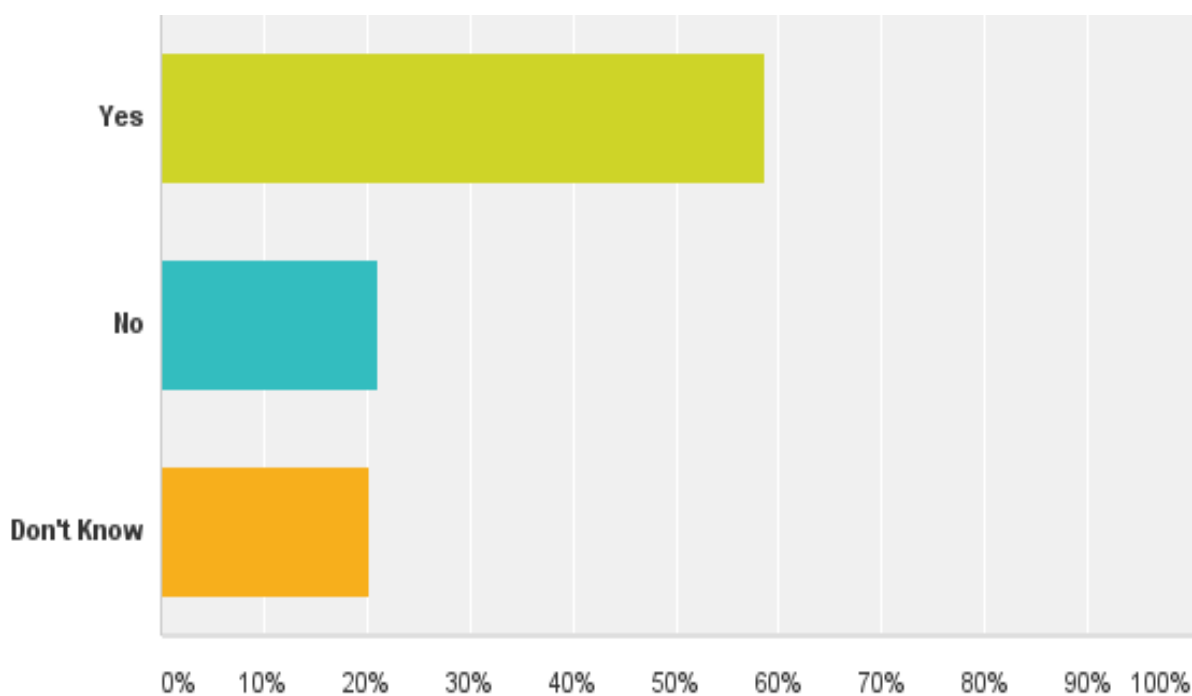
Answer Choices	Responses
Very Important	32.81%42
Important	39.84%51
Somewhat Important	15.63%20
Not important	11.72%15
Total	128



Question 22: Should the campus card facilitate authentication of the current status of a student and allow the student to access services in other education institutions?

Answered: 128 Skipped: 53

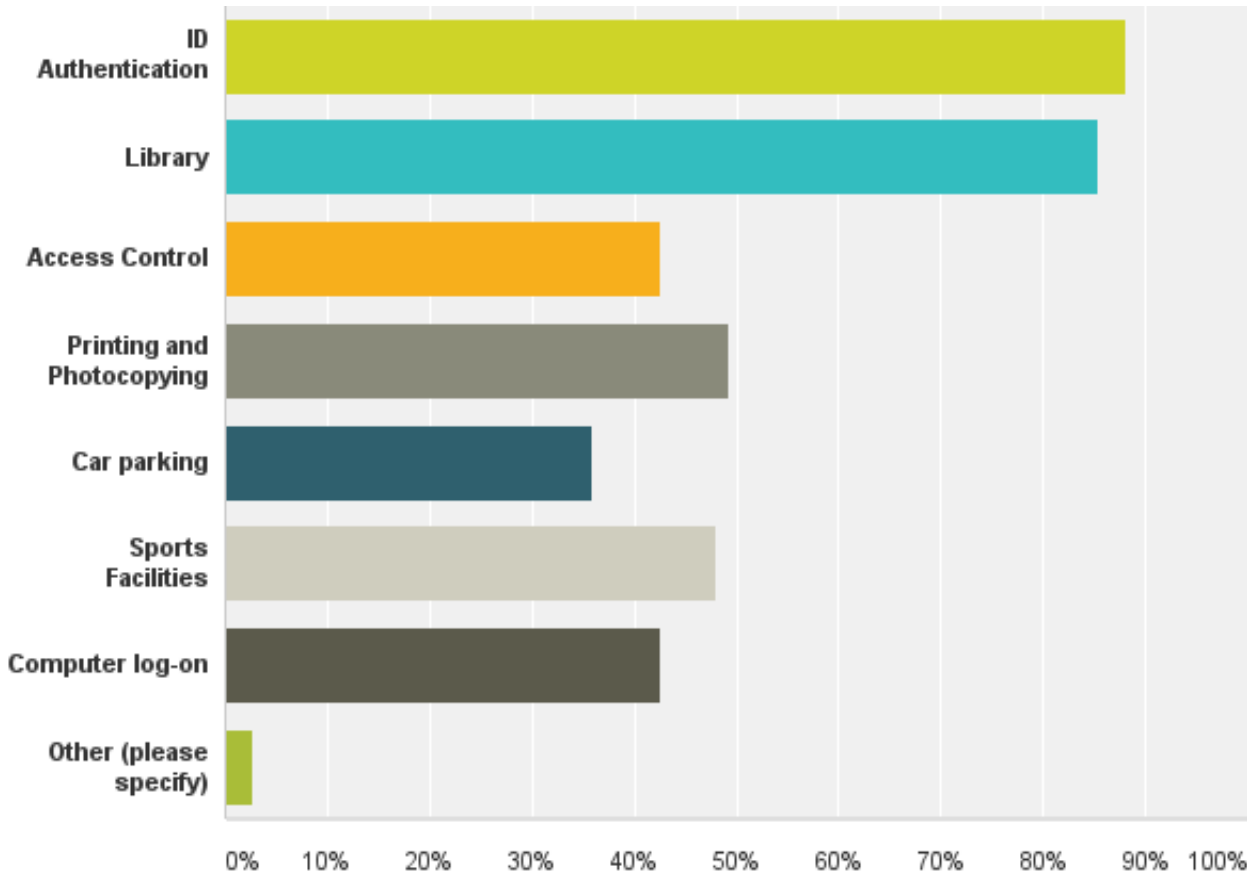
Answer Choices	Responses	
Yes	58.59%	75
No	21.09%	27
Don't Know	20.31%	26
Total		128



Question 23: Please indicate the services that a student should be allowed to access?

Answered: 75 Skipped: 106

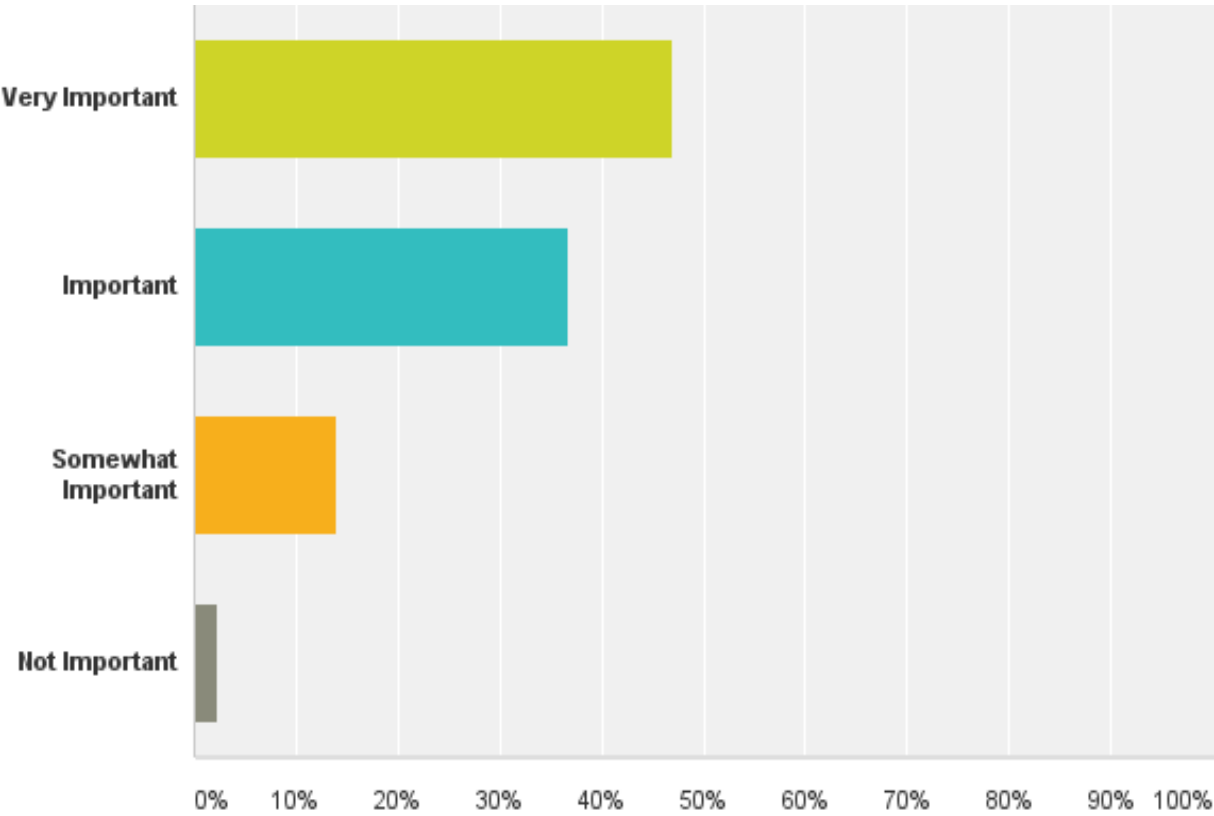
Answer Choices	Responses	
ID Authentication	88.00%	66
Library	85.33%	64
Access Control	42.67%	32
Printing and Photocopying	49.33%	37
Car parking	36.00%	27
Sports Facilities	48.00%	36
Computer log-on	42.67%	32
Other (please specify)	2.67%	2
Total Respondents: 75		



Question 24: Please state the importance of ECCA (non-profit organisation) continuing its research programme with the aim to improve standards and interoperability in campus card systems?

Answered: 128 Skipped: 53

Answer Choices	Responses	
Very Important	46.88%	60
Important	36.72%	47
Somewhat Important	14.06%	18
Not Important	2.34%	3
Total		128

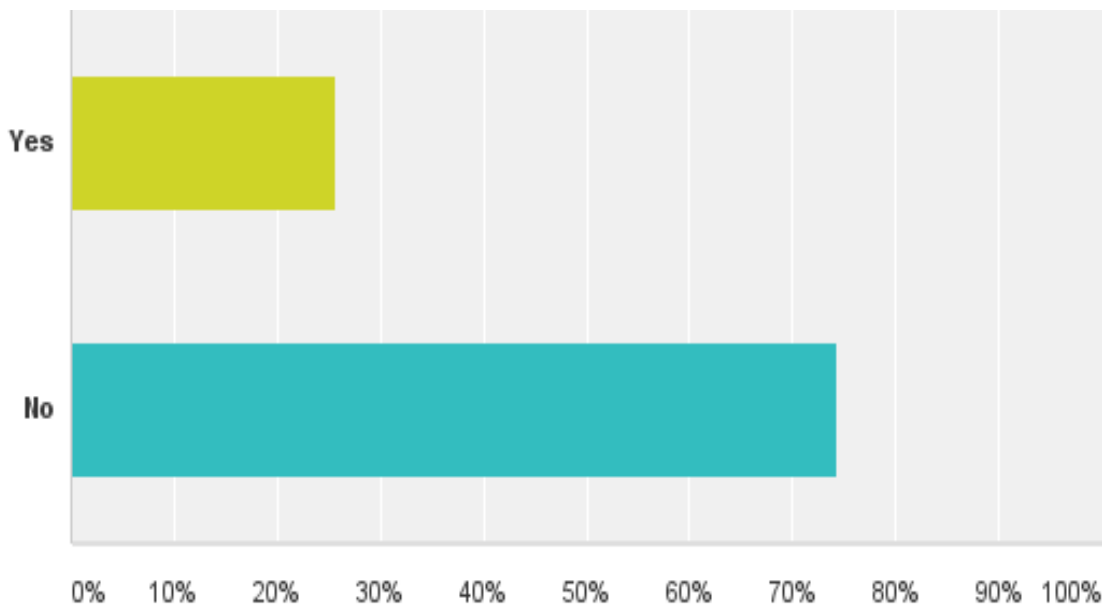


Section F - Card Valuation, Authentication and Self Service Kiosks

Question 25: Semester validation of campus cards can be a mandatory requirement, which is determined by the regulations of the relevant education institution. This process involves deleting an expiry date on the cards validation stripe and printing a new expiry date. It can also involve re-validation of the relevant information on the cards chip. Is semester validation of the campus card a requirement on your campus?

Answered: 128 Skipped: 53

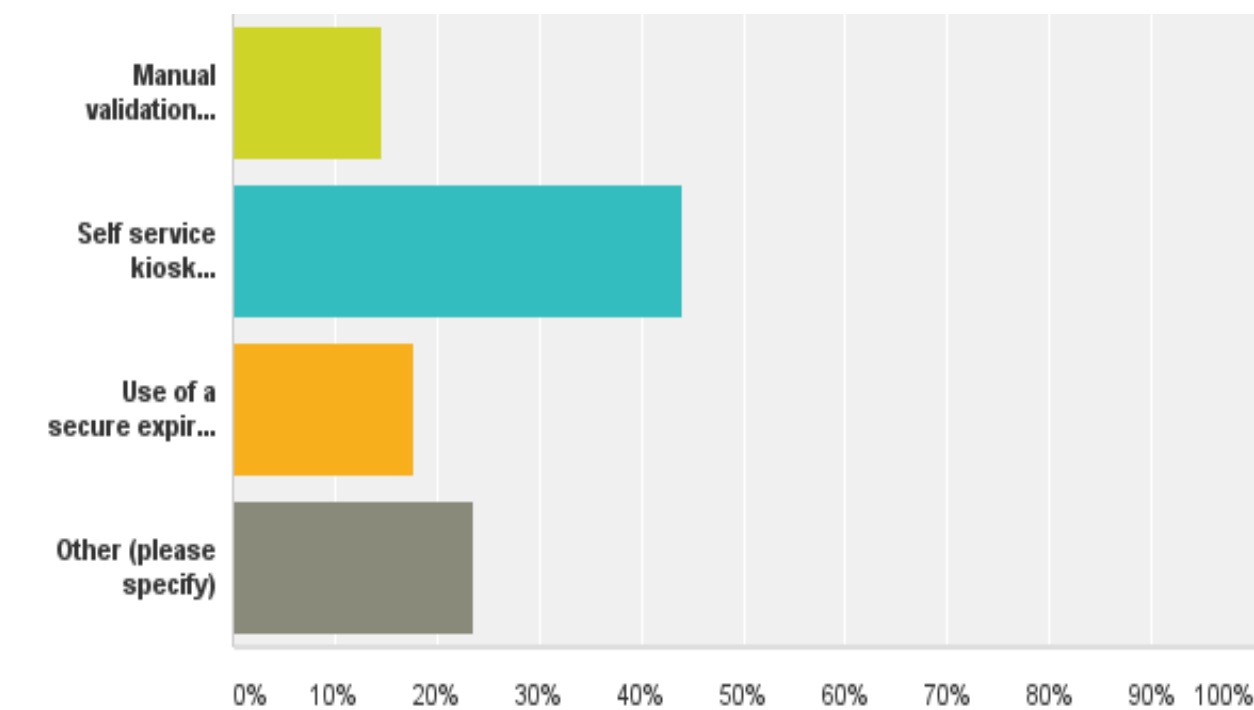
Answer Choices	Responses	
Yes	25.78%	33
No	74.22%	95
Total		128



Question 26: Please state how you validate your campus card.

Answered: 34 Skipped: 147

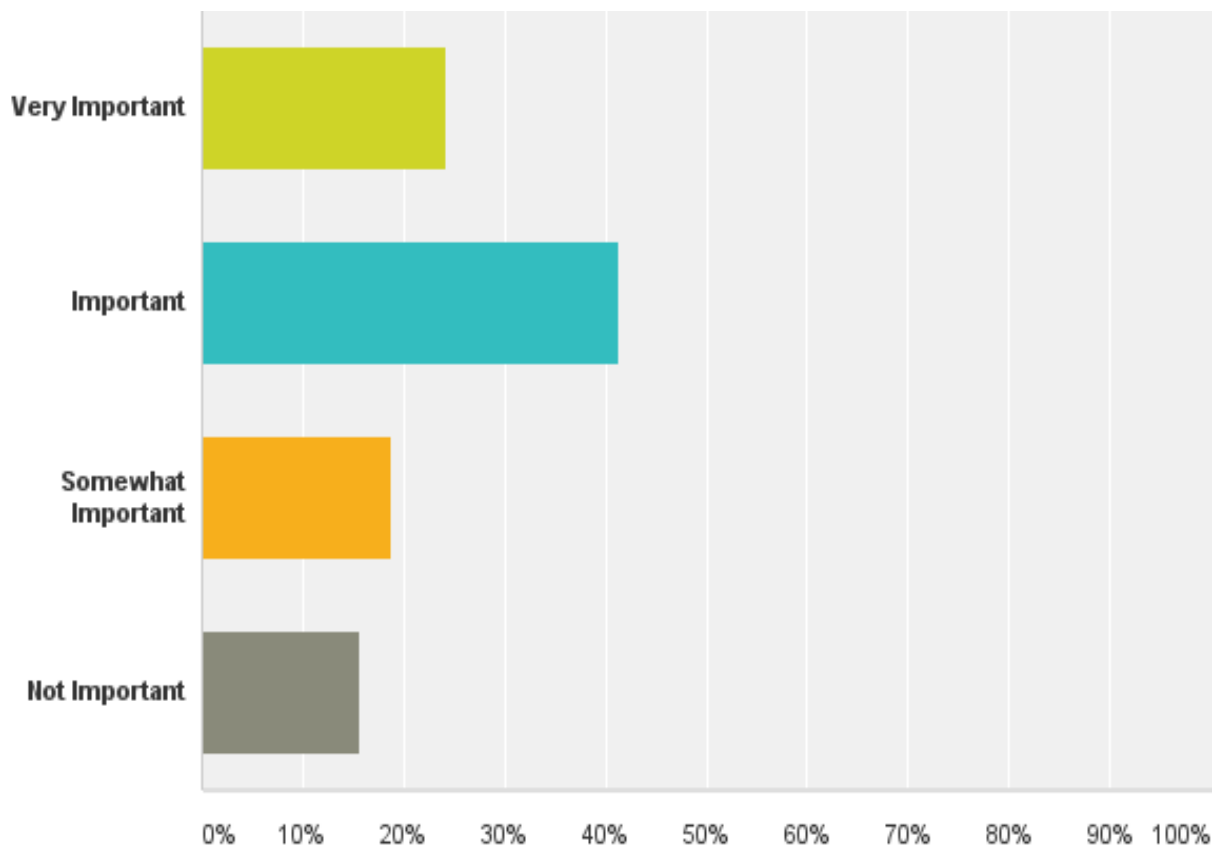
Answer Choices	Responses	
Manual validation process, printing a new expiry date on card	14.71%	5
Self service kiosk validation, automated process of printing a new expiry date on card	44.12%	15
Use of a secure expiry date card sticker, which is issued to the student each semester	17.65%	6
Other (please specify)	23.53%	8
Total		34



Question 27: Self service kiosks on campus provide the students on a 24/7 basis access to a range of administration services that include: paying the semester course fee, printing and/or validating data for the new semester on the campus card, updating personal data, printing of certificates, confirmation of student status and other requirements. These self-service kiosks can provide an efficient solution that reduces the work of the campus administration department. Please rate the importance of the use of self-service kiosks on campus?

Answered: 128 Skipped: 53

Answer Choices	Responses	
Very Important	23.62%	30
Important	41.73%	53
Somewhat Important	18.90%	24
Not Important	15.75%	20
Total		127

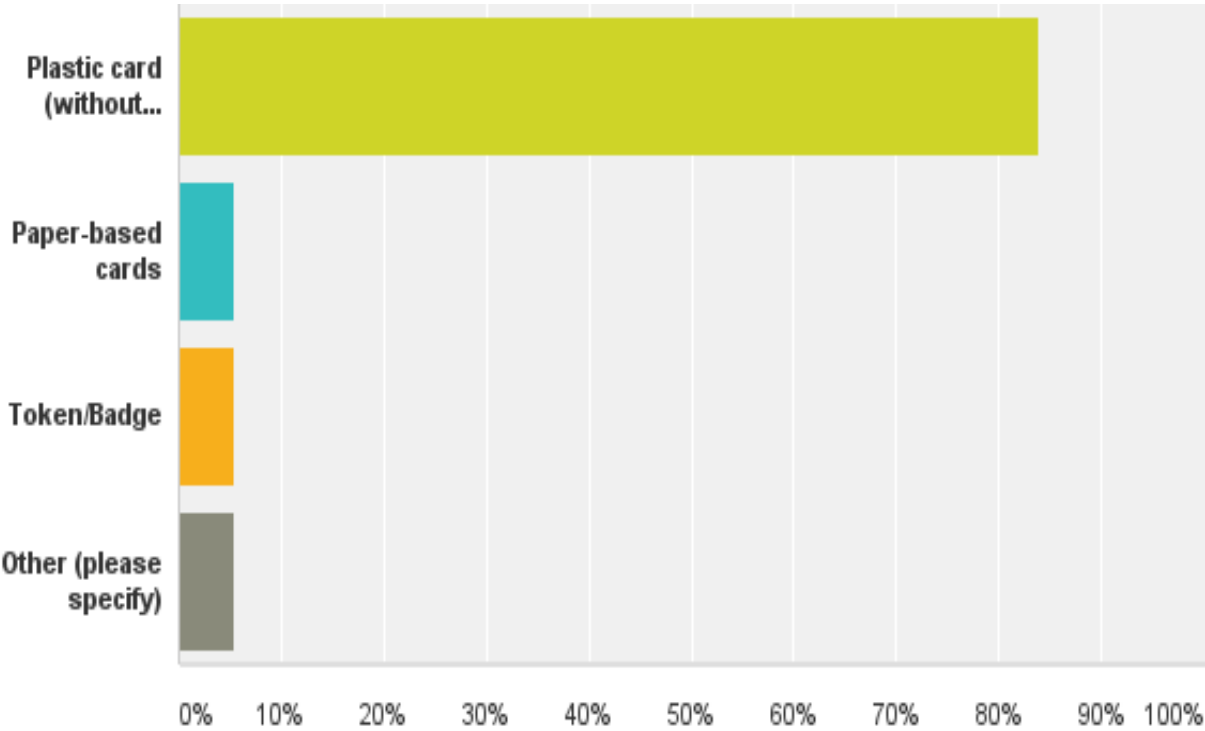


Section G – Institutions that do not have a campus card system

Question 28: Please indicate your current system of providing student/staff identification on campus

Answered: 56 Skipped: 125

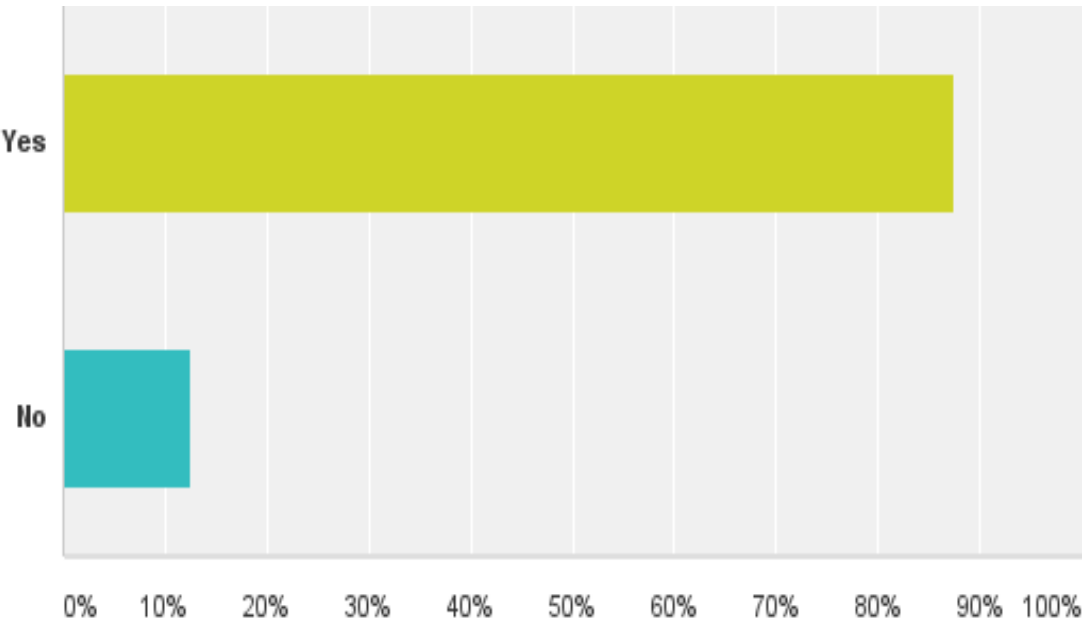
Answer Choices	Responses	
Plastic card (without technology)	83.93%	47
Paper-based cards	5.36%	3
Token/Badge	5.36%	3
Other (please specify)	5.36%	3
Total		56



Question 29: Does your campus intend to install a campus card system in the future?

Answered: 56 Skipped: 125

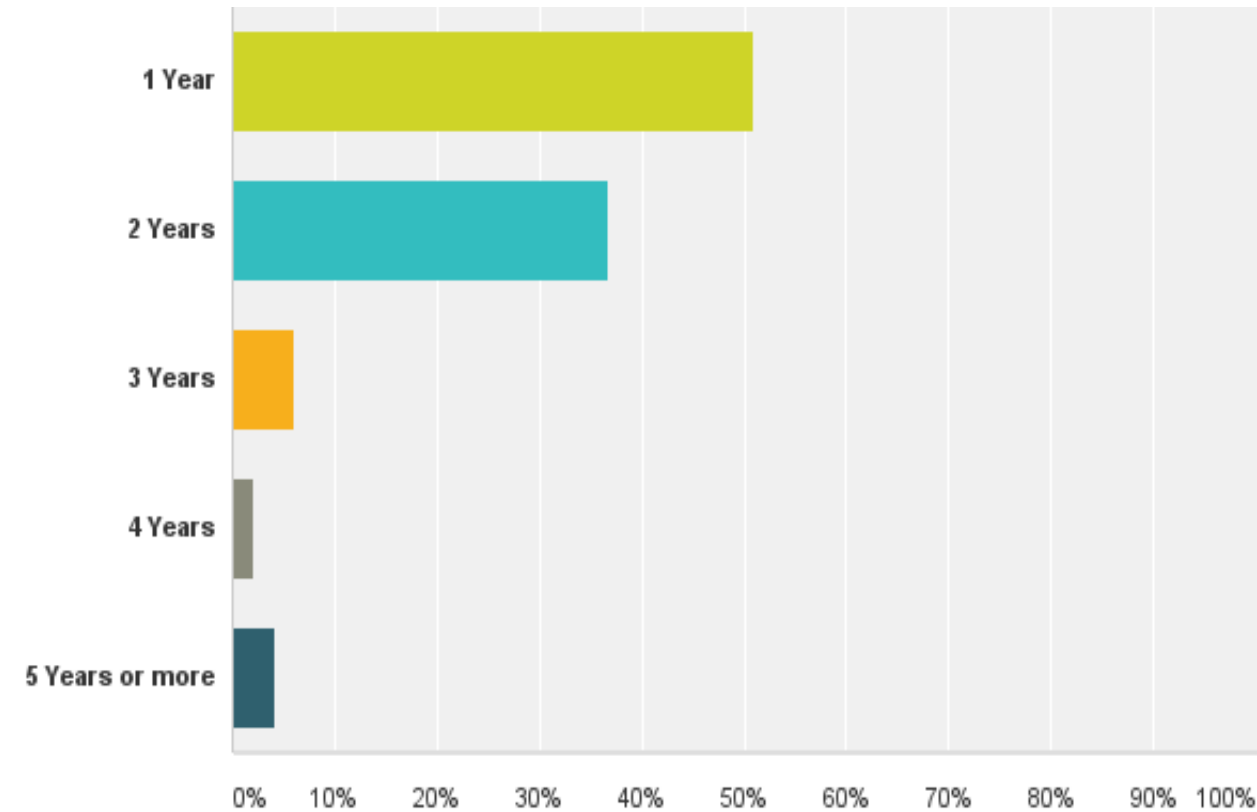
Answer Choices	Responses	
Yes	87.50%	49
No	12.50%	7
Total		56



Question 30: Please select the estimated time-scale for system installation

Answered: 49 Skipped: 132

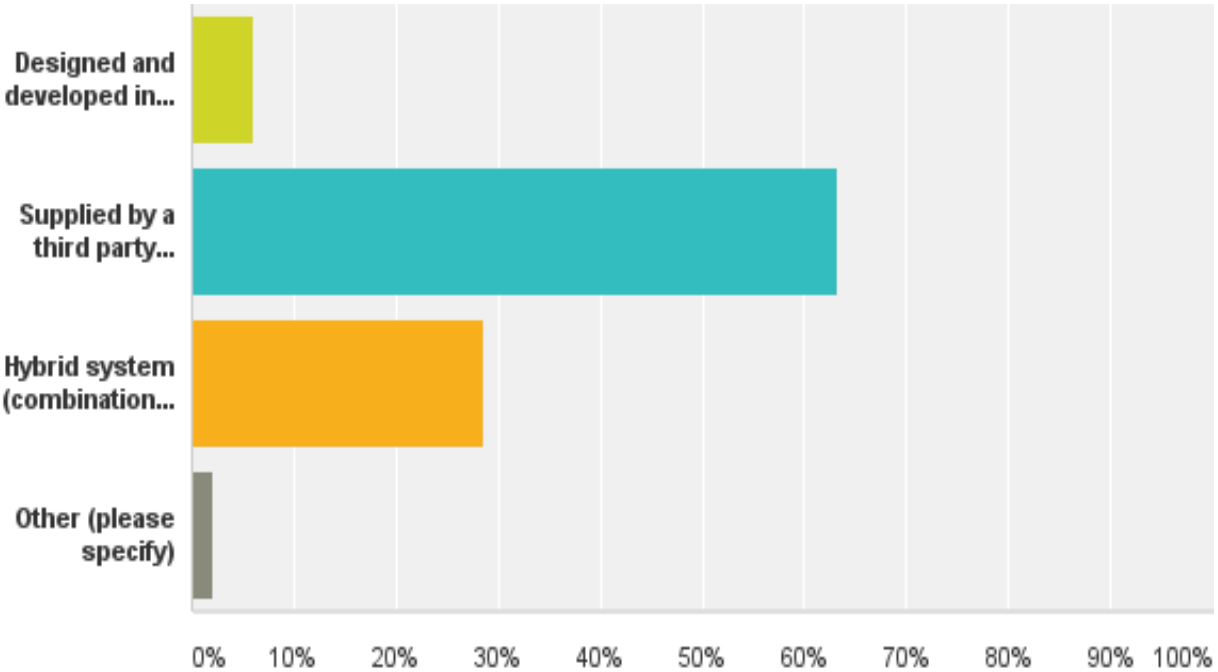
Answer Choices	Responses
1 Year	51.02% 25
2 Years	36.73% 18
3 Years	6.12% 3
4 Years	2.04% 1
5 Years or more	4.08% 2
Total	49



Question 31: How will your campus card system be developed?

Answered: 49 Skipped: 132

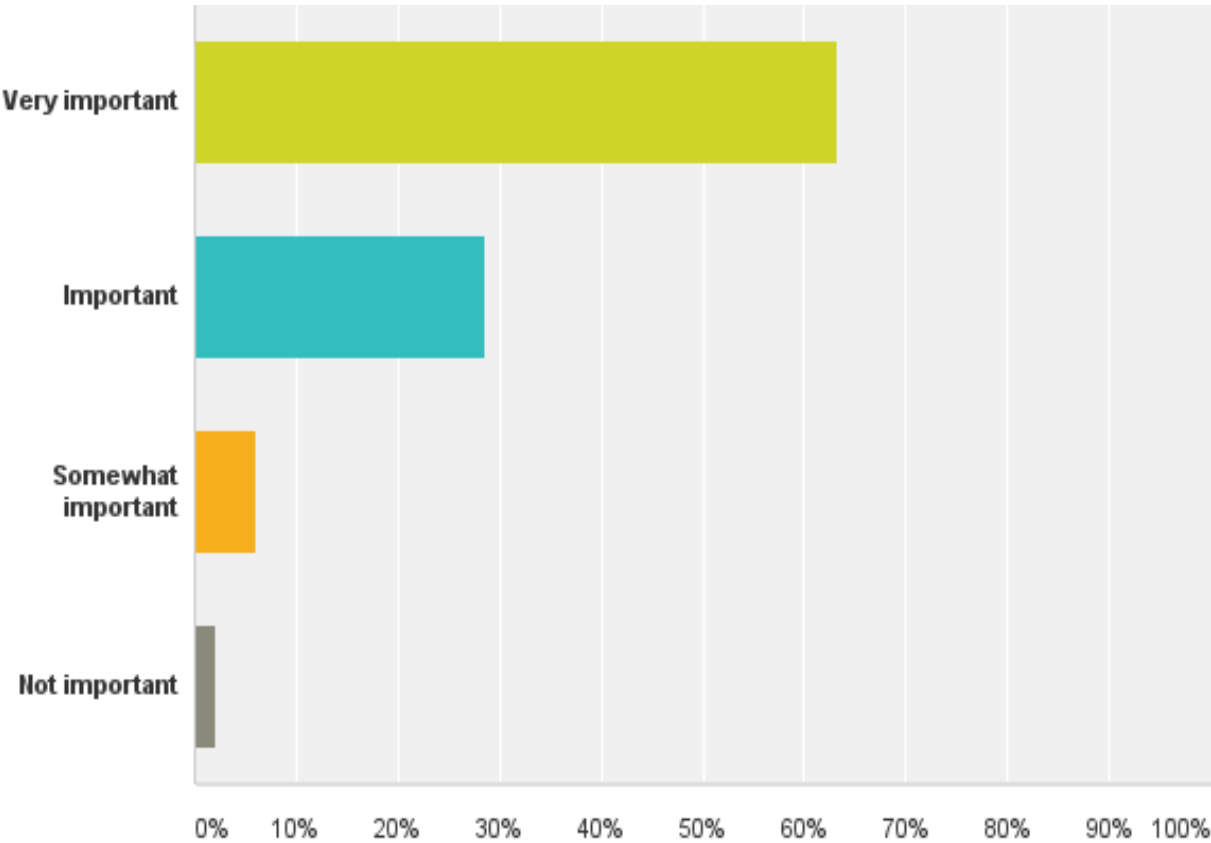
Answer Choices	Responses	
Designed and developed in house	6.12%	3
Supplied by a third party (campus card integration vendor)	63.27%	31
Hybrid system (combination of in house development and third party supplier)	28.57%	14
Other (please specify)	2.04%	1
Total	49	



Question 32: Please rate the importance of ECCA (non-profit organisation) continuing its research programme with the aim to improve standards and interoperability in campus card systems?

Answered: 49 Skipped: 132

Answer Choices	Responses
Very important	63.27% 31
Important	28.57% 14
Somewhat important	6.12% 3
Not important	2.04% 1
Total	49



The global participation of 28 countries in the survey, comprising of 181 educational institutions, of which 129 were European institutions, provided a wide base for data collection. The findings from the data provided from the European Institutions indicated no significant deviation when compared with the data provided by the other global institutions. It is clearly evident that the requirements of campus card systems are similar on a global basis, particularly with regard to their future needs and requirements of eID credentials.

The following are some of the key findings of the survey:

Card Technologies: In relation to card technologies, 85.50% of the respondents use the MIFARE technology, which consists of 60.31% MIFARE Classic and 25.19% DESFire. In addition, with the exception of digital signature and computer log-on, the contactless chip was by far the most preferred choice for providing access to services. However, although security is an important issue throughout campuses, 90.84% of educational institutions still only use the contactless card serial number (e.g. MIFARE UID) to validate the access to services.

Choice of Systems: In terms of choice with regard to systems designed and developed in-house as compared to third party vendor systems, there was a clear preference for the third party vendor option at 48.85% when compared to the in-house option at 17.56%. The combination of an in-house developed system and a third party vendor system (hybrid system) was the preferred choice of 30.53% of respondents. As the need for multi application card systems increases, the choice to outsource will also increase due to the specialised skills required to develop, install and maintain systems.

Card Issuing, expiry date and tokens: Instant issuing and personalisation of the campus card upon registration was the preferred choice of 72.66% of respondents, with the deferred issuance option choice at 26.56%. The preference choice of the expiry date of a campus card (card validation duration) was almost equal between the end of each academic year at 34.38% and the end of the final academic year at 32.03%. The end of each academic semester was the choice of 13.28%. The use of pre-printed cards, which are part printed and personalised on campus was the favoured choice at 65.63% when compared to plain un-printed cards at 24.22%. With regard to campus card systems facilitating the use of multiple tokens per user, only 22.66% of systems could facilitate this arrangement.

Secure Identification and Authentication: Providing students and staff with a secure ID credential which enables secure identification and authentication was a high priority with the respondents. 58.59% rate this as very important and a further 35.94% rated it as important.

Value Load and Payments: With regard to the storage of value (top-up funds/credit), there was a clear preference of 69.23% for the use of a Back Office Account. Web top-up at 71.43% was the most favoured option of adding value on to the campus card back office account. In addition, when considered together with mobile devices at 41.27%, Web top-up provides a strong indication of the future trend. The 46.03% response for the use of the conventional top up stations (cash to card) indicates that there is still considerable use of this option. In relation to the option of using

the campus card off-campus to purchase products, 69.84% gave a negative response to this option.

Mobile Devices and Applications: Responses indicate an emerging trend for the use of mobile devices on campuses, 41.41% are currently using these devices, with 71.67% of the mobile device applications developed by a third party/vendor. Student schedules/timetables at 50.94% is the most favoured application with these devices. Printing & photocopying at 37.74% is the second most favoured application. In relation to future technology, 61.72% indicated a preference for the use of a hybrid option, which involves the coexistence of the ID Card and a mobile device to provide a secure eID credential. Although educational institutions are pushing the boundaries for mobile applications, there is minimum focus on the benefits that are possible from the use of campus smartcard and mobile devices in order to enhance services and/or provide a higher level of security.

Interoperability and Standards: The importance of providing campus card interoperability that allows a student/staff to use their campus card in other educational institutions was rated high in the survey. It was ranked very important by 32.81% of institutions, while 39.84% rated it as important. With regard to the option of facilitating the authentication of a student status, that would allow the student to access services in other educational institutions, 58.59% were in favour of this option. ID authentication and access to library facilities were the two most favoured services that a student should be allowed to access. The importance of ECCA continuing its research programme to improve standards and interoperability in campus card systems was rated 46.88% as very important and 36.72% as important.

Card Validation, Authentication and Self Service Kiosks: Although card validation is important in the provision of identification and authentication, there are a diverse range of option in use with no distinct emphases on security. The semester validation of the campus card is a requirement in 25.78% of the campuses. Self service kiosks at 44.12% is the most favoured option to validate the cards. In relation to the importance of the use of self service kiosks on campus, 23.62% rated their use as very important and 41.73 rated their use as important.


Educational institutions that currently do not have a campus card system: The plastic card without any technology provides a student/staff ID in 83.93% of these campuses. Installing a campus card system in the future is the plan of 85.50%, with 51.02% of these planning to install a system within one year. The system supplied by a third party/vendor is the choice of 63.25%, with a hybrid system (combination of in-house development and third party/vendor supplier) the choice of 28.57%. The importance of ECCA continuing its research programme to improve standards and interoperability in campus card systems was rated 63.27% as very important and 28.57% as important.

CONCLUSION

Overall the survey has provided valuable information on the current state-of-the-art in campus card systems. It has also provided an insight into the educational members' vision with regard to their future needs and requirements of eID credentials and campus card systems. These findings, in addition to assisting our educational and corporate membership, will assist ECCA's research and innovation programme, particularly in the area of promoting the concept of a common eID solution that will achieve interoperability between institutions on a cross-border basis.

ECCA would like to acknowledge and thanks the 181 educational institutions who participated in this survey. Their assistance has enabled ECCA to establish a valuable depository of information which will be of valuable assistance to the on-going development of eID credentials and campus card systems. Your comments or suggestions on this survey, together with your views or ideas on future surveys would be much appreciated. Please email your feedback to: info@ecca.eu

SURVEY QUESTIONNAIRE



European Campus Card Association- Campus Card System Survey

Introduction

Welcome to the Campus Card system survey. We would be grateful if you could take a few minutes to complete this survey. Click "NEXT" to get started with the survey. If you would like to leave at any time please click "EXIT" (top right hand corner), your answers will be saved on your web browser.

European Campus Card Association- Campus Card System Survey

Section A- Details of your existing Campus Card system

* 1. Does your institution currently have a campus card system in operation?

☐ Yes

☐ No



European Campus Card Association- Campus Card System Survey

Section A- Details of your existing Campus Card system

* 2. Select the card technologies that your campus card use?

- ☐ Contact Chip
- ☐ Mifare Classic (1k/4k) contactless chip
- ☐ Mifare DESFire contactless chip
- ☐ Legic Technology
- ☐ Java Card
- ☐ Barcode
- ☐ QR Code
- ☐ Dual interface cards (contact/contactless)
- ☐ Magnetic stripe
- ☐ Don't Know

Other (please specify)

* 3. Typical applications and services that can be accessed using the campus card are listed below. As appropriate, please select the card technology used to access the relevant application or service

	Contact Chip	Contactless chip	Magnetic stripe	Barcode	Others
Printing and Photocopying	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Library Services	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Digital Signature	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Car Parking	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Vending and self service	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Point of sale (Payment)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Computer log on	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Time and attendance (Staff)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Time and attendance (Students)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Library Payments/Bookings	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Access control (buildings/infrastructure)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Student travel concessions	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Web food ordering	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Examination Identity and Authentication	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Other (please specify)

* 4. When using the campus card to access applications and services, what is the main function of the card in this process?

- ☐ It provides a unique number (i.e. Mifare UID, card serial number, student identification number, etc.) which are validated by the campus card back office system
- ☐ The card stores authenticated information locally, to enable offline operations, secure transactions, etc.
- ☐ Other (please specify)

* 5. How was your campus card system developed?

- ☐ Designed and developed in house
- ☐ Supplied by a third party
- ☐ Hybrid system (combination of in-house development and third party supplier)
- ☐ Other (please specify)

European Campus Card Association- Campus Card System Survey

Section B- Card Issuing, Personalisation and Requirements

* 6. Please select the card issuing procedures currently in place on your campus?

- ☐ Instant issue of card upon registration
- ☐ Deferred issuance by centralised batches
- ☐ Other (please specify)

* 7. What is the expiry date of campus card (card validation duration)

- ☐ Academic semester
- ☐ Academic year
- ☐ Student registration expiry (end of final year)
- ☐ Other (please specify)

* 8. Card issuing and personalisation processes vary considerably from campus to campus. Practices include:

- (i) Plain unprinted cards sourced directly from the manufacturer/vendor and fully printed on campus
- (ii) Mixed printing which involves sourcing pre-printed cards and completing the final stage of printing (personalisation) on campus

Please select the process that is used in your campus?

- ☐ Plain unprinted cards are personalised and printed on campus
- ☐ Pre-printed cards are personalised and part printed (personalised information) on campus
- ☐ The cards are fully printed by a vendor off campus in batch form
- ☐ Other (please specify)

- * 9. The Campus ID card should be considered as one of a number of tokens that staff or students can use to access services/facilities on campus. Other tokens can include key rings, wrist bands, USB devices, RFID devices, mobile phones, HF tokens and proximity devices

Can your campus system facilitate the use of multiple tokens per user?

- ☐ Yes
- ☐ No
- ☐ Don't know



European Campus Card Association- Campus Card System Survey

Section B- Card Issuing, Personalisation and Requirements

* 10. Can all tokens be issued as part of the card issuing process?

☐ Yes

☐ No



European Campus Card Association- Campus Card System Survey

Section B- Card Issuing, Personalisation and Requirements

* 11. Please rate the importance of providing students and staff with a secure ID credential which enables secure identification and authentication.

- ☐ Very Important
- ☐ Important
- ☐ Somewhat Important
- ☐ Not Important



European Campus Card Association- Campus Card System Survey

Section C- Value load and Payments

* 12. Do you add value (top-up funds/credit) onto your campus card or back office account?

☐ Yes

☐ No



European Campus Card Association- Campus Card System Survey

Section C- Value load and Payments

* 13. Where is the value (top-up funds/credit) stored?

- ☐ Contact/Contactless chip
- ☐ Back Office Account
- ☐ Other (please specify)



European Campus Card Association- Campus Card System Survey

Section C- Value load and Payments

* 14. How do you add value onto your campus card or back office account?

- ☐ Top up station (cash to card)
- ☐ Web/Internet Top up
- ☐ Mobile device (mobile phone/tablet application)
- ☐ Manual methods (card or administration office)
- ☐ Other (please specify)



European Campus Card Association- Campus Card System Survey

Section C- Value load and Payments

* 15. Is there a requirement or justification for using a campus card off-campus to purchase products?

☐ Yes

☐ No



European Campus Card Association- Campus Card System Survey

Section D- Mobile devices and Applications

* 16. Are mobile device applications used on campus? (A mobile device can be defined as any handheld or small computer e.g. smartphone; tablet)

☐ Yes

☐ No



European Campus Card Association- Campus Card System Survey

Section D- Mobile devices and Applications

* 17. Please state the development source of the mobile device applications.

- ☐ Self-Developed
- ☐ Third party/Vendor
- ☐ Other (please specify)



European Campus Card Association- Campus Card System Survey

Section D- Mobile devices & Applications

* 18. What services are accessible through mobile device applications?

- ☐ Printing and Photocopying
- ☐ Payments
- ☐ Access Control (Buildings/Infrastructure)
- ☐ Car Parking
- ☐ Computer Access and authentication
- ☐ Students exam/assessment marks
- ☐ Students schedules/timetables
- ☐ Vending and self service devices
- ☐ Food ordering
- ☐ Other (please specify)



European Campus Card Association- Campus Card System Survey

Section D- Mobile devices and Applications

* 19. Can you enable/activate the campus card using a mobile device application?

- ☐ Yes, using online services, requiring no interaction with the campus card
- ☐ Yes, the mobile application interacts with the card through NFC
- ☐ No



European Campus Card Association- Campus Card System Survey

Section D- Mobile devices and Applications

20. In the future, technology will facilitate the embedding of the typical ID credentials in a secure mobile device application. Please give your opinions on this potential option.

- ☐ The campus ID card incorporating smart chip technology will continue to provide campus ID credentials for many years and therefore mobile devices will NOT replace the traditional campus ID card
- ☐ The future will be the use of mobile devices for the provision of secure campus ID credentials
- ☐ Hybrid option (coexistence of the ID card and mobile devices to provide secure ID credentials)
- ☐ Other opinion (please specify)



European Campus Card Association- Campus Card System Survey

Section E- Interoperability and standards

* 21. Please rate the importance of campus card interoperability?

(Interoperability definition: Students/Staff can use their campus card in other education institutions)

- ☐ Very Important
- ☐ Important
- ☐ Somewhat Important
- ☐ Not Important

* 22. Should the campus card facilitate authentication of the current status of a student and allow the student to access services in other education institutions?

- ☐ Yes
- ☐ No
- ☐ Don't Know



European Campus Card Association- Campus Card System Survey

Section E- Interoperability and standards

* 23. Please indicate the services that a student should be allowed to access?

- ☐ ID Authentication
- ☐ Library
- ☐ Access Control
- ☐ Printing and Photocopying
- ☐ Car parking
- ☐ Sports Facilities
- ☐ Computer log-on
- ☐ Other (please specify)



European Campus Card Association- Campus Card System Survey

Section E- Interoperability and standards

* 24. Please state the importance of ECCA (non-profit organisation) continuing its research programme with the aim to improve standards and interoperability in campus card systems?

- ☐ Very Important.
- ☐ Important
- ☐ Somewhat Important
- ☐ Not Important



European Campus Card Association- Campus Card System Survey

Section F- Card Valuation, Authentication and Self Service Kiosks

* 25. Semester validation of campus cards can be a mandatory requirement, which is determined by the regulations of the relevant education institution. This process involves deleting an expiry date on the cards validation stripe and printing a new expiry date. It can also involve re-validation of the relevant information on the cards chip.

Is semester validation of the campus card a requirement on your campus?

- ☐ Yes
- ☐ No



European Campus Card Association- Campus Card System Survey

Section F- Card Valuation, Authentication and Self Service Kiosks

* 26. Please state how you validate your campus card.

- ☐ Manual validation process, printing a new expiry date on card
- ☐ Self service kiosk validation, automated process of printing a new expiry date on card
- ☐ Use of a secure expiry date card sticker, which is issued to the student each semester
- ☐ Other (please specify)

European Campus Card Association- Campus Card System Survey

Section F- Card Valuation, Authentication and Self Service Kiosks

- * 27. Self service kiosks on campus provide the students on a 24/7 basis access to a range of administration services that include: paying the semester course fee, printing and/or validating data for the new semester on the campus card, updating personal data, printing of certificates, confirmation of student status and other requirements. These self-service kiosks can provide an efficient solution that reduces the work of the campus administration department.

Please rate the importance of the use of self-service kiosks on campus?

- ☐ Very Important
- ☐ Important
- ☐ Somewhat Important
- ☐ Not Important



European Campus Card Association- Campus Card System Survey

Section G

* 28. Please indicate your current system of providing student/staff identification on campus

- ☐ Plastic card (without technology)
- ☐ Paper-based cards
- ☐ Token/Badge
- ☐ Other (please specify)

* 29. Does your campus intend to install a campus card system in the future?

- ☐ Yes
- ☐ No



European Campus Card Association- Campus Card System Survey

Section G

* 30. Please select the estimated time-scale for system installation

- ☐ 1 Year
- ☐ 2 Years
- ☐ 3 Years
- ☐ 4 Years
- ☐ 5 Years or more

* 31. How will your campus card system be developed?

- ☐ Designed and developed in house
- ☐ Supplied by a third party (campus card integration vendor)
- ☐ Hybrid system (combination of in house development and third party supplier)
- ☐ Other (please specify)

* 32. Please rate the importance of ECCA (non-profit organisation) continuing its research programme with the aim to improve standards and interoperability in campus card systems?

- ☐ Very important
- ☐ Important
- ☐ Somewhat important
- ☐ Not important



Enhancing Campus Card and ID Credentials throughout Europe