



# UNDERSTANDING THE BENEFITS OF ADOPTING NEXO STANDARDS ●

a nexo white paper for retailers

June 2015





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# EXECUTIVE SUMMARY.

Currently there is very little harmonisation in European card payment acceptance standards. Each of the main European countries established their own, differing standards, which has made it difficult and costly for retailers operating internationally to adopt a centralised and unified approach to credit and debit card payments. Research conducted for nexo by Edgar, Dunn and Company (EDC) with major retailers and industry experts including ACI Worldwide, Colruyt Group, Groupe Auchan, Groupement des Cartes Bancaires, Redsys and Total, has highlighted the key challenges and potential advantages of a harmonised approach.

nexo has produced a series of standards to overcome the interoperability hurdles that exist today. These open, universal and royalty-free international standards are considered by the retailers interviewed by EDC to be the natural choice for next generation card payment processing systems.

This white paper shares the research findings and provides detailed analysis of the responses. Key findings are as follows:

- ◆ Faster time to market, financial savings and establishing acquirer independence are the top three reasons given for change
- ◆ Retailers stated that the centralisation and consolidation of payment systems and the elimination of local country payment protocols is a high priority
  - Adoption of the nexo standards is seen as a necessary milestone in helping to realise this objective
- ◆ nexo adoption, as part of a new payments platform, can:
  - Generate cost savings in excess of 20%
  - Reduce implementation time by at least four months
  - Significantly improve purchasing negotiation positions
  - Achieve reduced payment processing charges and cheaper POS terminals
- ◆ Retailers have reported that nexo would additionally generate efficiency improvements and increase competition across the different touch points of payments processing
- ◆ nexo's choice of ISO 20022 is considered to be a wise one and there is general consensus that there are no serious alternatives to the usage of nexo card payment standards in the future. It is more a question of when to move to nexo card payment standards, rather than whether to do so.

# PURPOSE ●

nexo commissioned EDC to create this white paper to provide retailers with a comprehensive resource to aid their understanding of:

- ◆ The nexo organisation
- ◆ The nexo card payment standards and specifications
- ◆ The key market drivers and the benefits that can be gained from adoption

EDC, an international consultancy specialised in payments, conducted the research in April and May 2015. This involved both primary and secondary research, the completion of detailed questionnaires and intelligence gathered during a series of interviews with some large multinational retailers and industry experts. Both quantified benefits as well as those of a more qualitative nature are described in this paper.

nexo and EDC would like to thank the retailers, industry experts and nexo members who participated in the research for their time, assistance and support in the research and writing of this paper.

# INTRODUCTION TO NEXO .

nexo<sup>1</sup> is an international non-profit, membership based association that is headquartered in Brussels. nexo was established in October 2014 to develop, promote and maintain open and universal next generation card payment standards and specifications. nexo participants have a rich heritage in standards development work designed to resolve the current interoperability issues that exist today between the various European card payments markets. Common standards are seen as a major step forward in achieving a unified market for payments that will bring benefits to all payments industry stakeholders and, in particular, to multinational retail merchants. nexo replaces the former EPASOrg<sup>2</sup> organisation which has been working on this same objective since its formation in 2009. nexo is a merger of EPASOrg and the standards development work undertaken by the OSCar<sup>3</sup> Consortium, on the integration of SEPA Fast with EPAS protocols, and the CIR<sup>4</sup> (EMV Common Implementation Recommendations) technical working group that harmonised EMV specifications for use in a payment terminal.

## NEXO MISSION AND VALUES

The primary aim of nexo is to deliver a series of state-of-the-art standards that address the requirements of the card payment industry. The nexo mission is to design, develop and maintain open and common standards, to ensure interoperability and to leverage market best practices. These standards are universal and open in nature and made available to all parties on a royalty-free basis. nexo promotes the usage of these standards to all payment industry stakeholders. The key values of nexo are seen to be: interoperability, innovation, security and universality.

nexo provides:

- ◆ Specifications
- ◆ Implementation guidelines
- ◆ Test cases
- ◆ Support to implementers

These nexo standards are closely aligned with the European Payments Council and Cards Stakeholders Group<sup>5</sup> guidelines.

**“Combining the strengths of three major contributors to card standard setting helps overcome today’s barriers to interoperability and brings benefits to retailers”**

Pierre-Antoine Vacheron,  
Chairman of the General Assembly of nexo

**“The nexo ISO 20022 standards are the result of many years of intensive work by so many individuals belonging to different organisations from across our industry**

William Vanobberghen,  
Secretary General, nexo

<sup>1</sup> [www.nexo-standards.org](http://www.nexo-standards.org)

<sup>2</sup> [www.epasorg.eu](http://www.epasorg.eu)

<sup>3</sup> [www.oscar-project.eu](http://www.oscar-project.eu)

<sup>4</sup> [www.cir-twg.eu](http://www.cir-twg.eu)

<sup>5</sup> The Cards Stakeholders Group (CSG) is the result of five major cards payment stakeholders joining forces to participate in a structural cards dialogue. The CSG is supported by a secretariat provided by the European Payments Council (EPC).

## MARKET BACKGROUND

Today's European card payments market is highly fragmented. It is based on a series of local country standards, rules and operating practices. These domestic country standards worked well when electronic payments first started back in the 1980s, as they were primarily used by retailers, banks and suppliers who largely served single markets. With the introduction of the euro currency and the increasingly globalised nature of trade and travel, these differences and duplication are no longer felt to be acceptable. Having to support multiple country standards is highly inefficient and overly complicates the cross-border operation of international businesses. The EU recognises that the current environment is an obstacle to having an open European payments market.

As more companies adopt a global rather than domestic strategic focus they are looking for a harmonisation of these disparate payment standards and for interoperability barriers to be overcome. It is widely understood that terminal manufacturers have higher costs, as they currently have to produce models to varying specifications, develop software applications to support different environments and complete certification and approvals for each market. Likewise, software vendors have been required to develop individual products for use in France, Germany, Spain, Italy, the UK and other countries within the European region.

Historically, a fragmented payments market has proved inefficient, costly, confusing, stifles innovation and prevents the entry of new players. The European Commission has recognised the economic disadvantages of the current operating environment for businesses and the confusion it brings to consumers and so, in 2007, issued the Payments Services Directive<sup>6</sup> (PSD) to provide the legal framework to deliver a Single Euro Payments Area (SEPA). The European Payments Council<sup>7</sup> (EPC) has gone on to develop a 'book of requirements', which aims to remove technical obstacles to deliver a consistent customer payment card experience across SEPA. This defines a standard set of requirements to enable an interoperable and scalable payments infrastructure across SEPA, based on open international payment standards. A consistent and interoperable European card payments market will bring economic benefits, open up the market, increase competition, deliver consistency and accelerate the rate of payments innovation.

## LEGACY STANDARDS

The major European countries each developed their own card payment standards, which they define, maintain and with which they ensure compliance. Many of these are derivatives of the ISO 8583 norm<sup>8</sup>, which has been widely used by banks and retailers for card transactions for almost 30 years. But, due to the bit map format, age and the fact that discretionary data fields have been constantly contaminated to support new card payments functionality, interoperability does not exist between countries, systems and suppliers. Also, many of these implementations are proprietary and not openly available. To further complicate matters, some are based on the 1987 version of the ISO 8583 standard with others on the 1993 version (the 2003 version being rarely implemented). It is for these reasons that EDC and other industry experts interviewed for this paper no longer feel ISO 8583 is appropriate for the next generation of card payments.

**“The lack of universal European standards raises our cost of developing products and hence our prices”**

Payment Terminal  
Manufacturer

**“Which international retailer would wish to base its future payments acceptance strategy on a restrictive and out-dated standard?”**

Industry Expert

<sup>6</sup> [http://ec.europa.eu/finance/payments/framework/index\\_en.htm](http://ec.europa.eu/finance/payments/framework/index_en.htm)

<sup>7</sup> [www.europeanpaymentscouncil.eu/](http://www.europeanpaymentscouncil.eu/)

<sup>8</sup> [http://www.iso.org/iso/home/store/catalogue\\_ics/catalogue\\_detail\\_ics.htm?csnumber=31628](http://www.iso.org/iso/home/store/catalogue_ics/catalogue_detail_ics.htm?csnumber=31628)



## CURRENT MARKET CHALLENGES AND BARRIERS

Suppliers have invested in developing payment solutions that are compliant with local country standards. Merchant acquirers have built their payments processing infrastructure to support these legacy card payment protocols. Equally, national organisations that defined and maintain legacy standards may show some reluctance to replace them with nexo standards. All of these are barriers that must be overcome in order for the industry to move to new and open payment standards. Sensitivity exists as participants may well fear losing power, influence, their jobs, customers or competitive advantage, but it appears to EDC that many stakeholders now feel the time is right to move to state-of-the-art and open international standards, to open up a larger and harmonised market.

“Single product, and just one certification, allows use across the combined European market”

Groupement des Cartes Bancaires – Card Scheme

## ISO 20022

The ISO 20022 standards<sup>9</sup> are starting to be widely used within the financial services community for many purposes, including for corporate payments, foreign exchange, securities and trade services. They establish common modelling methodologies, offer a central dictionary of business items, use XML and allow the creation of consistent message standards that can be re-used and integrated across different applications and departments. These are the ideal building blocks towards a Payments Hub. The endorsement of ISO 20022 for SEPA Credit Transfer and Direct Debit transactions is seen as further positive endorsement. The formal governance structure, design guidelines, review processes and requirement for on-going maintenance of ISO 20022 standards are impressive. A key finding from all the interviews is that ISO 20022 standards are the most appropriate foundation for the creation of next generation European payment systems.

*“ISO 20022 has proven to be the right choice for our business”*

Global Grocery Retailer

## THE NEXO STANDARDS AND SPECIFICATIONS FOR RETAIL MERCHANTS

nexo has developed a series of standards that have been endorsed by ISO 20022. Many of these are of direct relevance to retailers, including the EPAS **Acquirer** and **Terminal Management System** (TMS) standards. In addition, specifications have been agreed for an EPAS **Retailer** standard, which defines how an EPOS system interacts with a payment application.

The nexo standards support

- ◆ Contact/contactless EMV (and non-EMV) chip cards
- ◆ Magnetic stripe cards
- ◆ Manual transaction key entry
- ◆ Attended and unattended acceptance environments
- ◆ Multiple forms of customer verification methods (CVM)
  - Online PIN, Offline PIN, signature and no CVM
- ◆ Single or dual message capture modes
- ◆ Online capture/batch capture by message or file
- ◆ Tokenisation
- ◆ Instant payments

“nexo standards allow additional value to be added to the payments value chain as new payment means can be tested and deployed very rapidly.

Standardisation facilitates innovation: money saved on developing local, proprietary protocols can instead be invested in creating real value for customers.”

ACI Worldwide – Global Payment Solutions Provider

<sup>9</sup> [www.iso20022.org](http://www.iso20022.org)

The areas of focus for each of the nexo standards is illustrated within the orange box, at Figure 1.0.

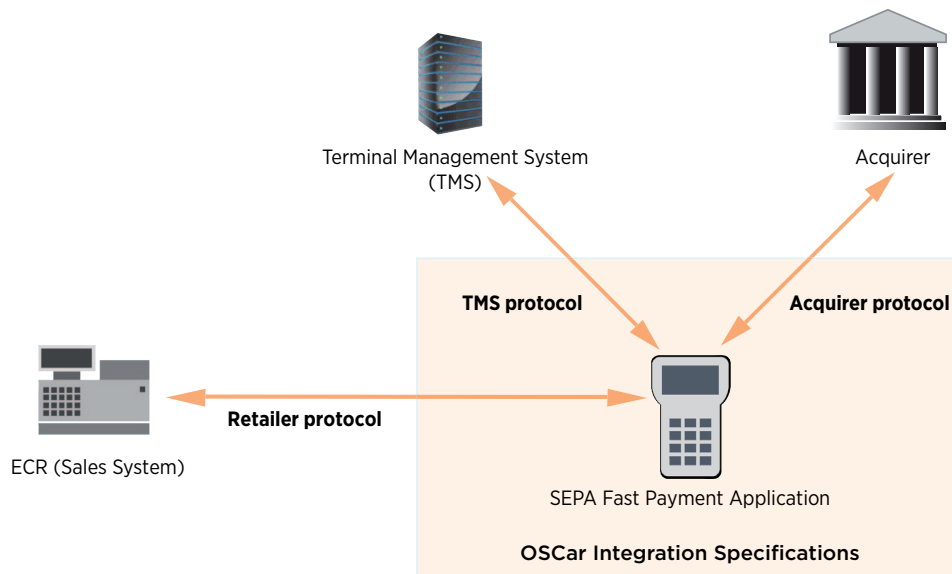


Figure 1.0: nexo standards and environmental focus

## EPAS ACQUIRER STANDARD

The ISO 20022 EPAS Acquirer protocol offers a next generation international card payment standard that replaces ISO 8583 and its national derivatives. It handles, amongst other features, the authorisation, pre-authorisation, refund, cancellation and rejection of card transactions. The inherent flexibility of the ISO 20022 standard, and its availability to all without charge, makes it stand out from other standards. The design allows interoperability between different implementations and expansion to support value added services. The Acquirer standard allows the use of real-time or batch submission as well as supporting direct connections from merchant to acquirer or via a Payment Service Provider (PSP) intermediary.

The EPAS Acquirer standard is based on messages, which are made up of a header, body and a trailer. The fact that security has been designed from the start of the development into the protocol itself is a major advantage vis-à-vis existing standards. This allows the authentication of the initiator and the protection of the content of part or all of the body against any unauthorised alteration or capture of the transaction message.

*“The flexibility of the nexo standards allows us to introduce additional services easily”*

Groupe Auchan - International Grocery Retailer

## EPAS RETAILER STANDARD

The EPAS **Retailer** standard establishes a clear separation between two software applications that both reside on an EPOS terminal. These are the business application that records a customer Sale and a Payment application that handles the processing of a card transaction. Both applications need to share cash register peripherals such as printers, displays and card readers.

Since the migration to EMV Chip and PIN technology and the increased complexity and compliance demands that resulted, it has become critical to separate these two applications. Otherwise, changes to an EPOS application might invalidate a payment application approval. Before nexo developed the Retailer standard, there was no independent standard that could be used by retailers. They had to implement proprietary standards offered by EPOS and payment solution providers. This made it awkward and more expensive to later change suppliers. Adoption of the EPAS Retailer standard allows the selection of best of breed suppliers and a mix and match product strategy. Without clear separation, the scope of PCI DSS compliance will also need to include both applications, significantly increasing scope, cost and time to market. A further business benefit of isolating the payments application is that it can evolve at a more rapid pace than the POS business application.

## EPAS TERMINAL MANAGEMENT SYSTEM (TMS) STANDARD

Terminal Management Systems have historically been developed by POS terminal manufacturers to remotely manage an estate of terminals. They allow application software and firmware to be downloaded from a central system, configuration parameters to be changed and security keys to be updated. They also now offer rich scheduling capabilities to allow updates to be planned and phased. But these systems are largely proprietary, making it harder to switch suppliers. As a result, many acquirers developed customised TMS to allow mixed estates to be supported and to add merchant management, pricing and on-boarding functionality. Large merchants have also built proprietary TMS to allow for the efficient management of their payments infrastructure and devices.

The ISO 20022 EPAS TMS specifications are the first international standard for terminal management. This open, universal, non-proprietary TMS standard prevents retailers becoming locked-in to suppliers. They support mixed estates and allow additional functionality to be incorporated. EDC believes that the manufacturer agnostic nature of the EPAS TMS standard will lead to the launch of generic product-based TMS solutions, eliminating the need for bespoke systems to be developed in-house. The ability to delegate authority, allowing multiple parties to fulfil differing aspects of terminal management, is innovative and most helpful to both merchants and merchant acquirers. As an ISO 20022 standard it will ease integration of the TMS with other card processing systems.

**“One of the major benefits of the EPAS Retailer standard is the ability to eliminate card data from the selling system, shrinking the scope of PCI DSS compliance”**

Retail Technology  
Consultant

**“We will soon be able to manage mixed estates of terminals from a single TMS. This will allow us to save money, respond quicker and free up IT resource.”**

Large European Retailer

## **OSCAR AND SEPA FAST STANDARDS**

The OSCar project aimed to foster the development of common SEPA payment solutions that could be used consistently across Europe. These were to be based on open standards to be compliant with the SEPA Fast specifications developed by the EMV Common Implementation Recommendations (CIR) Technical Working Group and the ISO 20022 EPAS Acquirer protocol. SEPA Fast proposes a common implementation of the EMV specifications with the addition of SEPA specific aspects such as: functional processing steps, display messages, receipt formats, data dictionaries and transaction flows. Following completion of the specification development, an OSCar Consortium of key stakeholders was established at the end of 2010 to initiate trials and demonstrate technical feasibility. Successful implementations of the EPAS, OSCar and SEPA Fast standards have now been concluded at major European retailers in France, Spain, Portugal and Germany.

## **GROUPEMENT DES CARTES BANCAIRES AND GIROCARD**

Groupement des Cartes Bancaires (CB), the governing body of the French card payment scheme, and girocard, the leading debit POS system in Germany, announced in April 2015 that they would recognise the nexo card payment standards. This establishment of common functional and certification requirements for card payment terminals in Europe is a major milestone in the integration of card payments in Europe. The agreement between these two major card schemes includes the usage of common certification and common validation requirements. It will mean that suppliers can, in future, develop a single product that will only need to be approved once for usage anywhere within the combined French and German markets. It is expected that other European card schemes will soon join this initiative, making the economies of scale even greater.

*“A combined European market of 9 million POS devices will bring lower terminal pricing”*

Groupement des Cartes Bancaires

## **ADOPTION OF NEXO STANDARDS**

nexo is the only organisation currently delivering open international standards for next generation card payment processing. Options available to retailers are to persist with yesterday's legacy systems and their inherent weaknesses, to adopt a more modern but still proprietary/country standard, or to move to the nexo ISO 20022 standards. Based on the interviews conducted for this paper, EDC believes that the majority of multinational retailers will decide based on when the time is right to adopt nexo standards, rather than on whether to do so.

# MARKET RESEARCH FINDINGS.

EDC used questionnaires and telephone interviews to capture a range of different data points and opinions on the current market situation. This section of the white paper presents the key findings with commentary and analysis.

## REASONS FOR ADOPTION

Faster time to market and deployment was cited as the single most important reason for introducing and rolling out new payments functionality. Financial savings, including cost reductions from purchasing devices, software solutions and bank processing charges, was also ranked highly. Currently, most international retailers work with multiple acquirers who often dictate how transactions are to be delivered to them – acquirer independence was another important factor for the retailers interviewed for this paper.

A few notes on the other reasons given for adoption, and represented in Figure 2.0 below: Universal open international standards as delivered by nexo are in direct contrast to legacy proprietary standards. Certification and compliance simplification includes PCI DSS compliance as well as Acquirer message protocol approval. Future flexibility and empowerment looks at the ability of a retailer to respond to change and the power they have to do so. A single payments environment assesses the appetite to remove current duplication and interoperability barriers. The appetite for innovation and increasing competition and advantage were also measured. Supplier consolidation / agnostic covered the priority given to reducing the number of vendors a retailer has to support and manage, as well as the ability to change supplier. Employee savings were to be captured under the employee efficiency improvement option.

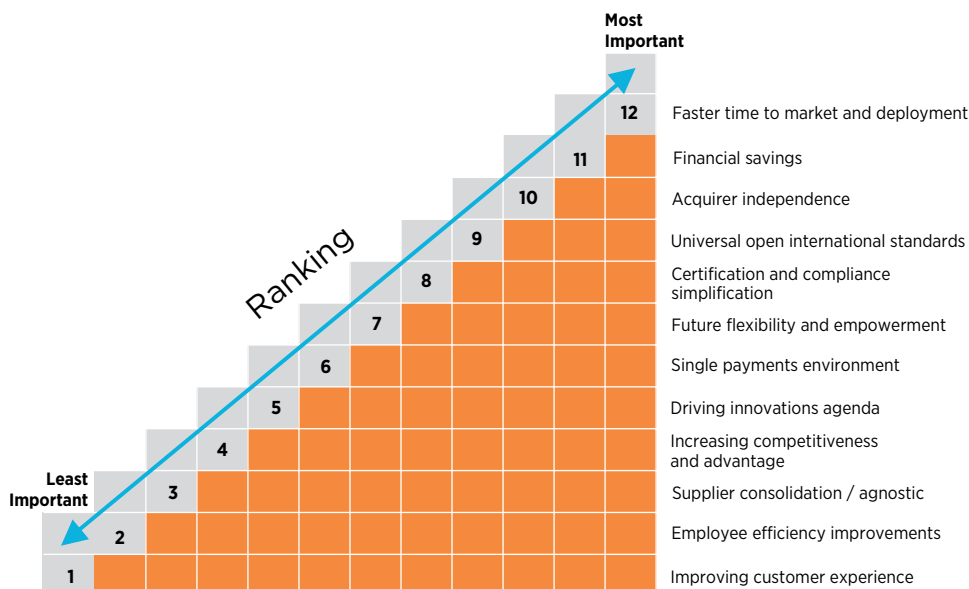


Figure 2.0: Ranking of nexo adoption reasons

Factors such as ‘financial savings’ and ‘acquirer independence’ were ranked highly, as expected. However ‘supplier consolidation / agnostic’ and having a ‘single payments environment’ were ranked lower than predicted. The low ranking of ‘improving the customer experience’ is not a concern since migration to the nexo standards is intended to have zero impact upon retail shoppers.

EDC was not expecting ‘Faster time to market and deployment’ to be ranked the most important reason for adoption, but interviewees expressed high levels of frustration at the amount of time it currently takes to implement changes. The majority of the retailers expressed the desire to achieve greater agility and reduce implementation timescales. The very low ranking of ‘employee efficiency improvements’ was surprising.

EDC heard the following comments:



**“We expect to centralise our payments staff but not reduce overall numbers”**

**“Our business case made no mention of staff savings”**

**“We only have a very small team today and so won’t be able to reduce staff numbers”**

Three Major Retailers

The majority of multinational retailers have already started to centralise their payments related competencies or have plans to do so within the next few years. This is not expected to reduce the overall headcount deployed across several countries, however, based on the interviews with retailers, it is likely to result in the redeployment of resources more effectively across the business.

## MOVING TOWARDS NEXO

From the interviews, EDC concludes that the earliest adopters of nexo standards will be the large multinational retailers, particularly those from the grocery and petrol retailing sectors. These organisations prefer to follow a centralised group-wide payments strategy that includes running central IT systems and having a dedicated payments team based in a single location. Additionally, multinational retailers believe they have the power to insist on suppliers and acquirers supporting nexo standards.

The research findings indicate that 2016 and 2017 will likely be when many Tier 1 multinational retailers decide to adopt nexo. Retailers who only trade in a single country will have less to gain by moving to the nexo standards and, therefore, are likely to migrate once more acquirer systems have been enhanced. The survey results for this paper indicate that adoption by large domestic retailers will likely be between 2018 and 2020.

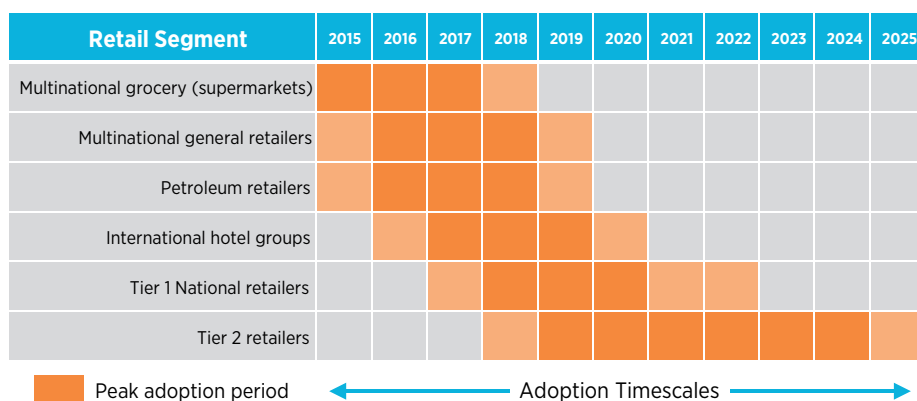
The French market offers a possible reference model for other countries to follow. Here, the two largest acquirers have introduced nexo support on their payment processing platforms. In contrast, some other French acquirers have initially taken the route of supporting nexo via the use of a shared processing service from Groupement des Cartes Bancaires SER2S<sup>10</sup> subsidiary.

Tier 2 and smaller retailers will likely adopt nexo standards when they next have a major refresh of their card payment systems. This will probably commence in 2018 and last until 2025, as the research confirmed. The hotel sector is also led by a few large operators that own significant parts of the payments infrastructure and, as such, is expected to be another early nexo adopter.

*“Five years is now the expected life for payment systems and terminals”*

International Retailer

The expected adoption timescales are illustrated in Figure 3.0 below:



**Figure 3.0:** Expected adoption timescales

“nexo adoption allowed us to eliminate the duplication of payment systems and the need to maintain multiple country specific software applications and protocols”

Total  
Global Petroleum Retailer

“We ask our banks and supplier partners to support the nexo standards”

“The savings in our new nexo architecture will allow us to continue to invest in innovation, for the benefit of our customers”

Groupe Auchan

<sup>10</sup> <http://www.e-rsb.com/index.php/fr/qui-sommes-nous/historique>

## FINANCIAL BENEFITS

The research indicates that retailers expect to be able to achieve financial savings by:

- ◆ Centralising payment systems and operational management
- ◆ Paying lower prices for POS terminals
- ◆ Negotiating lower processing fees from acquirers
- ◆ Having fewer companies to manage

Interviewees said that nexo adoption is key to achieving these financial savings.

*“Becoming acquirer independent will deliver lower transaction processing charges and POS terminal prices. Our payback periods should be under 3 years.”*

Global Retailer

*“We have already achieved significant financial savings by centralising our payment systems, this includes lower prices for POS equipment and savings in bank processing fees. We would expect to achieve a further 10% to 20% of savings by replacing support of local payment standards when we fully adopt nexo.”*

International Retailer

EDC found that the level of financial benefits is highly dependent on the current state of systems centralisation. One retailer who has already invested in a new platform to handle multi-country card processing stated:

*“We anticipate a 2 to 3 year payback period for our investment. Our projected savings will likely be between 20% and 30%.”*

Total

All retailers interviewed cited software maintenance cost savings as an important aspect of the business case for nexo compliant payment systems. The average amount spent annually is close to €35,000 per protocol. When asked by EDC for the amount it cost them to support an additional country payment standard the average figure was around €150,000.

*“Each country protocol costs us more than €100,000”*

European Retailer

**“Our business case shows a quick payback period, thanks to a better harmonisation and simplification of our payments systems across Europe”**

Groupe Auchan

**“Purchasing POS terminals on a group-wide basis and having a single model that can be used across the whole SEPA area should achieve at least 10% savings. We expect to achieve >15% savings by having a multi-country payments platform.”**

Colruyt Group  
European Supermarket Chain



## QUALITATIVE BENEFITS

Through the research, EDC identified many benefits gained by retailers investing in nexo compliant payment systems that cannot readily be quantified. These include savings from no longer needing to support multiple country specific payment standards. The research revealed that each country variant took, on average, four months' effort to complete approvals and certifications. Faster time to market and deployment was rated as the most important factor, with "between 4 to 6 months savings" being the most regularly cited answer. The interviewees repeatedly mentioned the ability to add new features at lower cost as another major advantage.

*"We can expect implementations 4 to 6 months faster in the future"*

Global Retailer

*"We will have a single solution for use throughout Europe that is simpler to manage, easier to maintain PCI compliance and will save us money"*

European Retailer

A global retailer who already operates a centralised payments environment stated:

*"An upgrade to nexo standards would mean we didn't need to keep maintaining local protocols and interfaces. This is a significant cost and one we would like to eliminate. We can add new payment capabilities like contactless through just parameter changes."*

Global Retailer

**"nexo compliant solutions will have a positive impact on the rate of payments innovation"**

Multinational  
Grocery Retailer

**"Reliability is the biggest issue for us, we simply can't afford any more downtime"**

Multi-Country  
General Retailer

## COMMONLY HELD VIEWS

Merchants widely reported that investment in a next generation payments system gives them:

- ◆ An improved negotiating position
- ◆ Complete acquirer independence
- ◆ Freedom to pick and choose the best POS models
- ◆ The ability to mix and match devices from multiple suppliers
- ◆ The flexibility to introduce smart transaction routing

The majority of respondents considered the most likely time for retailers to add nexo compliance is at the same time as the implementation of a new payment system, and when undertaking a payment technology refresh. They commented that introducing nexo requires considerable change to devices and systems and that it would be impractical to do so on many legacy platforms. When asked whether the next payment platform should be implemented at the same time as an EPOS upgrade, there was less consistency in views, but the majority felt that this was not a necessity.

One retail conglomerate expressed frustration with the perceived number of stakeholders in the payments value chain and commented:

*“We would like to see a more disruptive business model, which would lead to lower costs for retailers. We don’t see enough added value at the moment”*

Retail Group

One of the reasons for the retailers’ support of nexo is the ability to build value-added services on top of the universal payments standard. Acquirer selection and change are further benefits commonly identified.

*“We will gain control over our future payments roadmap”*

Global Retailer

Retailers were asked if increased regulatory pressure and deadlines for a common European standard (such as happened for SEPA Direct Debits and Credit Transfers) was required. EDC heard the following comments from three large retailers:



## OPINIONS OF INDUSTRY EXPERTS

As part of the research, EDC interviewed a group of experts representing card schemes, processors, payment solution providers and industry consultants. These experts came from multiple countries, to provide a geographical and cultural spread.

Experts saw the major challenges for European retailers as being:

- ◆ The highly competitive retail market place
- ◆ The need to deliver financial savings
- ◆ Regulatory compliance complexity
- ◆ Higher consumer expectations
- ◆ Transition to multichannel / omni-channel selling

There was widespread endorsement among experts for the nexo standards and the principles that lie behind them:

*“We are seeing an increased interest in nexo from our clients who are looking to deploy payment solutions rapidly, easily and optimised in all countries of operation. One single platform provides a faster time to market, higher operational efficiency, and reduced compliance and certification costs.”*

ACI Worldwide

*“We expect the multinational retailers to be the early adopters of the nexo standards. Pan-European merchants will ask acquirers to support nexo standards if they wish to win their business.”*

Groupement des Cartes Bancaires

*“We can expect a larger market with consistent needs to attract new POS manufacturers and solution providers. nexo will allow innovative payment options to be supported and deployed by merchants more quickly.”*

Payments Industry Consultant

*“The supply side must be the first to invest in nexo compliant solutions and services before we can expect retailer adoption”*

*“Increased regulatory pressure would be a positive sign and one we would actively support”*

Payment Scheme

Retailers were generally less positive than experts about the impact of increased regulatory pressure and there were other notable differences between the two groups in terms of anticipated benefits to be delivered by the nexo standards. While industry experts believe supplier consolidation will be a significant factor for retailers, the retailers themselves rated this low down their list of priorities. The number one factor for retailers was ‘time to market and deployment’ which was under estimated by several experts. Equally, retailers were more attracted to the importance of ‘universal open international standards’ than were the experts. EDC expects that smart transaction routing will become a key factor for retailers when planning their next generation payment platforms.

EDC notes that industry experts take a slightly more optimistic view of adoption timelines, expecting to see a greater number of Tier 1 and 2 European retailers migrating in 2018/19/20.

The research identified that multiple European payment schemes and processors are currently evaluating the nexo standards. One national payments association said:

*“We are currently reassessing our position on nexo as we don’t want to hold back innovation. Legacy standards were never designed to support alternative payment methods and transactions such as ACH payments and digital coupons.”*

Payments Association

One industry expert stressed the following, which resonates with the interviews EDC conducted with the retailers:

*“The major savings for international retailers will be from implementing a central payments platform that consolidates all credit and debit card transactions”*

*“Two key questions for retailers to decide are where to locate the payment gateway and who is to run it”*

*“nexo will help drive the rate of payments innovation, plus increase flexibility and responsiveness”*

Industry Consultant

**“As a result of demand from international retailers we are in the process of adding nexo protocol support”**

Redsys  
Payment Processor

# LEVERAGING THE NEXO STANDARDS ●

To realise the benefits of nexo, investment will be required. In some areas this can be phased or in conjunction with the purchase of next generation products. The need to be PCI DSS compliant may also be a driving factor. This research suggests that many retailers will associate including nexo support with the centralisation of payments processing. This will remove current duplication of products, platforms, suppliers and acquirers. Centralisation will increase control and efficiency, establish independence and offer retailers improved management information.

## INVESTMENT AREAS

Investment is required in POS software, covering three key areas.

Firstly, the payment application running on the POS must support the EPAS Acquirer standard. This requires the development / sourcing of a new software version that adds support for the EPAS Acquirer standard. Adding EPAS Acquirer support applies to all retailers, irrespective of the level of POS integration.

Secondly, merchants who see the benefits of integrating their payments functionality with the EPOS business application are encouraged to add support for the EPAS Retailer standard. This requires changes to both the payment application and the EPOS business application but, if implemented, delivers clear separation between the two software applications.

Thirdly, enhancements will be required to the POS payment application in order to support the EPAS TMS standards. This would remove current reliance on vendor or in-house developed proprietary TMS systems. Once the development of an EPAS Acquirer application has been completed, this will need to be independently approved. The approval process requires investment in resource and time.

Current POS terminals may well be able to run this new application; however this will depend on individual circumstances, particularly the age of device. Many retailers are expected to link nexo support with the investment in new POS terminals.

Both ends of the transaction processing chain need to support the EPAS Acquirer standard. Responsibility for investment in the host systems, which consolidate all card transactions, varies. Large and medium sized European retailers typically operate their own payment gateway/switch or outsource this function to a payment service provider (PSP) / payments aggregator. If a retailer runs its own centralised payments gateway / switch then it will need to invest in adding EPAS Acquirer support. This requires purchasing a EPAS Terminal Driver / Input Module from the current vendor or developing this capability in-house. If outsourced to a PSP, then some may look to pass a share of their development costs back to merchants, whereas others will see investment in nexo as a way to attract new business.

*“Investment will be needed in payment applications, terminals, approvals and host systems”*  
Payment Scheme

**“We know we need to invest in order to be able to save”**

Major Retailer

## INNOVATION TIMEFRAMES

nexo standards that are built on the ISO 20022 messages are designed and developed within a timeframe which will be supportive of innovation in both new card payment and non-payment categories. As already mentioned, today all the stakeholders rely on proprietary-based enhancements of the existing ISO 8583 messages. By adopting a full-fledged universal ISO standard as a replacement of proprietary specifications, all interested parties will benefit from interoperability. This is expected to benefit all the stakeholders across the payments value chain; from merchants, payment providers through to banks.

## INDUSTRY READINESS

The European payments industry is currently at an early state of nexo adoption. Each of the stakeholder categories is at a different state of readiness. The leading European terminal manufacturers have been active nexo participants for many years. EDC notes that they have added support for the EPAS Acquirer standard to some of their products and participated in technical trials and live retail pilots. Other device manufacturers are becoming nexo members and are busy adding nexo support to their product lines.

Research indicates that several payment switch providers already offer EPAS Acquirer support in their products and that other major software suppliers either are currently developing support or have it on their roadmap to do so. To date, only a few European acquirers offer nexo support although pressure from large retailers is helping address this situation. As an interim step, some acquirers are relying on processors to provide a protocol conversion service for them, as in the French market example mentioned earlier. With increased interest and demand from retailers, we can expect an increasing number of PSPs to invest in EPAS Acquiring transaction processing services. PSPs have a track record of responding quickly to retailer demands and completing software development projects. To date, the greatest progress has been made with the EPAS Acquirer standard; going forward we can expect suppliers and retailers to pay more attention to the TMS and Retailer standards.

**“Now is a great time for retailers to start evaluating the nexo standards. nexo offers significant advantages in terms of cost reduction, compliance and security, and is a critical step towards establishing a next generation pan-European payments processing capability.”**

ACI Worldwide

# APPENDIX

## RESEARCH METHODOLOGY

For this paper EDC developed a three-part questionnaire for use with a group of multinational retail merchants. These businesses have combined sales in excess of €125 billion, with over 50,000 POS and more than 18,000 retail outlets. The first two parts of the questionnaire contained 34 questions and these captured information about the business and current payments environment. Once responses were received EDC held one-hour long telephone interviews with each participating retailer. This provided the opportunity to ask an additional 13 detailed questions covering future plans, opinions, determining their interest levels and knowledge of the nexo standards, experiences to date, priorities, as well as thoughts on financial and qualitative benefits. EDC also sought to understand from the retailers their attitude to increased regulatory input. The interviews allowed EDC to understand what was really behind the responses provided. The participating retailers operate in a diverse range of retail stores within the grocery, general retail, distribution, speciality, home furnishing and petroleum retailing sectors.

EDC also issued questionnaires with 39 questions to industry experts from across the European region, to uncover their thoughts and opinions. This was again followed up by EDC with one-hour long telephone interviews to appreciate the perspectives of card schemes, processors, vendors, associations and consultants. EDC captured the reasons for their interest in nexo, areas where it was felt tangible benefits could be achieved, as well as adoption strategies and timescales. EDC ranked and prioritised the findings to determine patterns in responses from retailers and industry experts. Additional research was undertaken by EDC whilst attending the EHI Kartenkongress 2015 in Bonn and the Merchant Payments Ecosystem (MPE) 2015 conference in Berlin. At these major European payments events, retailers, acquirers and solution providers were informally interviewed.

## MEMBERSHIP OF NEXO

The nexo organisation is composed of key industry players from all parts of the payments value chain. nexo is growing its membership and currently has 62 members, 23 of whom sit on its board. Organisations can join as principal, associate or as observer members. These stakeholders include card payment schemes like Consorzio Bancomat, EURO Kartensysteme, Groupement des Cartes Bancaires, PAN Nordic Card Association and Visa Europe; payment solution providers such as ACI Worldwide, Ingenico, SRC, Verifone, Wincor-Nixdorf; payment processors such as Crédit Agricole Cards & Payments, Equens, First Data, Unicredit and Worldline; bank acquirers including American Express, Banque Accord, Crédit Mutuel, Groupe Desjardins and Poste Italiane; retail merchants such as Auchan, Carrefour and Total; and associations such as ATMIA (the global ATM industry association). Together they represent all categories of the card payments value chain.

## NEXO ALLIANCES

nexo places great importance on involving all industry stakeholders and forming strategic relationships in order to achieve its objectives. Indeed, the very creation of nexo and the merger of EPASOrg, with the two other aligned teams, demonstrate the value placed on co-operation. The varied nature of the nexo membership highlights how many parties need to be involved when creating payment industry standards. One early strategic relationship was with the National Retail Federation (NRF) ARTS<sup>11</sup> standards division.

nexo is in discussions with parties responsible for standards within the petroleum convenience stores sector to see where common standards can be developed. In addition, work is being done by nexo with the IFX Forum to create an ISO 20022 ATM cash dispenser standard.

<sup>11</sup> <https://nrf.com/resources/retail-technology-standards-o>



nexo A.I.S.B.L.  
Rue du Luxembourg 19-21  
BE-1000 Brussels

Tel: +32 2 506 88 20

[secretariat@nexo-standards.org](mailto:secretariat@nexo-standards.org)

