

Annual Report 2021

### A Welcome from our Chairman

Welcome to the nexo standards Annual Report for 2021. I would like to take this opportunity to provide an overview of our accomplishments in 2021. and to look ahead to the tremendous opportunities before us. Without doubt. this is an exciting time for our organization. I am proud of the contributions we have made. In partnership with our members, we continue to address the challenges of an increasingly complex payments ecosystem. We have adapted quickly to new market realities shaped by the ongoing pandemic and worked hard to build a roadmap for the future.

The past year emphasized the need for increased agility across the payments landscape. The pandemic highlighted this need; new and emerging technologies and evolving consumer demand made it even more critical. Covid-19 may have accelerated the trend toward contactless payments and driven shoppers online, however it's clear that these changes in consumer behaviour are here to stay. People today are significantly more willing to use new payment methods or try emerging payment technologies. It's not enough to simply acknowledge this new reality; it must be embraced. With customers seeking new ways to pay and merchants ready to deliver, the payment acceptance community must keep pace with innovation and demand.

In response, in 2021, nexo standards expanded its scope to include other means of electronic payment beyond card-based transactions. We are pleased to now be working with the broad payment community to advance our global, ISO-based standards to effectively and sustainably support these new and exciting ways to pay. From mobile wallets to instant payments, requestto-pay, QR codes and new payment scenarios, such as open-loop transit payments, our work will address these payment use cases to ensure that payment acceptance fragmentation is avoided.

Our goal is consistent with our ambitions today: to enhance the agility of stakeholders with true interoperability. Our standards promote sustainability and environmental responsibility, extending the lifespan of expensive hardware. And ultimately, it further expands the work we have done with acquirers, issuers, merchants, processors, and vendors around the world to simplify and standardize the exchange of data across the entire payments ecosystem to create an integrated global approach to payment acceptance, regardless of how the customer wants to pay. Our scope expansion offers tremendous opportunities to continue to achieve far more than our original targets, into new technologies that will deliver payments beyond market expectations. As we witness significant global players engaging with our work and our community of users and membership grows, our organization will continue to work with diverse industry representatives to develop and evolve nexo specifications and protocols to support the current and future operational, technical, and business requirements for a global, dynamic, and changing industry.

It is, however, crucial to stress that none of our work is possible without our members. And as Chairman of the Board of nexo standards, I want to thank you for your commitment and contributions over the past year. You are the heart of our community. Your voice is vital to our ability to develop marketplace standards that align with the needs of stakeholders across the full payment acceptance value chain. As you read this Annual Report, I hope it inspires you to join us and engage with us as we seek to bring true interoperability and sustainability to the global payment acceptance ecosystem.

> Patrice Hertzog, Chairman of the Board of Directors, nexo standards and Manager of Payment Systems Caisse Fédérale De Crédit Mutuel

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## The Who, What and Why of nexo standards

### The Who, What and Why



### Who?

nexo standards is a nonfor-profit, open, global association dedicated to removing the barriers present in today's fragmented payment acceptance ecosystem.

Its members represent the full spectrum of payments stakeholders, including acceptors, processors, schemes, payment service providers and vendors.



### What?

It develops technical standard protocols and specifications which define a global common language to support the payment acceptance ecosystem. The protocols are based on the International Organization of Standardization (ISO) 20022, and simplify and enable payment acceptance solutions interoperability to reduce complexity, costs and, essentially, time to market.

Due to so many

stakeholders involved in accepting a payment. added to the need to accept payments from multiple brands and payments methods, a complex and vast web of requirements has been created for each country.

### Why?

### "

We continue to work to ease the complexities faced by the payments market and embrace new innovations for the benefit of all the stakeholders across the payments value chain. Collaborating with our members allows us to strengthen our offerings and better serve the needs of the entire payments community. As we extend our global reach, we remain committed to achieving the highest quality so we can continue to build trust for our customers.

### "

**Dolorès Mimran**, nexo standards Technical Steering Committee Co-Chair and Deputy Managing Director at FrenchSvs





nexo simplifies these requirements and enables seamless communication between different stakeholders.

### The Who, What and Why

### Are there alternatives?

No - today, the industry is based on proprietary technologies and solutions that are complex to update and problematic to interoperate on a large scale.

nexo directly addresses this issue for the payment acceptance community and the challenges presented by a financial services system that has a legacy of fragmentation and using proprietary technology.

### How?

- nexo standardizes the exchange of data between players involved in payment acceptance.
- nexo offers an integrated and global approach to payment acceptance.
- Our technical specifications and protocols are defined and built by the nexo membership community.

We offer engagement opportunities to reflect that different members of the payment community have a range of needs:

- 1 Principal Members
- 2 Associate Members
- **3** Observer Members

Learn more about **membership levels.** 





## Forging a Path for the Future of nexo standards

07

### Forging a Path for the Future of nexo standards

The nexo standards Strategic Working Group seeks new ways to bring the payments community together to create an ecosystem that removes fragmentation and enables seamless payment transactions. Serving the market lies at the heart of what we do. We consider the unique and specific needs of merchants, processors, and customers and ask ourselves the question: how do we bring diverse stakeholders together to become the global standard for payments acceptance?

Over the past year, we have continued to push boundaries and advance the parameters of our industry. This requires looking beyond our organization, to the greater needs of the community, and to the innovations and emerging technologies driving change across the payments acceptance value chain.

To offer truly agile and flexible standards for the future, we must go beyond account-based and card-based payments and position our organization to support innovations as they become a mass market reality.

#### François Mezzina

Chairman of the General Assembly, SWG Co-Chair and Board Member, nexo standards and Payments Specialist, TotalEnergies



TotalEnergies

### An adaptable roadmap for an evolving marketplace

Our first objective is to define a long-term, adaptable roadmap that will accommodate the standards to come. This roadmap will help forge a path for the future while also upholding the parts of our organizational DNA that will not change. These tenets include:

- We define standards for the payments acceptance community that are based primarily on ISO 20022 standards.
- Our focus is squarely on the payments acceptance community.
- We create and offer standards that are royalty-free and freely available.

ISO 20022 is the foundation for our standards, yet we continually look ahead to evolve and adapt. We must foster agility as we move forward to ensure that our standard does not become a barrier and restrict our vision or output. ISO 20022 will forever remain at our core while simultaneously compelling us forward into new territory.

### Forging a Path for the Future of nexo standards (continued)

### An ecosystem that offers 'plug-and-play' access

The second component of our strategic vision requires offering more support and guidance for stakeholders seeking to implement nexo standards. The ecosystem we build must ensure that a clear and easily accessible offering is in place so that all stakeholders can seamlessly connect into the 'plug-and-play' environment. Offering a futureproof standard is the key to our strength: everything we do must easily integrate new features.

To achieve this aim, nexo standards must continue to invest in the development of specifications and protocols and to partner with testing simulators so that new products can be rigorously evaluated for reliability, interoperability, and compliance. Accessing the right tools and testing methodologies will offer users first-hand assurance that the standards will perform as expected.

Additionally, a robust 'plug-and-play' ecosystem will support the implementation of best practices across the entire payments community and drive the development of new use cases for the industry. To encourage adoption, we will continue to target our marketing and to educate key adopters.

### A global solution to a global challenge

Our standards are solid, operational, and deliver overwhelming benefits to address the challenges of payments fragmentation at a global scale. Now, we must work to ensure mass adoption of these standards worldwide.

We recognise that to support our long-term global vision, we must:

- Encourage more experts to contribute to the work of nexo standards.
- Develop a strategic plan that supports global education and marketing.
- Better support implementation and develop the tools and simulators needed to evaluate systems and confirm compliance.

If our goal is truly to become the 'reference' for payment acceptance systems and solutions, we must recognize that we cannot do this in isolation, nor should we seek to reinvent work completed by other organizations. Instead, our focus should be on connecting, supporting, and enhancing the role of other global bodies. Only then can we work together to create payments acceptance standards that are future focused, easy to integrate, and cost effective to implement. Your commitment, generating strong results

# Our Achievements

2021 was a landmark year in expanding the scope of nexo standards beyond card-based payments to ensure the longevity and relevance of our work in an increasing agile and dynamic marketplace.

Beyond these exciting discussions is the ongoing activity to deliver the technical evolutions of nexo's current standards and protocols, and support market feedback, changes and adaptations.

# X: 2021 Technical Milestones

# 2021 Technical Milestones /

### nexo implementation specification (NIS) V5 published

NIS provides implementers with all the relevant technical documents required to develop nexo compliant solutions. It details how a payment acceptance solution should interact with an acquirer host, terminal management or sales system using the nexo FAST Specification and nexo Protocols.

NIS V5 offers a host of new features that have been developed based on feedback from the payment community. This includes dynamic currency conversion, use of the Advanced Encryption Standard (AES), card electronic transfer and card validity check.

Additionally, the V5 package supports a range of new payment services such as no-show, original credit, quasi cash, payment account reference handling, issuer requests online PIN handling, instalment and recurring payment. The V5 package is also compliant with the European Cards Stakeholders Group (eCSG) Volume V8.0.

CPACE, Discover, girocard, JCB, Mir and UnionPay are the latest card schemes to be integrated into the nexo specification. This is alongside the existing schemes American Express, MasterCard and Visa.

### NIS V5 is based on the following specifications & protocols:

### Specifications:

- NIS V5.0 implementation specifications
- NIS V5.0 functional scope
- nexo FAST V3.3
- nexo Security V3.0

Message Usage Guidelines:

- nexo Acquirer V9.0
- nexo Retailer V5.0
- nexo TMS V9.0

### Messages:

- nexo Acquirer Card Payments Exchanges -Acceptor to Acquirer V9.0
- nexo TMS Card Payments Exchanges -Terminal Management V9.0
- nexo Retailer Retailer Protocol -Sale to POI Card Transactions V2.0



PROTOCOL



# 2021 Technical Milestones /

### Supporting e-commerce payments

nexo's Acquirer Protocol V9 MUG – PSPto-Acquirer e-commerce Annexe has been published.

Integrating nexo protocols offers acquirers access to universal ISO-based standards which support seamless exchanges of payment messages with retailers globally, regardless of the payment card used. It also enables the development of manufacturer independent terminal management systems.

This latest annexe explains how to use the nexo acquirer protocol for e-commerce transactions. It covers different use cases such as: one off or single payment, shipment payment, delayed payment, instalment payment, recurring payment for fixed amount and limited duration, and reservation and rental payment.

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### **Open payment / transit**

Integration of Open Payment / Transit transactions in nexo Protocols was achieved with the submission of the latest Change Request to ISO 20022 in August 2021. This is as part of the nexo Acquirer V11 or the nexo Acquirer - Card Payments Exchanges -Acceptor to Acquirer V11.0 messages.

A document summarizing the proposed approach will be made available with the publication of the protocol. It presents the card-based transit payment acceptance standardization work initiated by the nexo Acquirer Protocol Working Group to manage transit payment in the acceptor to acquirer domain.

It will describe the different models supported such as: known fare synchronous authorization model, known fare - deferred authorization model, and the open payment model.

### Re-launch of Mobile Acceptance Working Group

With more and more payments being initiated through mobile devices, the group has restarted its work to advance the published mobile acceptance specifications and guidelines used by implementers to facilitate the acceptance of mobile walletbased solutions.

Key to this will be the ongoing activity to closely monitor global technology advances and assess when and where alignment is needed. The group will also engage local payment bodies to ensure regional requirements are integrated when appropriate.

# 2021 Technical Milestones /

### nexo FAST V3.3 continued evolution

The implementation of nexo FAST reduces development and certification costs for terminal manufacturers, merchants and banks. The latest version – V3.3 released in 2020 – continues to evolve to support the needs of the ever-growing nexo community.

Further updates, available as nexo standard bulletins 24-31, include:

- Enhanced contactless application selection to align with EMV® Specification Bulletin 230.
- Integrating the semi-automatic application selection mode.
- Deferred authorisation mode to support merchants who cannot complete an authorization at the time of transaction with the cardholder.
- Changes to facilitate the EZ restart of a transaction for some specific reasons, such as terminal has undergone rebooting, clearing or troubleshooting.
- Changes required to add the option for a receipt to be printed when requested by a cardholder.
- Integration of Thales' white-label EMV technology, PURE, which is used by over 30 private labels and domestic schemes around the world.



### "

As use of PURE expands globally, nexocompliant users can easily incorporate PURE requirements as part of their payment applications. Integrating the PURE white-label kernel into nexo FAST is an important achievement, which allows PURE technology users - many of which are domestic schemes - to access the potential of nexo standards towards interoperability of payment acceptance.

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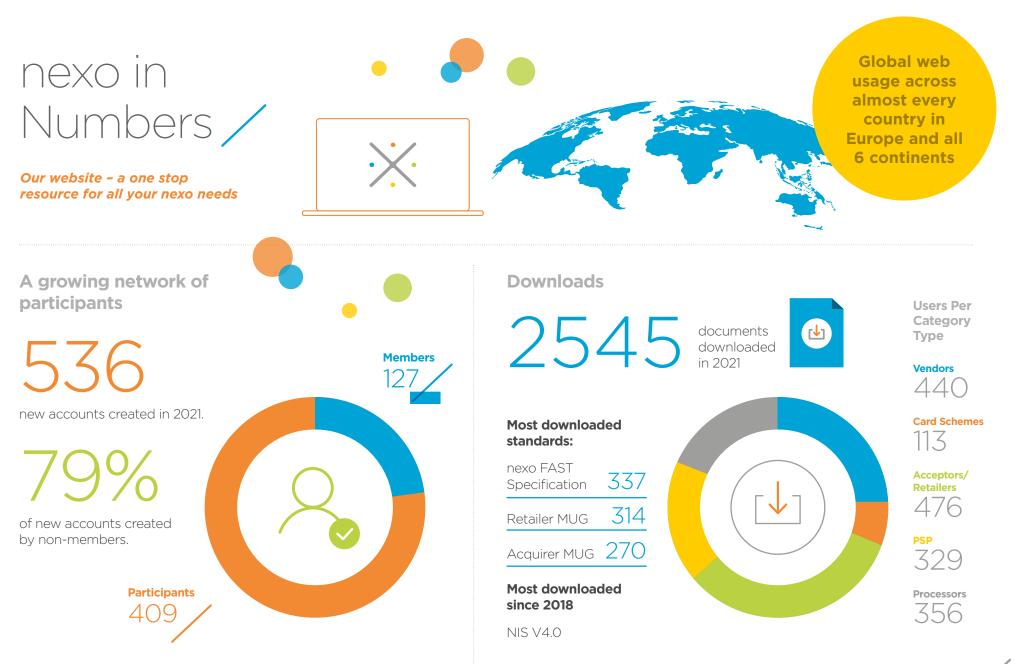
### THALES

**François Lemaire,** Marketing Director, Banking and Payment Solutions at Thales.



# nexo in Numbers

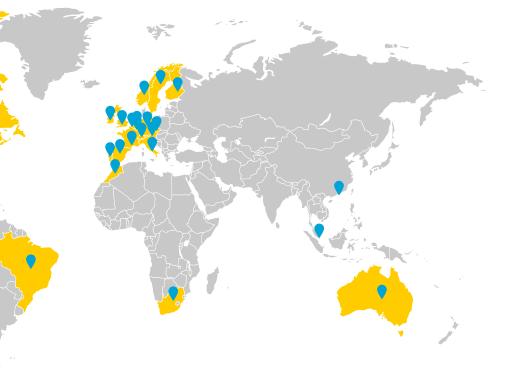
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### 2021 Member Survey Findings

The statistics and information have been gathered as part of an annual effort of nexo standards to learn from its members about the deployment and use of its specifications and protocols worldwide. This year's survey achieved the highest response rate from members to date, reflecting the growing engagement within the organization, and increasing deployment of our standards.

The figures only take into account deployments by members that responded to the survey, and and are therefore not reflective of every implementation of nexo standards, which are freely available globally. Globally Deployed... nexo standards are deployed in 30+ countries across APAC, Europe the Middle East and North America, and download data indicating usage in South America.



## Testing and certification are on the rise

50%

of members planning to certify POI or Acquirer products.

6 52%

of respondents either use, or plan to use the POI test tool.



of members either use, or plan to use the Acquirer test tool.

## Benefitting stakeholders throughout the payments acceptance ecosystem

A range of stakeholders cited benefitting from nexo standards including acquiring banks, POS vendors, schemes, software companies and testing labs.

This includes a range of use cases that are live on the market today, including in-store acceptance, terminal management, e-commerce solutions, ATM and mobile wallets. Key benefits listed:

- Cost reduction
- Reduced time to market
- Simplification of deployments in new regions
- A global solution that meets the needs of domestic markets

X: 2022 Focus

# Technical Ambitions /



### Expanding support for open and emerging payment types

The nexo standards Technical Steering Committee continues to focus its activity on supporting open and emerging payment types. To achieve the organization's broader goal of creating truly agile and flexible standards that go beyond card-based payments to support payment acceptance innovations. Over the past year the Technical Steering Committee sought new ways to expand communication, collaboration, and engagement— with the standards themselves and among nexo standards members and payments acceptance stakeholders.

#### Dolorès Mimran,

nexo standards Technical Steering Committee Co-Chair and Deputy Managing Director at FrenchSys



FrenchSus

fiserv.

**Robert Reheis**,

nexo standards Technical Steering Committee Co-Chair and Enterprise Solution Architect at Fiserv

#### Enhancements for e-commerce

The continued global focus on online shopping in 2021 made e-commerce initiatives a priority. The Technical Steering Committee worked to enhance the scheme's communication protocols between e-commerce payment service providers (PSPs) and acquirers with e-commerce capabilities and plans to expand communication between e-commerce merchants and PSPs in the future. The use of APIs in this domain holds much potential for strengthening the e-commerce and PSP to merchant link and represent the way forward.

### Open transit / open payments

In the open transit and open payments sphere, the Technical Working Group partnered with external experts to evaluate the ability of the protocol to address the needs of schemes so that it can be effective in the transit open loop domain. We will continue to work with open transit stakeholders and specifications that are publicly available to enhance the work that has been accomplished already.

# Technical Ambitions

(continued)

### Mobile acceptance

Reactivation of the Mobile Acceptance Working Group sparked much interest among members last year. As the group resets its scope and focus for the months ahead, it will evaluate the potential of new technologies, such API-driven protocols, from a nexo standards perspective.

### Expanding collaboration with expertise across new domains

In addition to the technical milestones achieved by nexo standards in 2021, the Technical Working Groups sought to expand engagement and participation by members representing the full range of business interests across the payments acceptance community. Looking ahead to the future, with an eye toward the goal of supporting emerging payments technologies, the Technical Working Group continues to seek participation and contributions from members with expertise across new domains. Members with knowledge of instant payments, open banking, account-to-account, API skills, mobile wallets, and system architecture will allow nexo standards to stay ahead of the curve and continue creating truly agile and flexible standards for the entire payments acceptance value chain. We encourage members with diverse skills and experience to bring their expertise, technological perspective, and business sense to the table and contribute to the ongoing efforts of the Technical Working Group.

### "

In an age where commerce has no frontiers, nexo standards' ISO 20022-based specifications and protocols offer many advantages, such as interoperability and true standardization. Adopting nexo standards with a global understanding of local requirements, combined with bestin-class devices, will ensure acquirers and retailers can deliver a better customer journey while reducing time to market and operational costs. We are actively working to implement nexo specifications and protocols in all our payment devices, as the market demand grows for multi-country and international acceptance solutions. We are happy to be part of the growing success of nexo standards.

### "

### Jean-Philippe Niedergang,

Board Director, nexo standards and CCO & EMEA CEO, Castles Technology







# Our Community

All our members bring a unique set of knowledge, experiences, and skills to nexo standards. We believe that nexo standards success is driven by collaboration and truly capturing the needs of the payments community and translating these into workable specifications which can be sustainably implemented.

Your

technology, your voice

If your company has specific technical need or a particular skillset that could contribute to the development of our specifications, then please contact us to discuss which working groups would be most beneficial for your company.

### nexo standards Members

Correct as of 21 January 2022.

PRINCIPAL MEMBERS ARE LISTED IN BOLD.

#### nexo members per categories:



Card Schemes



50 Vend

10

Processors

#### ACCEPTORS VENDORS **BANQUE EDEL** ACCEO SOLUTIONS MWC PARTNERS ACI WORLDWIDE NCR SUBWAY AFVI NEPTING MARKEY PAY AFSOL NOVELPAY SP. O.O. SCHWARZ IT KG (SIT) AMADIS OPENWAY FUROPE S.A. TOTALENERGIES AURIGA SPA PARTELYA CONSULTING BBPOS PAYCERT CASTLES TECHNOLOGY PAYTEC AG CCV GROUP B.V. POSPARTNER GMBH CTC ADVANCED GMBH PPI FRANCE DIEBOLD NIXDORF PSD CODAX LTD PROCESSORS ELITT S2M FEIG ELECTRONIC GMBH SALZBURGER BANKEN SOFTWARE ELAVON MERCHANT SERVICES FIS SOPRA BANKING SOFTWARE FIME FLOWBIRD GROUP SRC GMBH FISERV FRENCHSYS SUNMI TECHNOLOGY GALITT TECS GMBH LAVEGO AG GIRMITRI SOFTWARE PVT. L.T.D. THALES DIS FRANCE S.A. NEXI PAYMENTS GLOBAL PAYMENTS SPA UL REDSYS SERVICIOS DE PROCESAMIENT SL HITACHI CHANNEL SOLUTIONS, CORP. VERIFONE SYSTEMS FRANCE SAS STET **HPS - WORLDWIDE** YELLO TNS FRANCE ILLIAD SOLUTIONS LTD ZUCCHETTI SWITZERLAND SA VÖEB-ZVD PROCESSING GMBH INFOMIL WORLDLINE NV/SA ISTIUM ITECON FINANCIAL IT-SERVICE GMBH KORALA ASSOCIATES LIMITED LAFON

LUSIS

MONEXT

I YRA NETWORK

MONEYCORE

### CARD SCHEMES

BANCONTACT PAYCONIQ COMPANY NV/SA DISCOVER FINANCIAL SERVICES EURO KARTENSYSTEME GMBH GIE BANCAIRES INTERAC ASSOCIATION JCB INTERNATIONAL (EUROPE) LTD. MASTERCARD NATIONAL PAYMENT CARD SYSTEM SAUDI PAYMENTS UNIONPAY INTERNATIONAL CO.LTD VISA

### PSP

ADYEN AMERICAN EXPRESS PAYMENT EUROPE S.L. ANT GROUP BARCLAYCARD INTERNATIONAL **BNP PARIBAS** BPCE PAYMENT SERVICES CAISSE FEDERALE DE CREDIT MUTUEL CONFCS CREDIT AGRICOLE PAYMENTS SERVICES **CRÉDIT MUTUEL ARKEA** EPAY EURONET LYF SAS NETS PAN NORDIC CARD ASSOCIATION POSTE ITALIANE STRIPE TECHOLOGY EUROPE

## Our Membership

A diverse, engaged and committed nexo membership is vital in ensuring that nexo standards represent the needs of the payment acceptance community. Membership fees are also crucial in providing the financial means to make nexo standards a reality.

nexo continued to witness growth in 2021, welcoming 12 new members: **Castles Technology, ePay Euronet, Illiad Solutions, ISTIUM, MWC Partners, NETS, PayTech, PPI France, S2M, Stripe Technology Europe, TECS Payment Solutions, TNS France.** 

### "

At TNS we accept, connect, and securely process millions of transactions across the globe every day. We strive to simplify the growing complexity of the payment ecosystem for our customers who expect secure, seamless, and rapid transactions. We believe the nexo Standards for payment harmonization will ultimately lead to enhanced interoperability and increased efficiency for the whole payments value chain.

"

### **Patrick Flamant Chesneau,**

Regional Manager France Benelux, TNS Payments Market





nexo's budget is solely used to support the work of the nexo community.

In 2021 the budget was split as follows:

43%

Technical Steering Committee initiatives.

33%

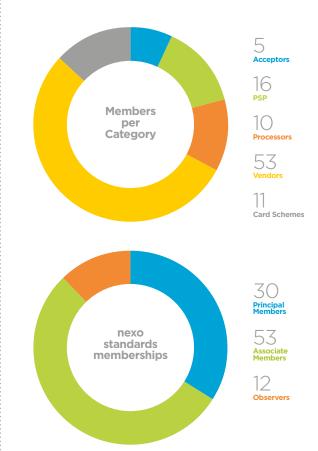
Technical consultants to further the interests of nexo.

24%

Educational activity and membership engagement.

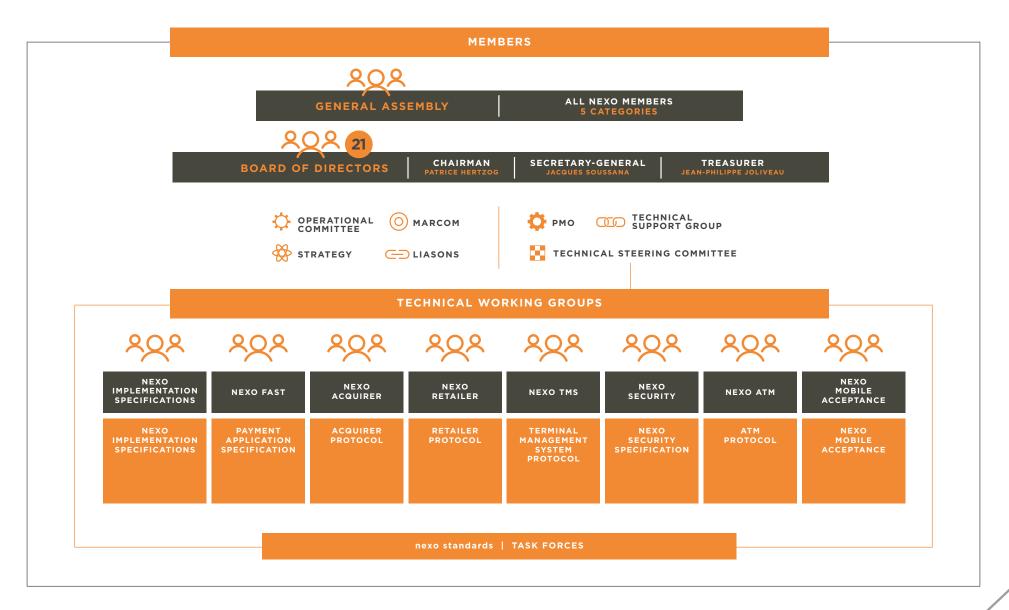


In 2021, **12** new member companies joined nexo standards, totalling **95** members overall.



# X: Meet the Team







Patrice is Manager of Payment Systems for Credit Mutuel. His role includes strategic business planning, relation with payment schemes, project management and participation in industry work. François is Business Process Owner and Payment Specialist at TotalEnergies. Jacques has over 28 years of payment industry experience in electronic payments. He has led projects in international environments, connecting partners, vendors and end customers. In his role working on International Commercial Development for SIA, now a part of NEXI Group, Jean-Phillipe has over 30 years of experience in the payments industry, providing expert insights to information technology and financial institutions.

### "

The work of nexo standards is becoming increasingly important and relevant from a global perspective. At Alipay, we work with financial institutions and payment solution providers globally to enable cross-border payments for consumers from China and around the world, making it easier for them to make payments online and in store. As a Principal member of nexo, we hope to share our international insights and in-depth mobile expertise to contribute to the continued growth and success of the association.



MIN ZUO Mobile Acceptance Working Group Co-Chair, nexo standards and Senior Standardization Expert, Ant Financial



#### Strategic Committee

Tracks payment industry developments and proposes strategic new topics for the nexo technical roadmap, alongside specification and protocol evolutions.



**FRANÇOIS MEZZINA** Strategic Committee Co-Chair

François is Business Process Owner and Payment Specialist at TotalEnergies.



**LUCIAN LAURITZ** Strategic Committee Co-Chair

Lucian is the Lead Solutions Architect at First Data Corporation (Fiserv) where he works on developing solutions for POS, e-commerce and mobile payments channels.

#### Technical Steering Committee

Implements the decisions of the Board and coordinates technical roadmaps of each working group.



**ROBERT REHEIS** Technical Steering Committee Co-Chair

As an Enterprise Solution Architect at Fiserv Robert designs and supports payment acceptance solutions for clients across EMEA. He brings 30+ years of experience in retail banking, ATM and payment acceptance.



DOLORÈS MIMRAN Technical Steering Committee Co-Chair

Dolorès Mimran works as Deputy Managing Director at FrenchSys. She has more than 25 years' experience in the payment ecosystem mostly working for Cartes Bancaires and is involved in several standardization bodies, including EMVCo and the European Card Stakeholder Group.

27

#### MarCom and Biz Development

Educates the wider payments community on the benefits and value of the nexo standards and facilitates community engagemen



**STEPHANE** JOSEPH Marcom Committee Co-Chair

As Senior Marketing and Product Manager at Crédit Agricole Payment Services, Stephane contributes product and business development projects that are guiding tomorrow's payment ecosystem.

ANA PEREIRA Marcom Committee Co-Chair

Ana is an experienced marketing and communications specialist with a driven approach to handling both internal and external business communications. She currently works in marketing and digital communications for Castles Technology EMEA.



SANTIAGO CABEZA SOS Business Development Manager

Santiago brings over 20 year of payments industry experience, and specializes in product marketing, lead generation, product introductions and sales development.



Project

Management

Advisory to the Board

to assist with technical

prioritization.

NORMAND PROVOST Project Management Officer & Liaison

As nexo's PMO, Normand brings more than 20 years' experience in product management, product marketing and business development in the retail and financial sector. Technical Support Group

Receives and manages technical requests and coordinates responses to incoming enquiries with the relevant technical experts.



DIDIER DUVILLE Technical Support Group Co-Chair

Didier is a functional expert at FrenchSys where he helps facilitate the development and improvement of bank card acceptance and acquisition solutions in France.



**REINHARD HERWIG** Technical Support Group Co-Chair

Reinhard works as a Managing Consultant at SRC, bringing over 25 years of experience in payment networks, POS terminal and backend architecture security evaluation/consulting.



#### Acquirer Protocol

Defines the interface between an acceptor and an acquirer card transaction. Defines, produces and maintains caaa-ISO 20022 Acceptor to Acquirer Card Transaction Messages.





**EVELYNE DE JONGHE** Acquirer Protocol Working Group Co-Chair

As Payment Expert at FrenchSys, Evelyne contributes to the evolution of the French CB2A (acceptor to acquirer) and CBAE (acquirer to issuer) protocols.



PHILIPPE CECE Acquirer Protocol Working Group Co-Chair

As Solutions & Software Architect at Worldline, Phillipe is involved in development, project management, technical and team leadership roles. He is actively engaged in standardization through ISO 20022.

#### ATM Protocol

Defines, produces and maintains catm-ISO 20022 Terminal Management Messages and caam-ISO 20022 ATM Management Messages.



ANDREW HAMILTON ATM Protocol Working Group Co-Chair

With more than 25 years in developing ATM related software, Andrew, who works as a Senior Software Consultant for NCR, is interested in a number of fintech areas including blockchain, standards, open banking API's and self-service technologies.



CARLO PALITTI ATM Protocol Working Group Co-Chair

Carlo is Business Development Executive for KAL. He has a strong knowledge of retail banking technologies, ICT and mobile wireless industry, spanning from chipsets to network technologies.

#### nexo FAST Specification

Addresses a terminal transaction flow for a terminalto-card interface, terminal-to-cardholder interface and the exception handling. Develops the nexo FAST specification based on EMV® Chip technology to detail the role of the POI in a EMV-based transaction.





BRIGITTE NEBELUNG FAST Specification Working Group Co-Chair

As head of the electronic payments division of SRC GmbH, Brigitte has more than 20 years professional experience in design and specification of card payment systems, terminal and smart card applications and the smart card platform SECCOS.



MICHEL VERCRUYSSEN FAST Specification Working Group Co-Chair

Michel is a Technology Consultant at Worldline. nexo Implementation Specification (NIS)

Provides guidelines in how a payment acceptance solution should interact with an acquirer host or a terminal management host using the nexo FAST specification and nexo protocols. Defines and maintains NIS including test plans, scope definitions and Implementation Conformance Statements for POIs and acquirer hosts.



REINHARD HERWIG Implementation Specification Working Group Co-Chair

Reinhard works as a Managing Consultant at SRC, bringing over 25 years of experience in payment networks, POS terminal and backend architecture security evaluation/consulting.



JACEK MAŁKA Implementation Specification Working Group Co-Chair

Jacek has more than 11 years' payments experience, overseeing solution implementation projects including presale, architecture design, development, testing, certification, roll-out, maintenance as Head of Software Development at NOVELPAY.



#### Mobile Acceptance

Publishes mobile acceptance specifications and guidelines to be used by implementers to facilitate the acceptance of mobile wallet-based solutions.





MIN ZUO Mobile Acceptance Working Group Co-Chair

Dr. Min ZUO is a Senior Standardization Expert at Ant Financial Group, the mother company of Alipay. She has more than 10 years' experience in several international standards developing organizations (SDOs) including ISO, ISO/ IEC, ITU-T and 3GPP.



**THOMAS LEFEUVRE** *Mobile Acceptance Working Group Co-Chair* 

An experienced program director with a proven history in the financial sector, Thomas currently works at Lyf Pay as Technical Product Manager.



Manages message exchanges from sales systems to a point-of-interaction. Defines, produces and maintains casp-ISO 20022 Sales to POI Card Transaction Messages.



PHILIPPE MERMOUD Retailer Protocol Working Group Co-Chair

Philippe is a Delivery Solution
Officer at BPCE PAYMENT
SERVICES, where he is
responsible for deploying
BPCE PS payment solutions
for strategic customers.
He has more than 30 years'
experience working in IT
and financial institutions.



ROBERT FARGIER Retailer Protocol Working Group Co-Chair

As CEO of ISTIUM, Robert Fargier, has a long history of working in the information technology and services industry, with specialist business and development knowledge across payments sectors such as loyalty programs, pre-sales, and Point of Sale (POS) Systems.

#### Security Specification

Provides a standardized and secure approach to securely implementing nexo standards.





**THÉOPHANE LUMINEAU** Security Specification Working Group Co-chair

With more than 15 years work experience, Théophane is security and key management specialist at Credit Agricole Payment Services.



PHILIPPE CECE Security Specification Working Group Co-Chair

As Solutions & Software Architect at Worldline, Phillipe is involved in development, project management, technical and team leadership roles. He is actively engaged in standardization through ISO 20022.

#### Terminal Management Systems (TMS) Protocol

Provides an interface between card payment terminals and the systems used to manage them remotely, offering download settings and electronic keys.



LAURE BELTRI TMS Protocol Working Group Co-Chair

Laure provides security expertise for transversal project like the PIN online and RKL protocol. She was previously security expert at Cartes Bancaires on issuing subjects like card production, key management and HSM.



PHILIPPE CECE TMS Protocol Working Group Co-Chair

As Solutions & Software Architect at Worldline, Phillipe is involved in development, project management, technical and team leadership roles. He is actively engaged in standardization through ISO 20022.

## Meet the Board /

#### ACCEPTORS

MARKET PAY TOTALENERGIES

### VENDORS

CASTLES TECHNOLOGY FRENCHSYS HPS - WORLDWIDE SRC GMBH VERIFONE SYSTEM FRANCE SAS

### **CARD SCHEMES**

DISCOVER EURO KARTENSYSTEME GMBH MASTERCARD UNIONPAY INTERNATIONAL CO. LTD. VISA

#### **PAYMENT SERVICE PROVIDERS**

AMERICAN EXPRESS PAYMENT EUROPE S.L. BNP PARIBAS CAISSE FÉDÉRALE DE CRÉDIT MUTUEL CREDIT AGRICOLE PAYMENTS SERVICES BPCE PAYMENT SERVICES

#### **PROCESSORS**

FIME FISERV NEXI PAYMENTS WORLDLINE NV/SA





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Jean-Philippe Niedergang Dolorès Mimran Pierre-Olivier Saint-Joanis Regine Quentmeier Guillaume Broutart

Leigh Garner Oliver Hommel Laurent Bréchon-Cornery Shengliang Yang Agnès Revel

Clément Mounier Massimo Cicardo Patrice Hertzog Harris Monteiro Da Silva Fabrice Denèle

Arnaud Crouzet Lucian Lauritz Jean-Philippe Joliveau Khalil Kammoun

# Join Us

Looking back over the past decade. I am in awe of how far we've come since the inception of nexo standards in 2014. We've grown from an industry initiative composed primarily of a few European stakeholders into a global organization with members from Europe (Austria, Belgium, Czech Republic, Denmark, France, Germany, Italy, Netherlands, Poland, Slovakia, Sweden, Spain), Canada, China, Hong Kong, India, Japan, Morocco, Russia, Saudi Arabia, Singapore, Switzerland, Taiwan. United Kingdom and USA.

n the beginning, the stakeholders sought to answer one question: was it even possible to standardize payment acceptance messaging? Today we know we can answer this question with a resounding "yes." Over time, the work of the group become more robust. We shared and collectively gained more knowledge and other stakeholders began to see the value and benefits of our efforts and increasing our credibility. As we've grown in maturity, our membership has become larger and more global, so we continue to attract newcomers to join our efforts.

As we reflect on our achievements, we can take pride in being a true leader in implementing ISO 20022 to encourage a standardized approach, and one of the first to have live deployments.

The challenges of the past two years have shown yet again that nexo standards answer a very complex market need. We strive to develop specifications in line with the needs of actors across the full payment acceptance value chain. We rely on the input of our members to ensure that we have the industry expertise and international diversity to develop and evolve the nexo specifications and protocols according to the needs of all payment stakeholders. Our members remain deeply committed to truly bringing security and interoperability to a fragmented global payment acceptance ecosystem.

Our work now goes beyond our primary target responding to trends and implementing non-card-based payment solutions. We must predict how the market will evolve to stay ahead of the curve. We need to set the path for future modifications and adaptions. Agility – a word not really associated with the financial sector – is crucial to meet changing needs from any, and all payment stakeholders. We need, we want, we have to deliver more. And we have the intention, means, desire, skills and legal framework to address this. Yet, to optimize our collective resources, we must engage and enhance our community. We can always engage external resources, but first and foremost we want to stay true and connected with the community that we serve.

Will you join us in this mission? I encourage our members to network with the wider community – to spread the nexo standards message and to listen for developing needs. Committed involvement with nexo standards presents an opportunity to expand your company's visibility and create business opportunities, while also offering good personal profile possibilities. In fact, active participation in the nexo community helps our members integrate faster and improve our collaborative model to answer global trends within the larger payments acceptance industry.

Between the commitment of our members and the exciting, dynamic landscape we face, I'm more motivated and excited than ever about the year ahead and the new releases that we will share with the market. The evolution of nexo standards continues as we build a legacy that will impact our industry for many, many years to come.

I do hope to have the pleasure to meet you personally very soon to foster the growth of the nexo standards community.

Jacques Soussana, Secretary General of nexo standards





### Stay Connected

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Watch us on YouTube



### Key Contacts

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If you are interested in participating in a technical working group, please contact: **joinawg@nexo-standards.org** 

For implementation queries please contact: implementation@nexo-standards.org

To submit a testimonial or use case of a nexo standards implementation, please contact: testimonial@nexo-standards.org