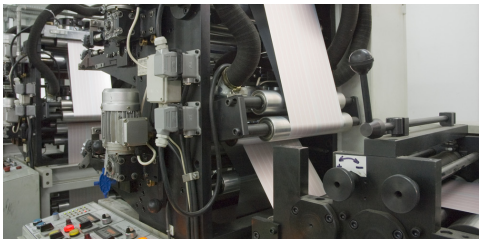
Standards forum

Demystifying standards

By SWIFT Standards in collaboration with our community

The importance of standards

Demystifying standards – part 1



Mankind has always struggled to agree on the best way to do certain key tasks. This is the origin of society itself – every culture that has ever existed has at its heart a shared set of standards by which it lives and through which it interacts with the world around it.

These standards define what is and what isn't acceptable, and they give the members of that society a shared frame of reference by which they can understand each other. Language, commerce and even religion have all been expressions of that shared set of standards.

Financial messaging standards are a continuation of this trend. Sitting at the heart of virtually all economic activity, from executing the smallest retail transactions to managing massive global institutional businesses, they play a key role in enabling modern society to function effectively.

Nowhere is the cause of standards in financial messaging championed more enthusiastically than at SWIFT. Since its genesis in the 1970s, SWIFT has worked at removing ambiguity and incompatibility in how banks and financial institutions interact with each other, while simultaneously championing security and higher levels of automation.

"Standards are very much in the blood of SWIFT," says Stephen Lindsay, business manager, standards, SWIFT. "It's important when someone sends a message from the UK to the US, for example, that differences in the day-month-year format don't cause chaos. The standards in our messages define year, month, day format. It eliminates ambiguity and allows automation."

SWIFT has always been about the community of users, the network that connects them and the standards that ensure they speak in the same way about the same things. Without harmonisation, the Biblical tale of the Tower of Babel comes to mind: divided into mutually incomprehensible languages, the workers were unable to complete the great project they had started.

The requirement to exchange information in a mutually recognised way has only become more important as the world's financial markets have become more complex. Lindsay points to the rise of the personal computer and the Internet as examples of where standards have facilitated exponential growth and innovation.

In its early stages, the personal computer market was constrained by the fact that

different technology vendors had no common standards or operating systems. This meant that interoperability was impossible – users were effectively 'locked in' to a particular company's set of offerings: if you used XYZ Inc's PC, you had to use XYZ Inc's printer. Gradually however, companies were forced to give up their 'hard line' stance and give in to consumer demand for products that worked with other companies' products. Standards began to emerge and this played a big role in the subsequent expansion of computing and ultimately of the Internet.

"Computer vendors had to give up the proprietary nature of their technology and make it interoperable, but in the end it was worth it because it grew the market enormously," he says. "Open standards allowed computers to talk to each other, thus allowing the Internet and personal computer revolution that went along with it, that wouldn't have happened if everyone had been locked into a whole series of proprietary systems."

Though the benefits of standards are many, perhaps the most immediate is cost. A single, standardised way of doing things allows a wide community of market participants to benefit from economies of scale. "If everyone does the basics in the same way, collaboration allows mutualising costs, because if there's a standard way to do something, it only needs to be built once, rather than having 20 banks doing it in 20 different ways," says Lindsay.

Examples flow throughout history. The invention of the printing press revolutionised learning and the transmission of ideas. Previously, books had to be laboriously copied out by hand. This made them inordinately expensive to produce and limited their accessibility. The new invention established a common process that allowed books to be mass-produced for the first time, democratising knowledge and helping to sow the seeds of the information-based economy.

The success of standards has been instrumental in advancing civilisation, then. Yet, there is always an inherent tension between commercial differentiation and standardisation. In basic terms, if everything is the same, then how as a company do you make your offering stand out?

"Walking the line between flexibility and rigidity isn't easy," says Lindsay, adding that the process works in cycles. "Waves of commoditisation and standardisation are followed by periods in which individual firms are challenged to add value on top of the existing standard."

Sometimes, a company achieves such success that it effectively becomes the standard. Microsoft with its Windows operating system dominated personal computing for decades. But experience tells us that competitive advantage based on proprietary technology is never perpetual. The tide of competition and innovation cannot – and should not – be held back. Standards help us to consolidate established best practice, then build on it to deliver greater value to customers.

The end result? Higher standards.

What makes a good standard?
Demystifying standards – part 2

The advantages of standards are timeless and universal – greater efficiency, cost savings and increased output. Few would argue against the self-evident benefits, at least in theory. Yet getting a standard widely accepted is no easy task.

Even great standards are not adopted overnight. In the early 19th century, time wasn't standardised nationally so railway stations in different parts of the same country often used their own local time. As trains travelled further and faster, timetabling chaos ensued, as there was no standardised time to decide what train should be where, when. It took years before an acceptable, centralised set of time zones was established.

For Karla McKenna, director, Global Transaction Services, Securities and Fund services, Citi, no matter how perfectly a standard describes a routine for achieving a particular task or process, other business needs, priorities or constraints can affect speed of acceptance. As such, "it's inevitable that adoption will be slow, but that doesn't mean it's not worthwhile," she says.

At its most basic, a standard is an agreement between two or more commercial counterparts on how to perform a common function. As such the business case for adoption of new standards is of critical importance. After all, standards should serve the needs of business, not the other way around.

The ISO 20022 standard is an example of the tension between realism and idealism in standards. ISO 20022 aims to provide the financial industry with a common platform for the development of messages. More comprehensive than ISO 15022, its predecessor, industry take-up of ISO 20022 has nevertheless been slower than expected. So what's stopping it?

As suggested above by McKenna, the wider context inevitably plays a role. In the aftermath of the global financial crisis, it is harder for financial institutions to focus on implementing changes that offer long-term, cross-industry benefits rather than short-term wins.

Moreover, for some areas of the financial sector, the use of ISO 15022 has yielded significant benefits in recent years, for example in the funds space, and as such the incentives to justify a further change to ISO 20022 need to be clear before additional investment can be allocated.

McKenna points out that the difficulties of migration may present a formidable barrier to adopting the best of standards, especially at a time when there are so many calls on budgets across the finance sector. "An entire suite of messages, for example ISO 20022, sounds perfect until you look at the process of converting from the present system," she says. "Nevertheless, the standard is being adopted gradually – it just takes time."

Beyond ISO 20022, other obstacles to standards may stem from any number of causes, including the legal environment. For example, if two countries have a common problem, a common solution may be blocked because what works in one country falls foul of differing local rules in another. So, how can good standards overcome the obstacles?

While it is reasonable to suggest that a good standard must have a strong business case, McKenna's argument – that even the best standard needs time, patience and an evolving cost/benefit appraisal – is also valid. For Stephen Lindsay, business manager, standards, SWIFT, realism is key. "A standard has to fulfil a real need," he says. "If it's intended to replace something, it needs to offer some significant benefits. The benefit of the move for the majority has to outweigh the pain for the minority."

The hallmark of a good standard is that the benefits achieved by users – whether in savings made or new revenues realised – are widely recognised as exceeding the cost of implementation. "A standard can't change the world if it doesn't begin by recognising the world as it really is", he notes. Lindsay contends that the Internet was built on standards that were relatively easy to implement – i.e., they were easily understood by the people that had to implement them, in order for the Internet to take off.

The other determining factor may be cost. "The tipping point where it becomes self-sustaining as more people join, is determined to a large extent by how expensive it is for each individual to participate," says Lindsay. "If one can keep costs low, one can build critical mass much more quickly. The tendency to reach for perfection has to be tempered by the realisation that if you don't help to close the gap between where people are and where you want them to be, then they'll never get there."

In recent years, SWIFT has adjusted its own approach to take account of more realistic expectations, working hard to better align ISO 20022 with existing market practice. "At SWIFT, we're on a journey from large elaborate standards based on large-scale consultation," explains Lindsay. The organisation now prefers to work with a small group of pilots, "building a solution to suit their needs", and only later, once it has some traction, broaden it to the outside world.

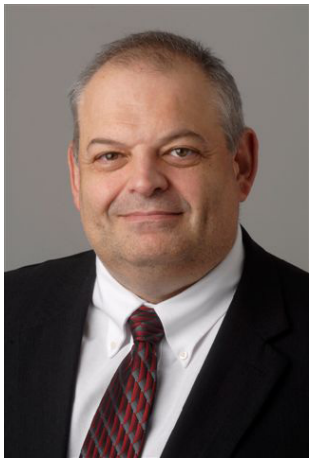
Good standards may yet prove contentious and elusive. Yet the change in approach seems to be gathering momentum, and not just at SWIFT. As chairperson of the International Organisation for Standardisation's financial services technical committee, McKenna is well placed to chart the shift of priorities.

"We are moving away from our past focus purely on messages, towards business processes," says McKenna. "It's about becoming more flexible. The bigger picture is important – standards exist for processes, and we mustn't lose sight of that."

What is a semantic standard?

Demystifying standards – part 3

Effective use of standards can make all the difference to the fortunes of a business, an industry, or even a country. The standardised equipment and training of the Roman army often enabled it to overcome enemies much greater in number. At the celebrated Battle of Alesia in 52BC, Julius Caesar defeated a combined Gallic force over four times the size of his own, changing the course of history in the process.



In the modern world, semantic standards can help businesses surmount significant challenges and reach out to a far wider range of market participants than before. At their core, semantic standards describe the meaning of business concepts and their relationships in a way that makes them universally understandable, both by humans and machines, thereby aiding automation and interoperability. At their best, semantic standards can act as a model of the world, allowing the user to map everything out and gain greater insights into how processes and actions should be organised.

"More precision should help us all in terms of reconciling disparate standards and uses of technology," says Jim Northey, co-founder, LaSalle Technology Group, which provides a suite of products based around the FIX protocol. "It's a lot of work. But that doesn't mean it's not valuable."

Every company may define its own terms, but these must make sense to the industry. Observance of semantic standards enables any given company to communicate effectively with the wider industry.

For Marc Delbaere, head of standards strategy and architecture at SWIFT, semantic standards are all about enabling businesses to better understand each other. Since different standards tend to exist as 'technical islands', the more widely one can agree semantic standards and definitions, the more one can break down barriers.

"The technicalities of a standard distract people from the core purpose, which is business communication," he says. "The format of the message is less important than the information it is trying to convey. Semantic standards are about pushing the business information to the front."

In the financial services industry, the ISO 20022 standard provides a good example of the potential for unification, according to Delbaere. Its goal is to provide a unifying approach by bringing the various different standards together at a business level. In simple terms, ISO 20022 is the central point for business definitions across the industry. It is the Roman forum where all of the knowledge of the empire is gathered and shared.

Semantic models are potentially applicable to anything from the energy grid to biology and medicine. “They are not going to solve global warming, or create world peace, as some people suggest,” says Northey. But he does believe that in the long-run, many can benefit from their use. “My suspicion is that the diffusion rate of semantic standards will be slow within the financial industry,” he says. “But that doesn’t mean that the practitioner isn’t going to benefit from models used by a few.”

Use of semantic models is already growing apace with automation in the finance sector. The US ‘flash crash’ of 6 May 2010 highlighted the increasing role of automated trading in global financial markets. An algorithm placed an unusually large order in a short space of time, triggering a US$ 1 trillion crash in the value of the US stock market, before rebounding again just as quickly. For Northey, the semi-autonomous interaction between algorithmic systems is a pointer to the future.

“More and more of what we do will be governed by mostly autonomous computer applications,” he says. “This is important, because in the next ten or so years, they’re going to start to consume the semantic models that we are building up. Semantic models provide the eyes through which these automated systems see the world.”

Signed into law in June 2010, the US Dodd-Frank Wall Street Reform and Consumer Protection Act established the Office of Financial Research (OFR) to improve the quality of financial data available to policymakers. Essentially, OFR was given the task of modelling the world to gain insights into overall systemic risk in the financial system. According to Northey, the new office is a keen user of semantic models.

A key feature of semantic standards is flexibility. “We are improving the semantic layer of ISO 20022,” says Northey. “We want to make sure these definitions we have collected over the last ten years are still relevant and useful.”

To make a machine understand the world in the way humans do is still a daunting task. The number of processes in the human brain is incredible, even compared to the fastest machine. With increasing levels of automation and straight-through processing in businesses around the world, strong, precise standards are more relevant than ever.

The Romans may be long gone but their legacy lives on, not least semantically. The word Caesar, for example, has been adopted and adapted in Russia (Tsar) and Iran (Shah) among other places, but it is still universally understood, synonymous with power and prestige. Semantic standards too are built to communicate commonly recognised concepts that have the potential to endure over the long term.

Switching standards

Demystifying standards – part 4

Change is hard. Changing standards can be even harder. People and businesses get used to a certain way of doing things, and over time that routine becomes solidified. New layers of activity are gradually built up over existing processes, until they become embedded, seemingly permanently, deep in the infrastructure.

But history proves that nothing lasts forever. Change is constant, and sooner or later almost any standard imaginable will face pressure to adapt to the times, or face irrelevance. In modern business however, the prospect of changing a standard that governs an entire set of activities can be daunting, to say the least.

"The problem is that standards are often hard-coded into the core software of a business," says Michael Knorr, global head of connectivity services and capabilities at Citi's global transaction services division. "This can make it extremely difficult and costly to move."

As a result, he says, businesses will stick to a serviceable but sub-optimal standards unless forced otherwise by a regulator. In the US, for instance, the metric system has never been widely adopted, in part because the use of miles and inches does not stand in the way of planning a trip or building a book shelf, for example.

"Successful conversions only take place if a market recognises that the status quo has outlived its usefulness," says Knorr.

One example is provided by the modern use of Arabic numbers, as opposed to ancient Roman numerals. Although the Roman system was useful, it was clearly outmatched by the later and more versatile Arabic system, which added the concept of 'zero', for instance.

Building for change

Although change is always difficult, it becomes more so when systems and infrastructures do not recognise the potential need for future adaptation. Experience has taught Alexandre Kech, head of securities and alternative investments standards at SWIFT, the value of an appreciation of the near-certainty of the need for change.

"I experienced the migration from ISO 7055 to ISO 15022 in my previous job at the Bank of New York," says Kech. "It was a painful switch. Most of the messages were hard-coded into many of the systems we used. Implementing ISO 15022 was relatively costly and painful."

During the switch, Kech explains, banks adopted one of two approaches. The first was to take advantage of the opportunity to completely rework the way they handled messaging, by isolating messages and effectively removing the 'hard-coded' aspect of their systems.

This was a relatively expensive solution in the short term, because it required the implantation of a data dictionary, as well as a middleware device that could interpret the relevant data. On the other hand, it offered the prospect of cost savings in the long run, due to cheaper maintenance.

The second approach was to implement a cheaper, less time-consuming transfer from one standard to the other, mapping from ISO 7775 to ISO 15022 and hard-coding in the new standard as before.

The problem with the latter approach was that it lacked flexibility. When ISO 20022 was developed a few years later, those firms that had hard-coded the previous standard now found themselves facing the whole difficult process all over again. Such banks, says Kech, are among those most reluctant to adopt the new standard.

“For the banks who made the initial investment and redesign effort, to migrate to ISO 20022 is just a technical move from one format to another,” says Kech. “But for those dragging their feet, the cost of implementation is high, and there is no immediate business benefit to the new standard - it simply offers long-term cost savings.”

The road to success

Nevertheless, Kech believes that adoption by banks of ISO 20022 will move forward through industry initiatives, such as the European Central Bank’s TARGET2-Securities project, which deploys ISO 20022 as a means to achieve its goal of creating a single securities settlement infrastructure for the Eurozone. In addition, new messages that fill gaps in standards will help incentivise the large majority to eventually move to ISO 20022, he asserts.

Of course, the extent of flexibility required to adapt to new business challenges and opportunities goes beyond message standards. The exclusive use of Latin characters in the systems of major western financial institutions, for example, can be problematic because the character set cannot render Chinese or Arabic names correctly. “This leads to delayed payments and issues in sanctions screening,” says Knorr.

Infrastructure must always adapt to stay relevant to its users. Knorr believes that our entrenched western character set is overdue for replacement by new character sets, such as ‘double byte’ characters, which are designed to support languages that contain a large number of unique characters or symbols, including Japanese, Korean and Chinese. “The resulting boost to global commerce should be well worth the effort of converting to the new standard,” he says.

The standards landscape

Demystifying standards – part 5

The need to work together is one of the building blocks of human society. From the dawn of civilisation, our capacity to work together towards the common good is a defining human characteristic.

On the other hand 'too many cooks spoil the broth' is a saying that finds its echo in almost every language.

That balance between consensus and freedom to find one's own path is particularly important in the field of e-business standards, where three international bodies – the International Organisation for Standardisation (ISO), the International Electrotechnical Commission (IEC) and the International Telecommunication Union (ITU) – are widely recognised.

Of these, ISO is perhaps the most significant and far reaching. "ISO has become the international standards setter, and it is they whom we work with most," says Jean-Marie Eloy, Manager of the ISO 20022 Registration Authority at SWIFT.

A federation of technical committees

The ISO is a federation of national standards bodies, from some 162 different countries. Its purpose is to help develop standards that will facilitate greater harmony and interoperability between its member states. Organised around a series of technical committees advising on almost every kind of economic activity, ISO estimates that it has some 50,000 volunteers in total.

The federation hosts the TC68 committee, which focuses on financial services. The TC68 committee is itself divided between three sub-committees – one for Securities, one for security, and another for banking and Payments. Of course, national organisations often remain at the sharp end of implementing standards. It is here that the impact of international standards is often felt keenly. James Whittle, head of standards at the UK Payments Council, must ensure that the UK's domestic payment schemes take account of international and European standards.

Balancing global, regional and national standards

"We represent UK domestic interests," says Whittle. "That said, we want to align our standards as much as possible and achieve interoperability with major financial markets and jurisdictions. International standards are a critical enabler of that."

As an example, the UK Payments Council is leveraging for domestic usage the ISO 20022-based message standards originally developed by the European Payments Council to facilitate cross-border euro payments within the Single Euro Payments Area (SEPA).

"We can amend the standards and take them for the majority of our requirements," says Whittle. "We have UK-specific requirements and we will have to work through the international process to negotiate a suitable arrangement."

The 'faster payments service' is a UK banking initiative that aims to reduce transfer times between different banks' accounts from three working days to near real time. The UK Payments Council is currently developing an ISO 20022 version of the real-time payments system, designed for the UK market but implementing international standards.

"The biggest challenge for us in terms of international standards is that different national payment industries often need different things," says Whittle. "The ideal is getting a common view across those standards that is still specific enough to be of use in a particular environment."

With the UK Payments Council seeking to adopt international standards directly wherever possible, the European Payments Council has provided a useful source of material. But Whittle recognises that "focusing too much" on exclusively Euro-centric standards could potentially undermine more global efforts to define suitable standards.

Global financial cooperation

Eloy at SWIFT agrees that the risk of standards overlap or duplication remains a real concern. However, he contends that the major bodies are usually aware of each other's activities, and have developed working agreements and MOUs to ensure that any unnecessary duplication is kept to a minimum.

"Financial cooperation today is global," he says. "For example, the ISO, IEC and ITU have formed an MOU with the UN's Centre for Trade Facilitation and E-business (CEFACT) body, which strives to improve worldwide coordination and cooperation. ISO and IEC have been working together for years and are strongly associated."

The interplay between global, European and national standards might seem confusing at first, as Whittle acknowledges, but he is confident that solutions can be worked out for the majority of issues, with SWIFT playing an important role as a facilitator of international financial standards.

"Some of the mystification comes from the fact that it all seems horribly complicated to the casual observer," he says. "Developing standards and implementing them in practice should be seen as separate disciplines but we see a role for SWIFT in both."

Isn't it time to standardise financial standards?

Demystifying standards – part 6

Despite a series of brave efforts by organisations such as SWIFT towards industry-wide standardisation, the financial industry is like an Airbus on a badly coordinated assembly line, says Arthur Cousins, CEO International Payments Framework Association (IPFA).

While the end product of any transaction is the result of people working separately on each aspect of the process, whether the wings, tail, engine or fuselage of our allegorical aeroplane, differing standards at each point in the process mean that considerable time, energy and money are wasted as the separate parts have to be filed down and reworked in order to fit the combined whole, he explains.

This lack of harmonisation has been a cause of frustration to those who would like to see greater efficiency and compatibility between financial institutions and business processes. Beginning in 2005, the International Organisation for Standardisation (ISO) developed the ISO 20022 universal financial industry message scheme specifically for the financial services industry, through its TC68 financial services committee. The aim was to provide the financial industry with a common platform for the development of messages, using modern XML technology.

Grounded on the runway

Efforts to encourage financial industry participants to adopt ISO 20022 have met with only partial success, however, leading some observers to comment on the existence of a 'deadlock' obstructing the road to greater harmonisation.

"We're in a situation where everyone is waiting for someone else to make the first move," says Steve Goswell, vice president at asset management firm BlackRock. "Some firms feel they haven't yet recovered the investment required to implement the previous standard, ISO 15022. These firms appear somewhat reluctant to adopt ISO 20022."

Although cost of implementation is a significant concern for many, if not most firms, least some of the problems with the uptake of ISO 20022 may stem from a lack of clarity among industry participants over what exactly the standard is intended to achieve, admits Cousins. Other financial industry participants argue that a focus on message standards alone is not sufficient to achieve the kind of improvements in efficiency that are needed. Frank Van Driessche, manager, standards, banking and payments at SWIFT, argues for deeper change. "Really it's business models and processes with the underlying pieces of data that need to be standardised," he says. "This is where the greatest potential lies, not with aligning message formats and syntax."

Taking flight

Nevertheless, pointing to the tools for alignment that have already been developed, Cousins believes that a significant part of the investment has already been made. A further push now might just produce the return that many involved with ISO 20022 have been hoping for.

"We need end-to-end business processes to work as smoothly as possible," he says. "At the moment, market participants are paying more than they need to for every transaction. By taking ISO 20022 as the starting point for a deeper alignment of business processes and models across the entire industry, financial firms stand to gain major improvements in efficiency and cost effectiveness."

Re-selling the ISO 20022 proposition is key to Cousins' argument. The thinking goes that if market participants understand how ISO 20022 can help bring business processes together, it should be able to shed its message-based image and engage the industry, leading to a much stronger uptake and ultimately more efficient financial industry.

Van Driessche at SWIFT believes that the solution may be closer at hand than previously thought. Citing moves by national regulators to bring standards into line with ISO 20022 without necessarily adopting it directly, he suggests that it may not be necessary to move large swathes of the financial industry to ISO 20022 immediately. Good progress has already been made in aligning practices in the payments industry, he argues.

"If existing standards can be brought into line with ISO 20022 as a common reference, then we will have a strong platform for seamless interoperability," says Van Driessche.

SWIFT runs an industry cross-harmonisation group, which monitors transferable issues. Between securities and payments, the group works to align standards. This is done partly by harmonising business models, but also through a joint workshop, in which securities and payments industry experts are brought together to discuss how to produce further alignment and how differences can be accommodated. It may take time, but perhaps this step-by-step approach may yet offer the surest path to an airbus that can stand the test of flight.

The watchdog's best friend?
Demystifying standards – part 7

We are living in a time of change. Determined to prevent another financial crisis, regulators in much of the developed world are taking a more prescriptive approach to regulating the financial sector in their efforts to establish higher levels of scrutiny and transparency.

But cost-effective regulation is fraught with difficulties. Regulators are finding themselves increasingly stretched as they attempt to gain a more detailed understanding of issues such as counterparty risk, automated trading, sophisticated forms of market abuse and the impact of high-frequency trading.

At the same time market participants are facing increased costs as they attempt to comply with more and more rules, including the ongoing MiFID review in Europe, the Dodd-Frank Act in the US, and a myriad of other directives and rules designed to reduce systemic risk and improve market transparency. So how to resolve the rising tension and costs within the financial sector?

Taking on the challenge

"The only way to help deal with more rules is more standards," says Andrew Douglas, head of European public affairs at US-based post-trade infrastructure provider the Depository Trust & Clearing Corporation. "The market needs clear minimum standards, to enhance transparency for participants and minimise their costs."

Douglas believes that, by mandating standards for financial instruments and data, for example, regulators can help ease the burden of compliance. John Bottega, chief data officer, markets group at the Federal Reserve Bank of New York, concurs.

"Improved data standards are critical to improved financial industry reporting," he says. "By improving standardisation for identification, description and classification of financial data, namely, improving standards for the instruments we trade and the counterparties who trade them, we improve processing efficiencies across markets, which would reduce costs and make the data reported to the regulators more transparent and more actionable for improved risk analysis."

While greater adherence to standards may help provide a better picture of the market, however, regulators may need some help to get there. Douglas at the DTCC suggests that a realistic appraisal of what is possible is key. Standards bodies should be involved in the regulatory process from the start, he argues, adding that it would be unrealistic to expect regulators from the European Commission to understand every detail of the financial sector without significant help.

"The many standards bodies that exist around the world constitute a powerful pool of knowledge and expertise that is currently under-utilised,"

he says. “While many regulators wish to avoid being seen as ‘king-maker’ by endorsing a given standard, they have responsibility for ensuring their markets’ health. That creates a need for endorsing standards.”

It is a viewpoint that may slowly be gaining traction, as Richard Young, head of Public Affairs for Securities Markets, SWIFT, explains. “As regulators are increasingly asking for more data from the financial industry, the importance of standard formats and identifiers is being recognised. Whilst the main regulators are cautious about mandating particular standards for use by the industry, they do recognise the part that open industry-developed standards can play in making data more comparable and easier to use,” he says.

All around the world

In some cases, adds Young, regulators are now moving in the direction of mandating the use of some standards, particularly in the area of identifiers for legal entities involved in financial transactions, as a crucial tool to achieve enhanced transparency on counterparty exposures. Yet identifying where to apply standards usefully is only part of the puzzle.

“One of our biggest challenges now is reaching international consensus,” says Adam LaVier, senior advisor at the Office of Financial Research (OFR) and spokesman for the office of domestic finance at the US Department of the Treasury. “The financial crisis demonstrated the need to standardise financial information across jurisdictions. It is key to macro-prudential regulation.”

While international organisations such as the International Organisation for Standardisation (ISO) and the International Organisation of Securities commissions have a role to play in bringing about closer international cooperation, national initiatives are playing their part too. The OFR, a newly established department of the US Treasury, was created to improve the quality of financial data available to policymakers, thereby enhancing oversight of the financial system.

OFR does not have any extra-territorial powers to enforce its standards outside the US, so it is working with international partners including the ISO to form collaborative standards. This work includes a drive to standardise legal entity identifiers, used by financial firms in transactions. “We plan to move onto other areas, such as financial product classification and description, next,” says LaVier.

Times of change generate new methods of doing business and new ways of facing challenges. Standards have always had a part to play in shaping the way that companies operate. If regulators can overcome their apprehensions, it may be to the benefit of all.

The importance of critical mass

Demystifying standards – part 8

New ideas need to be recognised and valued if they are to prosper and grow. Without sufficient support, even the best ideas may not achieve their full potential.

Steam power, first discovered almost 2,000 years ago by the ancient Greek mathematician Hero of Alexandria, provides a striking example of the importance of recognition. Never fully appreciated at the time as a potential source of power, it took another sixteen centuries before the first commercially successful steam-powered machines appeared in western Europe – initially to pump water out of mines – kick-starting the industrial revolution that created our modern society.

Many believe ISO 20022, the financial messaging scheme developed by the International Organisation for Standardisation and supported by SWIFT, may hold the potential to transform the finance industry's business processes, yet it faces the same problem – how to achieve critical mass. Sometimes a standard may hit obstacles. In some cases, a standard is only as useful as the number of users it has. For example, the concept of a telephone only works fully when it becomes ubiquitous.

Full steam ahead

"ISO 20022 is of limited use until others also use it," says Steve Goswell, vice president at asset management firm BlackRock. "If clients aren't asking for it, why should we invest? We're in a deadlock, where everyone is waiting for somebody else to make the first move."

To avoid such pitfalls, Stephen Lindsay, business manager, standards, SWIFT, believes that for a standard to work, the business case must be strongly set out in advance. This should help to make a standard self-reinforcing. Citing the success of the previous standard, ISO 15022, Lindsay argues it was successful because its user community widely believed that it would bring substantial benefits. "In particular, the high straight-through processing rates it could achieve helped convince the majority of its usefulness," he says.

It is also important to ensure that barriers to participation in a new standard are as low possible. "As standardisers, we need to make it easy for users to take their first steps with the standard", adds Lindsay. "Since implementation costs are the single biggest barrier to overcome, providing tools and services that enable cost-effective implementation is of critical importance."

However Goswell suggests that, due to the extent of its technical differences from ISO 15022, the new ISO 20022 standard is relatively expensive to implement. "With the previous standard, a three-year implementation period was allowed, after which the old standard was simply turned off," he explains. "This time round, it was recognised that

such an approach would be unrealistic. There is a recognition that the changeover isn't going to happen quickly - instead, it will come from small, incremental growth."

Although more positive about the prospects for ISO 20022 adoption, Lindsay acknowledges that over-ambition in a new standard can undermine its attractiveness to prospective users. "A new standard should be easy to implement, and it should be rooted in the business of today, using existing technology," he says.

Another influencing factor for users may be early-stage benefits of using a standard that doesn't depend entirely on the existence of other users. For example, Lindsay suggests that the photo-sharing website Flickr is useful for group activities, but it is also useful to lone users, since it enables them to create and compile their photo albums in one place, so it does not depend on network effects to deliver some immediate value. This can enable a user-base to develop that can subsequently achieve critical mass for the parts of the service that depend on it.

That said, a strong peer-group interest in a new standard or development stands as one of the strongest pillars in its ability to obtain critical mass.

"The best way to help a many-to-many standard achieve critical mass is to try to persuade users as a group," says Lindsay. "Individuals are unlikely to make the leap of faith, unless they believe that they'll benefit in the long term. This is especially true of the first movers."

Influential friends

Goswell concurs. Pointing to the six largest US custodian banks, he suggests that convincing the key players is critical. "Those major firms are the industry trend-setters," he says. "If SWIFT can persuade some of those top six firms to switch to ISO 20022, then the rest will follow."

Other opportunities should also be sought wherever possible, he suggests. Pointing to a recent Depository Trust & Clearing Corporation initiative to improve process efficiency in the corporate actions space, Goswell suggests that banks should consider giving some of the resultant technology to their investment management clients – a move that might help ISO 20022 gain ground.

"Initiatives like the Single Euro Payments Area and TARGET2-Securities – a project to provide a single IT platform for the settlement of European bonds and equities - can help push ISO 20022 forward," he says. "ISO 20022 is just starting to gain momentum. It is important that banks look at what else they can do to leverage their technology investment. They should make ISO 20022 a part of that."

By the time of the famed Rainhill Trials in northern England in 1829, in which competing designs raced each other over a series of tasks, steam power was well on the road to changing the world forever. ISO 20022 may not revolutionise the financial markets overnight; but by providing a template for industry-wide business process standardisation, it may yet prove to be the catalyst for changes that go well beyond financial messaging.