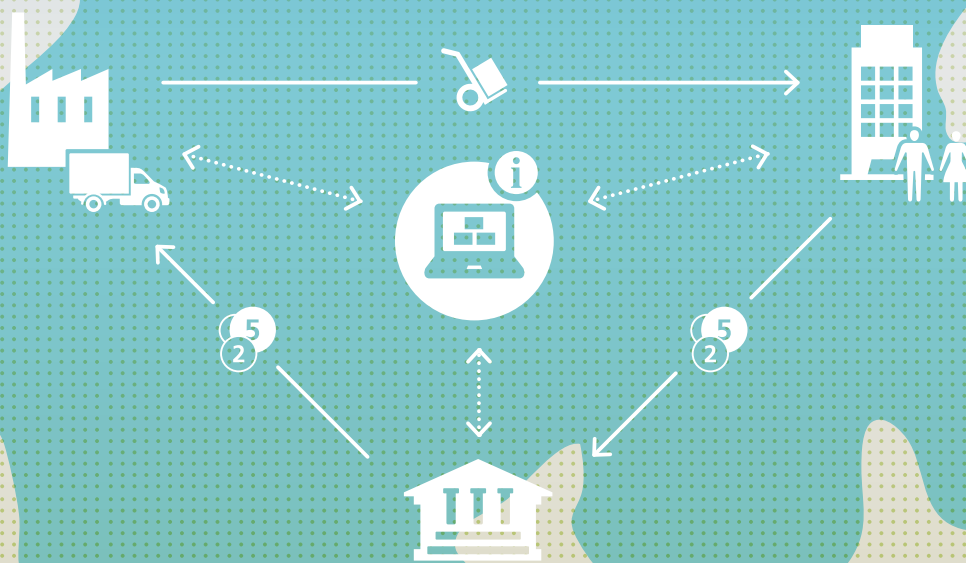


Working Capital

Management Study 2019

Supply Chain Finance

Follow-up



Supply Chain Finance-Lab
der Schweizerischen Post



Universität St.Gallen

In cooperation with

PostFinance



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Working Capital Management Study 2019

Supply Chain Finance Follow-up

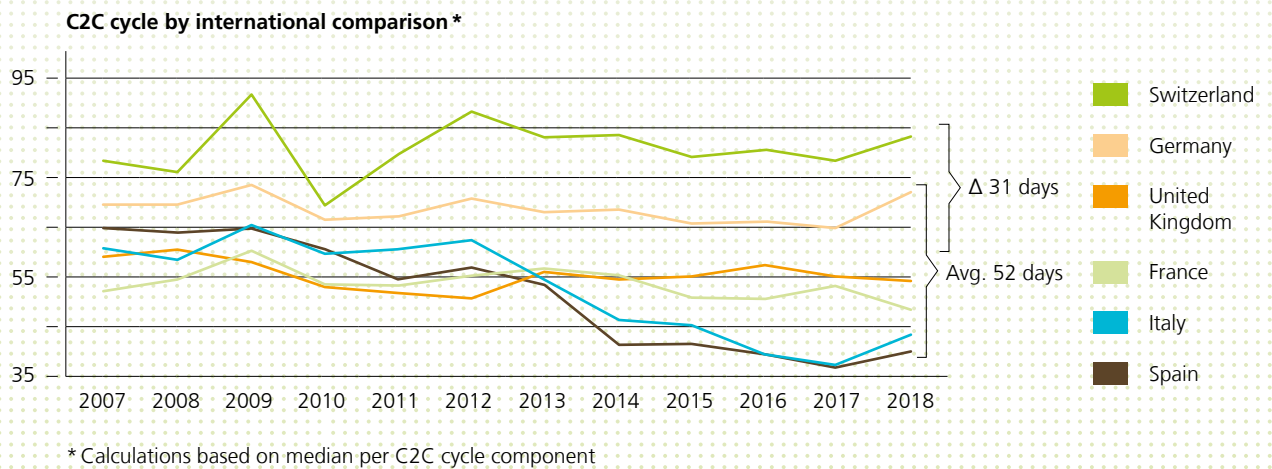
Reducing capital tie-up costs, increasing internal financing capacity and releasing liquidity are the three key goals of CFOs in working capital management (WCM). However, achieving these goals is a major challenge for many companies due to various internal and external conflicts of interest.

Supply chain finance (SCF) as an alternative form of financing is an innovative dimension of WCM and opens up many opportunities for finance managers to achieve their goals in WCM together with suppliers and customers.

But how has the willingness to introduce SCF changed over recent years? Which tools are companies using to optimize working capital? Which obstacles exist in relation to the use of SCF solutions? What is the situation regarding the self-financing capacity of Swiss companies? What impact is the continued low interest-rate environment having on demand for working capital? And what percentage of invoices are automated and processed digitally at Swiss companies?

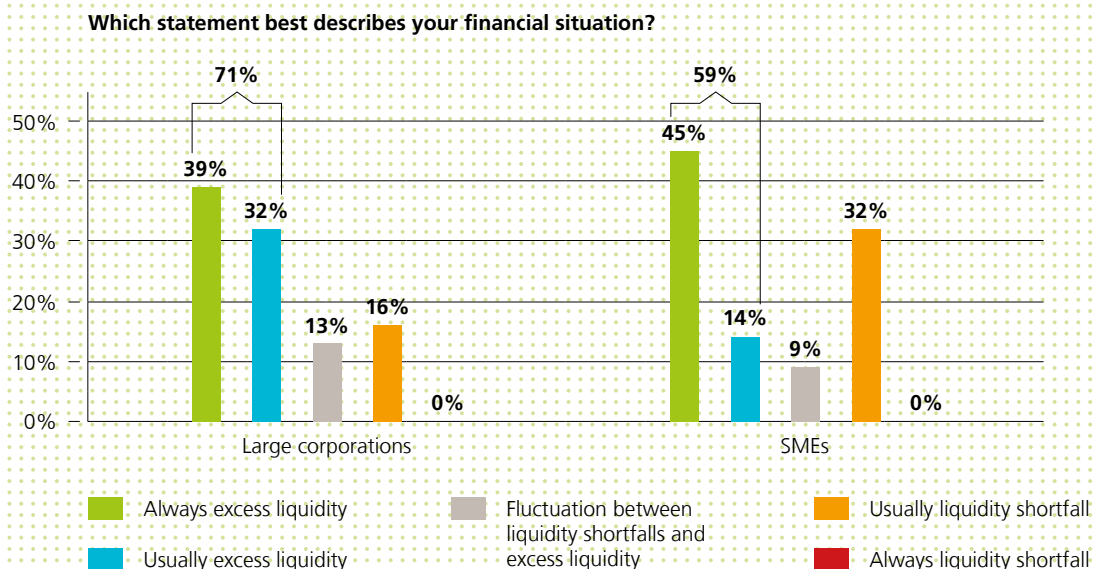
The 6th edition of the WCM Study, published by the Supply Chain Finance Lab of Swiss Post at the University of St. Gallen, explores this and other fascinating issues. The study looks at the performance fields in WCM and illustrates key methods – using best practice examples – for achieving financial flexibility beyond traditional company boundaries.

There is enormous WCM optimization potential in Swiss companies compared to other European countries



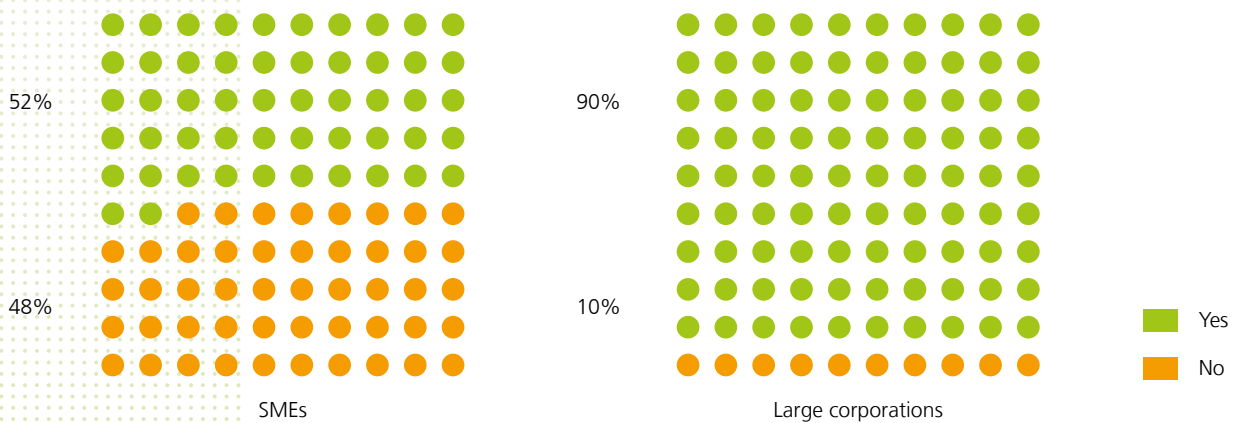
Swiss companies were unable to reduce their disproportionately high C2C cycle in 2018. On the contrary: with a C2C cycle of 83 days on average, the gap with companies in other European countries widened further compared to the previous year.

This trend is reflected in the balance sheet position of Swiss companies. The study results show that 71% of large corporations and 59% of SMEs usually or always have excess liquidity.



SMEs are lagging behind large corporations when it comes to the strategic optimization of working capital

Have strategic measures to optimize working capital already been introduced at your company?



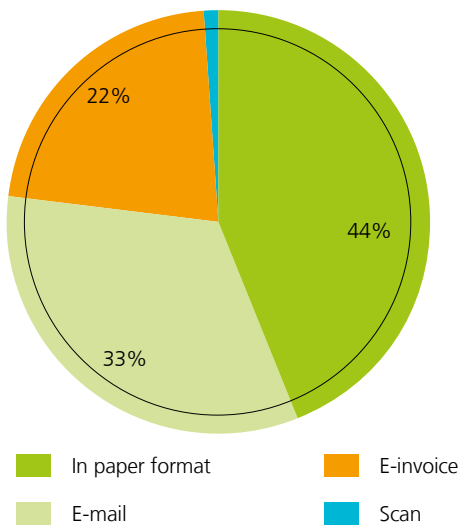
90% of the large corporations have already introduced strategic measures to optimize their working capital. SMEs have plenty of room for improvement. This is mainly due to the fact that the most frequently indicated measures only concern one particular area of WCM. Holistic WCM optimization concepts (such as reverse factoring) are rare.

The most-indicated WCM optimization measures used by Swiss companies are:

Delay of payments to suppliers	Sales clearance of inventories of poor-selling items	Optimization of batch sizes
Renegotiation of payment terms	Use of digitization technologies in WCM	Monitoring value chains
Introduction of a reverse-factoring solution	Switch from reactive to active WCM	Automation of payment processes
Reduction of inventory levels (warehousing) and shortening of storage periods	Improvement of dunning processes	Acceleration of payment processing procedures with customers and contract partners
Inpayments and reduction of accounts receivable periods	Greater attention to inventories	WCM benchmarking

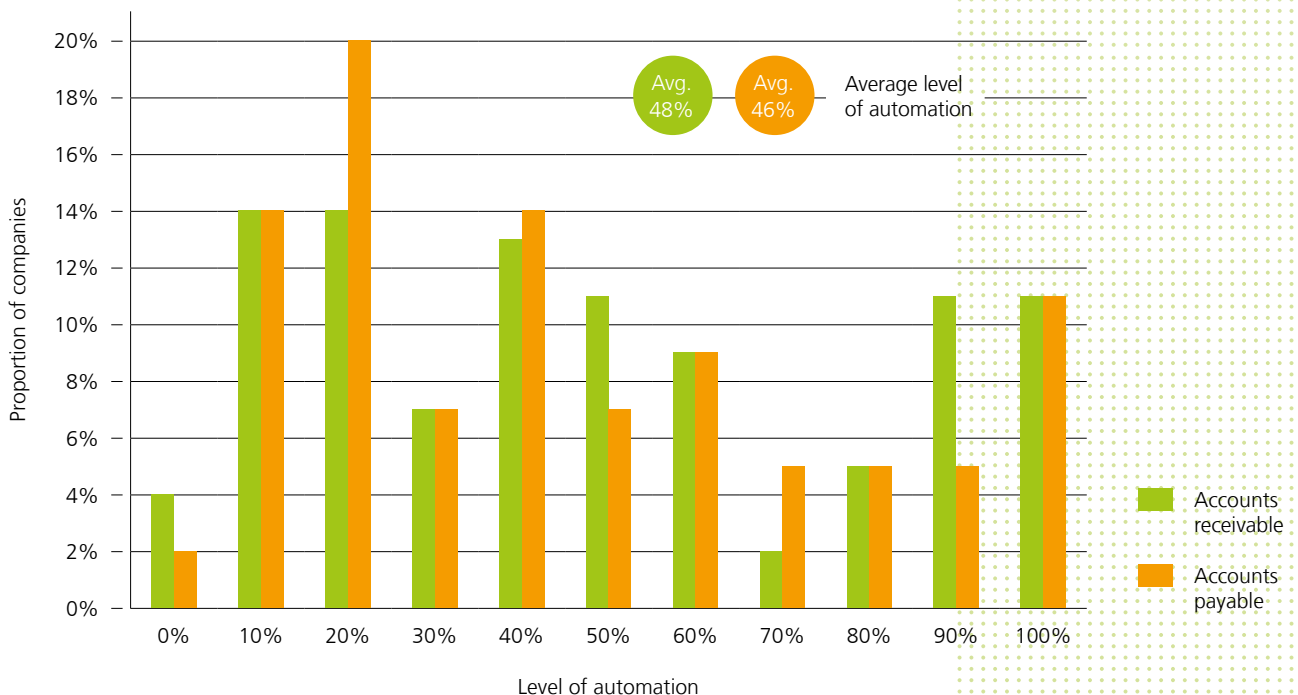
The digitization of WCM is not very advanced at present

How are invoices normally sent to customers at your company?



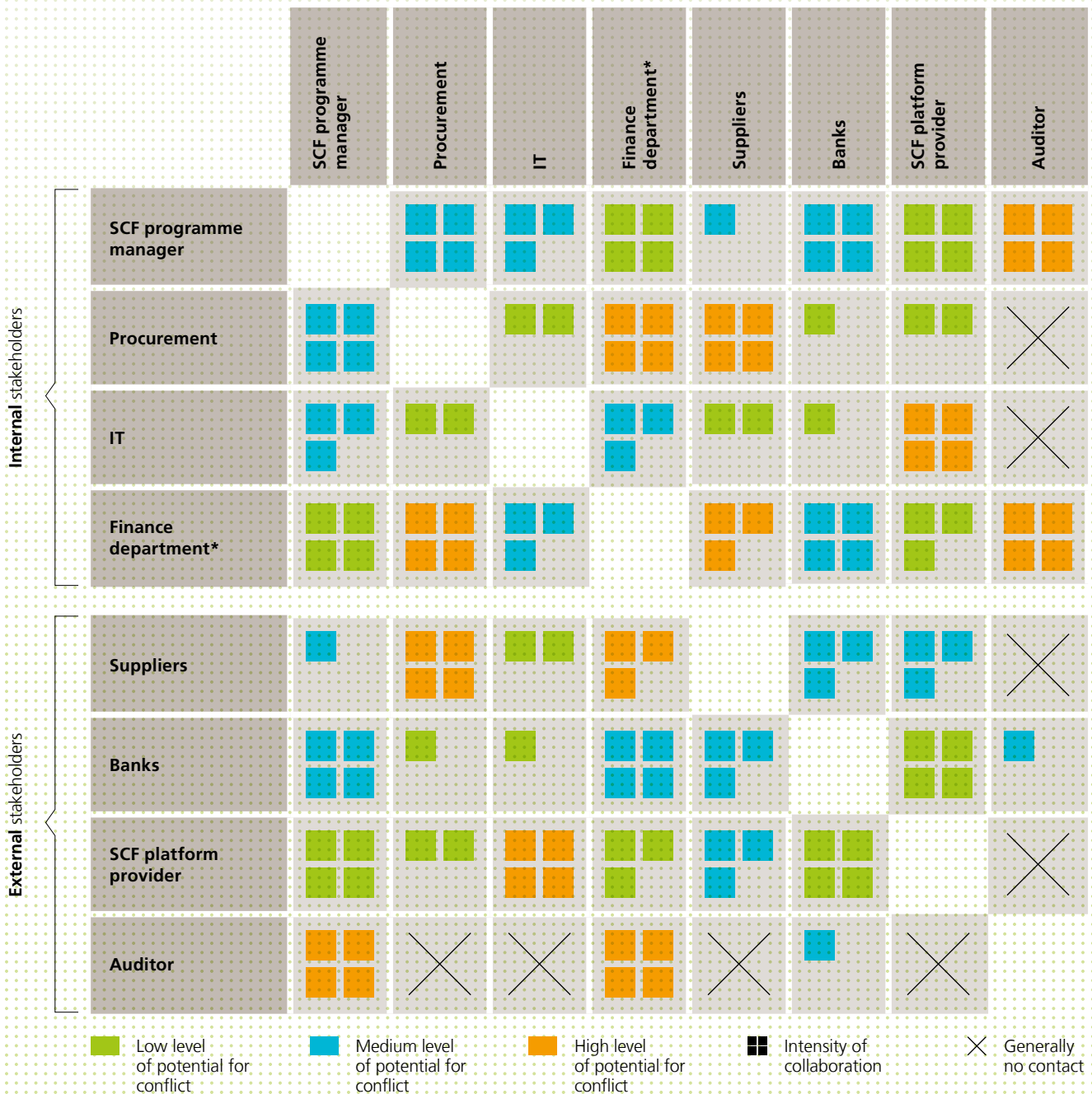
The study results show that the WCM practices of many companies are outdated. The proportion of time-intensive manual working steps generally remains high. Almost half of companies still send their customer invoices in paper format. Only a minority have a high degree of automation and digitization in WCM.

What proportion of invoices are processed on an automated basis and digitally at your company (e.g. with an e-payment solution)?



Potential for conflict between stakeholders is preventing more widespread use of holistic SCF optimization solutions

Perceived relationship intensity and potential for conflict in the example of a reverse factoring supplier financing solution ¹⁾

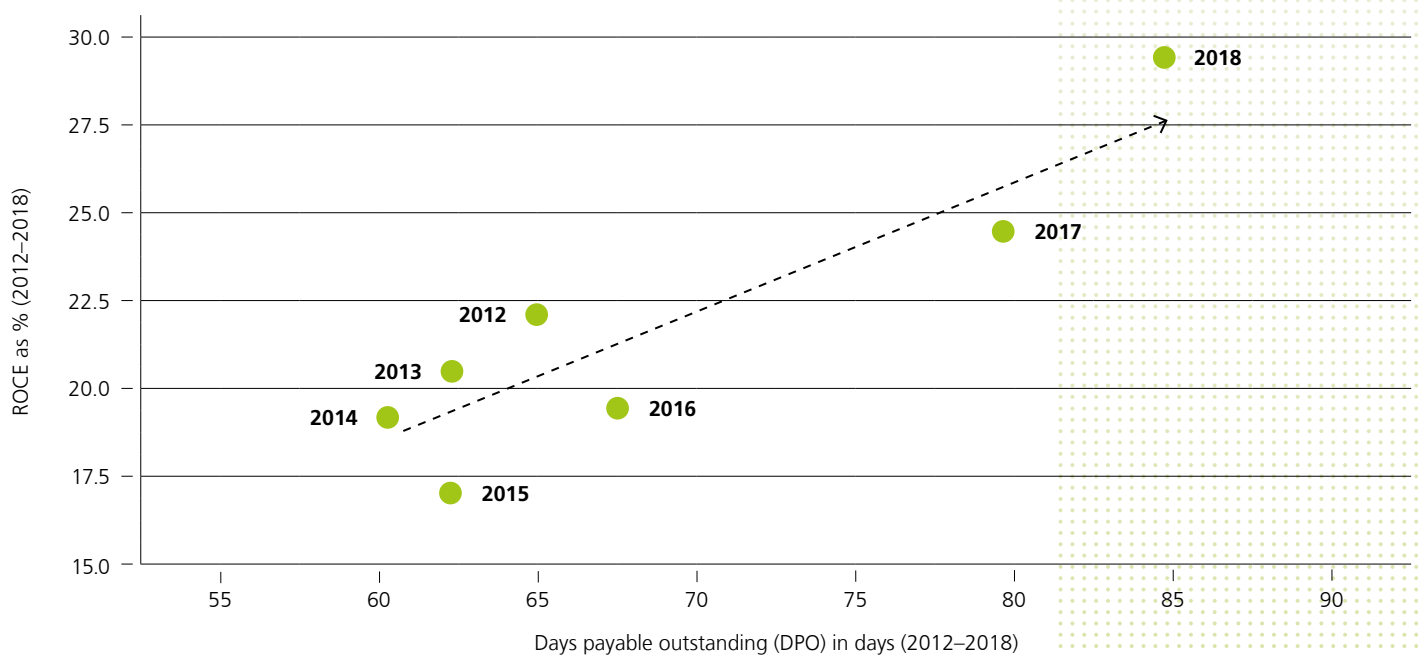


1) The results shown are based on the estimations of the companies surveyed which are using a supplier financing solution.

* Including treasury, accounting and controlling

SCF companies achieve above-average profitability over the long term

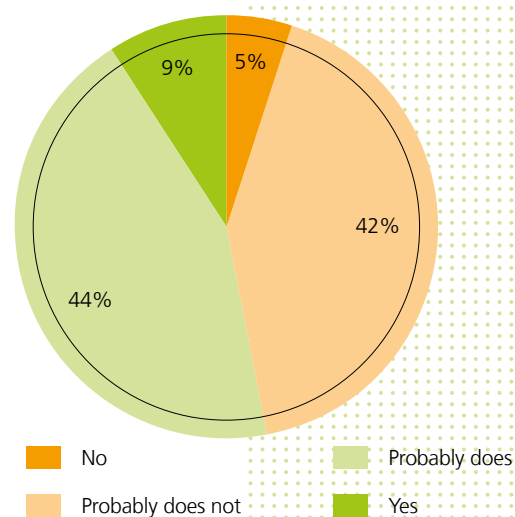
DPO and ROCE performance using the example of ABB (SCF company)



The positive impact on success of holistic WCM approaches can be seen at the study participant ABB: since the introduction of the reverse-factoring programme on the accounts payable side, the average days payable outstanding has been increased by around 20 days without adversely affecting the situation of suppliers.

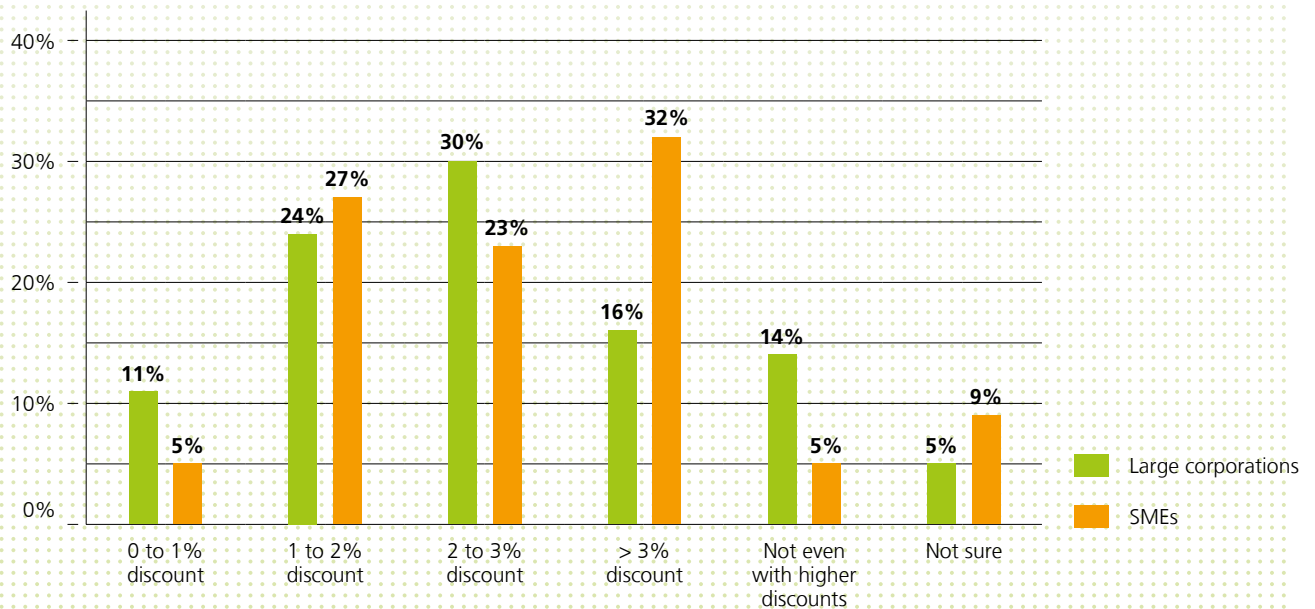
However, the study's results also reveal that most Swiss companies are still not fully exploiting the potential offered by SCF solutions. One reason for this is that employees possess inadequate SCF expertise on supply chain finance.

Does your company possess the expertise required to negotiate supply chain finance arrangements with customers and suppliers?

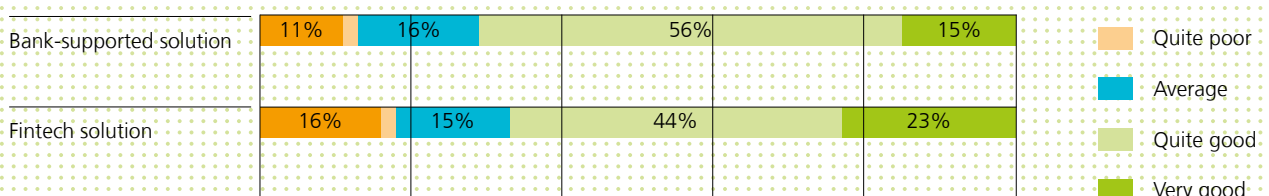


Most companies are attempting to leverage discount potential with suppliers through early payments

How high must the discount offered by your suppliers be in order for you to settle your invoices earlier (e.g. after 5 days)?



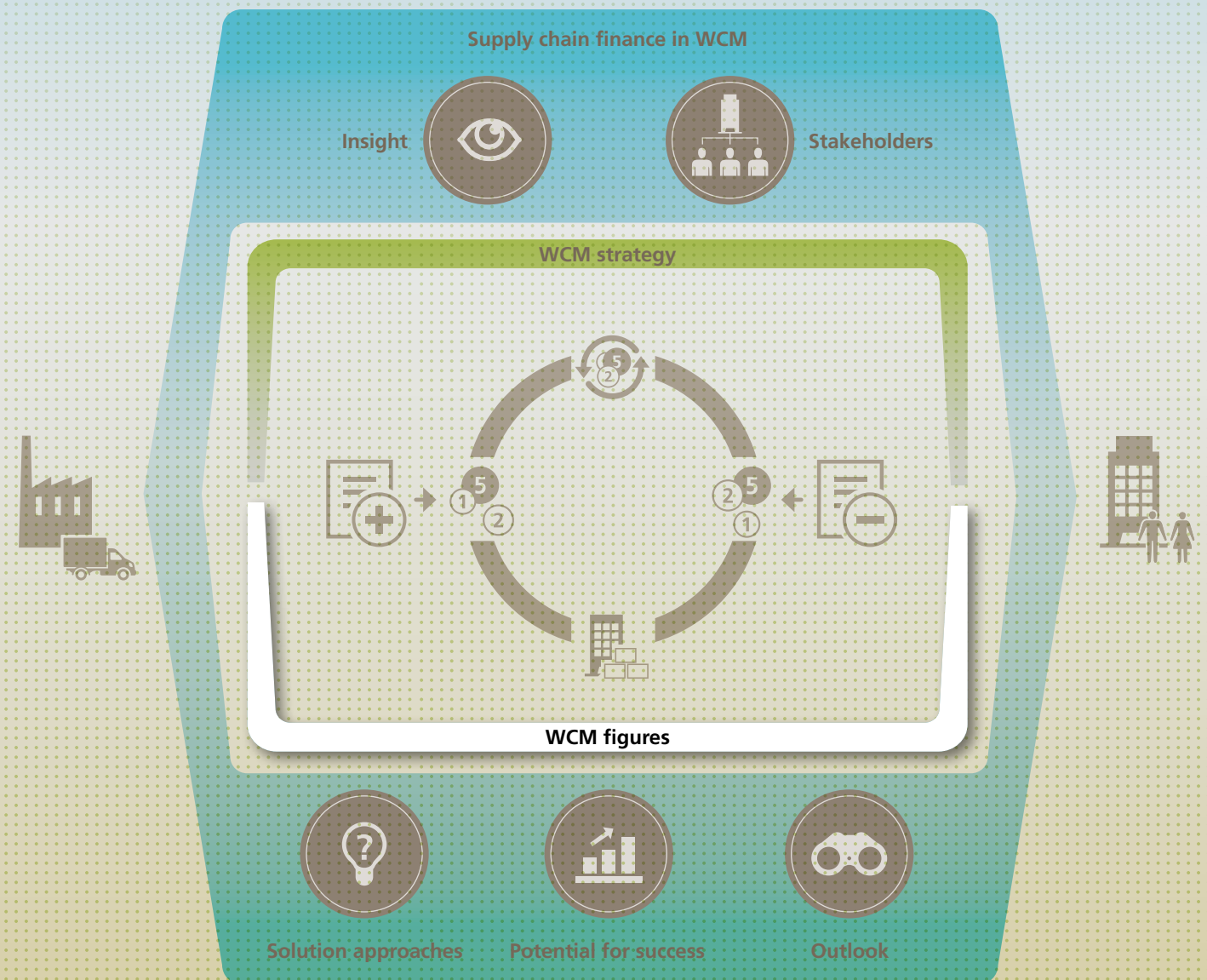
How do you rate the quality of the SCF solutions provided by banks and fintechs in general



The study results confirm that almost all companies are willing to make early payments to suppliers (e.g. through a dynamic discounting solution). The discount from the supplier must be between 1% and 3% on average.

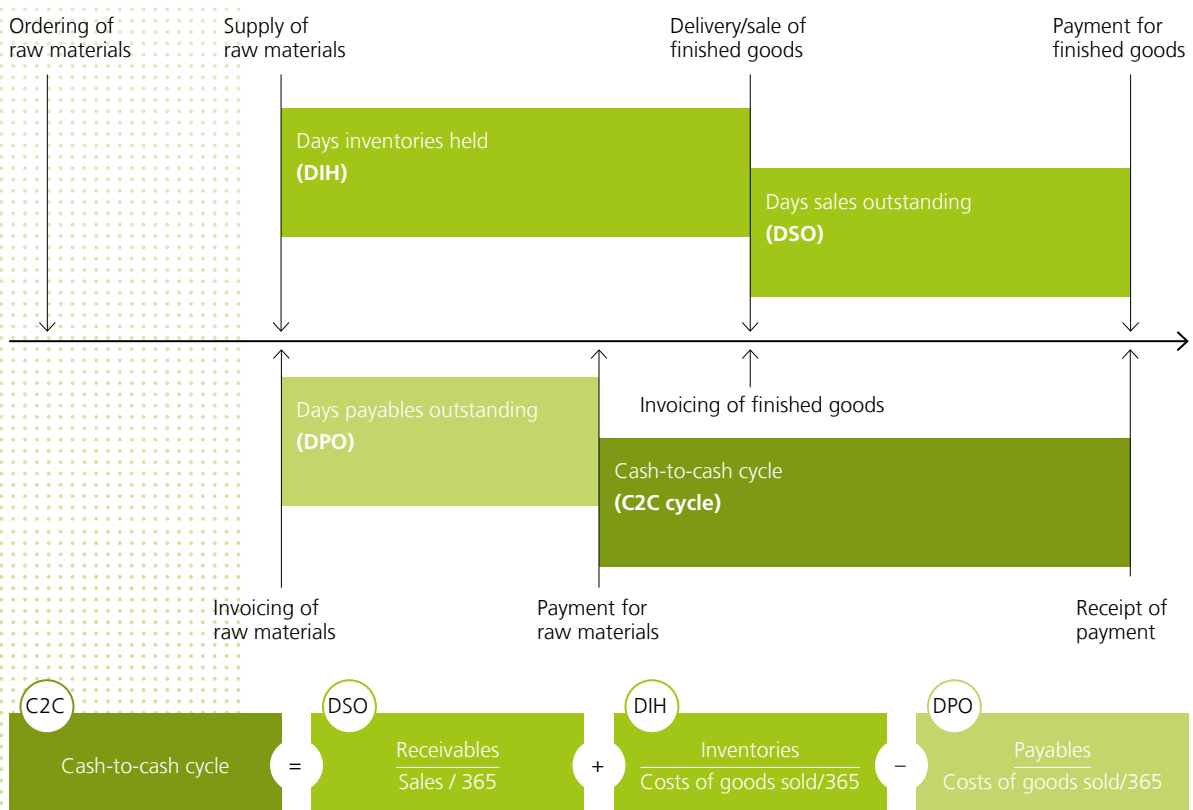
Banks and fintechs have successfully invested in SCF expertise and IT over recent years. However, the survey shows that the SCF services of Swiss banks in general fall significantly below the expectations of companies.

WCM figures



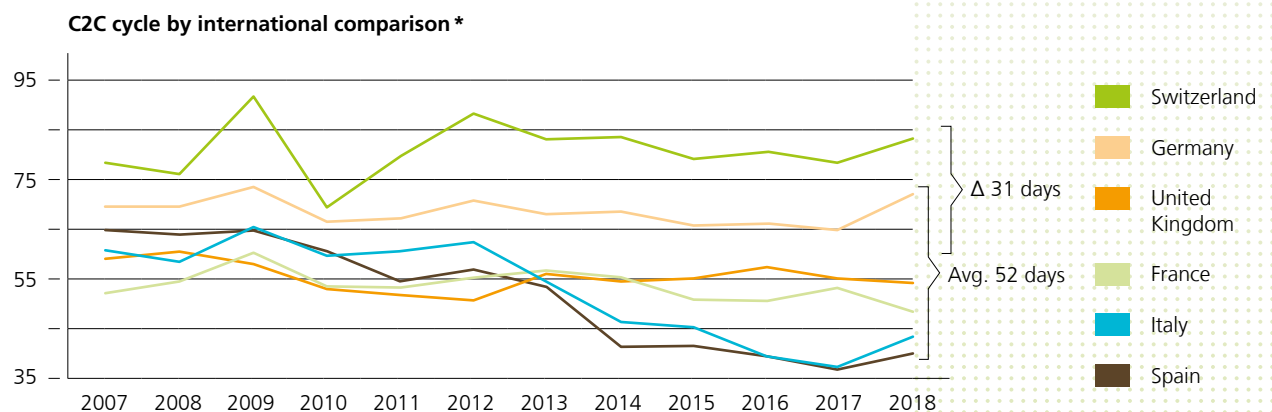
The C2C cycle is a key performance indicator in WCM

In WCM, the cash-to-cash cycle (C2C cycle) is a key indicator for evaluating the performance level of individual companies or sectors. This indicator reflects the cash conversion cycle at the company in days between payment to suppliers and inpayment by customers, including all days inventories held. The C2C cycle generally covers only the working capital of an individual company and consists of the following three components: DSO, DIH and DPO.



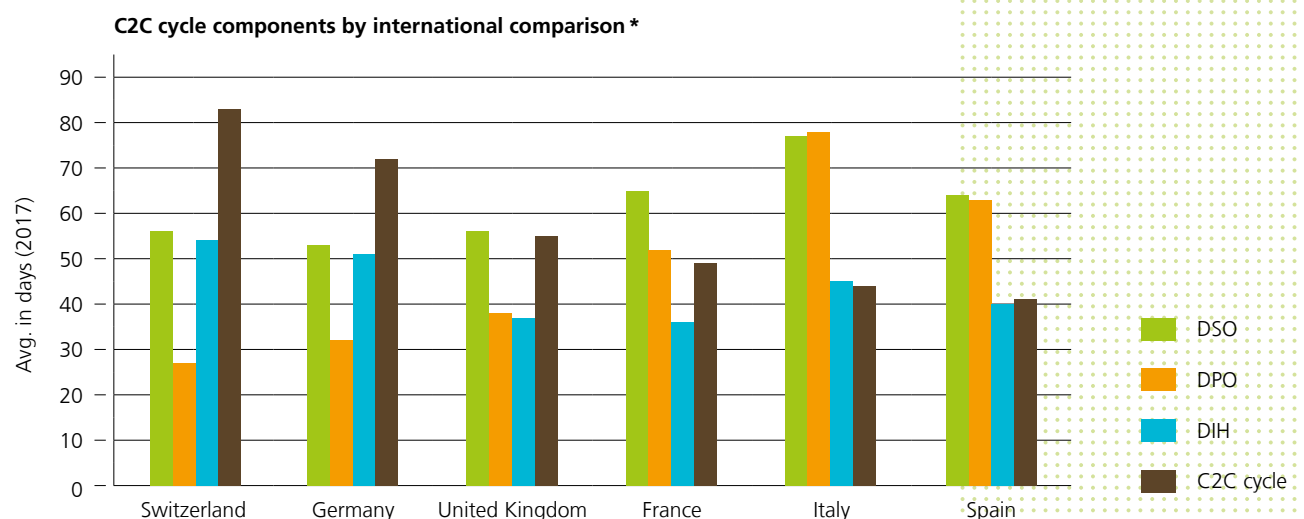
The C2C cycle is a useful indicator for identifying improvement potential in WCM. A high DIH value, for example, usually indicates inefficient inventory management. However, company-specific drivers and industry-standard characteristics must always be taken into account in the interpretation of time periods in the context of holistic WCM. A high DIH value may be completely justified if the availability of goods is a company's main target.

The C2C cycle of Swiss companies remains at a disproportionately high level



Swiss companies were unable to reduce their disproportionately high C2C cycle in 2018. On the contrary: with a C2C cycle of 83 days, the gap with companies in other European countries widened further compared to the previous year. There are two main reasons for this:

- 1 Swiss companies have the highest level of inventories with a DIH of 54 days. While there are good reasons for the increased inventories, this result indicates that Swiss companies pay little attention to innovative methods and tools for efficient inventory management.
- 2 Swiss companies pay their suppliers ahead of schedule on average and have the lowest DPO at 27 days.



Sampling information: 1,237 listed companies; period 2017–2018; all sectors excluding the financial sector; database: Thomson Reuters Eikon

* Calculations based on median per C2C cycle component

Companies complain about an inadequate maturity level of invoice processing in the supply chain

How advanced do you believe the invoicing processes of your own company, your suppliers and your customers are?

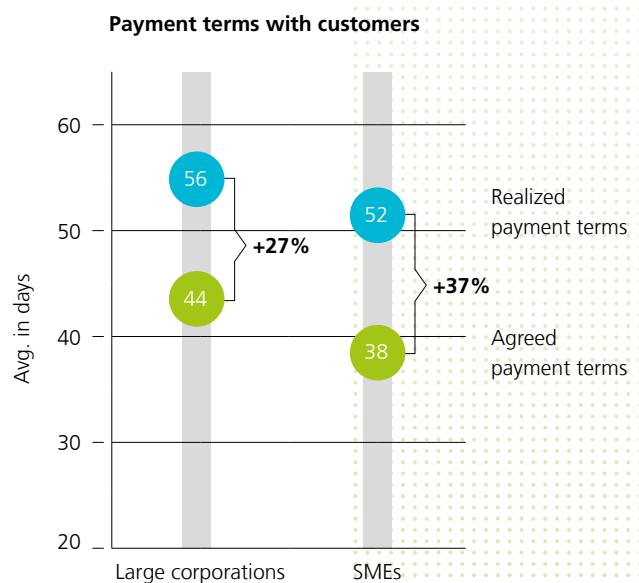


When asked about the maturity of the invoicing process, it is noticeable that the score which companies give themselves is higher than that given to suppliers and customers. In concrete terms, 32% of the companies surveyed indicated that their own invoicing process was quite modern and 5% considered it to be very modern. In contrast, only around 10% of the total supplier and customer base was thought to have a modern invoicing process.

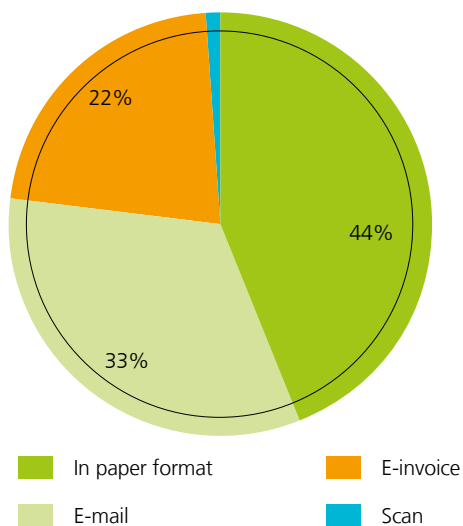
The results also show that around a third of companies believe that not just they themselves, but also their supply chain partners have quite an outdated or even a very outdated invoicing process. As a result, many companies believe there is significant potential for making the processing of customer and supplier invoices more professional.

The potential benefits of electronic invoicing are not being exploited in either accounts receivable ...

The study results show that companies generally have some difficulty in ensuring customers adhere to their payment terms. At large corporations the discrepancy to the payment terms actually achieved is 27%, while at SMEs it stands at 37%. Compared to the previous year, the discrepancies fell slightly, but are still at an unsatisfactorily high level.



How are invoices normally sent to customers at your company?

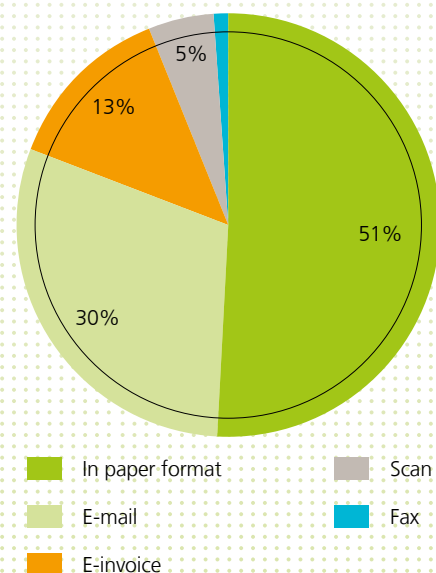


A driving force in this development is the fact that almost half of all companies surveyed (44%) still send their customer invoices in paper format. This group is required to proactively drive forward the implementation and use of electronic invoicing to reduce the actual accounts receivable period and to make cost and time savings. However, 33% of the companies surveyed send their invoices in PDF format via e-mail and a minority of 22% electronically via e-invoicing.

... or in accounts payable

There is a similar picture in accounts payable to that in accounts receivable: only 13% of the companies surveyed normally receive their invoices electronically and exchange structured invoice data with their suppliers (e-invoicing). For 30%, invoices are received via e-mail as PDF invoices and – in the best case scenario – are imported automatically into the ERP system using an incoming mail processing program. However, in the case of a majority of 51%, invoices are still received in paper format.

How are invoices normally sent at your company?

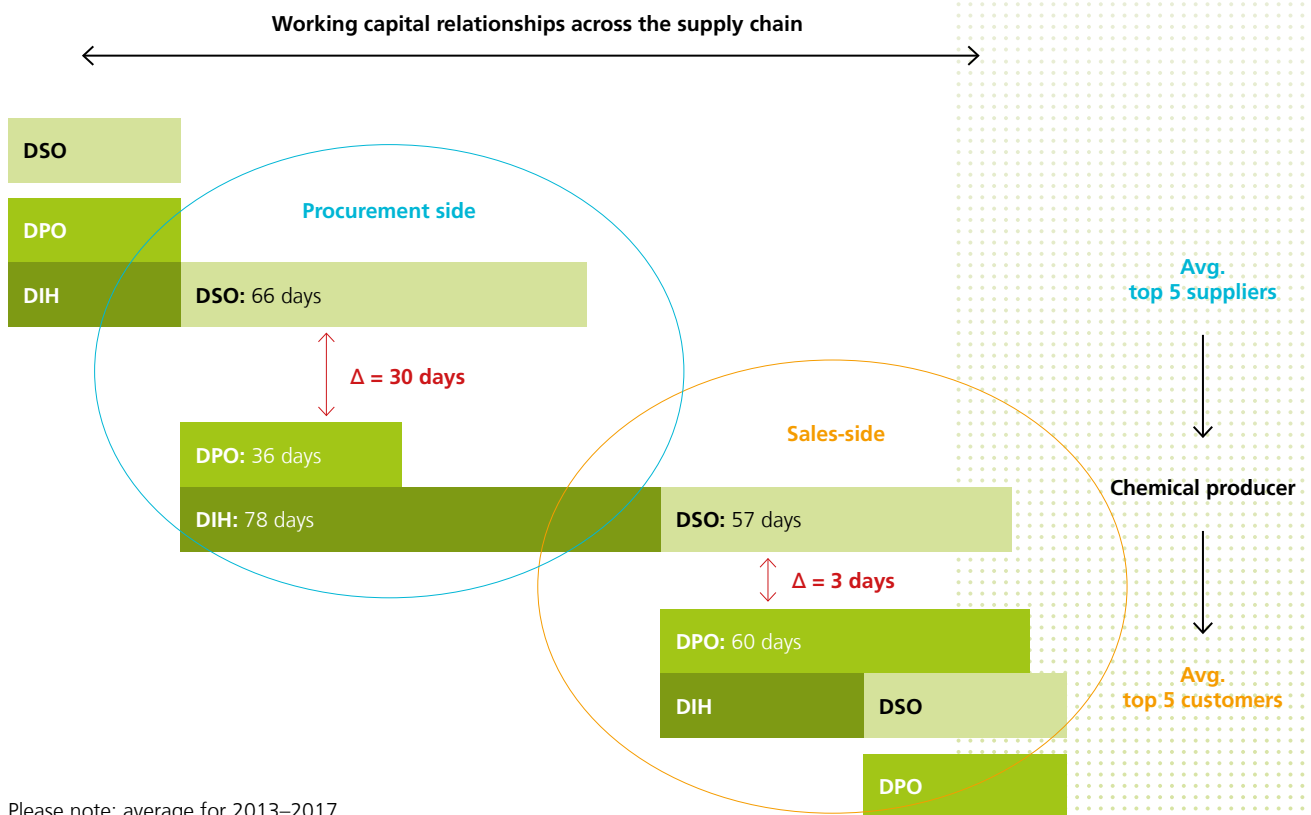


These results indicate that both invoice issuers and invoice recipients are not making enough use of adequate IT interface solutions that enable the electronic exchange of invoices. One possible reason for this may be the size of the company and the consequent critical mass of invoice transactions with customers and suppliers.

A second reason may be that trading partners – due to different requirements – use different ERP and software solutions. There is also an urgent need for action here. Specifically, companies are required to align internal operating systems and processes company-wide so it is possible for invoices with supply chain partners to be sent electronically.

Case study – chemical producer

A supply chain-related look at WCM reveals optimization potential ...



Please note: average for 2013–2017

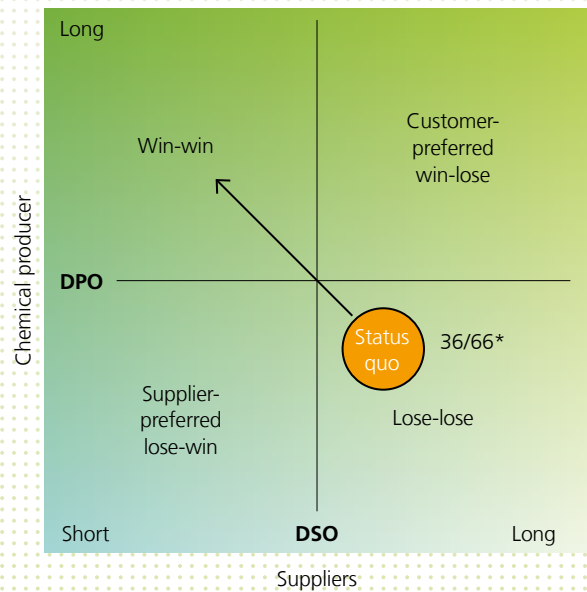
A supply chain-related look at WCM often reveals optimization potential which is not identified sufficiently or even at all in an individual analysis. One example is the supply chain-related analysis of the C2C cycle of a study participant from the chemical industry.

The analysis shows that the chemical producer's top five suppliers grant their customers a payment term of 66 days on average. However, the average payment term of the chemical producer for its suppliers is significantly lower at 36 days. This gap of 30 days indicates that the chemical producer has misjudged the industry-standard payment terms for suppliers.

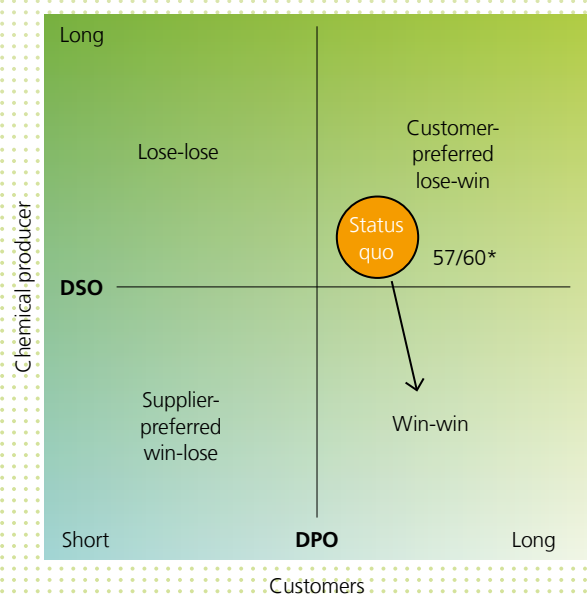
There is a different picture on the sales side: here it seems that the average payment terms are in line with the industry average and the chemical producer is successfully ensuring its customers meet its payment terms.

... and provides valuable information about WCM measures to be initiated

The chemical producer's biggest levers for WCM improvements concern its liabilities to suppliers. A lose-lose situation exists here as the suppliers have a long DSO, while the chemical producer has a short DPO.

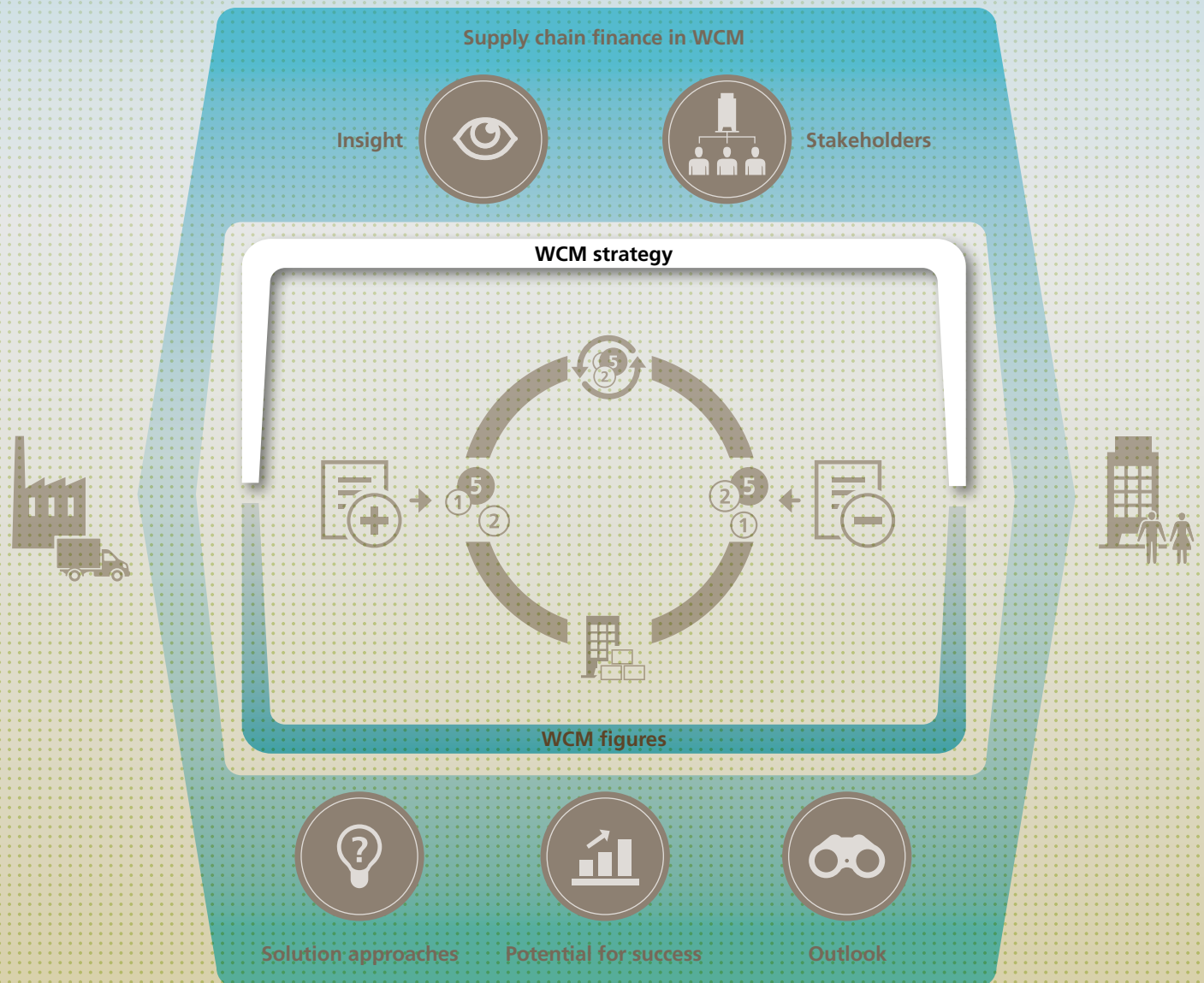


However, there is also room for improvement on the sales side where the chemical producer's average payment terms are in line with the industry average. Specifically, the current lose-win situation can be turned into a win-win situation by introducing a factoring solution, for example.



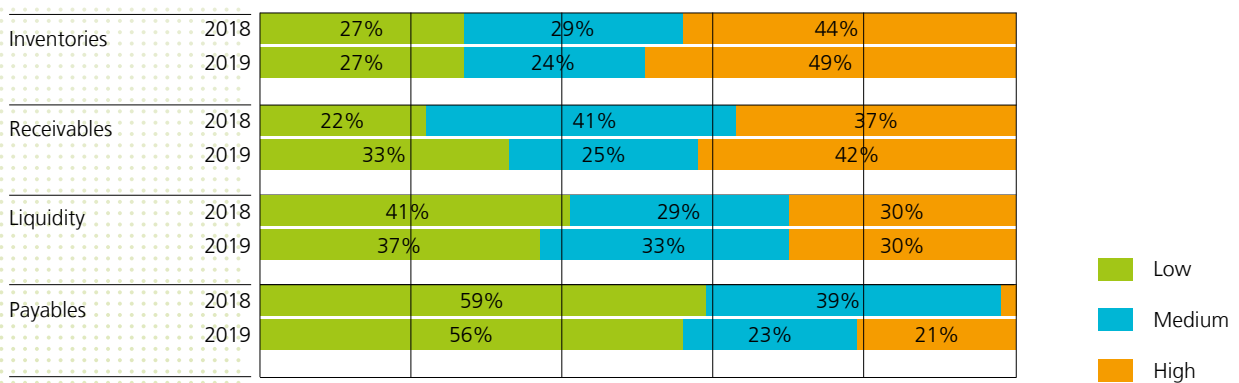
* Status quo (avg. 2013 to 2017):
 avg. DPO chemical producer around 36 days
 avg. DSO chemical producer around 57 days
 avg. DPO suppliers around 60 days
 avg. DSO suppliers around 66 days

WCM strategy



Swiss companies are faced with many challenges in all four areas of WCM

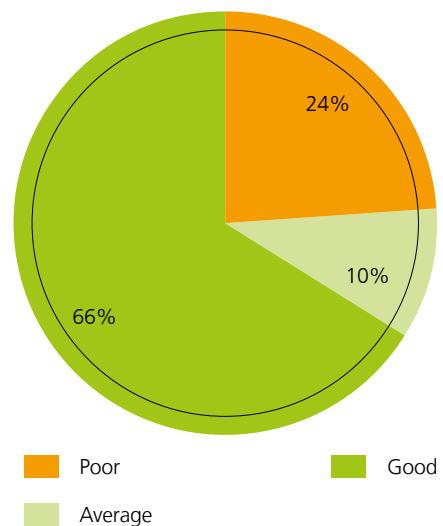
In which areas of WCM do you currently see the greatest challenges for your company?



A large majority of the Swiss companies surveyed are still facing many challenges in the field of WCM. This is despite the fact that two-thirds (66%) consider their self-financing capacity as being good. The results show that it is not just the financing of working capital, but in particular the processes behind it (with an effect on liquidity) that are presenting problems across the supply chain for many companies.

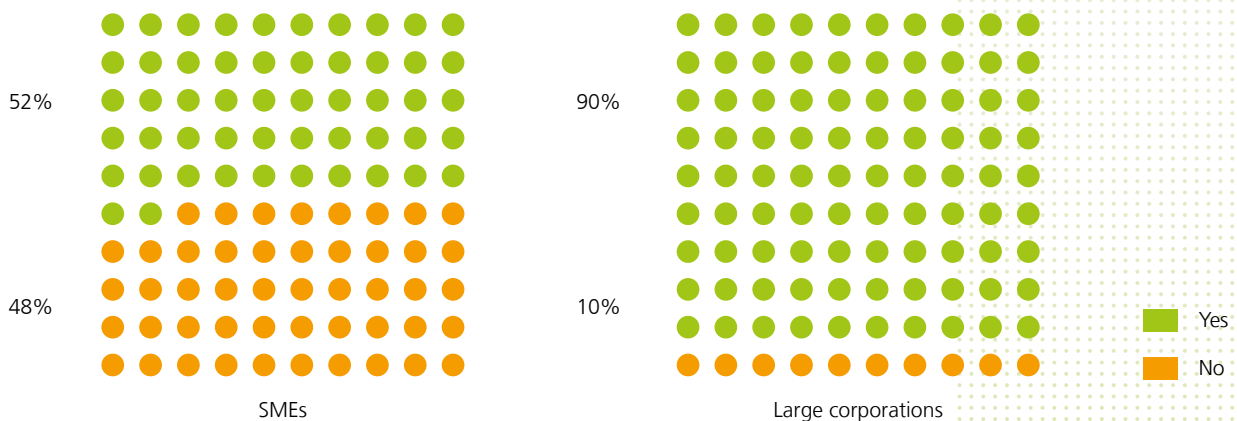
Many companies are struggling to achieve efficiency improvements or cost savings, particularly in inventories and accounts receivable. Just under half of those surveyed (49% and 42%) classify the challenges in these two areas as high. As a result, there is an acute need for strategic WCM measures to prioritize the issues to be addressed and to define the approaches towards customers and suppliers. The companies see relatively fewer challenges in accounts payable.

How do you rate your company's self-financing capacity?



Only half of the SMEs surveyed have already introduced strategic WCM measures to optimize working capital

Have strategic measures to optimize working capital already been introduced at your company?

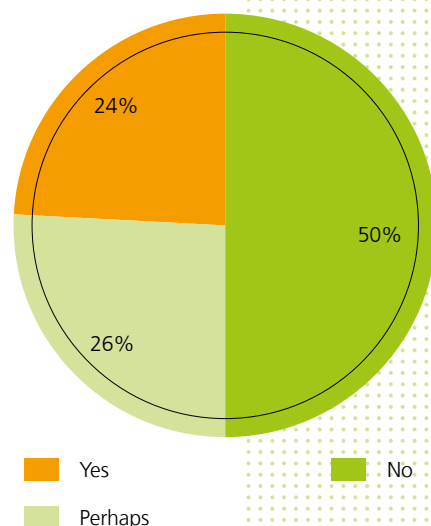


90% of the large corporations and just 52% of the SMEs surveyed have already introduced strategic measures to optimize their working capital. In view of the current challenges, this means there is urgent need for action, particularly amongst medium-sized companies.

The low interest rates and generally stable interest rate expectations may explain why the implementation of strategic WCM measures are being held back at Swiss SMEs.

These factors appear to still be deterring many companies from systematically tackling WCM. As a result, too little importance is attached to WCM as an economic resource for creating supply chain networks horizontally and vertically. Much cross-company optimization potential and many arbitrage opportunities (for example, due to different financing costs between suppliers and customers) are still not being used.

Will your company pay significantly higher interest again over the next five years for short and medium-term loans?



Holistic approaches to the optimization of working capital are uncommon

The most-indicated WCM optimization measures used by Swiss companies are:

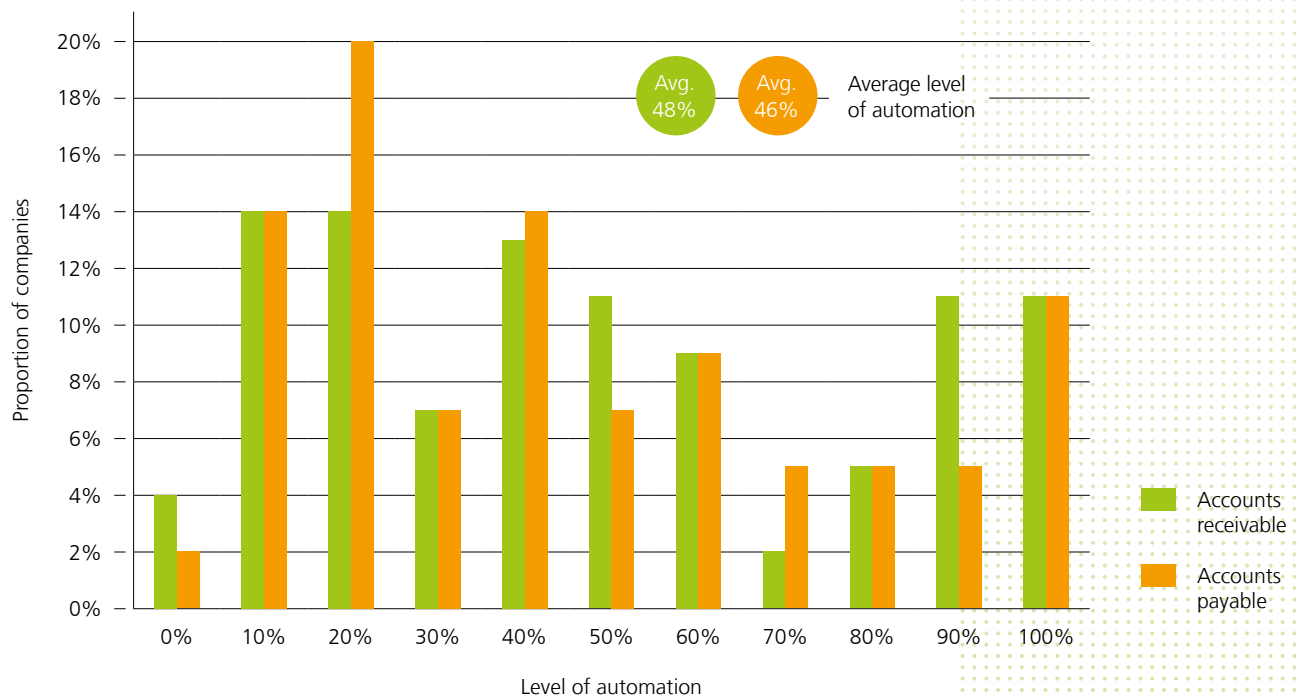
Delay of payments to suppliers	Sales clearance of inventories of poor-selling items	Optimization of batch sizes
Renegotiation of payment terms	Use of digitization technologies in WCM	Monitoring value chains
Introduction of a reverse-factoring solution	Switch from reactive to active WCM	Automation of payment processes
Reduction of inventory levels (warehousing) and shortening of storage periods	Improvement of dunning processes	Acceleration of payment processing procedures with customers and contract partners
Inpayments and reduction of accounts receivable periods	Greater attention to inventories	WCM benchmarking

We can see that there is plenty of room for improvement if you look at the specific WCM measures which Swiss companies are already using in practice. A notable point is that the most-indicated activities – such as reducing inventory levels – only optimize one single area of WCM in isolation. Few companies use collaborative WCM optimization concepts (e.g. reverse factoring) which adequately reflect the cross-sectional nature of working capital beyond their own companies.

WCM projects across individual function units that concern the entire company, while also taking account of customers and suppliers are rare. And only very few companies have established the operating conditions required for optimizing WCM – such as appointing a WCM officer. A clear WCM strategy could provide guidance in this respect by defining clear goals and lines of action.

The level of digitization in accounts receivable and accounts payable differs greatly

What proportion of invoices are processed on an automated basis and digitally at your company (e.g. with an e-payment solution)?

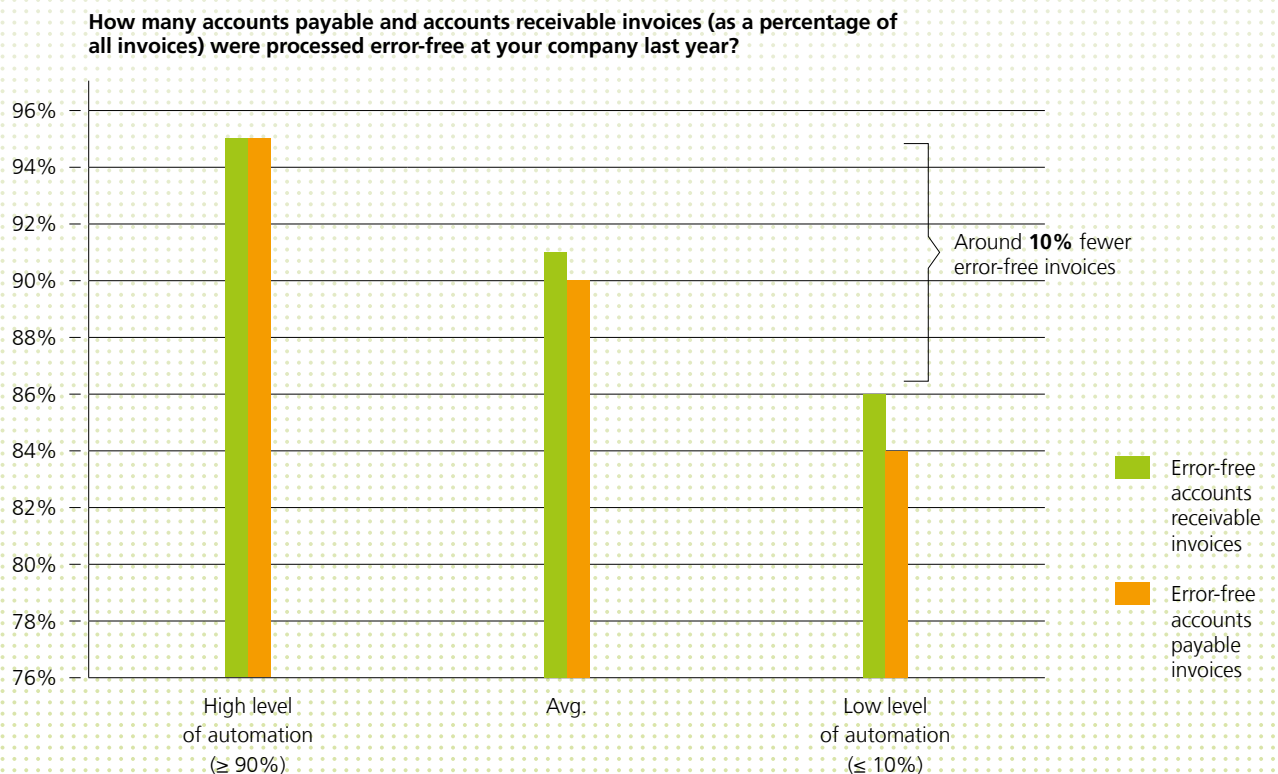


When asked about the share of invoices that are processed on an automated basis and digitally, we can see that the practices of many companies are outdated. Specifically, the companies surveyed process less than 50% of their invoices for receivables and payables on an automated basis – the figure even stands at less than 20% for around a third.

These results clearly indicate that the proportion of time-intensive, manual working steps in accounts receivable and payable is still high. Most companies do not have a digitization strategy geared to the long term either. This results in non-standardized payment terms, heterogeneous IT infrastructures and dissatisfied customers and suppliers.

But the results also show that the level of automation and digitization varies significantly and that some companies are very advanced: around 10% of the companies surveyed carry out their invoicing processes completely digitally (end-to-end) using innovative e-payment solutions.

The error rate in payment processing declines as the level of digitization increases



The disproportionately low level of automation shows that many Swiss companies have not yet introduced any strategic digitization projects in accounts payable or accounts receivable.

However, professionalization would be worthwhile as the study results show. Based on subjective evaluations, companies with a high level of automation processed 95% of their invoices error-free on average last year. The error rate is much higher at companies with a low level of automation. Specifically, the latter processed 86% and 84% of their accounts receivable and accounts payable invoices error-free last year.

This means the gap between the top and bottom performers is 10% and over. This discrepancy is significant and reveals that most companies have not exhausted the potential for automation and digitization by far.

Case study – SBB

Holistic management of WCM thanks to cross-divisional anchoring ...

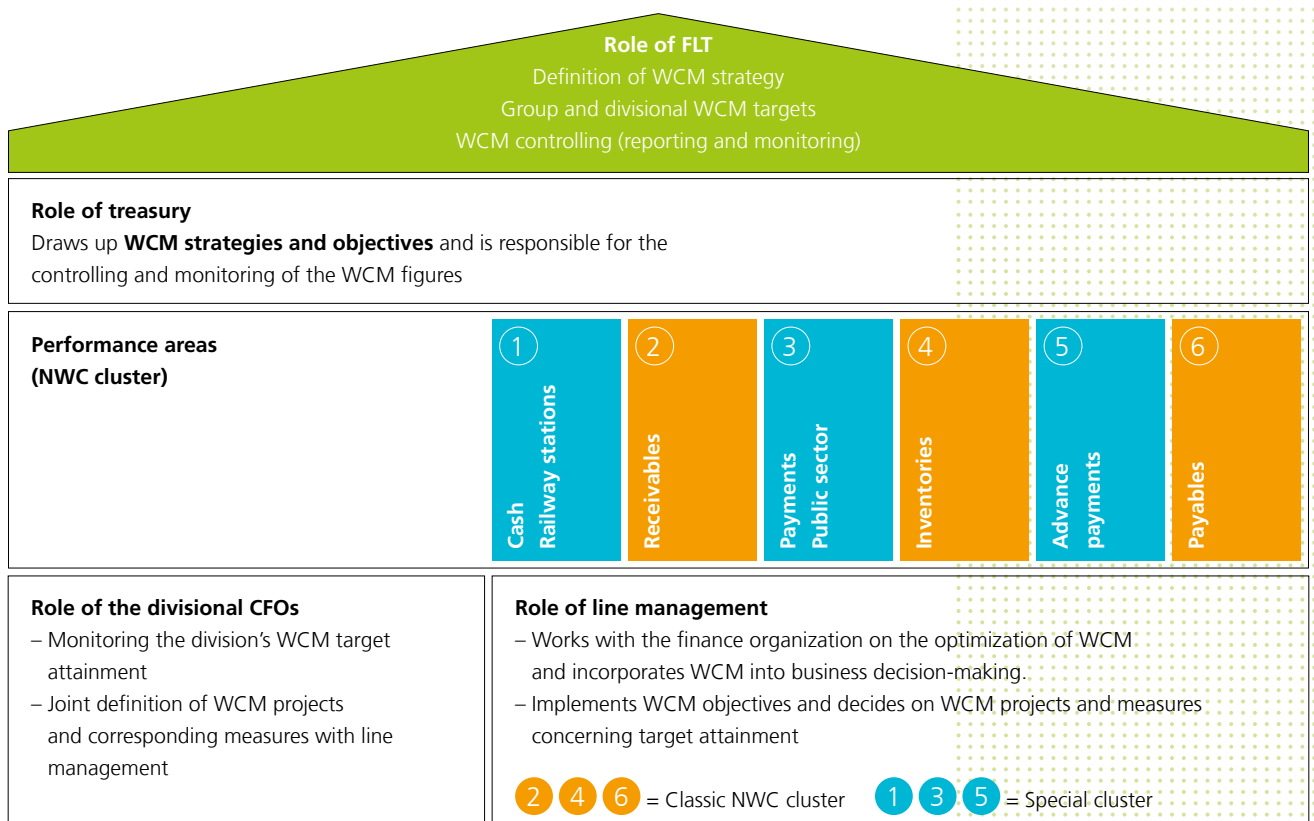
Background

Due to its capital-intensive business activities, the SBB, as a rail operator, has a substantial overall need for financing and, in turn, working capital. However, little attention was paid to WCM in the past. The 2020 financial goals set out by the Federal Council required a clear WCM strategy which, in particular, reduces interest-bearing net debt and improves cash flow.

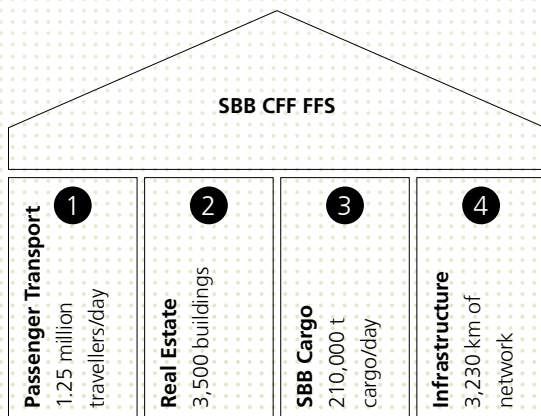
Solution

To sustainably reduce the working capital tied up in operating processes, WCM was anchored on a cross-divisional basis throughout the entire company. WCM management has since been carried out by a financial leadership team (FLT) and is subject to a continuous improvement process.

The “WCM house” of the SBB



... and taking account of the various interests of customers and suppliers



1 The Passenger Transport division has introduced the following measures in the field of accounts receivable:

Through the now exclusive sales of annual travelcards (GA travelcard and Half-Fare travelcard) ...

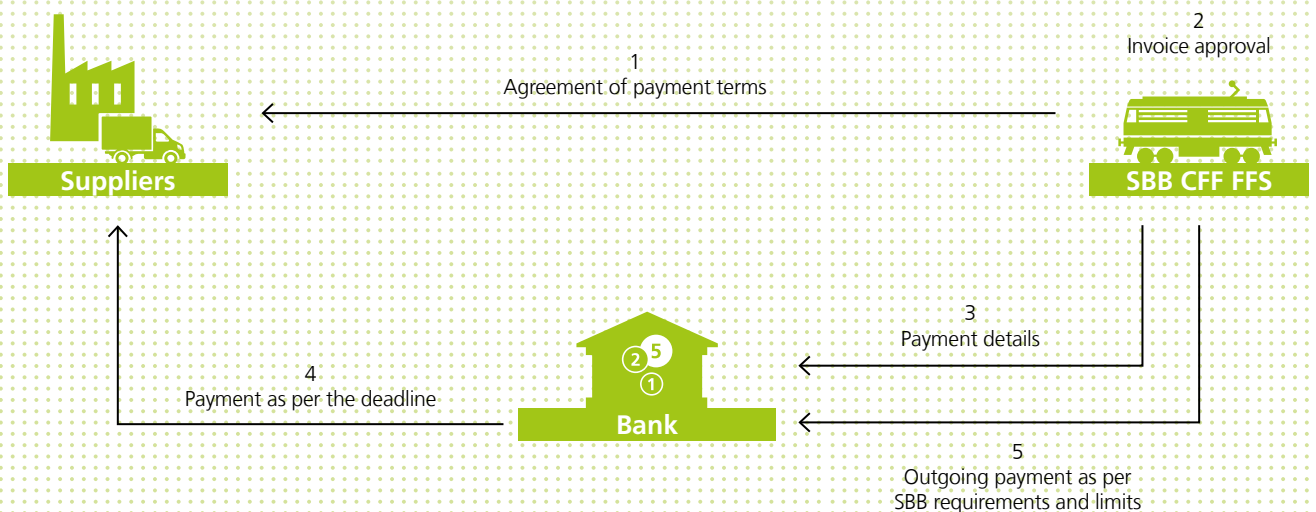
... the advance payments have been reduced by hundreds of millions

... payment for travel card extensions are received

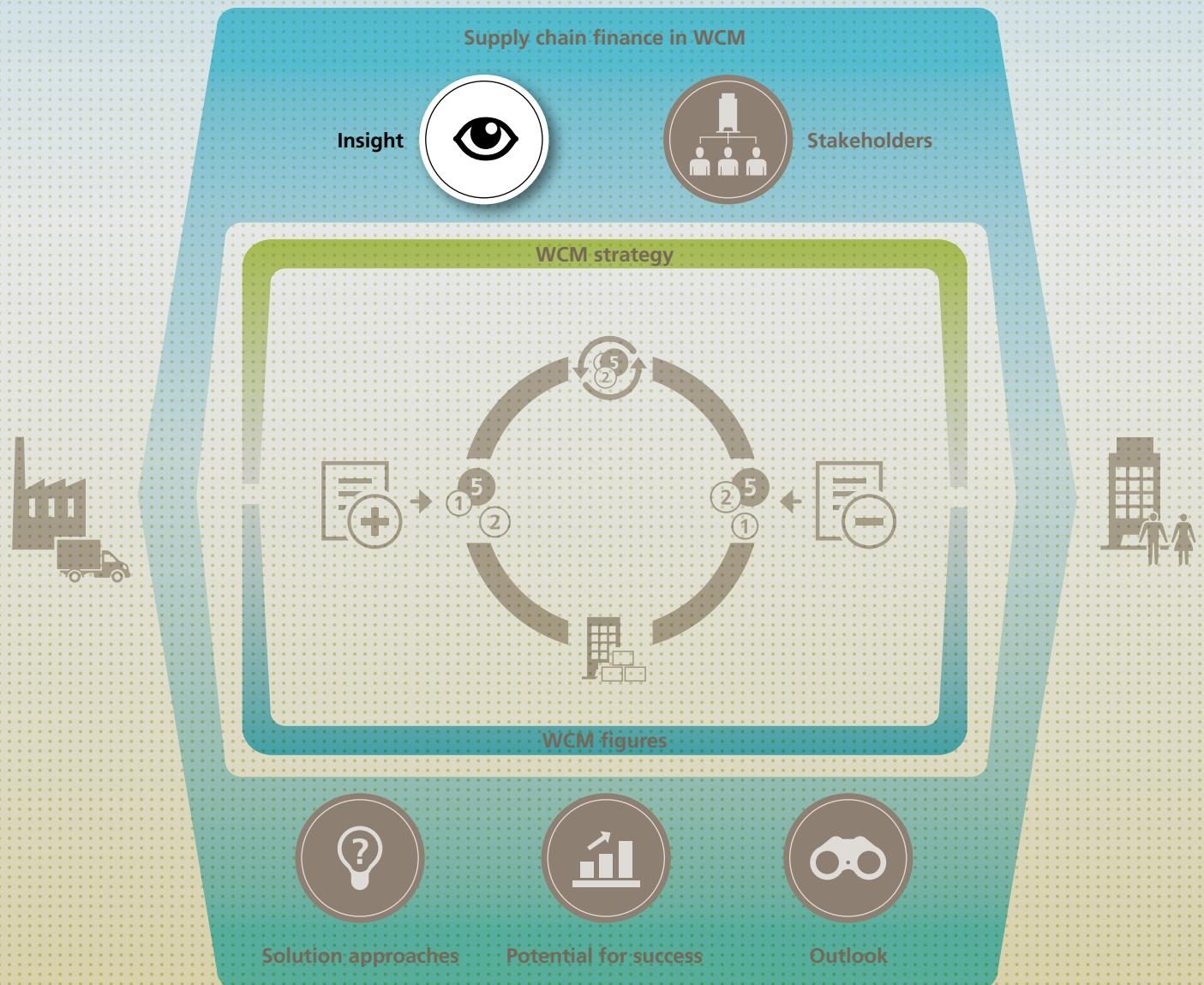
20 to 30 days before the start of the term on average

2 The Infrastructure division has introduced the following measures in the field of accounts payable:

The introduction of a new type of payment method means that payments are received before outgoing payment at the SBB for certain suppliers. The new payment method provides the flexibility required for a broad-based supplier financing programme.



Insight – what is SCF?

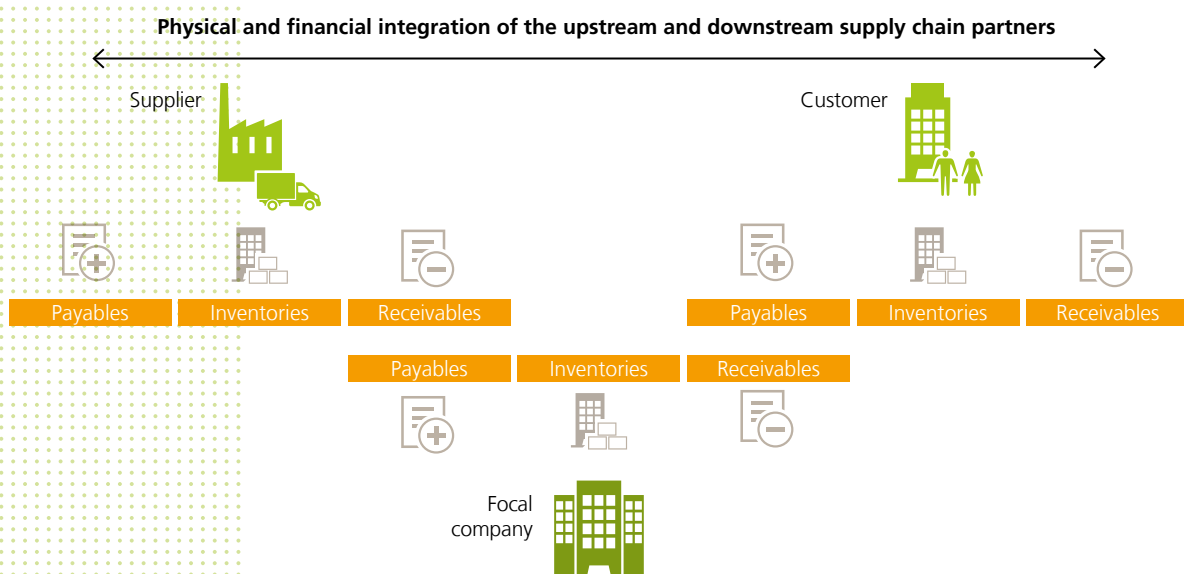


SCF focuses on optimizing the financial flows across the entire supply chain

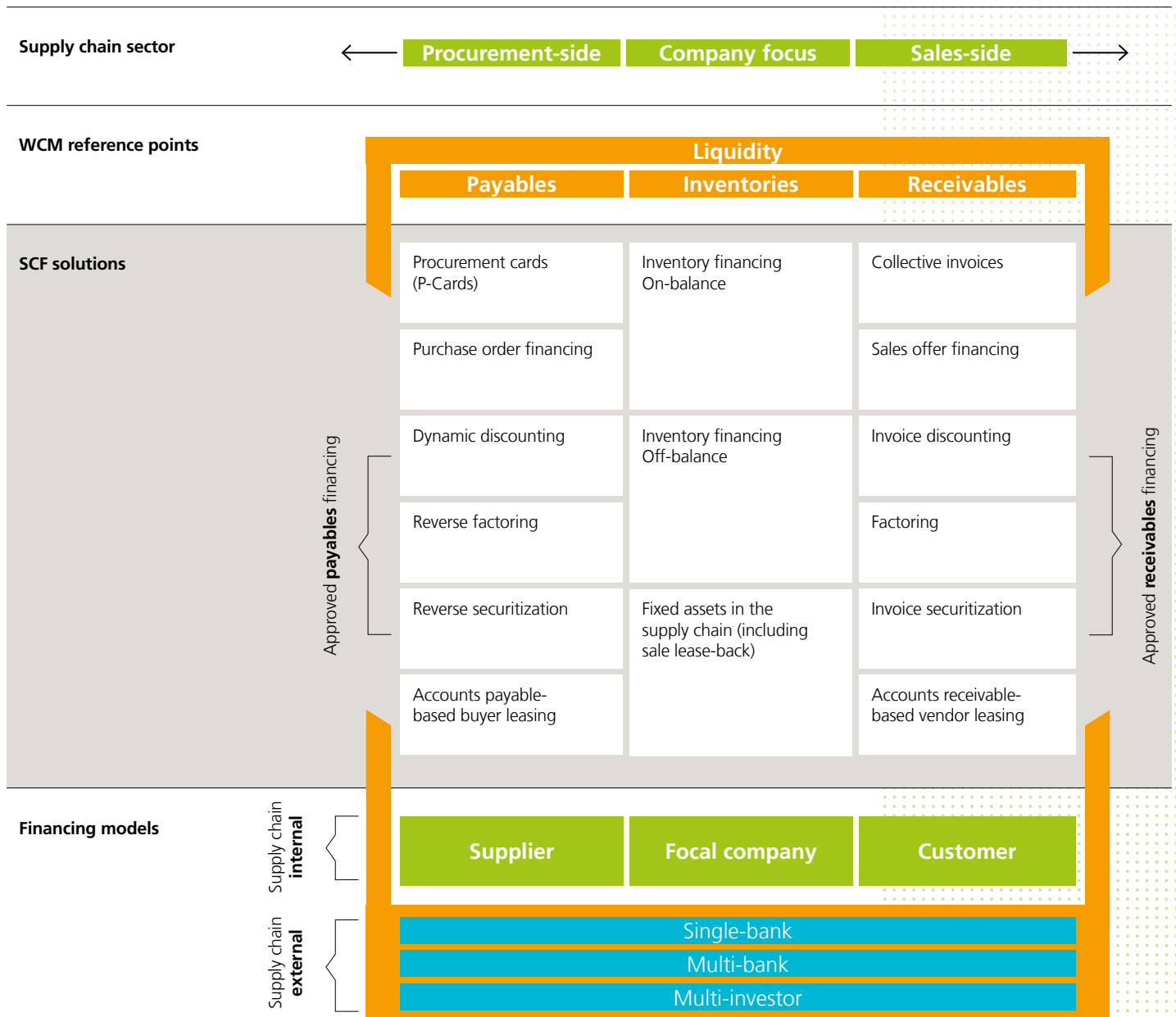
Supply chain finance (SCF) in the narrow sense is a financing solution that enables a customer to pre-finance payables towards their suppliers. This form of supplier financing – also known as reverse factoring – is the most common SCF solution.

However, SCF goes much further than that. The concept covers the financial flows of the entire supply chain and extends far beyond supplier financing. It aims to optimize cross-company working capital and the integration of financial processes between suppliers, customers and external service providers (e.g. banks, fintechs and logistics service providers). Under the broadest definition, supply chain finance covers the financing of all resources and capacities required for operating activities. In particular, this includes moveable assets (e.g. vehicles), plant and equipment (e.g. tools and machinery) and real estate (e.g. warehouses).

The main aims of SCF are the release of liquidity, the reduction of financing costs and the improvement of internal financing capacity. SCF therefore seeks to balance the various interests and financial objectives throughout the value-creation process and to improve the balance sheet and income statement figures of all parties concerned. The SCF platforms, which enable flexible integration and automatic processing of the flows of goods, information and finance between companies, also play a key role.



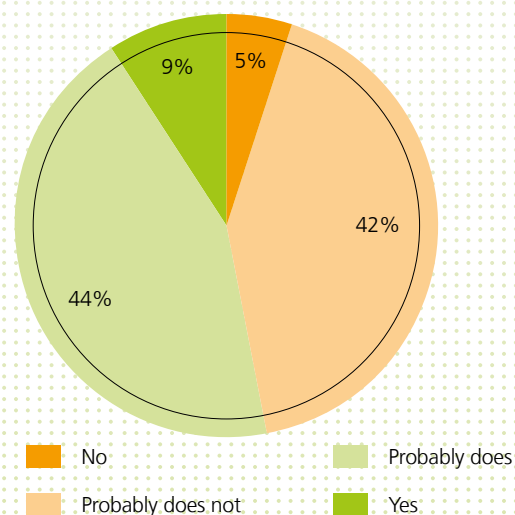
All areas of WCM can now be optimized with the SCF solutions available on the market



Swiss companies are failing to exploit SCF's potential to optimize their WCM due to a lack of expertise

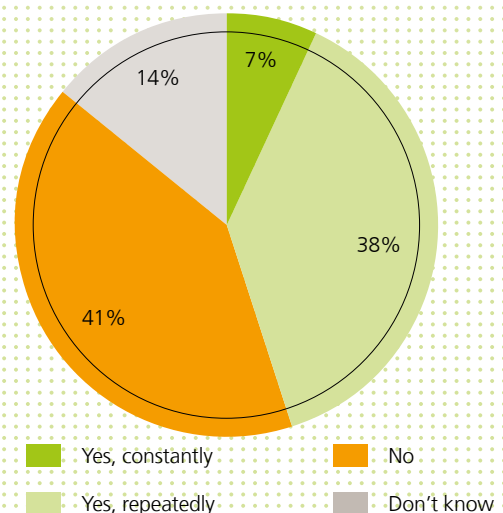
A wide range of SCF solutions are available. However, the study's results reveal that Swiss companies are still not fully exploiting the potential offered by SCF solutions. One reason for this is that employees have an insufficient level of SCF expertise. 42% of the experts surveyed indicated that the employees in their company probably do not possess the specialist knowledge required to set up SCF financing solutions with customers and suppliers. 5% of those surveyed even said that there is a complete lack of the skills required at their companies.

Does your company possess the expertise required to negotiate supply chain finance arrangements with customers and suppliers?

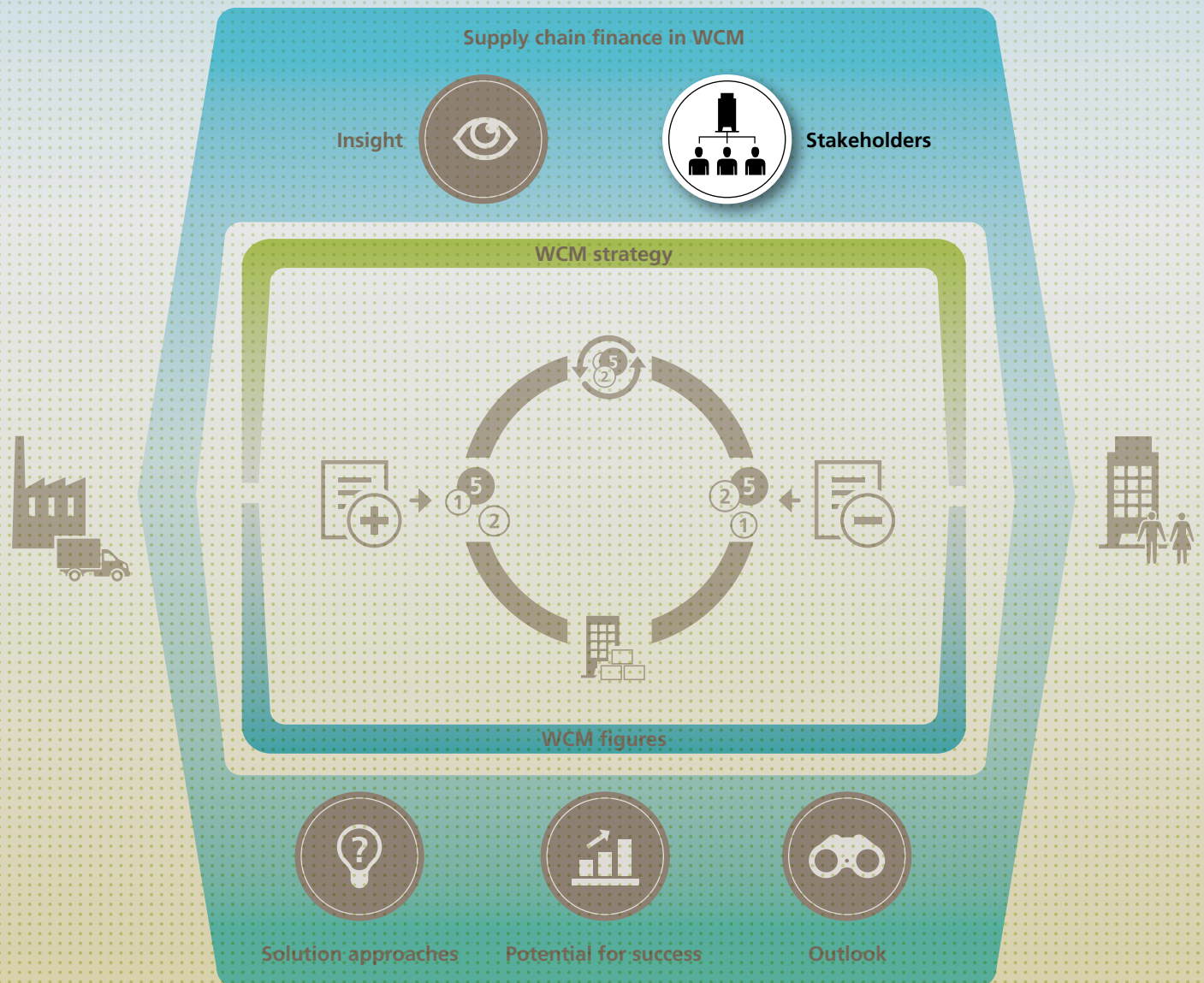


The lack of SCF expertise is an issue as it means enormous potential to improve performance, which extends far beyond WCM, is not being harnessed. For example, 45% of companies indicated that their suppliers have recurring problems in meeting their production requirements due to liquidity shortfalls. Targeted investment in SCF expertise not only allows the related negative impact on the company's own range of goods to be reduced, but also helps to improve the liquidity position of suppliers and customers over the long term.

Have your suppliers experienced problems with meeting production requirements due to liquidity shortfalls over the past three years?



How can I convince my SCF stakeholders?



Companies have to be particularly persuasive to ensure successful SCF implementation

In view of its cross-functional nature, SCF requires close coordination between individual internal and external stakeholders. Staff from procurement and logistics must work closely with colleagues from the finance department to ensure a united front in dialogue with suppliers. The traditional job profiles and skill sets of the individual stakeholders have to be improved in a targeted way using SCF expertise and a common understanding of SCF needs to be established.

However, cross-functional cooperation within a company also means greater potential for conflict. As a result, a key task of SCF managers involves constantly eliminating potential areas of friction, resistance and reservations held by individual SCF stakeholders. For example, why should buyers fight for extended payment terms when they are only measured by cost reductions?

Willingness to introduce SCF Suppliers

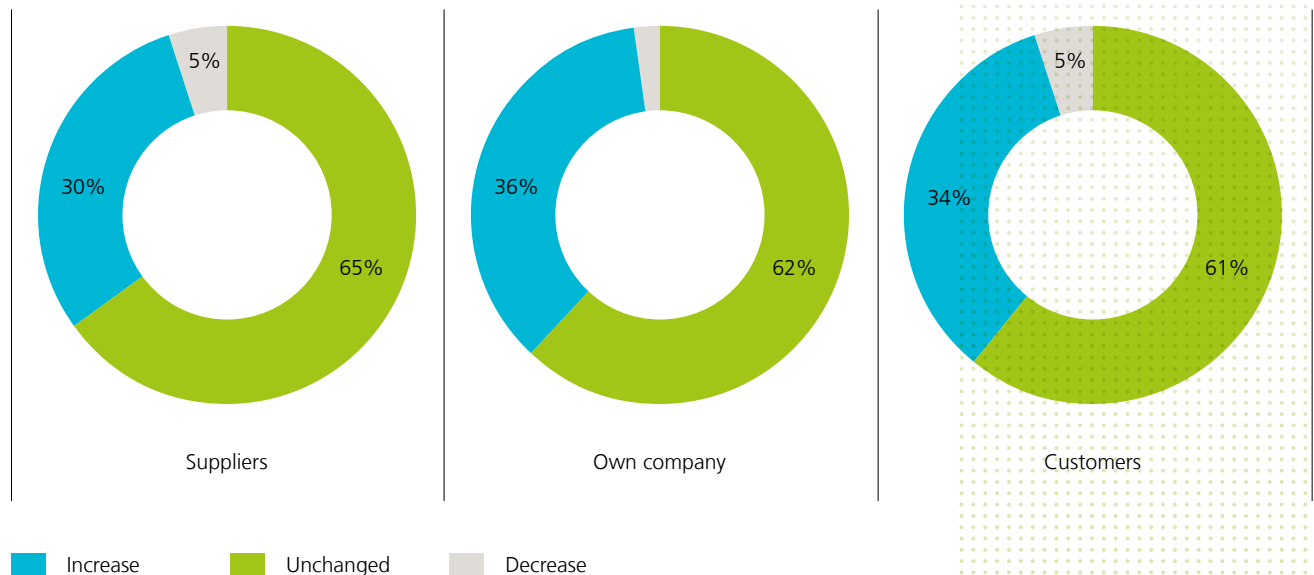


How many of your suppliers (as a percentage of total suppliers) do you think would be willing to introduce a reverse factoring solution?

This and many other issues concerning stakeholders highlight that a considerable degree of persuasion is required in SCF. This also reflects the views of those surveyed. They indicated that on average only around a fifth of their supplier base are willing to introduce a SCF solution in cooperation with them.

The willingness to introduce SCF has increased among all stakeholders

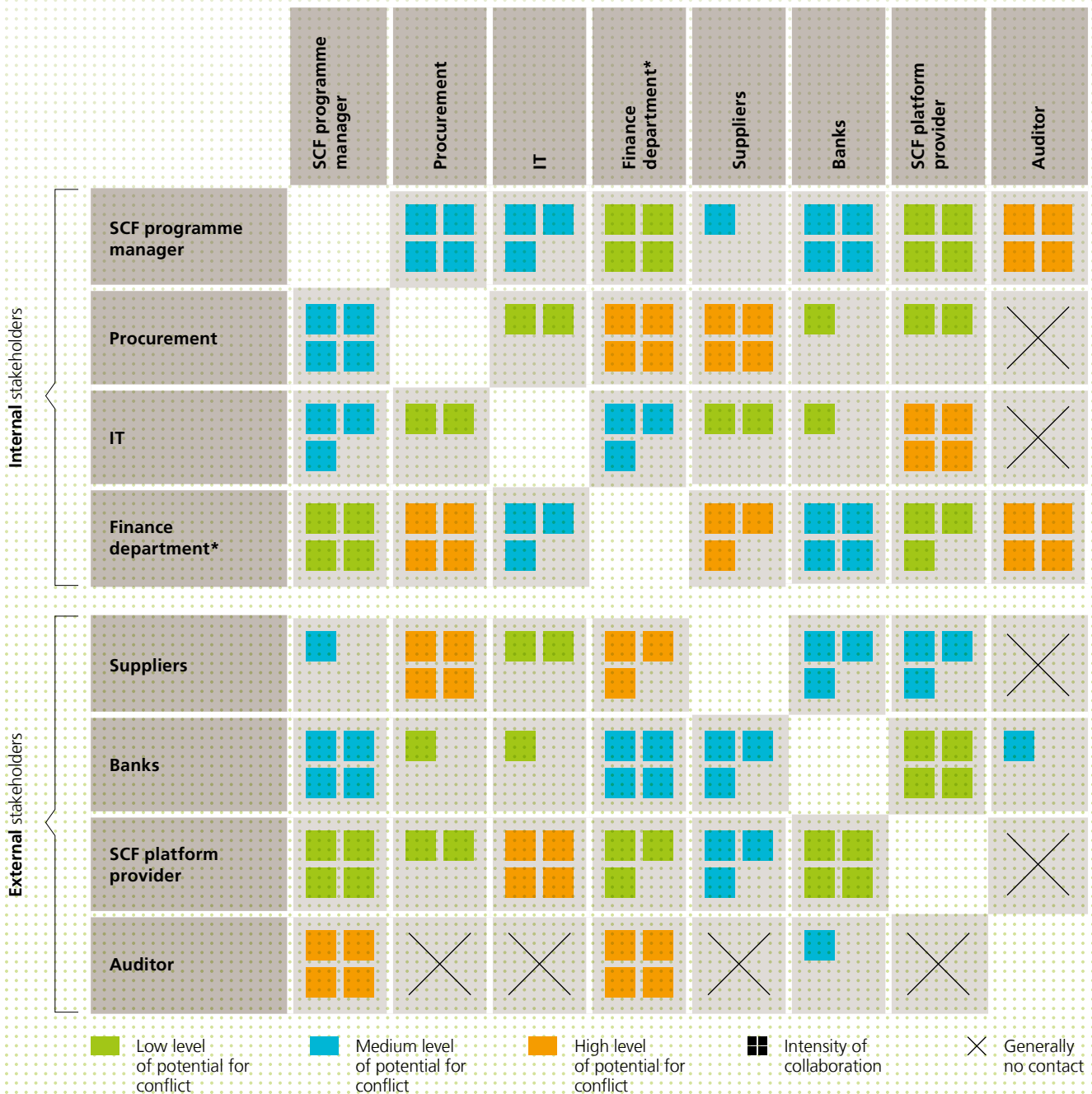
Has the willingness to introduce a supply chain finance solution changed over the past three years?



Receptiveness to SCF still remains at a comparatively low level among Swiss companies. However, around a third of those surveyed indicated that the willingness to introduce SCF solutions has increased significantly over the last three years, not just in their own company, but also among customers and suppliers. Overall, there seems to be a trend towards greater receptiveness towards collaborative WCM approaches. The SCF approach is also set to become more common in Switzerland in future.

There is a great deal of potential for conflict between SCF stakeholders

Perceived relationship intensity and potential for conflict in the example of a reverse factoring supplier financing solution ¹⁾



1) The results shown are based on the estimations of the companies surveyed which are using a supplier financing solution.

* Including treasury, accounting and controlling

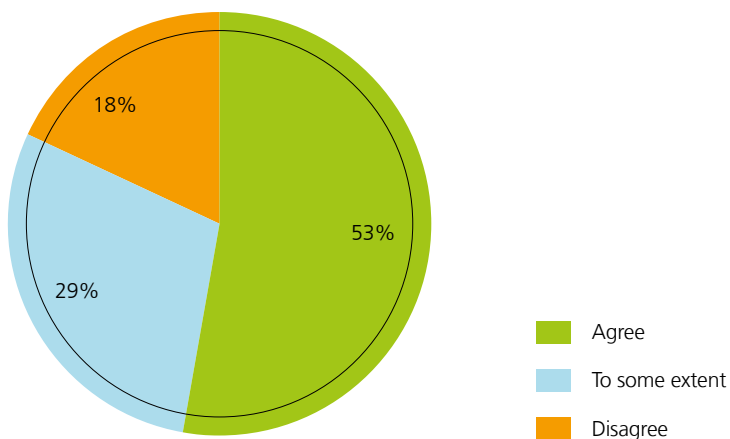
Successful SCF companies have found an answer to all relevant reservations

The study results show that it is not always easy to convince internal departments of a SCF solution, while also taking account of the concerns of external stakeholders, such as suppliers and auditors. Auditors in particular should be involved at an early stage – i.e. when the SCF programme is being structured – to obtain their evaluation of the impact on accounting and financial reporting. The persuasive efforts are worthwhile as customers who proactively offer their suppliers earlier payments through a SCF programme enjoy clear competitive advantages, according to the majority of the companies surveyed.

Which specific good practices have the SCF companies used to find answers to the reservations and challenges expressed by their stakeholders? Which specific measures are they taking to alleviate the existing potential for conflict?

We asked certain SCF programme managers to share with us the answers to the main reservations and challenges of their purchasers, finance managers and suppliers. The results are summarized on the following pages and refer to a supplier financing solution (reverse factoring).

Do you think that customers who proactively offer their suppliers earlier payments enjoy a competitive advantage?



Top ten challenges and reservations of **procurement departments** about SCF programmes

	Reservations and challenges expressed	Possible answers and measures
1	"The different supplier structures per division and/or business area rule out company-wide implementation of the SCF programme (e.g. standard vs. distance deliveries)."	It should be underlined that the participation of all divisions and departments in the SCF programme is neither necessary or intended. This also does not affect the agreed delivery conditions of the SCF programme.
2	"There is a danger that we could annoy our strategic suppliers with the active marketing of the SCF programme, jeopardizing security of supply for production."	Before making contact, checks should always be carried out to determine whether or not the SCF programme is suitable for a supplier. Not all suppliers qualify for participation in the SCF programme.
3	"The complicated contract administration prevents our suppliers from taking part in the SCF programme."	Standardized contracts and joint training and workshops with the suppliers ensure clarity about the contractual terms of the SCF programme.
4	"The most attractive suppliers in terms of volume have the longest decision-making processes and are difficult to attract on board the SCF programme."	Decision-making obstacles have to be eliminated through clearly defined communication channels and a common understanding of the cross-interface cooperation established as part of the SCF programme.
5	"We would have to invest too much time and too many resources to incorporate working capital management into our actual operations."	The long-term benefits and efficiency improvements of the SCF programme have to be highlighted and procurement has to be given the resources required.
6	"There is no incentive for us to implement the SCF programme with our suppliers. Why should we fight for extended payment terms when we are only measured by cost reductions?"	Procurement must be offered the right incentives for cooperation on an SCF programme with relevant performance indicators (e.g. by incorporating cash flow figures into the target agreement).
7	"We lack the financial expertise required to discuss the financial benefits and terms and conditions of the SCF programme with suppliers."	Ideally, all buyers concerned should be given internal training at the outset so they acquire the financial and sales knowledge they need for the SCF programme.
8	"Relevant suppliers cannot be incorporated into the SCF programme as their receivables have already been pledged or assigned as collateral."	It can be argued that the supplier can easily extend the terms of payment in the SCF programme as early payment has already been secured through the assignment of receivables.
9	"Our contact partner at our supplier cannot convince his line manager to approve the extended payment terms provided for in the SCF programme."	The benefits of the SCF programme for suppliers should be highlighted in a targeted way (e.g., they don't have to use the line of credit from their own bank).
10	"Our suppliers do not take part in the SCF programme as they have generally never granted their customers an extension of payment terms."	Industry standards can help to reach agreement with suppliers on the SCF programme.

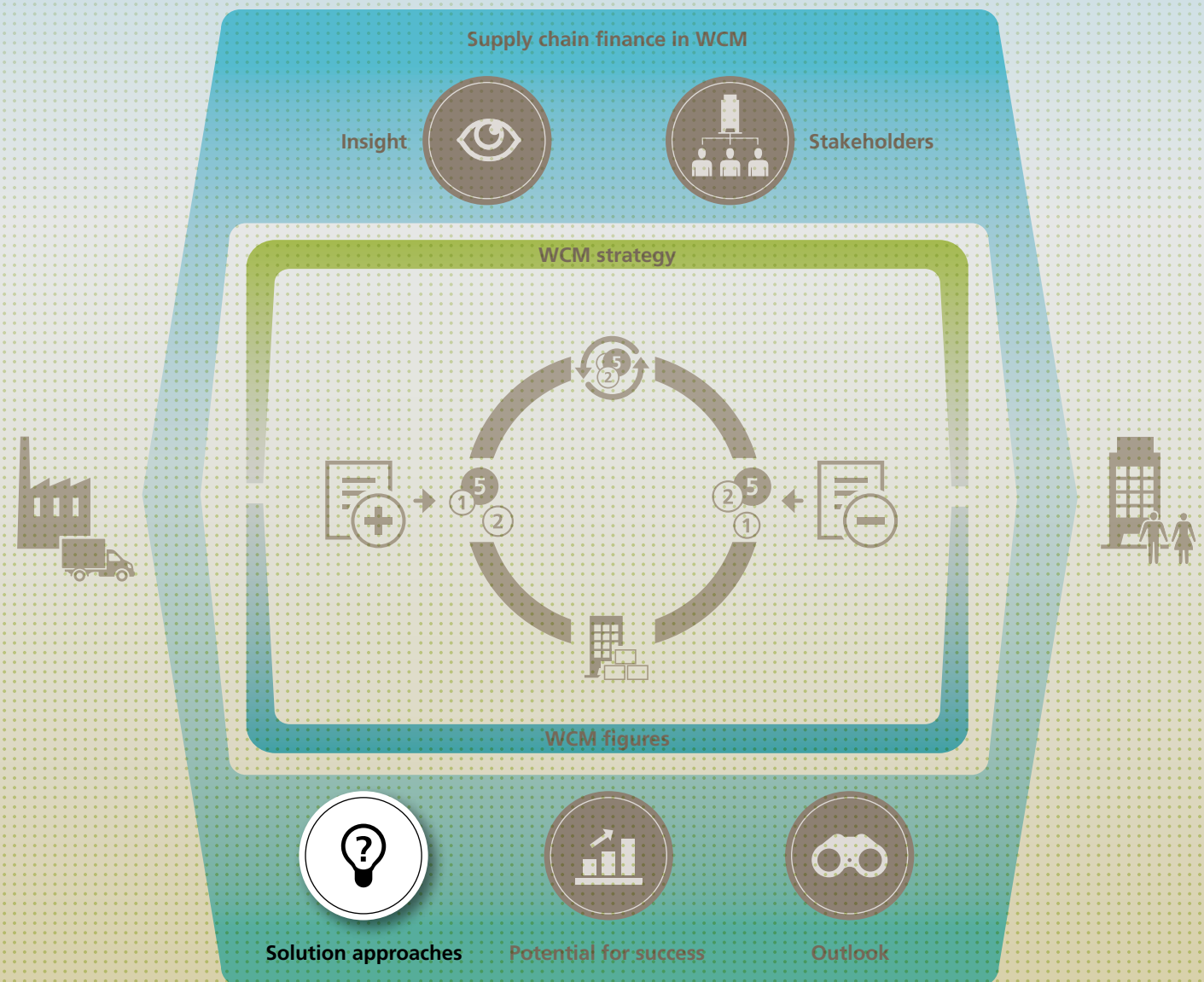
Top ten challenges and reservations of **finance departments** about SCF programmes

	Reservations and challenges expressed	Possible answers and measures
1	"The benefits of the SCF programme are limited as our auditor gives us very limited scope for using the initiative in the budget."	Auditors must be involved in the planning and implementation process for the SCF programme at an early stage to identify and determine the mandatory guidelines in good time.
2	"We lack the coordination capacity to organize the communication between the internal company stakeholders in relation to the SCF programme."	The set-up of a SCF programme task force facilitates the management of communication between internal (and external) stakeholders.
3	"There are internal and external stakeholders who are not committed to and do not support the SCF programme."	The stakeholders affected should be contacted directly to provide them with a better understanding of the root causes of the SCF programme and to introduce specific measures.
4	"The SCF provider does not work with our bank and/or the financial institutions prioritized by us."	Contact the SCF provider to discuss potential cooperation with its bank or select an SCF provider that already works with its bank.
5	"Our business units are very reluctant to use the SCF programme as they have to use their own budget for it."	The organization of a centralized budget at company level can accelerate the adoption process. This lowers the inhibition threshold as the division's own budget does not have to be used for the SCF programme.
6	"The cost-benefit ratio of the SCF programme is not worthwhile for many small suppliers."	Define a minimum delivery volume to ensure an adequate cost-benefit ratio and carry out careful supplier segmentation for the SCF programme at the outset.
7	"The achievable EBIT effect through discounts exceeds the EBIT effect of the SCF programme."	Carry out a clear cost-benefit analysis to check whether the effects of the SCF programme are short-term or long-term.
8	"The financeable procurement volume may be too low in if a major supplier goes bankrupt for the SCF programme to be worthwhile."	Regularly monitor the financial situation of critical suppliers and define clear criteria that trigger appropriate support measures if there is a threat of insolvency.
9	"The SCF programme means we lose our entitlement to claim discounts provided for early payment."	The extent to which the benefits of extended payment terms through the SCF programme outweigh discount claims must be clearly shown.
10	"It's unclear who has to bear the costs in the SCF programme if one of our suppliers falls into arrears."	Roles and responsibilities should be determined clearly and transparently right at the start of the SCF programme for all stakeholders.

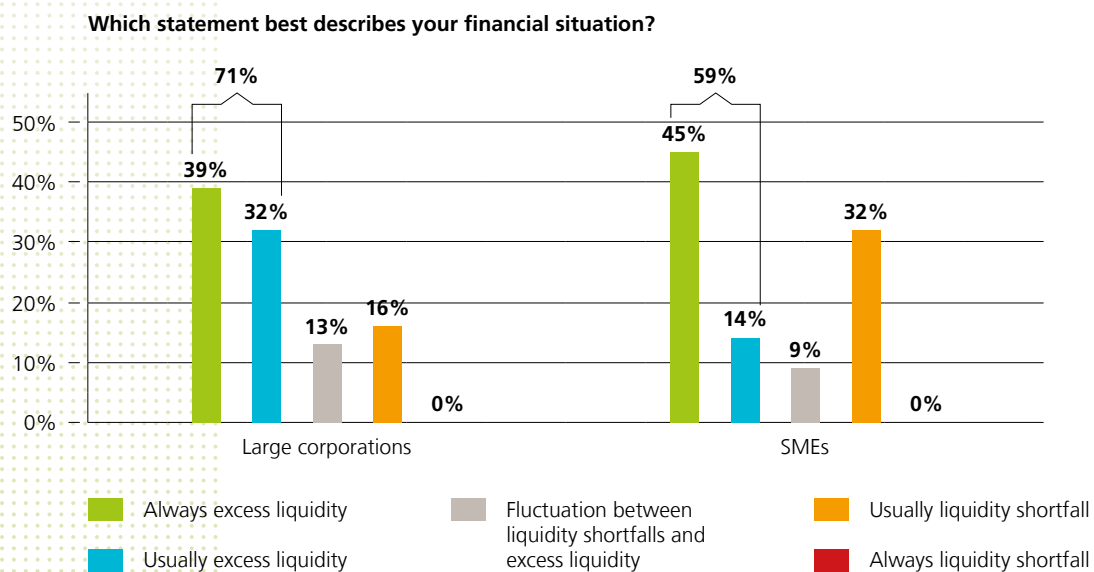
Top ten challenges and reservations of suppliers about SCF programmes

	Reservations and challenges expressed	Possible answers and measures
1	"The banks do not provide an acceptable and attractive fee structure for SCF programmes."	Identify the problem areas in the fee structure and cooperation with banks and suppliers at an early stage to negotiate a suitable agreement on the SCF programme.
2	"We are not willing to bear the IT implementation costs of the SCF programme."	Help to identify possible resources that could be used to meet implementation costs for suppliers to motivate them to take part in the SCF programme.
3	"We don't agree with the extended payment terms of the SCF programme and want to use our own standard conditions."	Explain that the average time period until receipt of payment is significantly reduced for suppliers despite the extended payment terms.
4	"We cannot work with too many banks on account of our business structures which is why we don't want to participate in the SCF programme."	Help suppliers implement the SCF programme and standardize certain processes to keep complexity as low as possible.
5	"Our IT department is concerned about the complexity and scope of the SCF programme."	Organize workshops with the IT department to provide them with information about the scope of the SCF programme in general and show them examples from the sector.
6	"We have a stable cash flow and are not interested in accelerating our accounts receivable as part of a SCF programme."	Indicate that the SCF programme offers a competitive interest rate and offers many other benefits (such as better predictability of receipt of payments and consistent payment terms).
7	"We want a contractual clause that enables us to return to the original terms of payment if the SCF programme becomes unattractive to us (e.g. due to interest rate changes)."	Ensure that suppliers can always choose whether they wish to take advantage of early payment.
8	"There is a business relationship between you as the customer and us as the supplier and we don't want any other intermediaries in this relationship."	Highlight the benefits of the programme and support the SCF managers in setting up of communication channels and cooperation between the supplier and intermediary to build a relationship based on trust."
9	"If payment terms are extended to 90 days, we would have to increase the sale price and/or the proportion of advance payments."	Explain that the intention is not to pay higher prices if you pay the market rate and a potential price increase can have an adverse effect on the general competitiveness of the supplier concerned.
10	"We are concerned that the time until receipt of payment will be longer due to the complexity of our payment processes."	Highlight that suppliers receive payment without delay under the SCF programme provided the invoices are not disputed.

Which SCF solution is best suited to my WCM strategy?



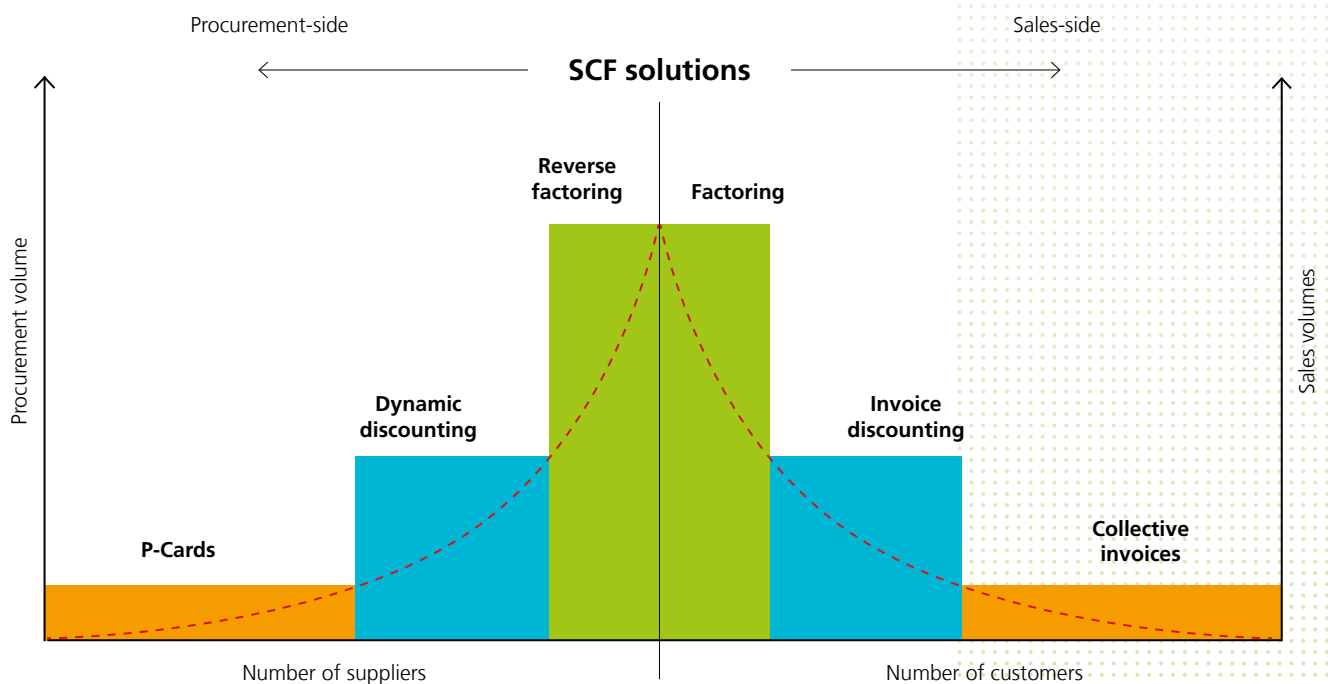
The financial situation is a first key indicator for choosing the right SCF solution



The liquidity situation is a first key indicator to show which SCF solution is best suited to your own company and your own WCM strategy. The survey shows that 71% of large corporations and 59% of SMEs usually or always have excess liquidity. This means that most companies have sufficient financial resources to meet current payment obligations. Does this mean that SCF is irrelevant for these companies? No, quite the opposite: companies with strong liquidity positions can use their excess liquidity – for example, through the SCF dynamic discounting solution – to support suppliers with poor liquidity positions and at the same time improve their own EBITDA over the long term.

Interestingly, the proportion of companies that always have excess liquidity is even higher in the group of SMEs surveyed than amongst the large corporations (45% vs. 39%). This indicates that the Swiss SMEs surveyed generally operate successfully in their respective markets. However, there are also more SMEs facing liquidity shortfalls than large corporations in percentage terms (32% vs. 16%). This shows that not all companies have sufficient cash despite the continued negative interest rate environment. Using SCF solutions such as factoring or reverse factoring is ideal for this group of companies to finance their corporate growth.

Choosing the right SCF solution largely depends on the procurement or sales volume structure



Another key factor to be taken into account when selecting a SCF solution is the composition of procurement and sales volumes with suppliers or customers. Offering reverse factoring to all suppliers is not necessarily advisable. One reason for this is that procuring customers may have to use bank credit lines for each additional supplier. Another is that banks are generally not interested in providing interim finance for smaller suppliers as meeting KYC requirements is expensive. The situation is similar with factoring on the customer side.

Given this situation, leading SCF companies provide a combination of different SCF solutions rather than just one SCF solution. Dynamic discounting (invoice discounting), for example, is particularly well suited to financing medium-sized suppliers (customers). Meanwhile, the use of procurement cards (P-Cards) is ideal for lower-volume suppliers providing non-critical goods. The use of collective invoices is a good option for customers who are not significant in terms of sales.

Factoring: reduces financing costs and optimizes customer-side payment flows

Factoring allows companies to benefit from the good credit standing of their customers and to secure liquidity inexpensively as outstanding customer receivables are paid early. To avoid giving customers the impression of a weak liquidity position, Swiss companies often make use of what is called silent factoring. In contrast to disclosed factoring, customers do not know that your receivables have been assigned to a bank.

Factoring is particularly worthwhile for companies which have to grant their customers long payment terms, contend with high outstanding payments or have irregular receipt of sales revenue. As the figures-based example of a Swiss SME shows, the potential of factoring depends significantly on sales volumes, the financing period, the existing and future payment terms and the current financing costs.

	Status quo	Status quo (with factoring)	New situation Extended payment terms (without factoring)	New situation Extended payment terms (with factoring)
Revenue (in CHF)	20,000,000	20,000,000	20,000,000	20,000,000
Payment term (in days)	30	30	90	90
Financing costs	6% ¹⁾	2% ²⁾	6%	2%
Receipt of payment (in days)	30	3	90	3
Financing costs p.a. ³⁾ (in CHF)	98,630	9,863	295,890	9,863
Factoring costs p.a. (in CHF)		29,589		95,342
Total costs (in CHF)	98,630	39,452	295,890	105,205
Reduction of financing costs p.a. (in CHF)		CHF –59,178		–190,685

1): This is the weighted average cost of capital (WACC) of the SME (= opportunity cost of the capital tied up).

2): Includes the factoring charges.

3): Are calculated as follows: invoice amount * interest rate * time period (days/365).

Reverse factoring optimizes working capital along the supply chain and strengthens supplier relationships ...

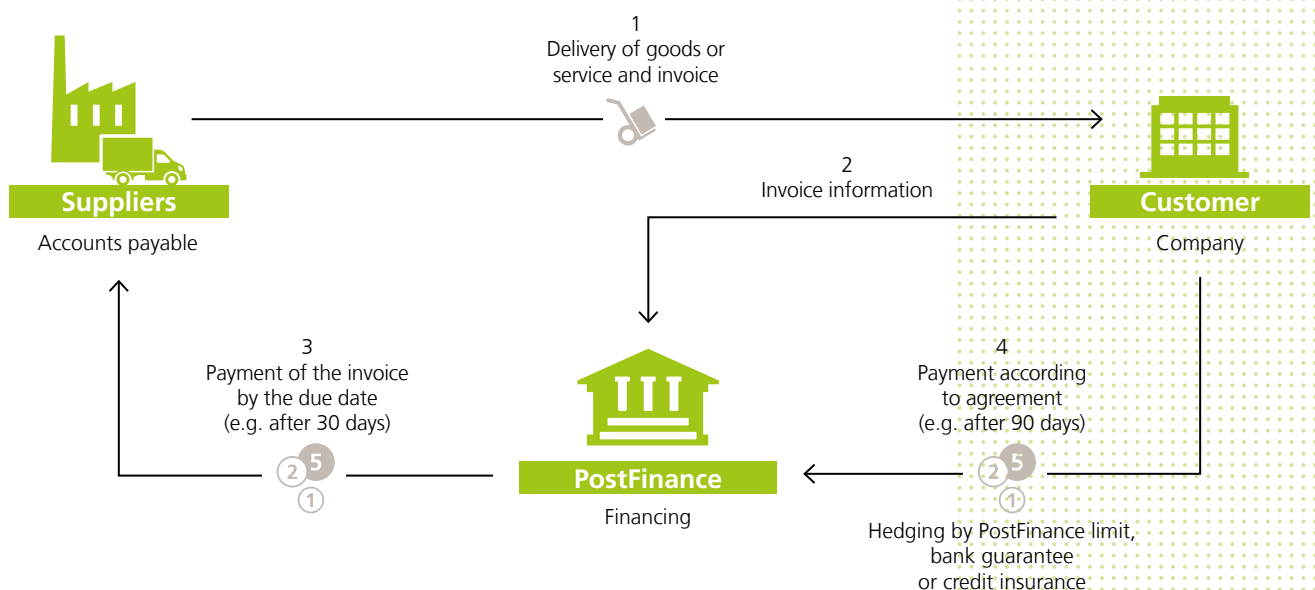
The challenge

Unilateral optimization of accounts payable jeopardizes the relationship with suppliers. Payment term extensions or late payment generally have a negative effect on how satisfied suppliers are, especially if they encounter cashflow problems or have little financial leeway.

The solution

PostFinance's reverse factoring solution helps resolve this conflict of interests and enables the goals of a later payment deadline and good supplier relationships to be achieved. PostFinance takes over the customer's accounts payable to its suppliers and guarantees on-time payment on behalf of the customer. Customers can decide for themselves when they repay the amount to PostFinance (e.g. after 180 days). Extending the payment term increases the customer's room for manoeuvre financially, while suppliers are paid on time. The customer decides each month on a flexible basis – depending on liquidity requirements – when they wish to use the reverse factoring solution.

Reverse factoring solution from PostFinance



... and improves the income statement and balance-sheet figures

Main advantages

Improvement of balance-sheet figures
by increasing trade accounts payable



Increase in internal financing capacity
by reducing financing costs and the level of debt



Increase in liquidity
by extending the payment terms



Strengthening supplier relationships
through flexible provision of liquidity



Who is the reverse factoring solution particularly suitable for?

Reverse factoring is particularly beneficial for companies with ...

... trade accounts payable of over CHF 10 million

... higher liquidity requirements, e.g. for business growth

... debt financing costs of more than 1.5%

Case study: Philips

Dynamic discounting: increases the profit margins of customer companies with strong liquidity positions ...

The challenge

Philips needed a working capital solution that would cover its overall expenditure, have a high EBITDA effect while also supporting suppliers with a fair price mechanism and making them lower risk. Philips' aim was to meet the liquidity requirements of each individual supplier at the right time and at the right prices, while at the same time benefiting fairly itself. The idea was also to integrate the solution smoothly into the existing SCF programme without changing peer-to-peer processes.

The solution

Philips opted for the dynamic discounting platform solution provided by C2FO and launched an early-payment programme to meet the fluctuating demand for working capital in the upstream supply chain. In an initial step, the C2FO platform allows suppliers to claim discounts on invoices which they wish to speed up. In a second step, an algorithm compares the offers submitted by suppliers with the discount requirements of Philips. On average, 97% of suppliers submitting an offer receive discounts for early payment. The programme was rolled out in 60 countries in ten weeks without having a negative impact on existing ERP systems.

Philips is a Dutch technology company which specializes in healthcare technology and household appliances. It has 77,000 employees worldwide and generated revenue of EUR 18.1 billion in 2018.

The fintech company **C2FO** was founded in 2008 and specializes in the field of marketplace platforms for working capital solutions.

... and also provides flexible access to liquidity for suppliers

Main advantages

Procurement

Strengthening of supplier-relationships, reduction in supplier risk, minimal expenditure on supplier retention

Finance

Increase in EBITDA, control over the impact on WCM figures, support with accounting at overall accounts and profit center level

Treasury

Support with hedging of foreign currencies, use of tied cash, while maintaining flexible cash inflows

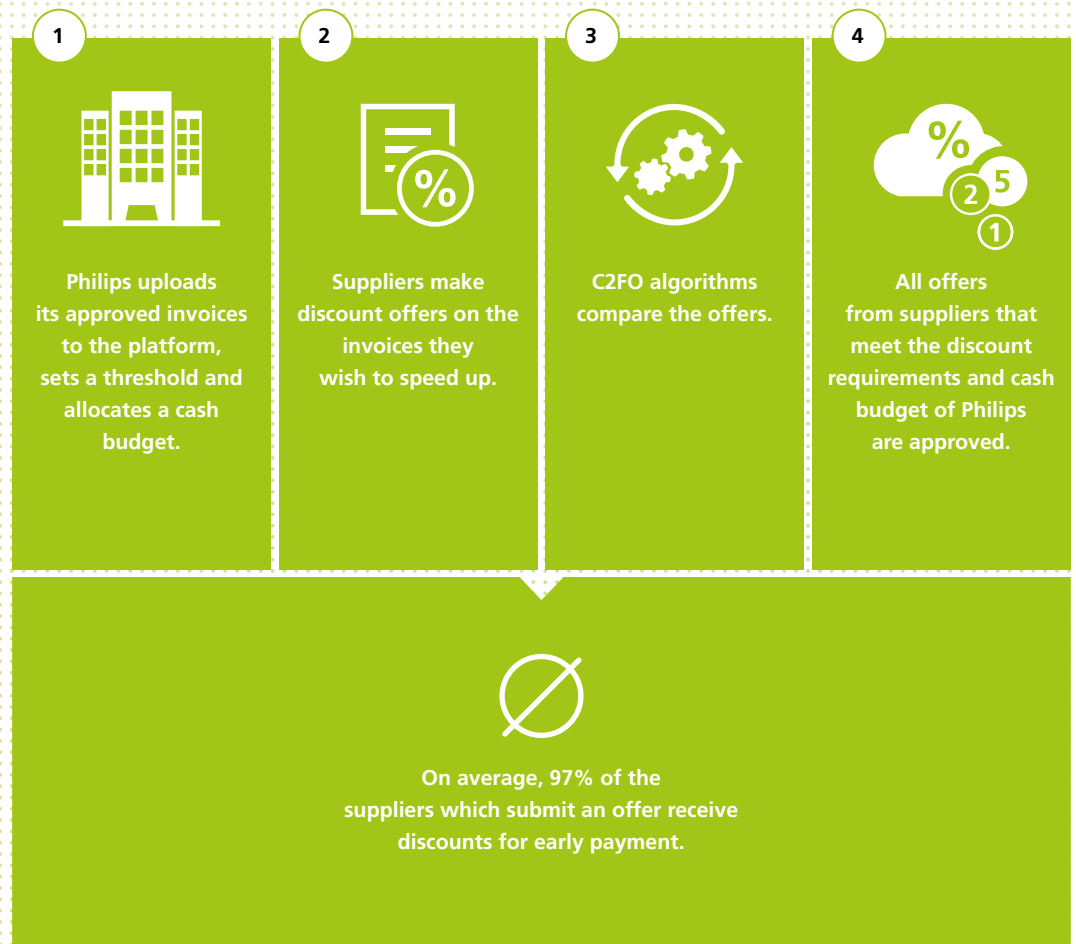
IT

No integration costs for ERP, minimal resource requirements, coordination with other strategic initiatives

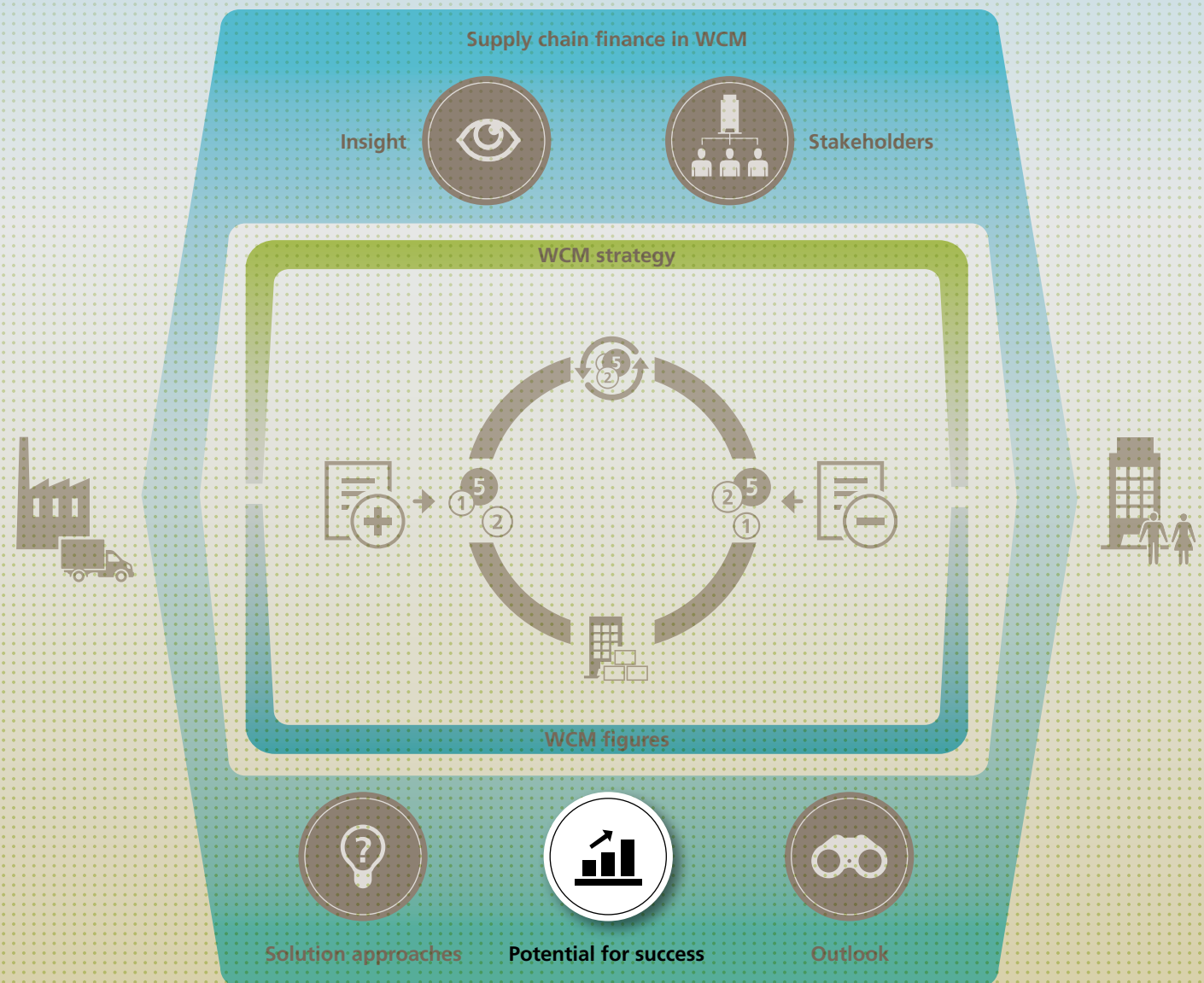
Tax

Compliance with all tax regulations, opportunity to implement complex tax structures

The key steps in the dynamic discounting solution

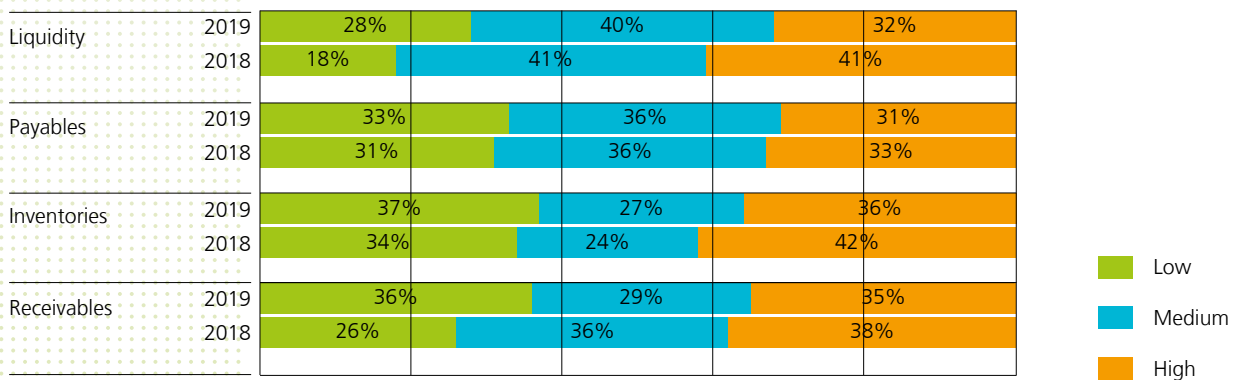


What potential for success does SCF offer?



The potential of SCF is rated medium to high for all four areas of WCM

How do you assess the potential of supply chain finance for achieving improvement potential in the four areas of WCM?

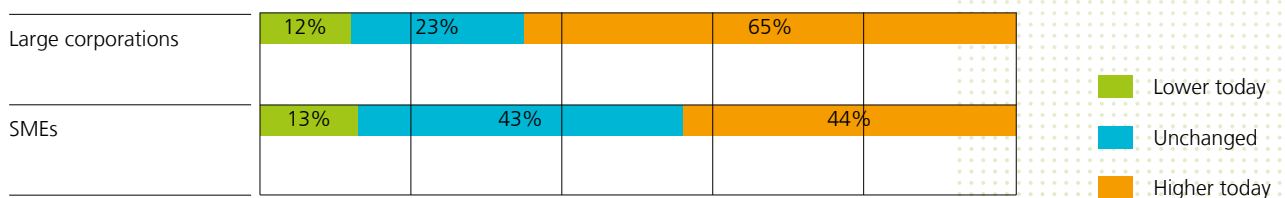


The survey shows that the potential of SCF is considered relatively high in all four WCM areas of performance. Like the previous year's survey, there are not significant differences with regard to the identification of potential between receivables, inventories, payables and liquidity. This suggests that the potential opportunities of SCF play a key role for companies in all areas of WCM.

The balanced assessment may be due to the fact that the introduction of a SCF solution rarely affects just one single area of WCM. Systematic accounts receivable management, supplemented with factoring, for example, reduces not just the del credere risk, but also results in an improvement of the liquidity situation by accelerating the payment processing procedure.

SCF secures the capital for company growth and increased working capital requirements

How have your working capital requirements changed over the past three years?



65% of large corporations and 44% of SMEs indicate that working capital requirements have increased over the past three years. The proportion of companies that have lower requirements today is comparatively low at 12% and 13%.

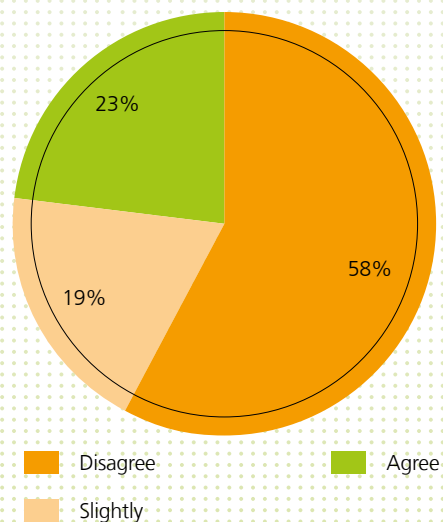
Corporate growth is the main reason for the increased working capital requirements indicated by the companies surveyed. However, other reasons given were longer payment terms required by customers, increased inventories due to product diversification, ramp-up effects owing to new innovations or pre-financing provided.

The increased working capital requirements underline why the experts surveyed regard the potential of SCF as relatively high in general terms: not only does it allow companies to finance their growth with working capital released, but it also helps the liquidity situation of up-stream and downstream supply chain partners and allows them to participate in the company's own growth due to its collaborative nature.

SCF improves the balance sheet and income statement by releasing working capital tied up in the supply chain

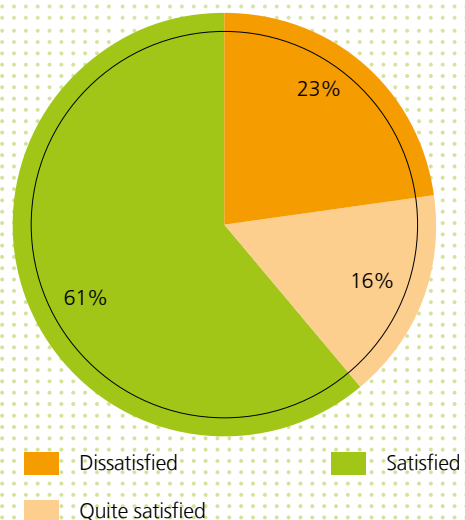
Despite the continued low interest-rate environment, companies are not borrowing more debt capital now than before the financial crisis. On one hand, this is explained by the fact that while debt capital is relatively inexpensive, it remains a limited resource for many companies – especially SMEs. On the other, companies are opting to draw on internal sources of finance as not only are they inexpensive, but they can also be immediately converted into cash. In contrast to external financing, internal company finance does not have to be applied for via a protracted loan approval process.

Is your company borrowing more debt capital today than before the financial crisis on average due to the low interest-rate environment?

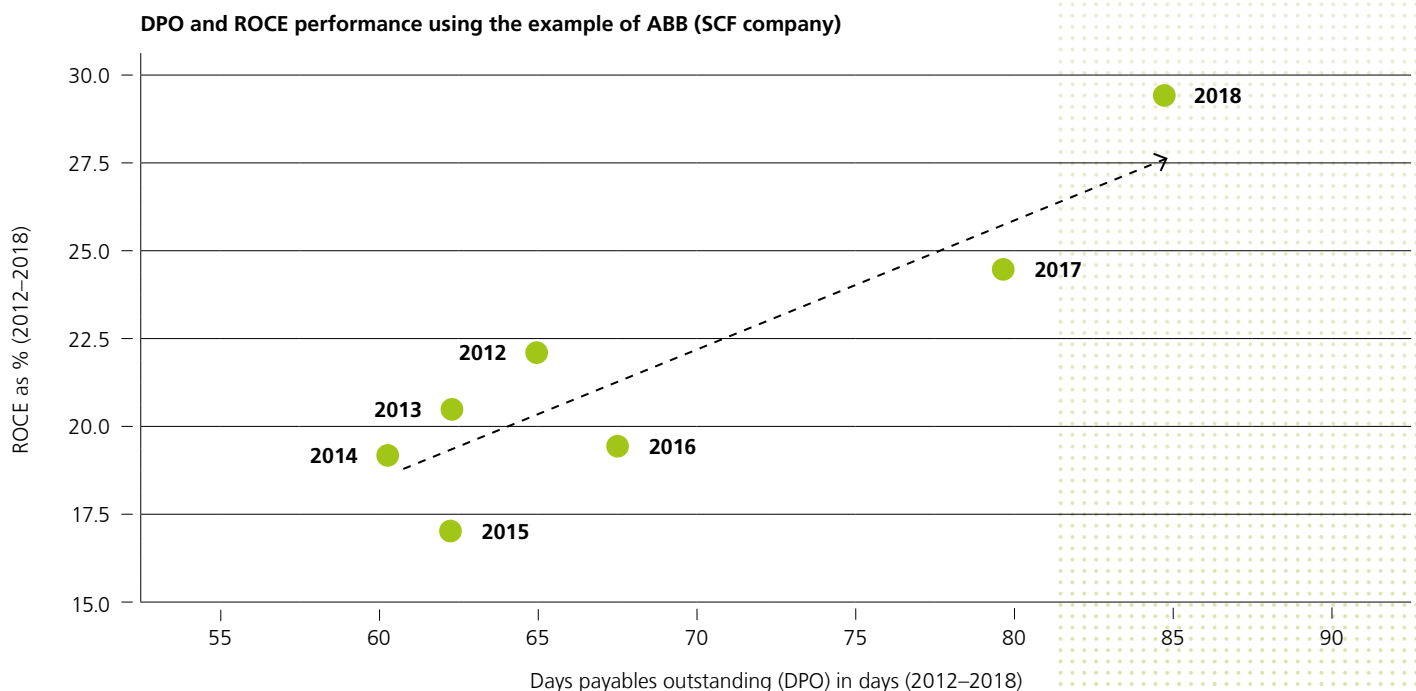


SCF is acting as a pioneer in this respect to release the capital tied up in the supply chain and, as a result, improve the balance sheet and income statement figures; not just for companies which are not satisfied with their capital structure (23%) or only moderately satisfied with it (16%), but also for companies which are already satisfied with their own capital structure (61%).

Are you satisfied with your company's capital structure?



Reverse factoring increases the accounts payable term and has a positive impact on return on capital

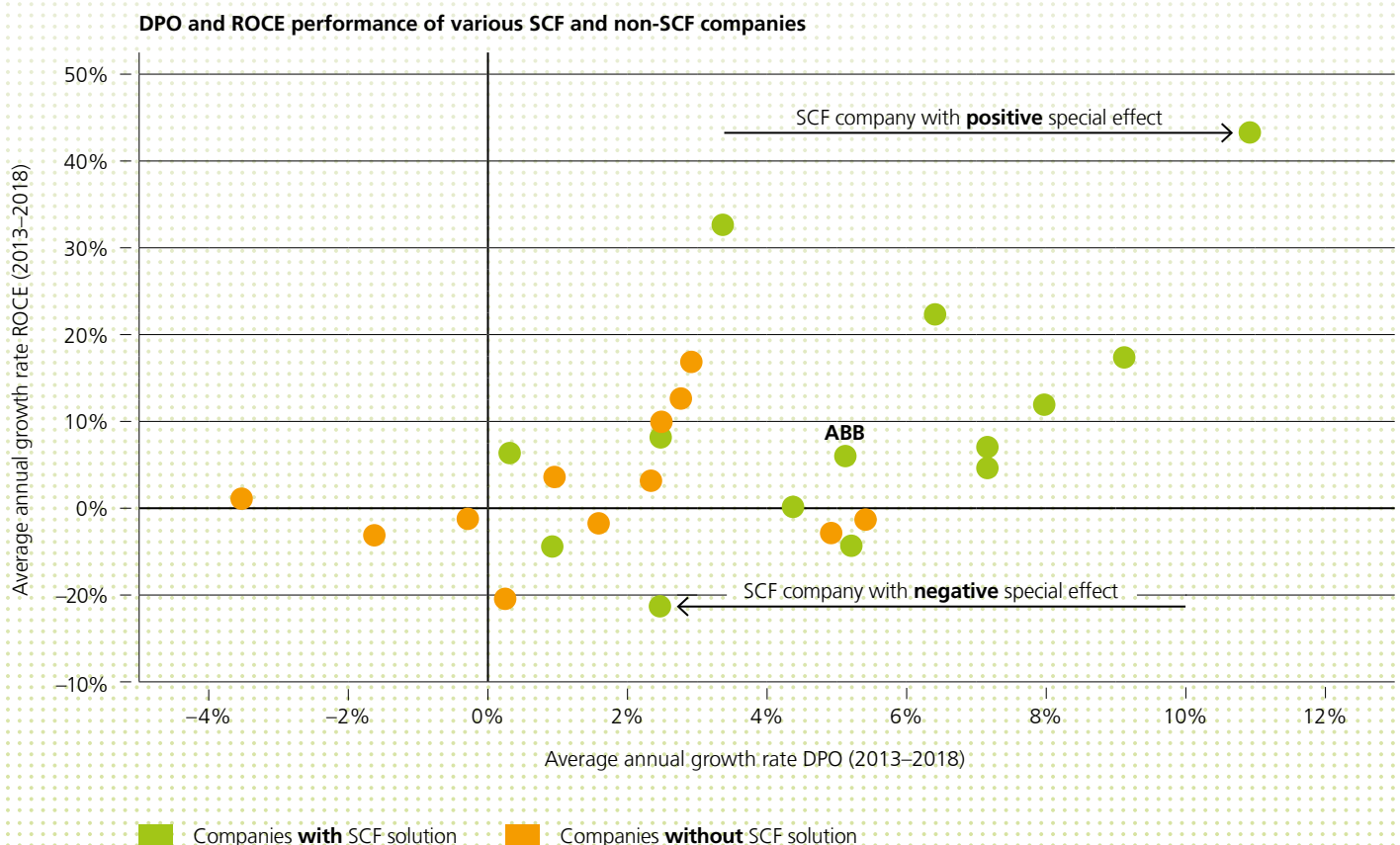


At least since the financial crisis, many companies are considering using capital tied up in the supply chain as a financing source. One of the main reasons for addressing SCF is that it is an acceptable extension (reduction) of payment terms for suppliers (customers).

The example of ABB, who took part in the study, shows that SCF meets this requirement. Since the introduction of the reverse-factoring programme on the procurement side, the average accounts payable term has increased by around 20 days without adversely affecting the situation of suppliers. In contrast, suppliers are paid even earlier today than before the introduction of the SCF programme.

The example does show that huge resilience is required for SCF and the positive effects are not generally reflected in the balance sheet figures. Only once the procurement volume financed via the SCF solution has reached a critical mass, will the positive performance effects be reflected in the balance sheet figures. Aside from this, special effects always have to be taken into account when interpreting WCM figures. These effects dilute the operating result either positively or negatively and prevent a causal relationship to the SCF programme from being established.

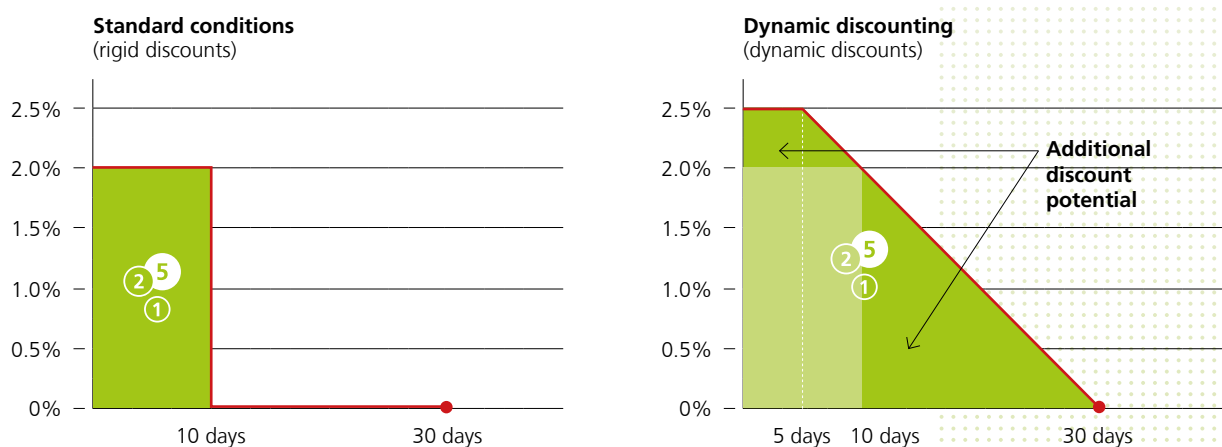
Companies with reverse-factoring programmes clearly stand out from the competition



There are positive performance effects not just at ABB, but also at other companies that use a reverse factoring programme. The annualized growth rates of the days payables outstanding (DPO) and return on capital employed (ROCE) tend to be highest at companies which use procurement-side SCF programmes.

It is worth looking at WCM over various periods during the course of time as return figures (e.g. ROCE) are heavily influenced over the short term by the use of accounting instruments. A dynamic evaluation takes account of the fact that short-term accounting measures only usually achieve a recognizable impact in the subsequent period and partially counteract the previously intended developments. Overlapping special effects are difficult to isolate in an analysis over the course of time. This means the accounting performance effect that the SCF programme aims to achieve can no longer be determined.

Dynamic discounting increases the EBITDA margin, improves the liquidity situation of suppliers ...



Discounts when adhering to a short payment term of 10 days, for example, are a popular tool for suppliers to ensure payments are received quickly and can, in turn, stabilize liquidity. A discount is also attractive for customers as it enables them to reduce their effective purchasing prices. However, the processing time for supplier invoices takes too long for many customers to actually take advantage of the discount. This means that not only is there no incentive to settle invoices early, but the working capital costs of suppliers are also increased.

The SCF dynamic discounting solution resolves this problem. Unlike conventional rigid discounts, the discount granted changes dynamically over the course of time. Specifically, this means the earlier payment is made, the higher the discount. The possible discount period is generally four or five times that of the conventional standard conditions.

This increases the discount potential for customers and creates incentives for shorter invoice processing times. Another benefit of dynamic discounting is that the payments are either made directly by the customer or can also be temporarily taken over by an intermediate financial service provider.

... and provides customers with access to additional discount potential

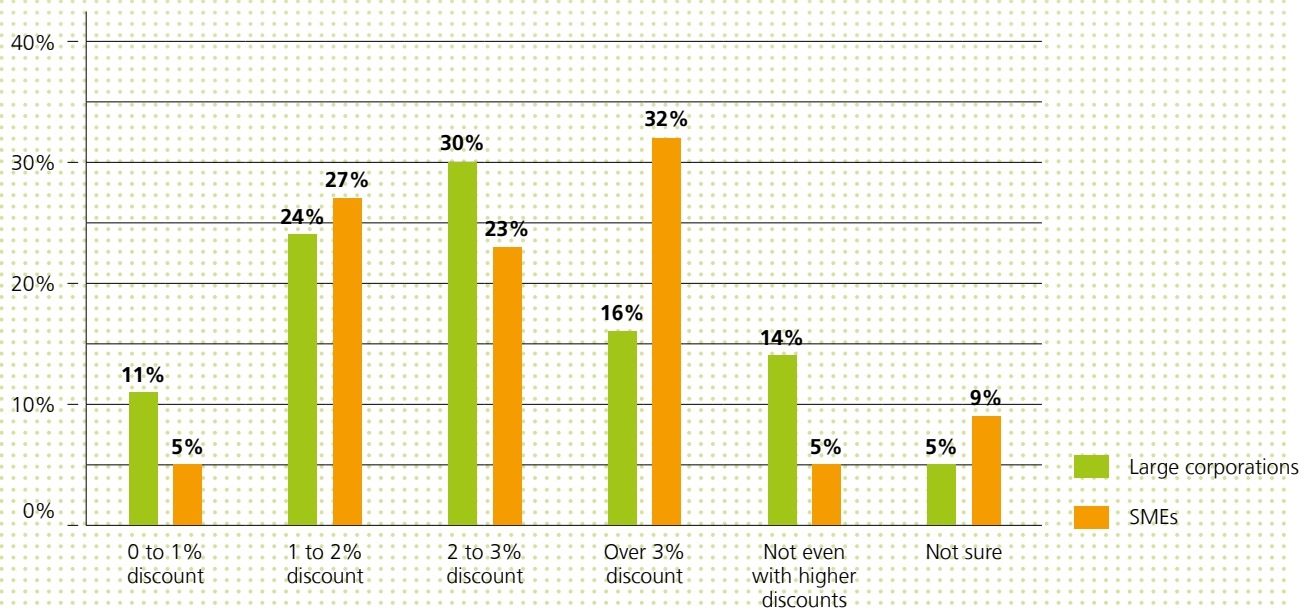
1% to 3% – the discount offered by suppliers must be in this range in order for the companies surveyed to be willing to settle their invoices earlier. For 11% of large corporations and 5% of SMEs, a discount between 0% and 1% would be enough. In contrast, 14% of the large corporations surveyed and 5% of the SMEs would not be willing to pay their invoices before the due date, even with a discount of over 3%.

Which figures do you use to determine the attractiveness of discounts for early payments to suppliers?

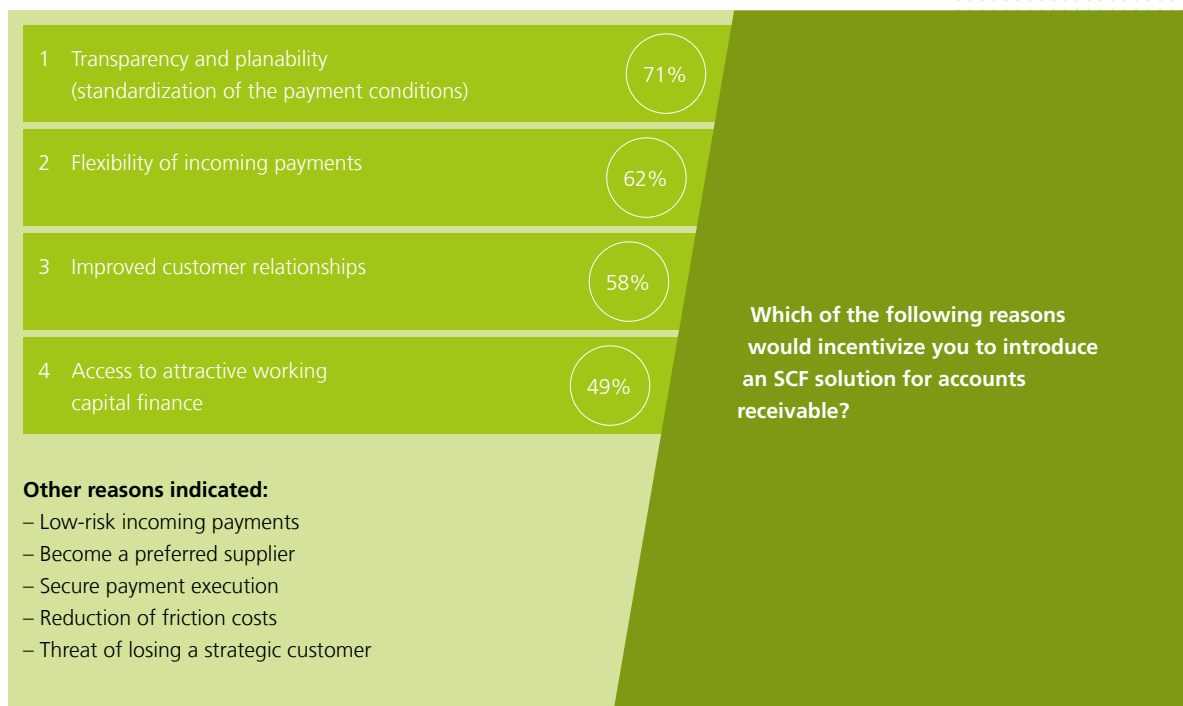


To assess the attractiveness of discounts offered by suppliers, the companies surveyed take account, in particular, of their own financing costs as well as those of the suppliers, the transaction volume and the general level of interest.

How high must the discount offered by your suppliers be in order for you to settle your invoices earlier (e.g. after 5 days)?



The benefits of SCF in accounts receivable extend far beyond attractive financing conditions

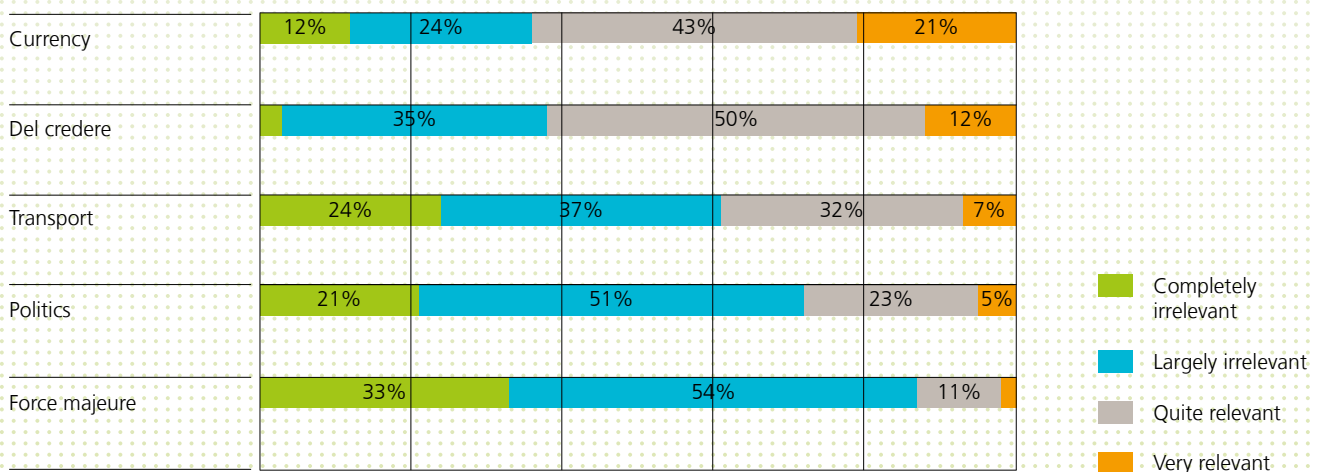


When asked about the reasons that would motivate them to introduce an SCF solution for accounts receivable (particularly factoring), the companies give various different reasons. At 71%, transparency and planability were the most frequently indicated. This may reflect the great importance of coherent and consistent payment terms across departmental and divisional boundaries. Of course, payment terms cannot be completely standardized to one size fits all with a SCF programme. However, unnecessary differences can be eliminated and the predictability of incoming payments – a major issue for accounts receivable – can be significantly improved.

By some margin, the next highest reasons indicated are the flexibility of incoming payments (62%) in second place, improved customer relations (58%) in third place and access to attractive working capital finance (49%) in fourth place.

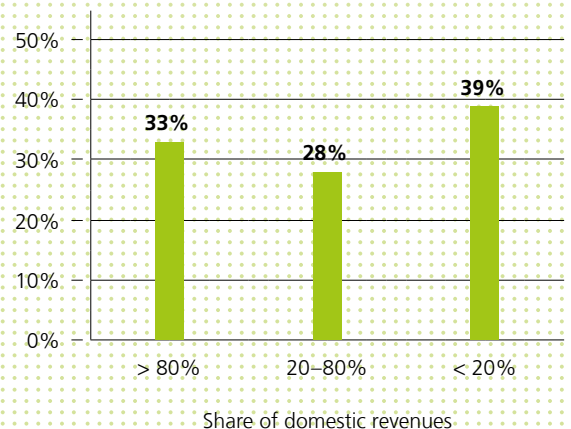
SCF in accounts receivable minimizes the currency and del credere risk

How relevant do you consider the following risks to be in your sales business?



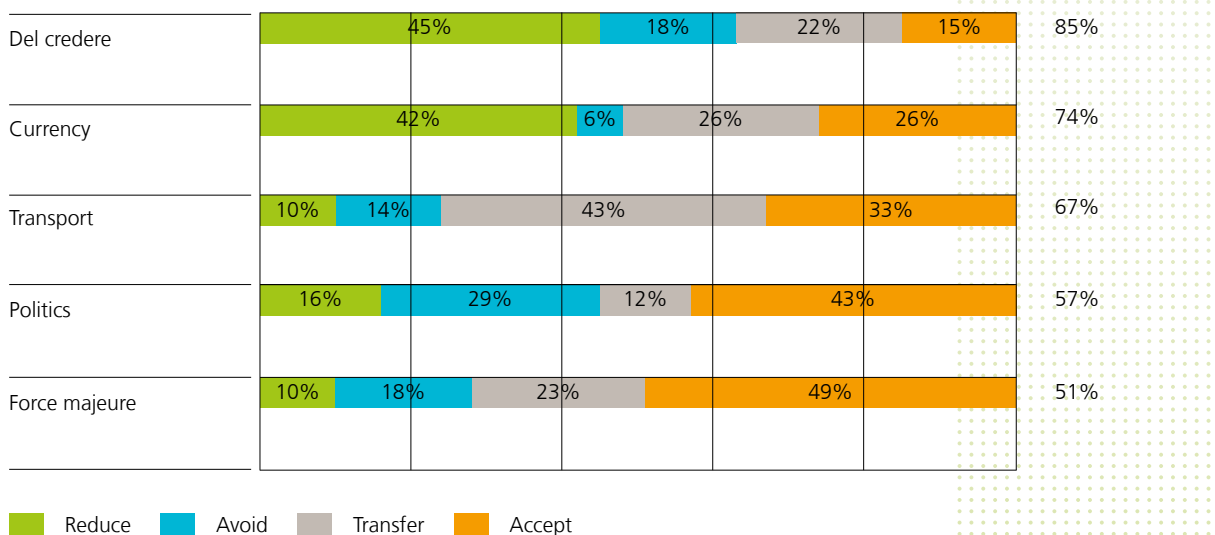
There are always various economic risks associated with sales transactions regardless of the target destinations of customers. Both import and export-oriented Swiss companies seem to be concerned about del credere and currency risks, above all. Around two-thirds of the companies surveyed classify these as important to very important. Political risks are deemed less relevant despite the tense situation on the global markets and the ongoing trade dispute between the USA and China. This is particularly striking, given that 39% of the companies surveyed generate over 80% of their revenues abroad.

How high is the share of domestic revenues in terms of your company's total revenues?



SCF enables the existing risks in accounts receivable to be actively managed

Which strategies do you use to manage the risks in sales?

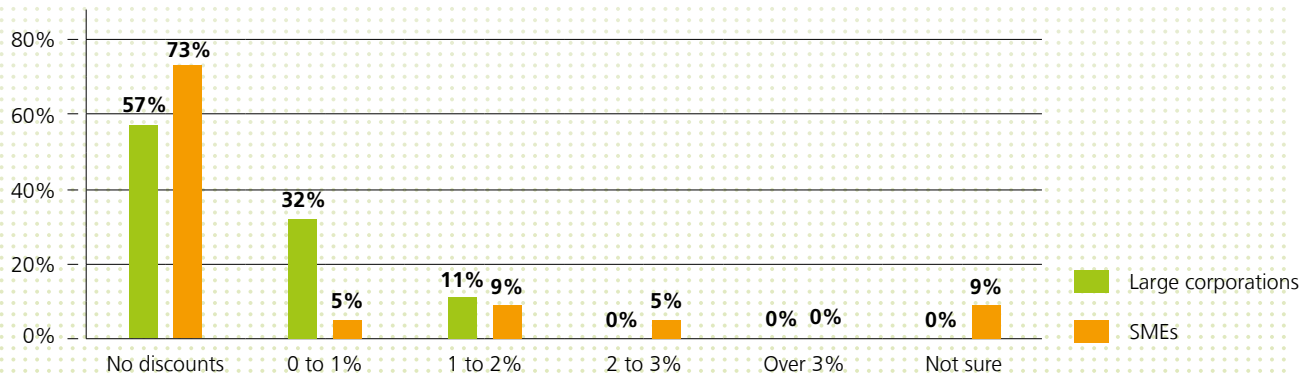


By introducing an SCF solution in accounts receivable (e.g. factoring) or participating in an SCF solution initiated by a customer (e.g. reverse-factoring programme) companies can significantly reduce their main risks in accounts receivable. This is a major requirement for companies in particular. 85% and 74% of those surveyed indicated that they actively manage their del credere and currency risks.

The potential of SCF solutions in accounts receivable is particularly reflected by the fact that the risk for suppliers not receiving payment from customers is significantly reduced. The improved business relationships also enable the status of preferred supplier (customer) to be retained.

SCF in accounts receivable enables quick receipt of payment without having to grant price deductions to complete sales

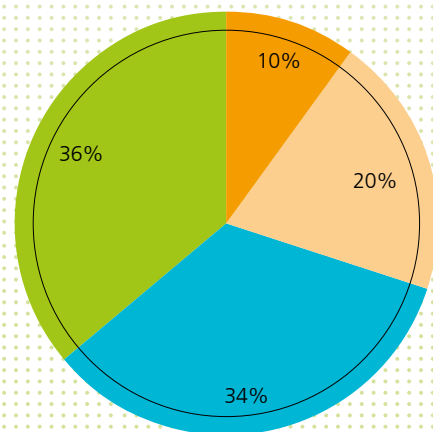
What average range of price deductions would you offer your customers to receive early payments (e.g. after 5 days)?



Around two-thirds of the companies surveyed do not wish to put strain on their own balance sheet with short-term credit for their customers. At the same time, around two-thirds are also not willing to grant their customers price deductions for earlier payment upon conclusion of contract.

Companies also have a strong interest in their customers settling outstanding invoices quickly without having to grant discounts. SCF solutions, such as factoring, meet both of these requirements and can generate significant value added, particularly in the case of customers with high sales volumes or long-term business relationships.

We do not put strain on our own balance sheet by providing short-term credit for our customers for strategic reasons.



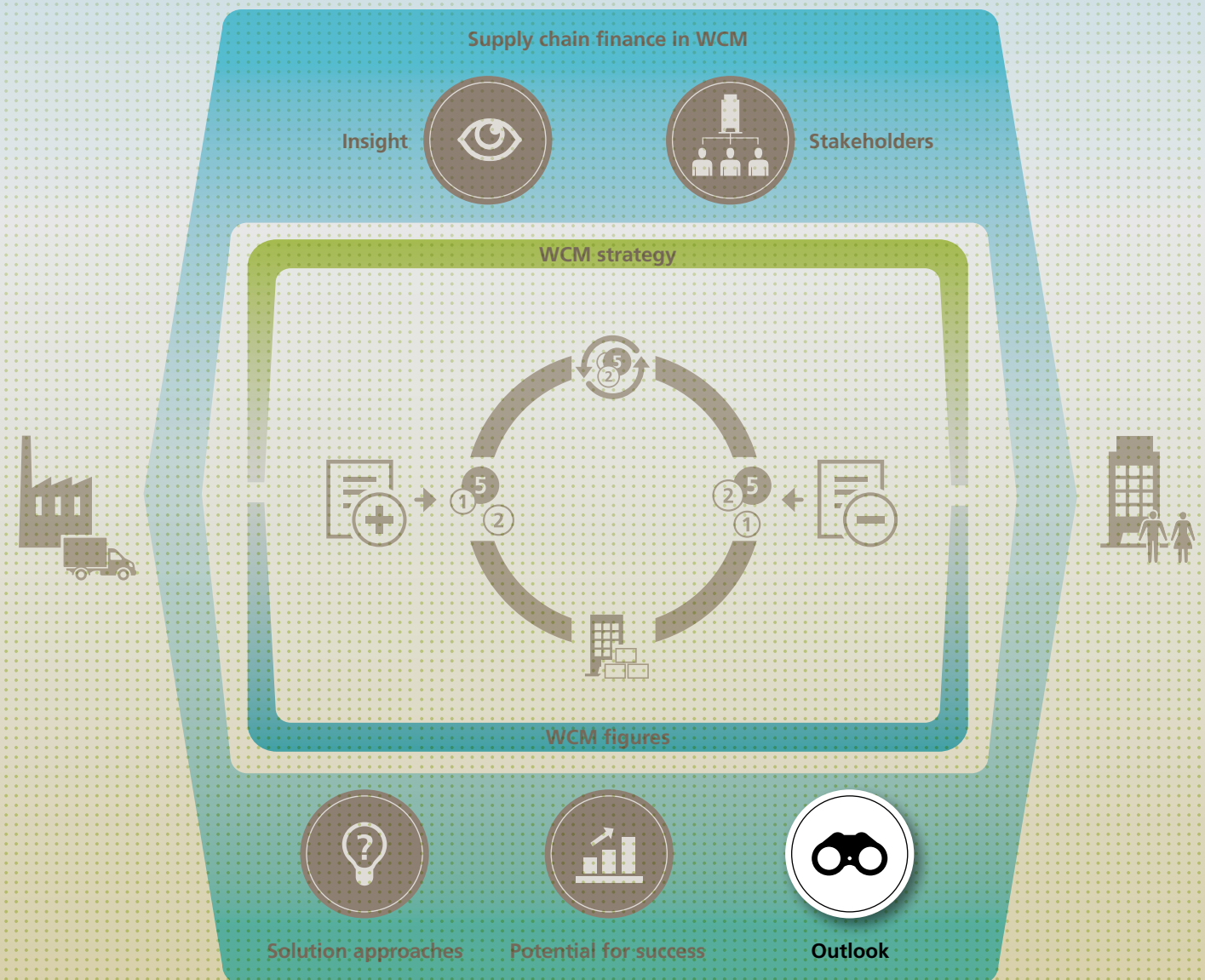
- Strongly disagree
- Do not really agree
- Agree to some extent
- Strongly agree

Difference between price deduction and discount

The price deduction is agreed between the supplier and the customer upon conclusion of contract and is indicated on the invoice. The discount is deducted from the net amount, in other words from the invoice amount without VAT.

The discount is taken off the gross amount, in other words from the invoice amount with VAT and is a price reduction granted subsequently.

Outlook – SCF quo vadis?



What are the trends on the WCM and SCF market?

The more frequently the words appear in newspaper articles, the bigger the letters are.

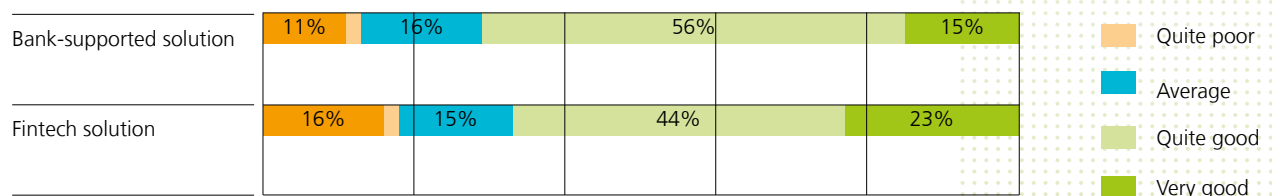


The market for working capital and SCF solutions is dynamic. Both the speed and the way in which working capital is financed have fundamentally changed over recent years. One of the major trends in WCM is the transition from paper-based transactions to electronic invoicing. As the study results show, companies are still most concerned about this trend – not as the keyword cloud might suggest – in terms of daily operations.

However, innovative technologies and optimization concepts are also gradually being adopted by Swiss companies. Progressive companies with weak balance sheet positions only obtain working capital finance on the basis of transactional trading data. The use of large volumes of data changes the nature of WCM by making the financing decision easier for investors and significantly expanding the potential circle of financeable companies. In this respect, there appears to be a shift from customer-centric financing models, as is the case with reverse factoring, towards distributed supplier and purchaser networks without primary “anchor companies”.

The SCF services of Swiss banks fall short of the expectations of the companies surveyed

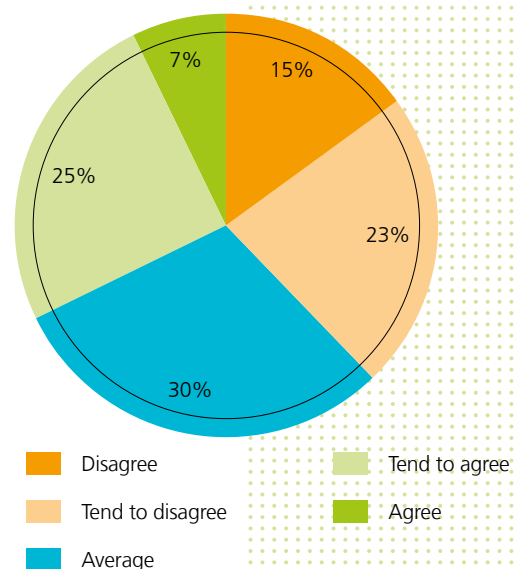
How do you rate the quality of the SCF solutions provided by banks and fintechs in general?



Banks and fintechs are the main pioneers for cooperative WCM approaches covering several supply chain levels. Both groups have successfully invested in SCF expertise and IT over recent years to meet the changing WCM requirements of companies. This is confirmed by the study results: over two-thirds of those surveyed rate the quality of the SCF solutions provided by banks and fintechs as quite good to very good. This also reflects the trend where banks and fintechs are increasingly bundling their strengths and positioning themselves jointly as SCF solution providers on the market.

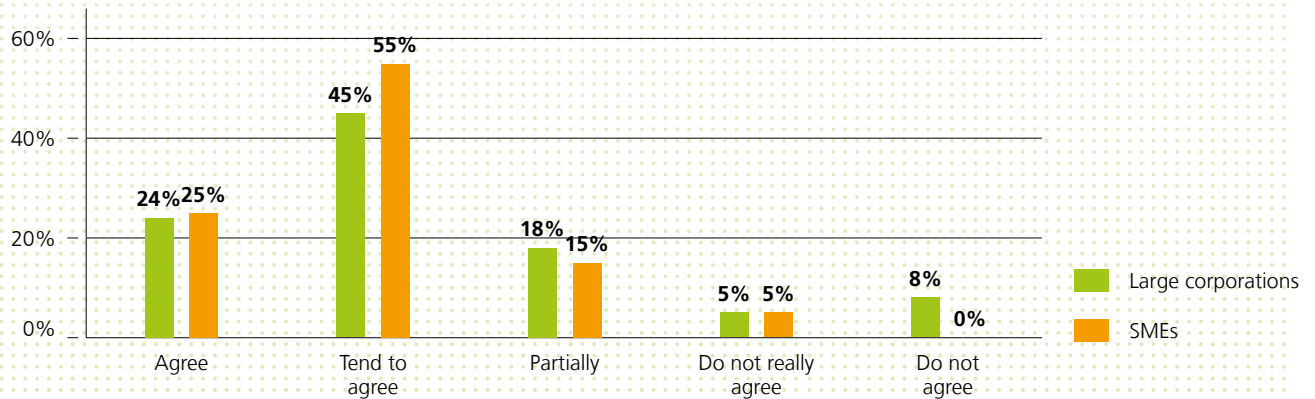
However, Swiss banks generally fall short of the expectations of study participants. Only 7% indicate that the product portfolio of their bank enables them to manage their WCM professionally by using SCF solutions. 23% believe that they tend to agree in the case of their bank. 25% said that they tend to disagree in relation to their bank and 15% strongly disagree. 30% rate the WCM services of their bank as average. This result shows: very few Swiss companies have a bank that meets their changing WCM requirements.

Does your bank's product portfolio enable you to manage your working capital professionally (e.g. using SCF solutions)?



The awareness of SCF's enormous potential for success has further increased

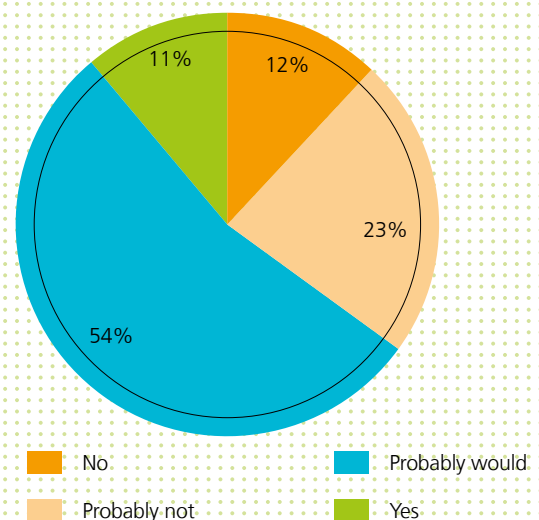
Do the large consulting companies possess the competencies and expertise to support finance managers with the introduction of innovative supply chain finance solutions?



A majority of the companies surveyed believe that the large consulting companies possess the experience and competencies required to support them with the introduction of SCF. These results show that as well as banks and fintechs, consulting companies have also recognized the SCF trend and have generally successfully acquired SCF expertise.

It is also clear that the awareness of the success of SCF has reached the senior management level of companies. Two-thirds of those surveyed believe that training in SCF would help them to further improve WCM performance.

Do you believe that training on supply chain finance would help to improve your performance in working capital management?



Case study: technology group

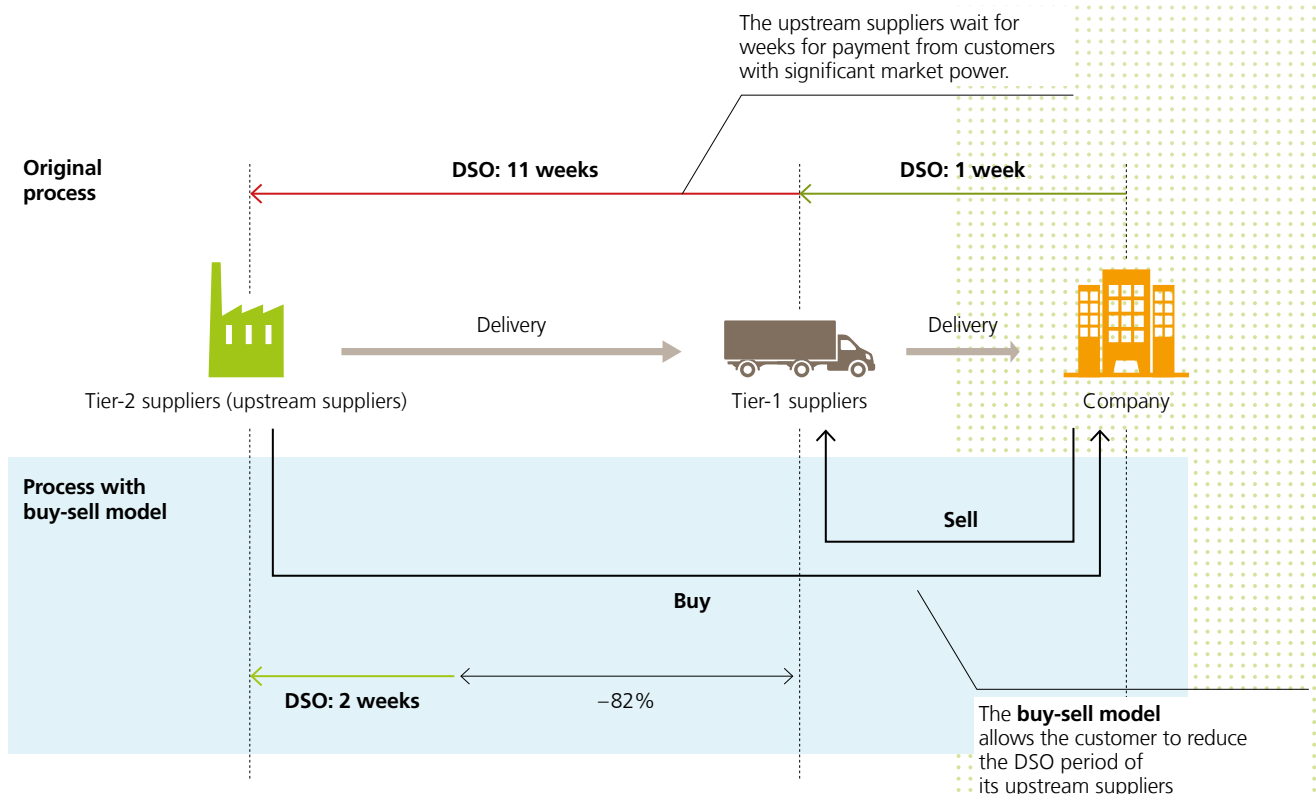
Supply chain finance beyond traditional approaches ...

The challenge

The dependencies in international trade have increased significantly over recent years and most technology groups have complex and closely intertwined supply chains. In light of this, it is important for manufacturing companies that tier-1 suppliers are well positioned financially, and, in particular, tier-2 suppliers (upstream suppliers).

The solution

Thanks to an innovative buy-sell model, the technology group succeeded in reducing the days sales outstanding (DSO) of the tier-2 suppliers by up to nine weeks. It also successfully reduced the capital commitment in inventories. The liquidity situation of the upstream suppliers was significantly improved by incorporating the goods of the tier-2 suppliers into the supply chain and through immediate sales to the tier-1 suppliers.



... to help ensure the liquidity of suppliers and upstream suppliers

Main advantages

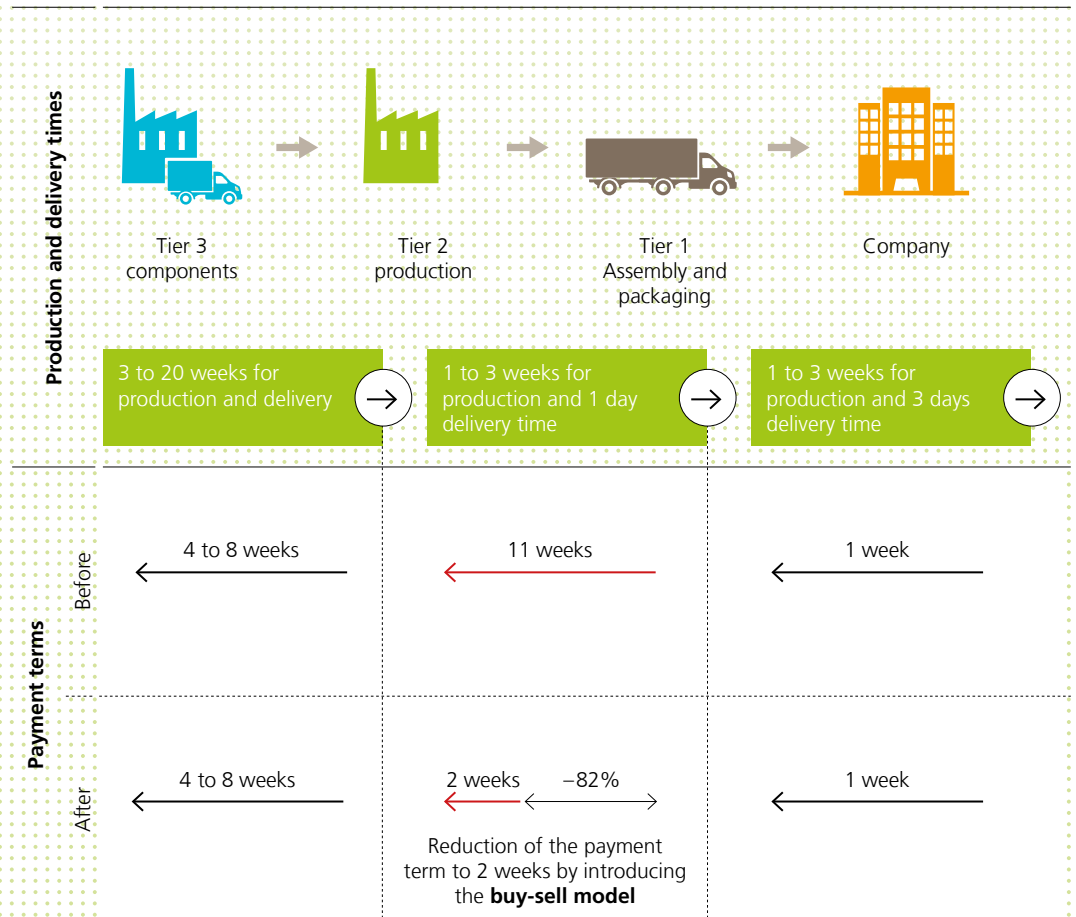
Reduction of inventories with tier-2 suppliers
through innovative buy-sell model

DSO reduction amongst tier-2 suppliers
through early settlement of invoices

Improved transparency
through cooperative interface management

Improved supplier relationships
through status as "preferred customer"

Function principle buy-sell model (in detail)



Annex



Key terms and explanations

- **Accounts payable-based buyer leasing** is a financing solution for reducing the investment-related capital commitment of purchasing companies. It enables the usage-oriented provision of capital goods.
- **Accounts receivable-based vendor leasing** is a financing solution used in particular during the sale of capital goods. It enables companies to provide capital-intensive products in combination with a financing solution as a package and is usually provided in cooperation with a leasing company.
- **Advanced analytics** covers a wide range of research methods that enable companies to analyse data which cannot be evaluated using traditional data processing methods due to its complexity, dynamics and structure. These include methods such as big data, predictive analytics and data mining.
- **At-shipment financing** is an innovative financing solution that enables the financing of goods during transport based on a track and trace system. Real-time data is used to create real risk profiles for financial service providers and to make transport inventories accessible for external financing as early as possible in a supply chain.
- **Automation** in the narrow sense refers to systems able to perform tasks and resolve problems independently (autonomously). One of the aims of automation in the context of WCM is to reduce manual activities and processing.
- **Blockchain-based inventory financing** refers to the financing of inventories within a supply chain using distributed-ledger technology and smart contracts. Compared to current inventory financing solutions, an extended portfolio of inventories can be financed (more cost-effectively) through increased transparency and data quality.
- **Blockchain technology:** A blockchain is a decentralized database in which monetary units or securities can be managed. Blockchain technology is based on smart contracts which not only check individual contractual conditions but also implement them automatically. The technology thus enables faster and more cost-effective processing of transactions.
- **Cash pooling:** Liquidity balancing within the group using central finance management that removes excess liquidity from group companies or balances liquidity shortfalls through loans.
- **Cash-to-cash cycle (C2C cycle):** Compared to static analysis of working capital, the C2C cycle enables a dynamic view of WCM. A dynamic view means that the cycle between liquidity and outgoing and incoming payments is recorded. The C2C cycle also enables good external comparability through which potential savings can be determined compared against various internal and external benchmarks. The indicator is also clear, easy to understand and can be calculated from publicly accessible data sources without great expense. Because of different cost accounting practices at companies, sales instead of manufacturing costs are used to calculate DIH and DPO in this study. This change enables external comparability but results in a reduction in accuracy. As well as the strengths of the C2C cycle, its weaknesses must also be taken into account in the evaluation of the study analyses. A first point of criticism is that the approach is susceptible to “balance sheet manipulation”. The external comparability is at the expense of accuracy; for example, changes during the year are not adequately taken into account. Finally, it should be noted that the approach does not take account of the actual level and “quality” of the capital commitment.

- **Dynamic discounting** is an SCF solution where the purchasing company offers the supplier earlier payment of the invoice. In contrast to conventional discounting, dynamic discounting uses dynamic payment methods and is generally conducted via a dynamic SCF platform available on the market. If a supplier makes use of the early payment option, a dynamic discount applies. The earlier an invoice is settled, the higher the discount.
- **Factoring** refers to the commercial, revolving transfer of a company's accounts receivable to a financial service provider or a factoring company. Factoring as an SCF solution provides companies with an increase in liquidity while at the same time reducing financing costs and unpaid invoices. Genuine factoring occurs when a factor assumes the credit risk. If the risk of loan loss is not assumed, this is referred to as recourse factoring.
- **Financial hedging** is used to protect transactions against financial risks, such as price and exchange rate fluctuations.
- **Fintech (financial technology)** is a general term for technologically driven financial innovations and is often equated with companies that provide new kinds of financing instruments and services.
- **Holistic working capital management (WCM):** the business-oriented reduction of working capital (e.g. through the systematic extension of days payable outstanding (DPO)) can have a negative impact on relationships with customers and suppliers and result in liquidity bottlenecks. In view of this, holistic WCM takes account of the interests of the supply chain partners and aims to improve the integration of information and simultaneously reduce the capital tied up within a supply chain.
- **In-house bank:** This represents an important part of modern treasury management and aims to centralize risk management, group financing and payment transactions.
- **Invoice discounting:** In contrast to conventional factoring, invoices for accounts receivable are not sold to a factoring company with invoice discounting, but are instead used only as collateral for short-term financing (asset-based lending approach). The use of digital invoice discounting platforms provides companies with flexible access to liquidity while also reducing the risk for external financial service providers through increased transparency.
- **Invoice securitization** is an SCF solution where accounts receivable are sold. In contrast to traditional factoring, accounts receivable are bundled and converted into short-term securities and offered to a broad basis of investors on the capital market via a special purpose vehicle (SPV). The payment default risk is generally assumed by the investors.
- **Working capital:** Various definitions of working capital exist in theory and practice. Working capital is essentially the capital required for business operations minus current liabilities. The latter is often equated with liabilities from supplies and services.
- **Off-balance inventory financing** refers to the financing of inventories where operational goods logistics and ownership are transferred to an external logistics service provider. This results in a reduction in costs due to lower storage and logistics costs and an increase in liquidity through a reduction in the capital tied up in inventories.
- **On-balance inventory financing** is an instrument for financing inventories. In contrast to the off-balance solution, the inventories remain on the purchasing company's balance sheet with the on-balance solution and serve only as a guarantee for a credit agreement (asset-based lending approach).

- **Preferred customer** refers to a long-term management strategy through which a purchasing company stands out from other competitors by providing exceptional products and services for suppliers (e.g. rapid settlement of invoices). Companies become preferred customers if they succeed in structuring the relationship between their procurement and the supplier's sales units better than their competitors.
- **Preferred supplier** refers to a long-term management strategy through which a supplier stands out from competitors through exceptional products and services (e.g. the provision of generous payment terms). Companies become preferred suppliers if they succeed in structuring the relationship between their sales and the procurement organization of the customer concerned better than their competitors.
- **Procurement cards (P-Cards)** are a form of business customer card (often in credit card format) and enable goods and services to be purchased from pre-defined suppliers without a traditional procurement process. P-Cards are generally used for smaller purchases to achieve greater cost efficiency and control. The bank managing the transaction makes the corresponding payments to the payment recipient within days, while it issues the customer company with an invoice on a monthly basis.
- **Purchase order financing** is an SCF financing solution agreed between purchasing companies and suppliers to achieve financing at an early stage (at the time of the order).
- **Level of maturity:** Companies' level of maturity is determined to identify best practice approaches and optimization potential. Recommended courses of action are provided by the average value of the best 10 companies (top 10) in a specific WCM field compared with the average value of the entire sample.
- **Reverse factoring** is a conventional SCF solution which essentially enables a customer to obtain pre-financing of liabilities from their supplier. With reverse factoring, a factoring provider concludes a contract with the buyer of goods (purchasing company) in which it undertakes to pre-finance the liabilities of its suppliers. Key requirements that have to be met for the successful implementation of a reverse factoring solution are good creditworthiness of the purchasing company and the onboarding of suppliers onto an SCF platform.
- **Reverse securitization** is an SCF solution where, in contrast to traditional invoice securitization, the entire credit risk is concentrated in the initiating purchasing company. The assets to be financed are sold to a special purpose vehicle (SPV) at a discount and then sold to private and institutional investors on the capital market.
- **Return on capital employed (ROCE)** is an economic indicator which shows how efficiently a company uses the capital available to it.
- **Collective invoices** is a form of billing where an invoice is sent to a customer for several deliveries per period.
- **Sales offer financing** refers to financing solutions that suppliers use to promote the sales of their products and to create financial flexibility for customers (e.g. through the use of payment by instalments).
- **Self-financing capacity:** This indicates the extent to which companies can make investments without having to rely on external financing sources.
- **Smart contracts** are blockchain-based computer protocols which enable customer and supplier contracts to be shown and verified digitally. As agreed provisions are set out digitally in smart contracts, they can be executed and implemented in a decentralized and autonomous manner.
- **Supply chain finance (SCF)** extends the perspective of WCM to the entire supply chain and addresses the company-wide optimization of financial structures and payment flows in company networks. The aim of SCF solutions is to create added value for all parties concerned by adopting a holistic approach to financial processes between suppliers, purchasing companies, and external financial and logistics service providers.

Methodology and background of the study

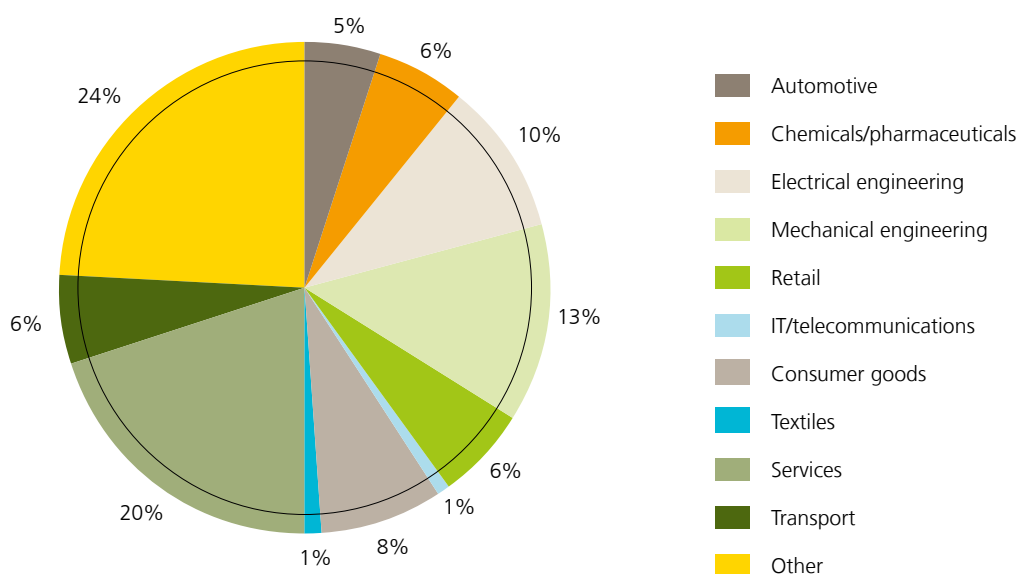
The starting point of the WCM Study 2019 was the supply chain-oriented analysis of WCM at Swiss companies and the focus topic of supply chain finance (SCF). It examines the following key issues:

- Which tools do Swiss companies use to meet the changing requirements of WCM?
- What potential for success does SCF offer and what are the implications for Swiss companies?
- Which SCF solutions are best suited to which WCM strategies and how can they be successfully implemented with customers and suppliers?

Methodology

The WCM Study 2019 is based on primary and secondary data which was initially analysed in a differentiated manner based on the individual topics and then interpreted in a correlated manner. Both qualitative estimates and quantitative information were used here. All information and data was thoroughly checked, validated and systematically prepared.

Sector affiliation of study participants



Information sources

The WCM Study 2019 is based on two data sources:

- 128 questionnaires (WCM expert survey 2019)
- Economic and financial databases (in particular, Bloomberg and Thomson Reuters Eikon)

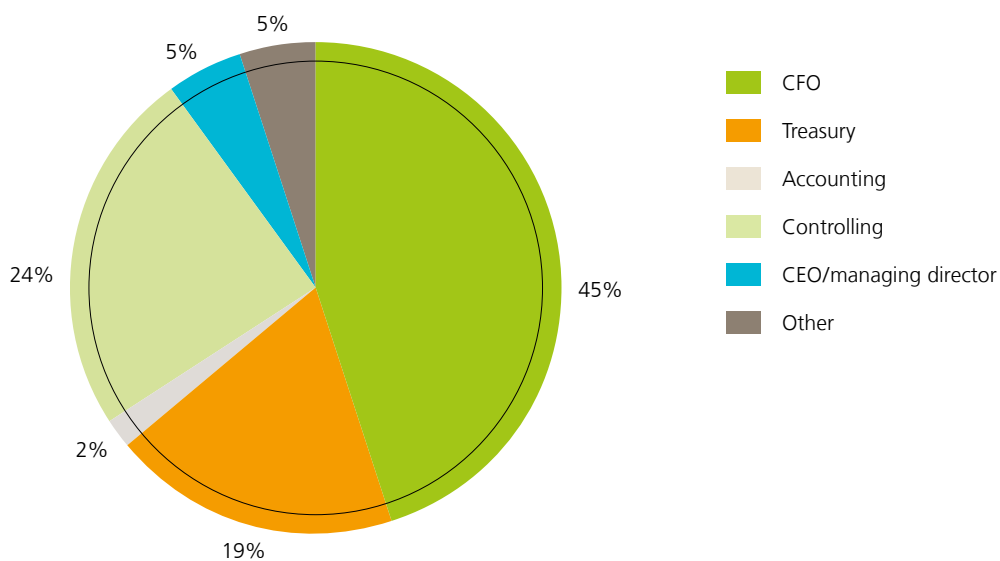
The external data sources were used for the calculations in the WCM figures section in particular. All further evaluations are based on the questionnaires carried out during the period February to April 2019 as part of the WCM expert survey 2019.

The survey focuses on the Swiss market and various issues concerning WCM and SCF. In order to provide greater depth to the results, interviews were also carried out with selected study participants.

Study participants

The WCM Study 2019 covers several sectors to provide the most comprehensive insight possible into WCM at Swiss companies. The sample includes a total of 128 companies from over ten different sectors, whereby large corporations (over 250 employees) account for 36% and small and medium-sized enterprises 64%. The balanced composition of the sample aims to increase the representative nature and generalizability of the study results for the Swiss market.

Function of the study participants



Supply Chain Finance Lab

The Supply Chain Finance Lab of Swiss Post (SCF Lab) at the University of St. Gallen conducts research on financial supply chain management at the interface between knowledge and application. The research activities focus on the broad and not clearly distinct topics of working capital management and supply chain finance. The annual WCM Study and the Swiss WCM Awards are a major part of the SCF Lab's activities.

WCM Study

The WCM Study was published for the first time in 2014. It sought to determine the current performance level of Swiss companies in WCM and to identify good practices. With its focus topic of supply chain finance, the WCM Study 2019 builds on these objectives and provides valuable impetus for creating financial flexibility for the entire supply chain.

Swiss WCM Awards

The Swiss WCM Awards recognize outstanding overall working capital management performance and innovative solutions that make a significant contribution to improving WCM over the long term. The jury of the Swiss WCM Awards is made up of the following high-level experts:

- Prof. Dr Wolfgang Stölzle (Chairman of the jury and Managing Director of the Institute for Supply Chain Management at the University of St. Gallen)
- Adrian Brönnimann (Head of Distribution for Corporates & Banks and Head of Working Capital Management at PostFinance Ltd)
- René Cotting (Chairman of ABB Technology Ventures and Head of Operation, Innovation and R&D at the ABB Group, former CFO ABB Switzerland)
- Pascal Koradi (Member of the Management Board of the CFO Forum Switzerland)
- Tobias Knechtle (CFO of Valora Holding)
- Rolf Renz (Former CFO of Siemens Region South West Europe/Siemens Switzerland Ltd)
- Mario Rossi (CFO and Head of Business Steering Switzerland at Swisscom)

Further studies and recommended literature

WCM Studies from previous years:

- **Hofmann, E., Wetzel, P. (2018):** Working Capital Management Study 2018 – Supply Chain Finance – Introduction. Supply Chain Finance Lab of Swiss Post at the University of St. Gallen, Berne.
- **Hofmann, E., Martin, J. (2017):** Working Capital Management Studie 2017 – Digitalisierung. Supply Chain Finance Lab of Swiss Post at the University of St. Gallen, Berne.
- **Hofmann, E., Martin, J. (2016):** Working Capital Management Studie 2016 – Trends. Supply Chain Finance Lab of Swiss Post at the University of St. Gallen, Berne.
- **Hofmann, E., Martin, J. (2015):** Working Capital Management Studie 2015. Supply Chain Finance Lab of Swiss Post at the University of St. Gallen, Berne.
- **Hofmann, E., Martin, J. (2014):** Working Capital Management-Performance Excellence-Studie Band 2014. Cuvillier Verlag, Göttingen.

Selected literature recommended by the authors:

- **Wetzel, P., Movcharenko, A. (2019):** Net Working Capital: das adäquate Niveau. Controlling & Management Review, 63 (6), 30–38.
- **Martin, J., Hofmann, E. (2018):** Towards a framework for supply chain finance for the supply side. Journal of Purchasing and Supply Management, 25 (2), 157–171.
- **Hofmann, E., Strewe, U., Bosia, N. (2017):** Supply Chain Finance and Blockchain Technology: The Case of Reverse Securitisation. Heidelberg: Springer.
- **Hofmann, E., Schneider, C., Wetzel, P. (2017):** Working Capital Management bei Eisenbahnverkehrsunternehmen. Controller Magazin, 42 (5), 4–13.
- **Hofmann, E., Johnson, M. (2016):** Supply Chain Finance – some conceptual thoughts reloaded. International Journal of Physical Distribution & Logistics Management, 46 (4), 1–8.
- **Templar, S., Hofmann, E., Findlay, C. (2016):** Financing the End-to-End Supply Chain: A Reference Guide to Supply Chain Finance. London: Kogan Page.
- **Hofmann, E., Belin, O. (2011):** Supply Chain Finance Solutions: Relevance – Proposition – Market Value. Springer, Berlin Heidelberg.
- **Hofmann, E., Maucher, D., Piesker, S., Richter, P. (2011):** Wege aus der Working Capital-Falle – Steigerung der Innenfinanzierungskraft durch modernes Supply Management. Springer, Berlin Heidelberg.

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