

Bridging the Gap

2015 Annual Global Working Capital Survey
of the Industrial Manufacturing sector



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Foreword



Cara Haffey
UK Leader of Manufacturing, PwC

Welcome to PwC's working capital survey of the manufacturing sector.

Working capital is crucial to every company and could arguably be viewed as most relevant to manufacturing companies who incur substantial upfront costs for materials and labour in the production cycle, before receiving payments after their products have been made and delivered.

Manufacturing leaders are increasingly finding the decisions on where to invest their capital wisely very challenging in these uncertain times. Part of the solution on capital decisions is to ensure that through efficient management of companies, cash flows come out in sensible time frames, are not trapped, and therefore provide the crucial resources to reinvest and grow.

We work with many manufacturing clients as they work on improving their working capital, helping them optimise and achieve sustainable cash flows.



Executive summary

€141bn cash opportunity available to bridge the gap for future growth

Industrial manufacturing companies have been benefiting from significant growth last year. The sector is one of the most capital intensive and future growth will require significant cash and investment to sustain it.

While cash generation is key for continued growth, this has not translated into an increased focus on working capital during 2014. Working capital is the cheapest source of cash and, based on our experience, can be released through more effective management.

In this study we look at the performance trends of working capital within the industry and its related sub-sector.

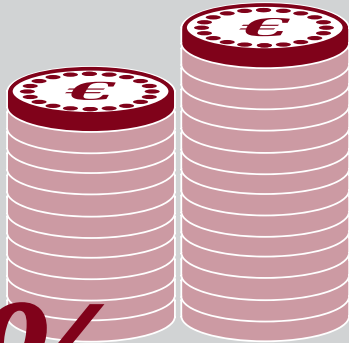
Our findings show that performance has plateaued and is close to its worst results in five years. In particular, Europe and the Americas have struggled to make any gains in effectiveness.

Whilst the majority of sub-sectors have shown improvement in working capital, most of these have been marginal. The biggest improvement have been achieved by the marine and paper and packaging sub-sectors. Heavy electrical equipment remains the most capital intensive sub-sector, with a working capital ratio which is a third higher than any other.

But the spread of performance shows that performance improvements are possible in every sub-sector. Having already helped to release more than €26bn cash benefits around the world, we believe we are in the best position to help your company realise this cash opportunity.



Daniel Windaus
Working Capital Partner



11%
revenue growth in 2014

Working capital
performance has plateaued

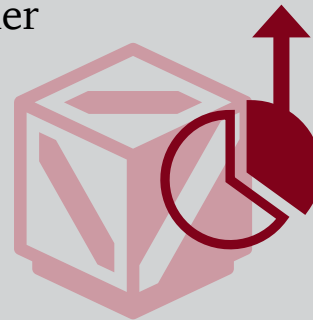


Europe
struggles to achieve effectiveness improvements



2/3rd's
of sub-sectors improve,
but marginally

Heavy electrical equipment
NWC ratio is
1/3rd higher
than any other
sub-sector



Significant spread of NWC
performance
across the sector



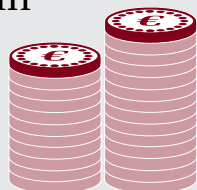




Industrial Manufacturing

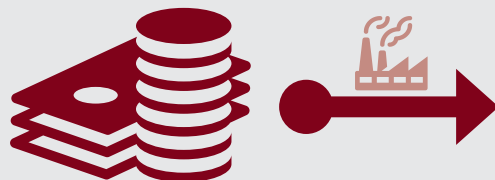
11%

jump in revenue in 2014, increasing the need for cash



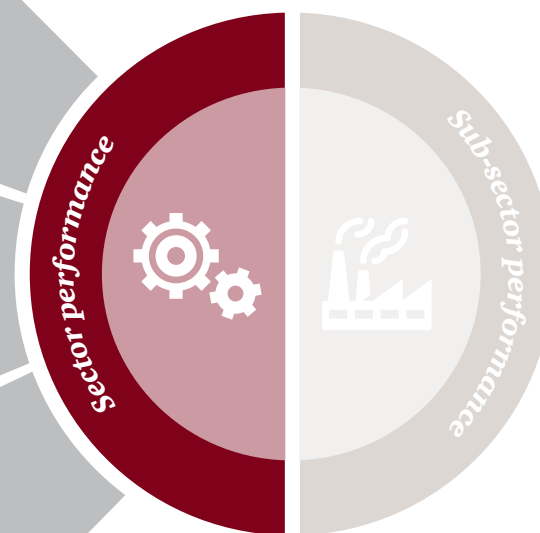
Working capital

performance has plateaued



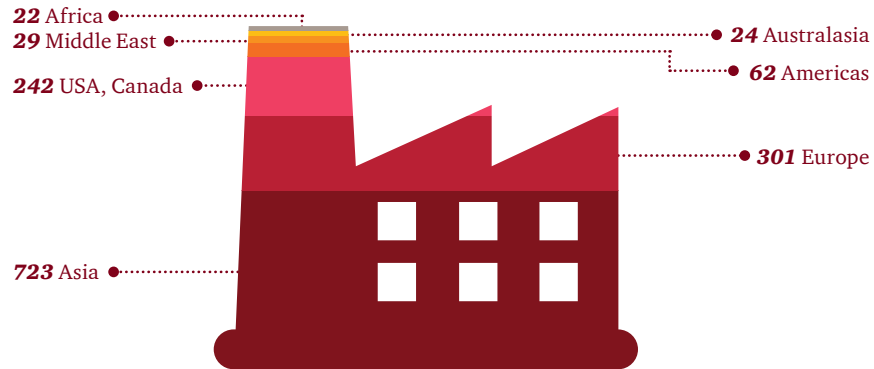
Europe

has not managed to improve NWC performance

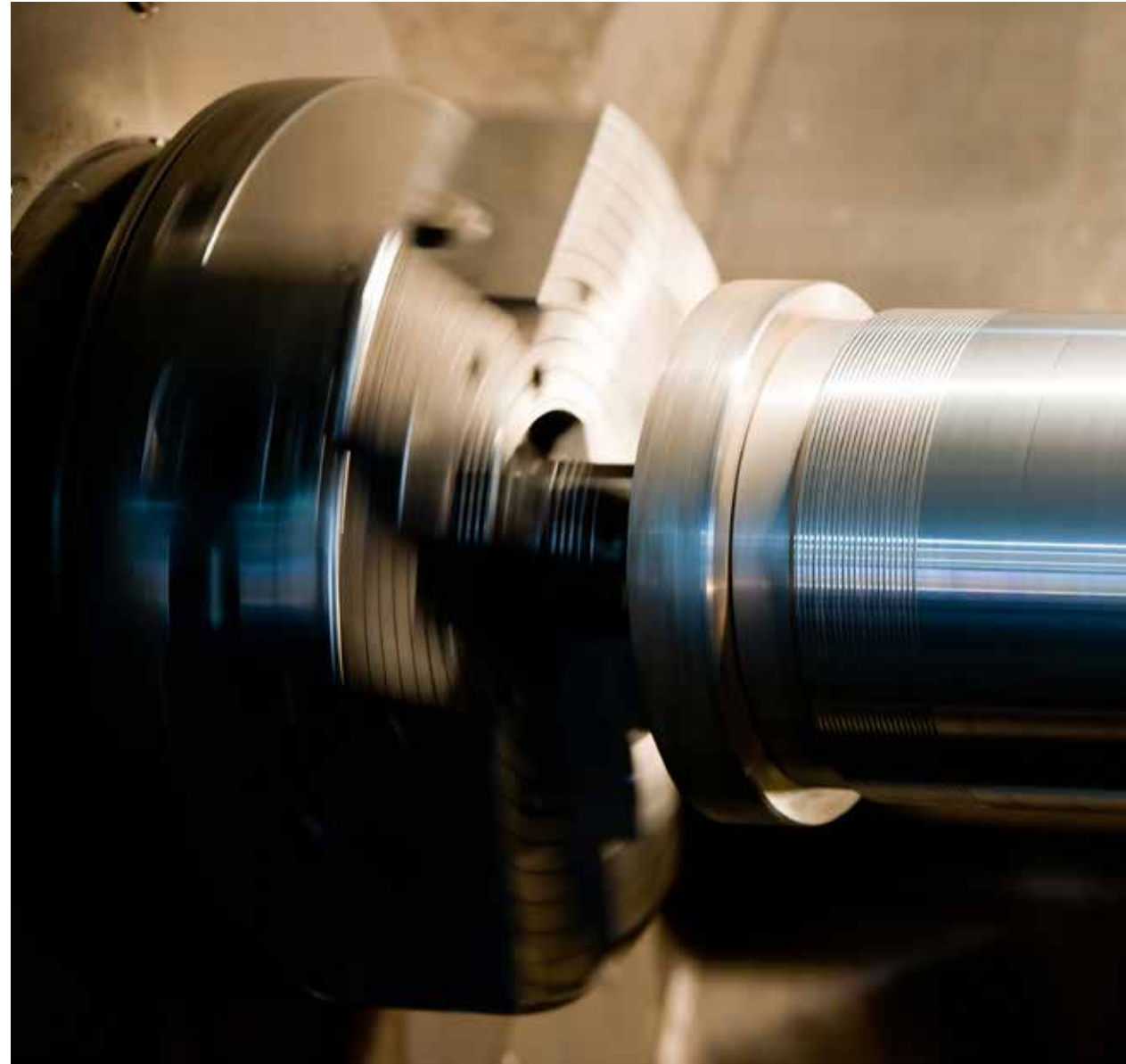
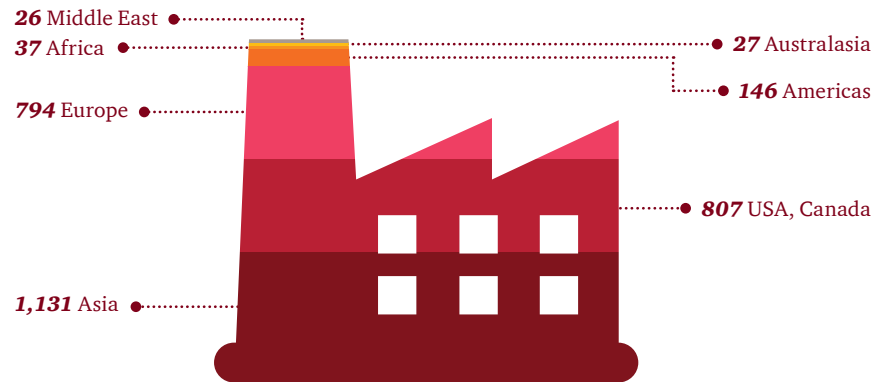


Our study looks at 1,403 companies in the industrial manufacturing sector with revenues above €100 million

Number of industrial manufacturing companies in the study by region

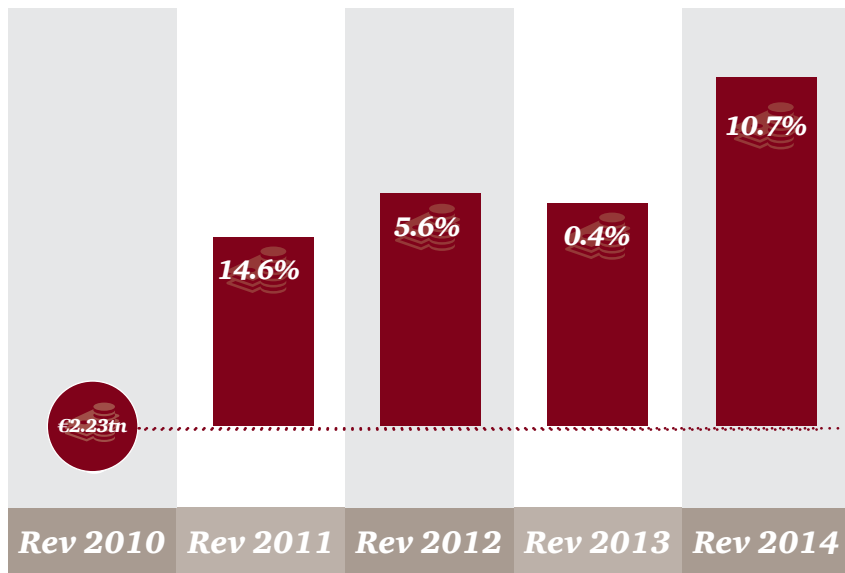


Revenue of companies in the study by region (€ billion)



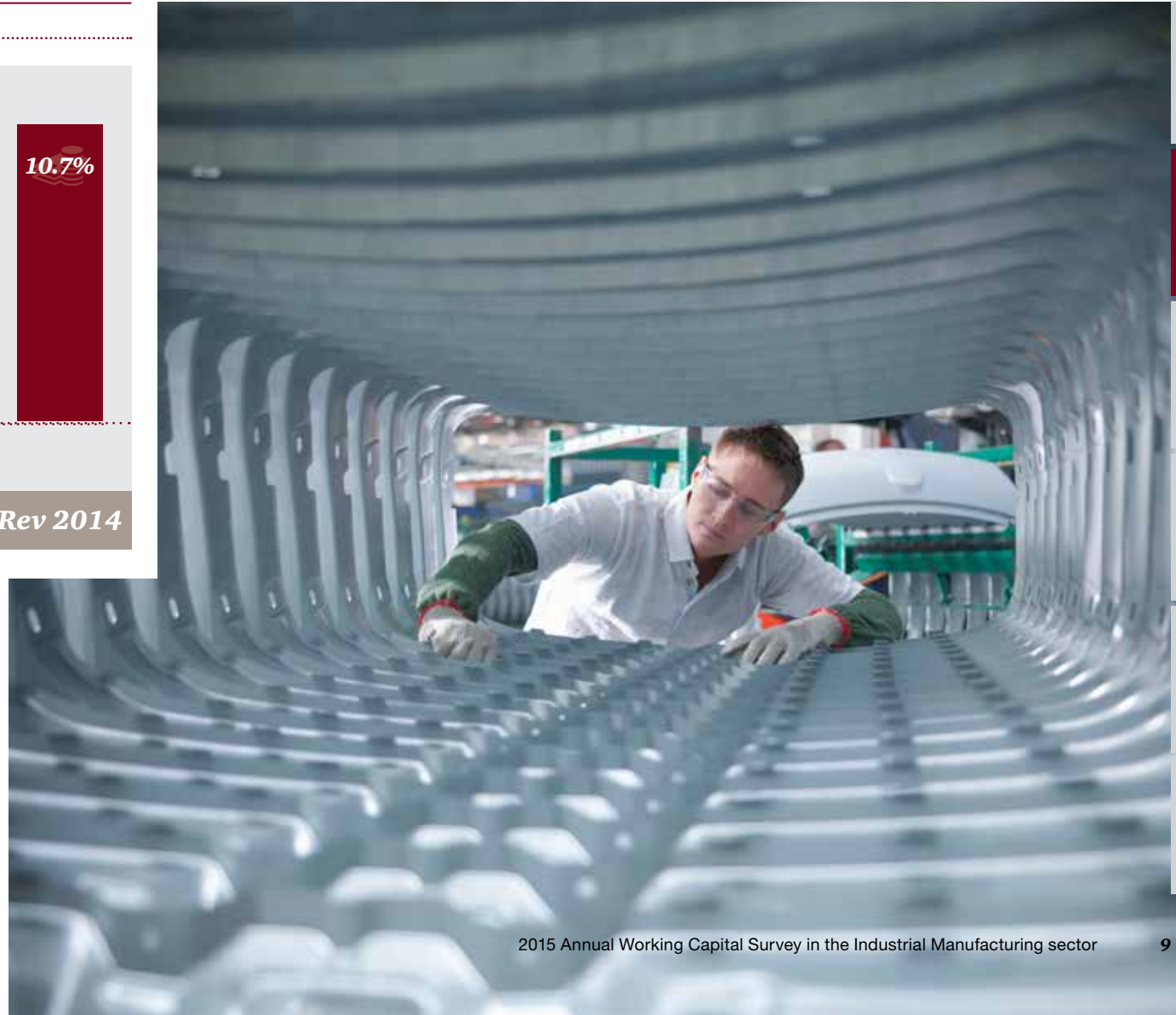
The sector experienced a healthy jump in revenue growth of 10.7% in 2014, increasing the need for cash

Industrial manufacturing revenue trends



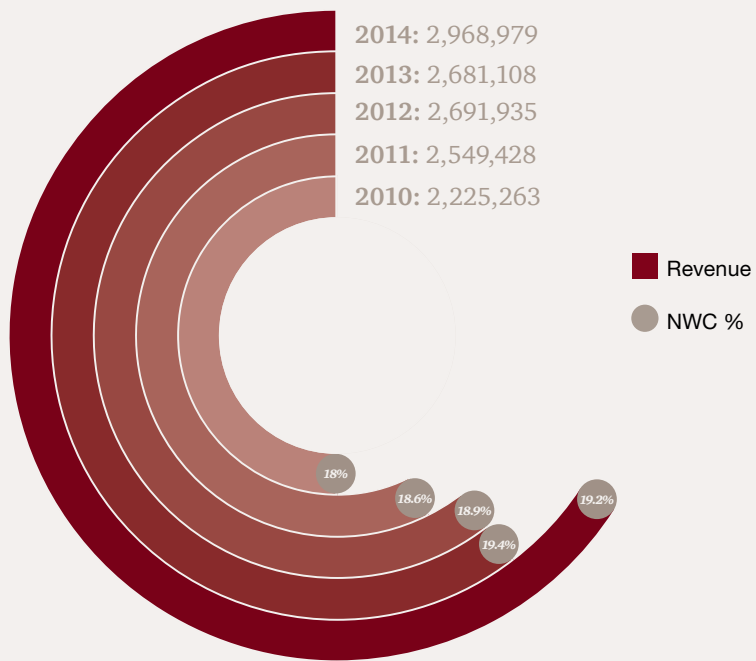
■ Revenue

% Percentage increase / decrease



Although cash generation is key for continued growth, this has not translated into an increased focus on working capital

Sector NWC as a % of revenue (€ million)

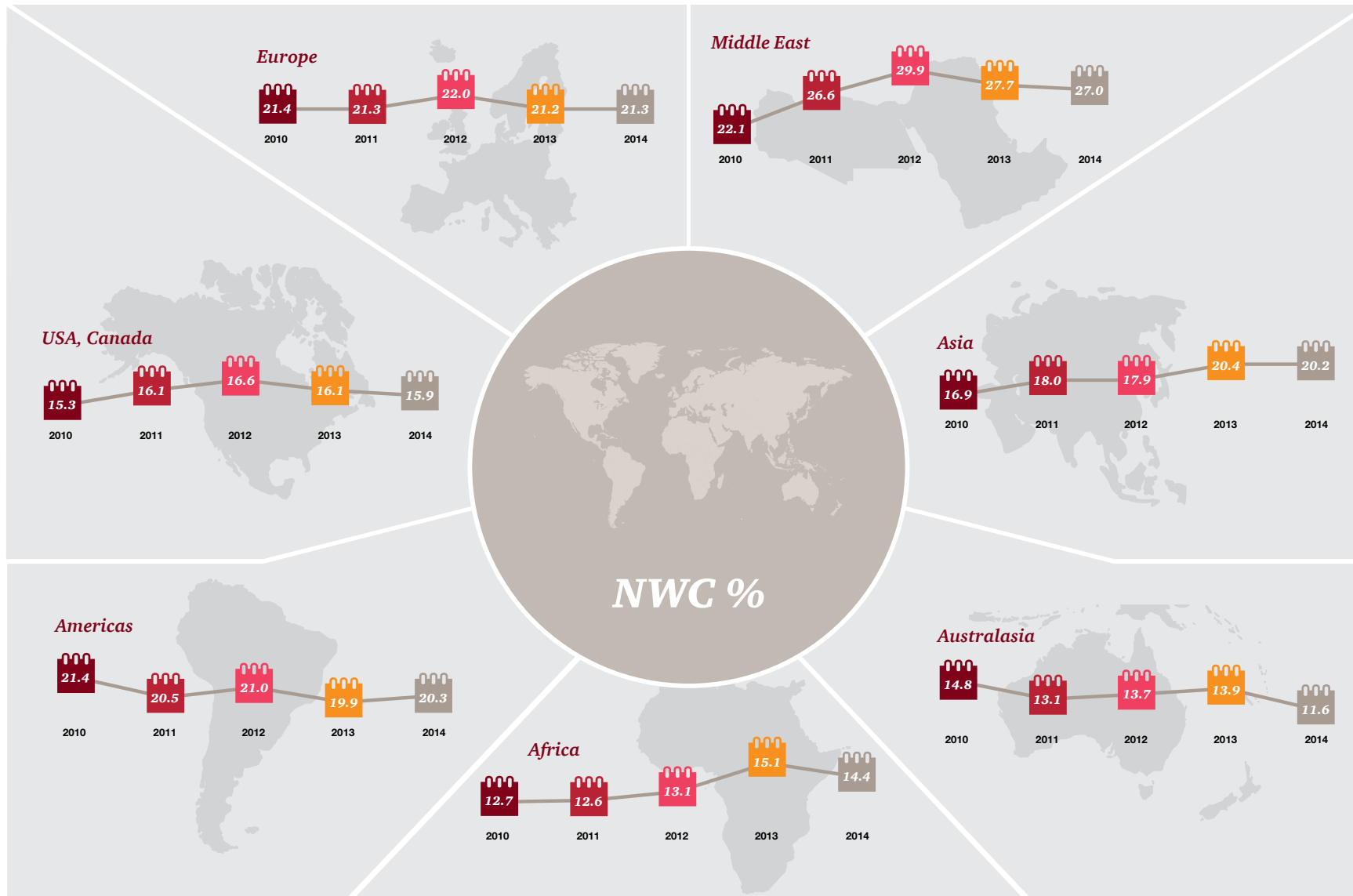


Working capital performance has plateaued in 2015, with only small improvement achieved from account receivables and payables.

Industrial manufacturing working capital performance



Working capital performance deteriorated in Africa, Asia, Middle East and USA and Canada







Industrial Manufacturing Sub-sectors

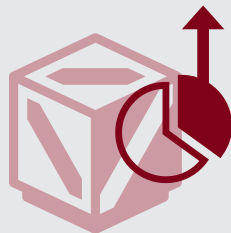


2/3rds

of sub-sector improve,
but only marginally

Heavy electrical equipment
NWC ratio is

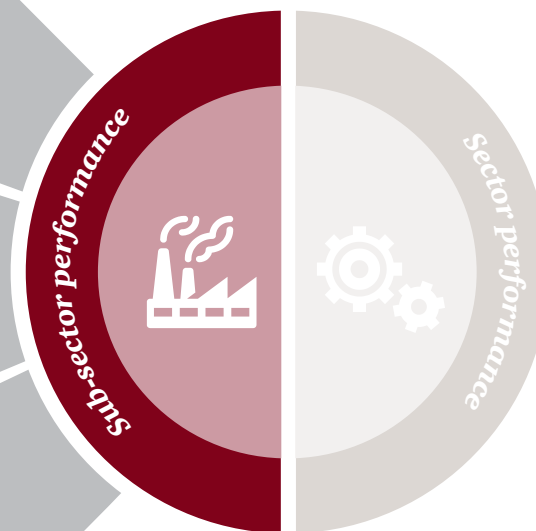
**1/3 higher
than any
other sub
sector**



**Significant
spread**

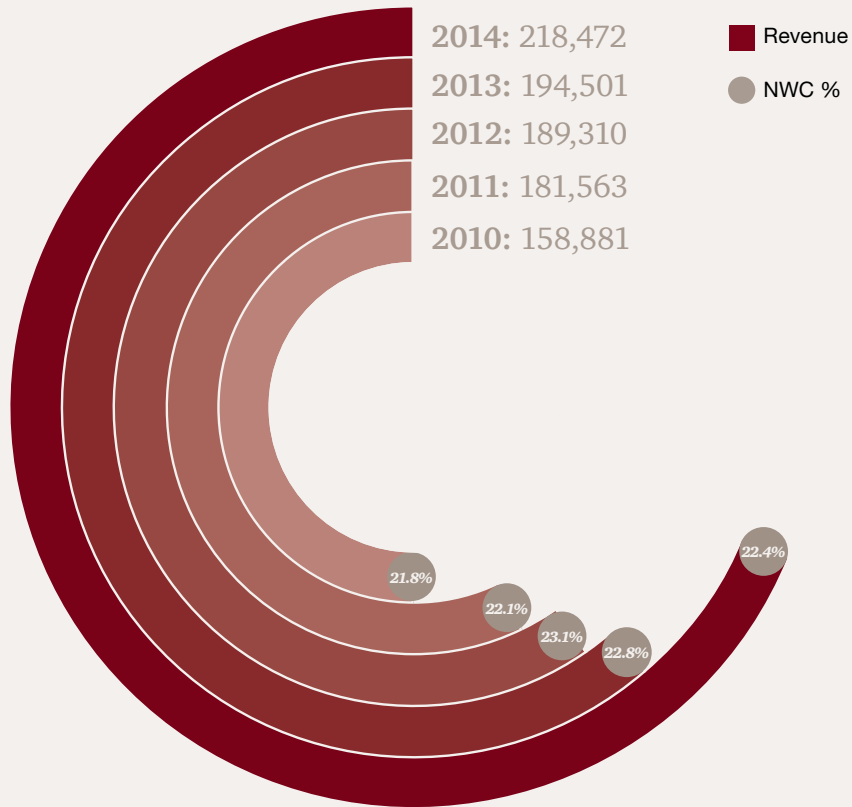


of NWC
performance
across the sector



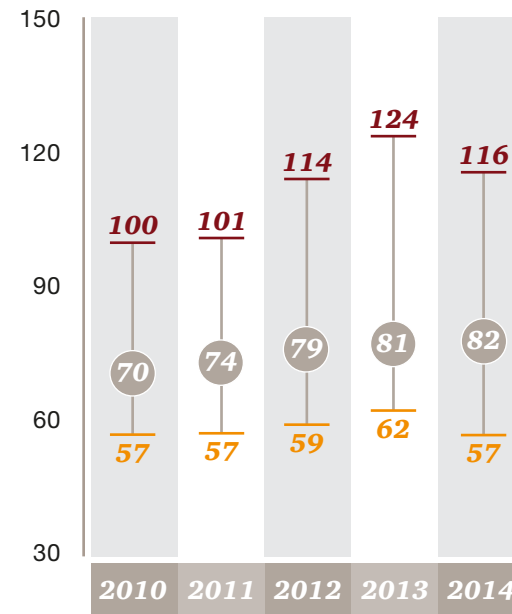
Electrical Components

Electrical components revenue and NWC % (€ million)

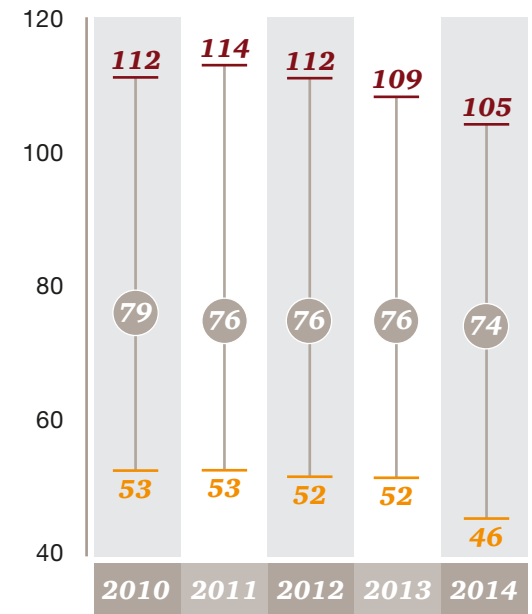


Working capital performance in the electrical components sector showed some small improvements in 2014. This was driven by improvements in inventory and payable days.

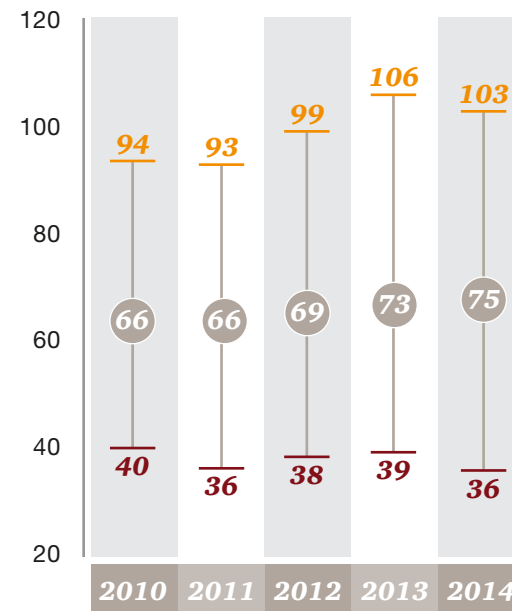
DSO



DIO



DPO

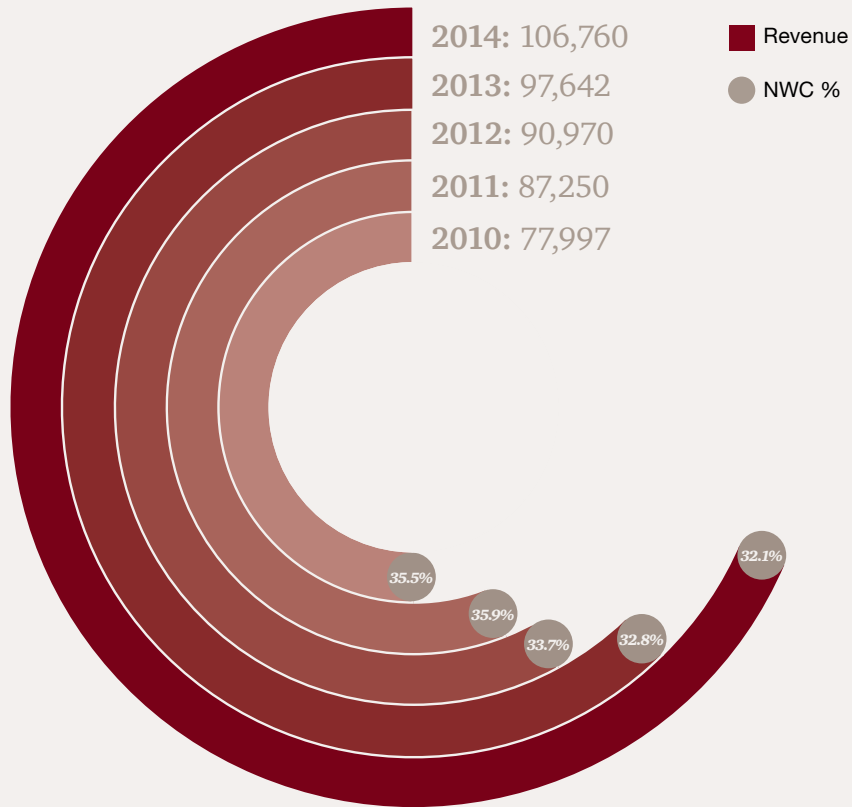


Key

- Top performers
- Weighted average performance
- Bottom performers

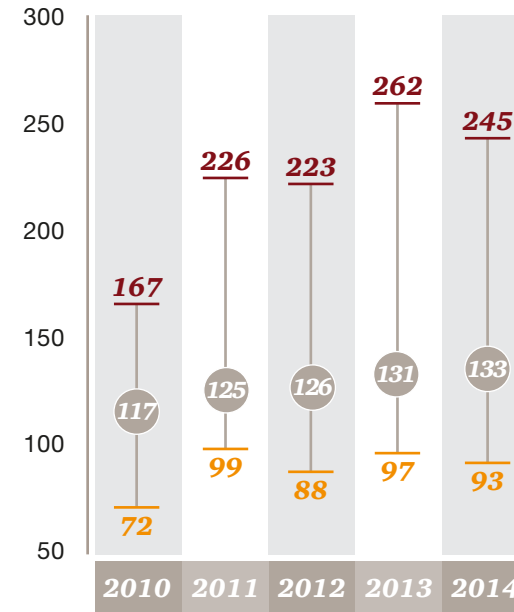
Heavy Electrical Equipment

Heavy electrical equipment revenue and NWC % (€ million)

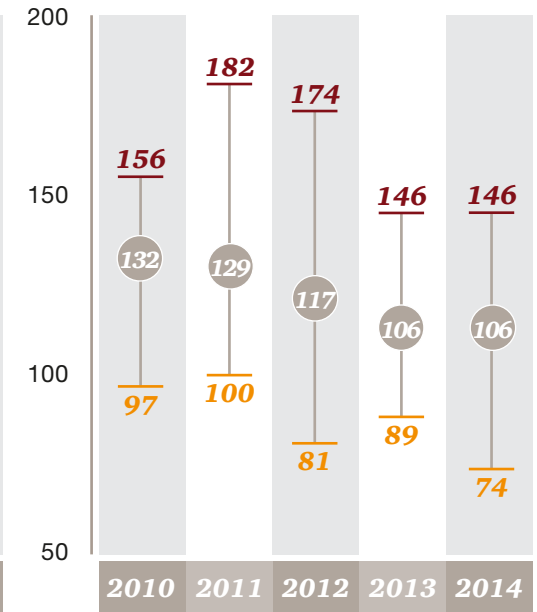


Although the heavy electrical equipment sector has seen minor improvements in working capital to the prior year, it still holds the highest relative working capital of all industrial manufacturing sub-sectors. This is driven by a high DSO and DIO.

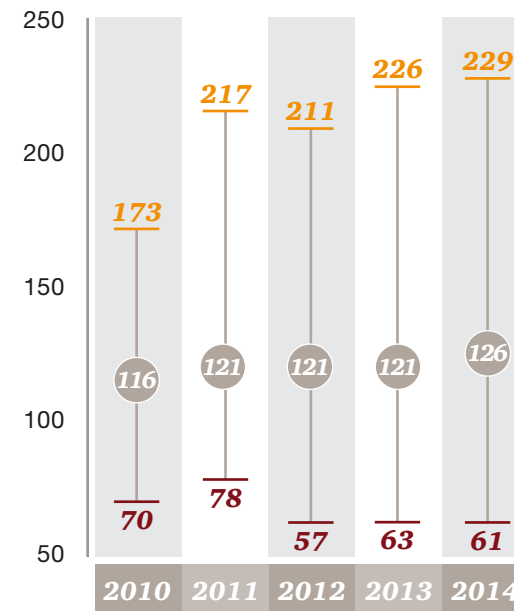
DSO



DIO



DPO

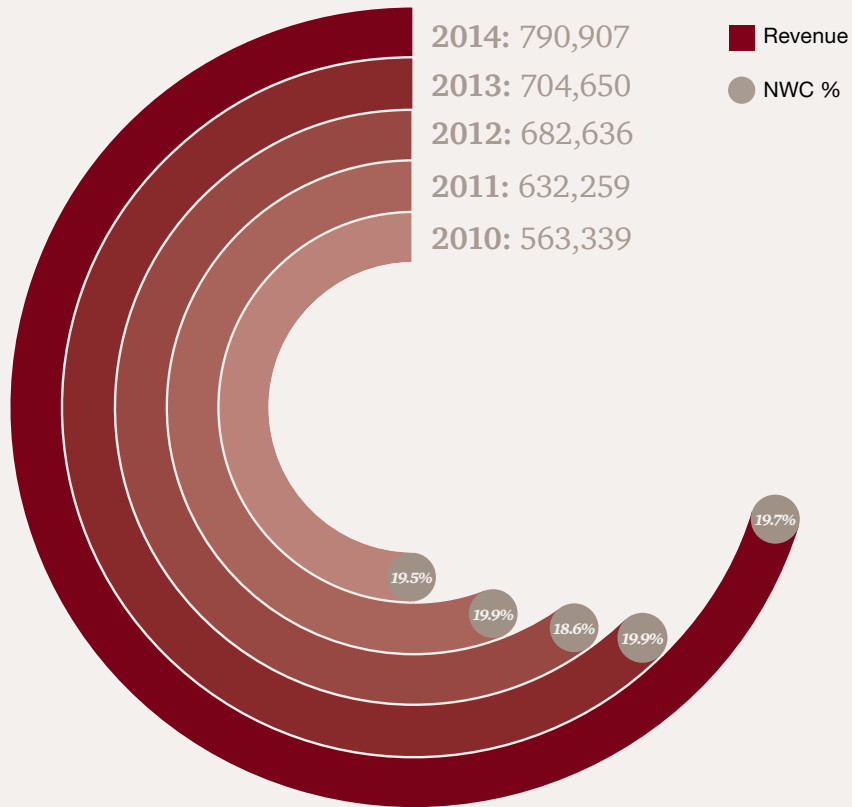


Key

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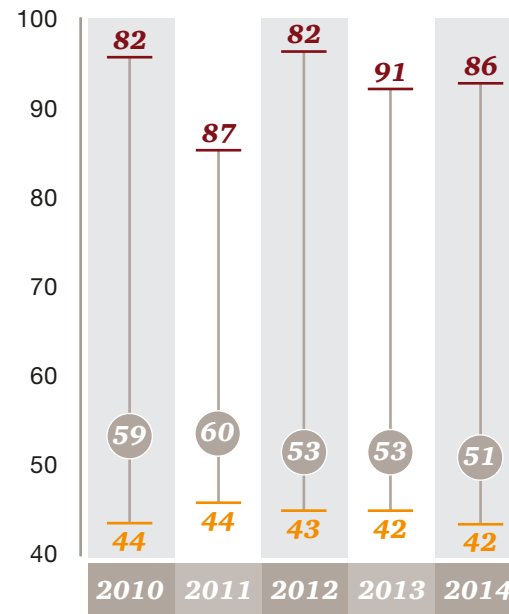
Industrial Conglomerates

Industrial conglomerates revenue and NWC % (€ million)

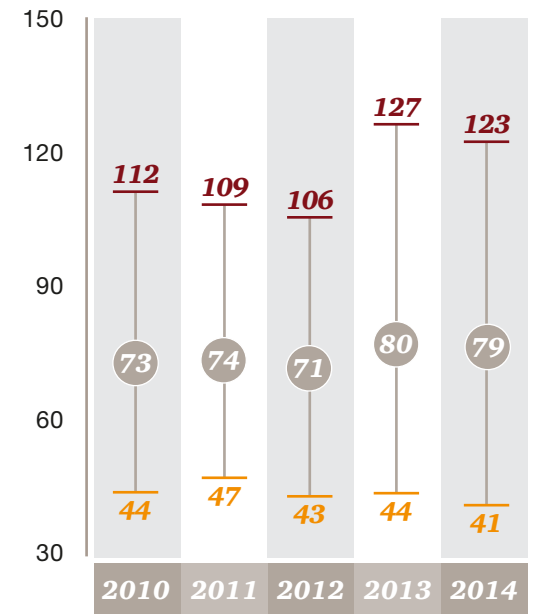


Industrial conglomerates have seen an increase in revenue of 12% compared to the year before, whilst their working capital performance improved by two percentage points. Performance improvements achieved in accounts receivables and inventory have been partly off-set by a deterioration in payables.

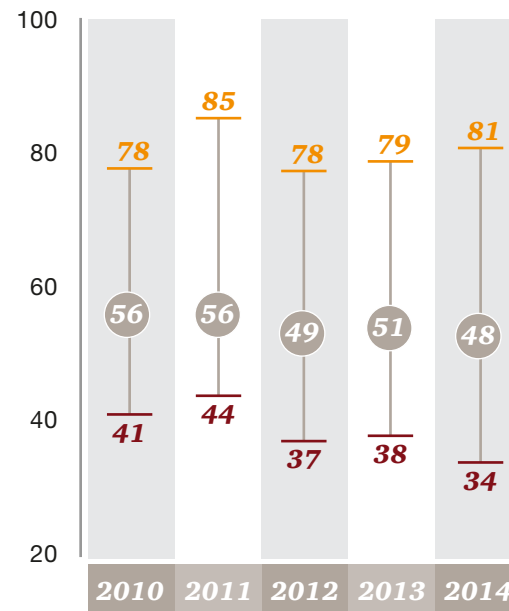
DSO



DIO



DPO

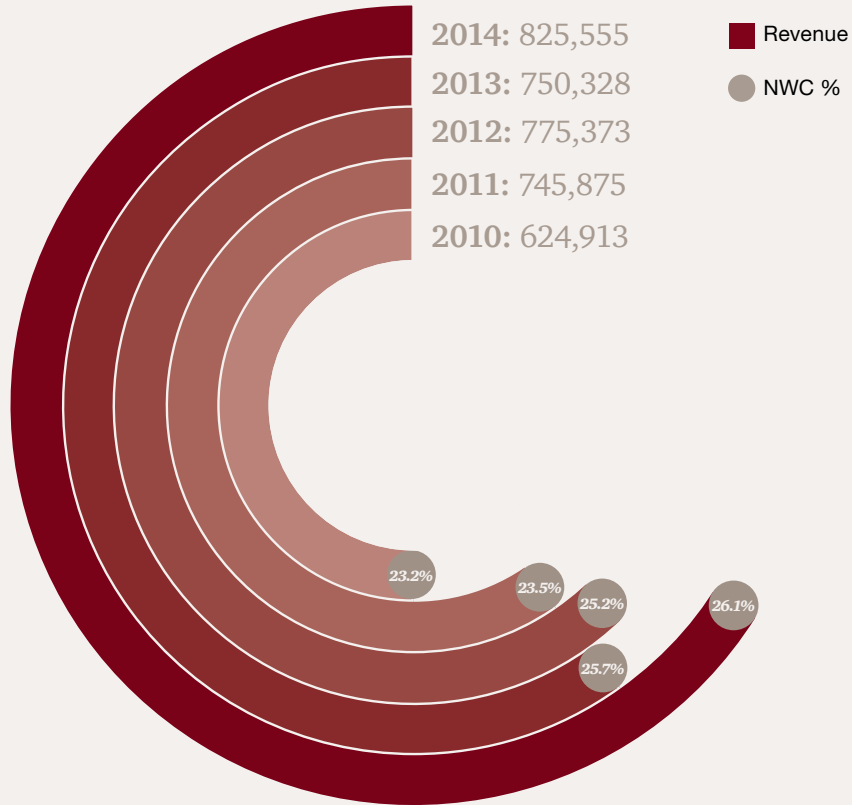


Key

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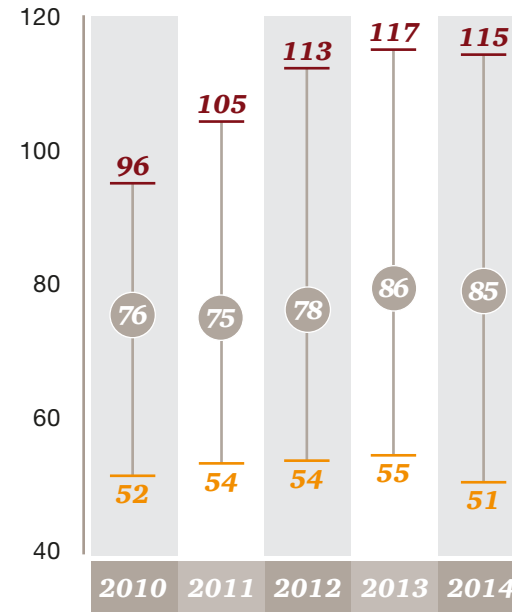
Machinery

Machinery revenue and NWC % (€ million)

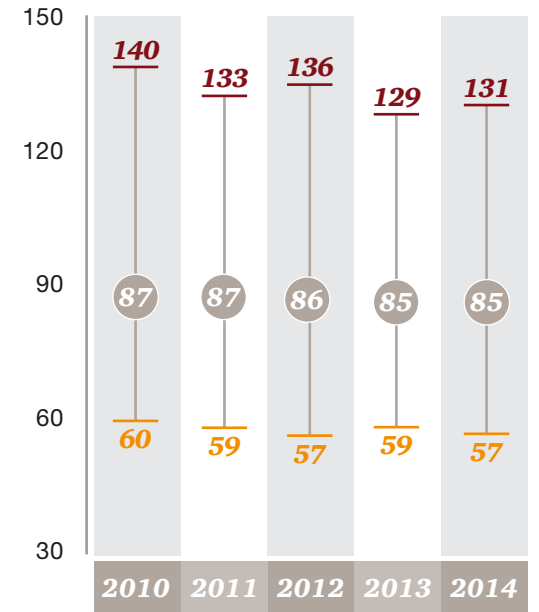


Machinery represents the largest sub-sector and also holds the second highest level of working capital. The deterioration in NWC% in 2014 was driven by an increase in DIO, as well as a reduction in DPO.

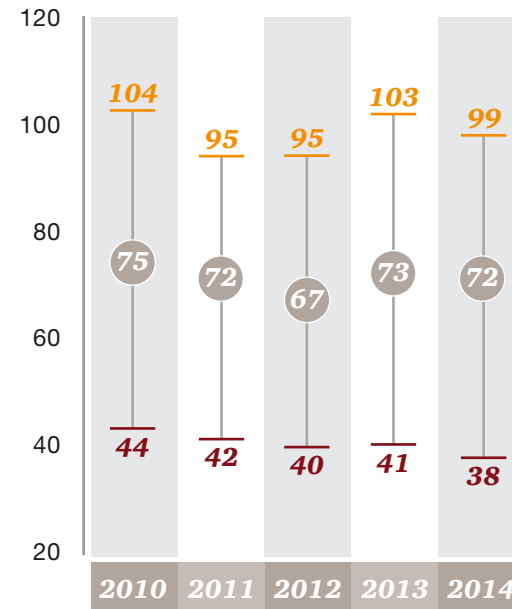
DSO



DIO



DPO

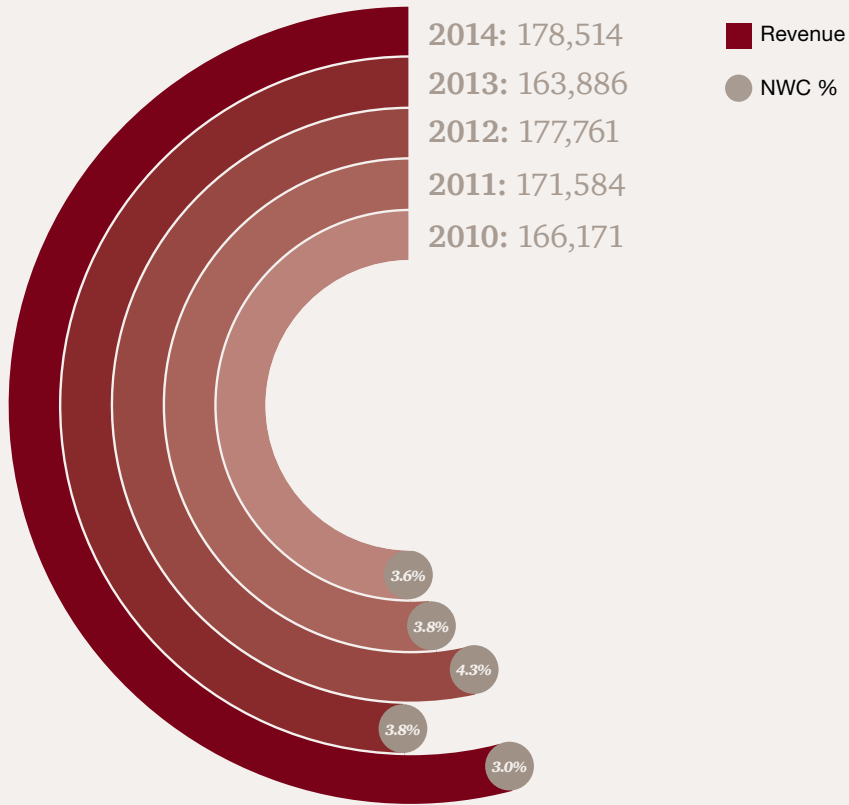


Key

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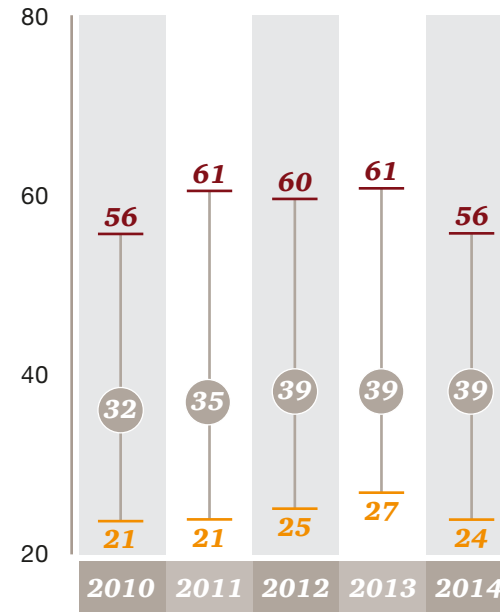
Marine

Marine revenue and NWC % (€ million)

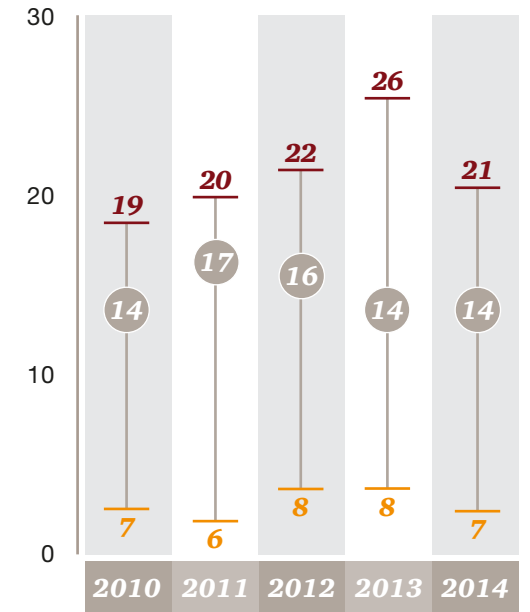


The marine sub-sector is the least capital intensive sector. Working capital performance has improved further year-on-year and is now at a five year low. This is driven by the historic best performance in inventory and payable days.

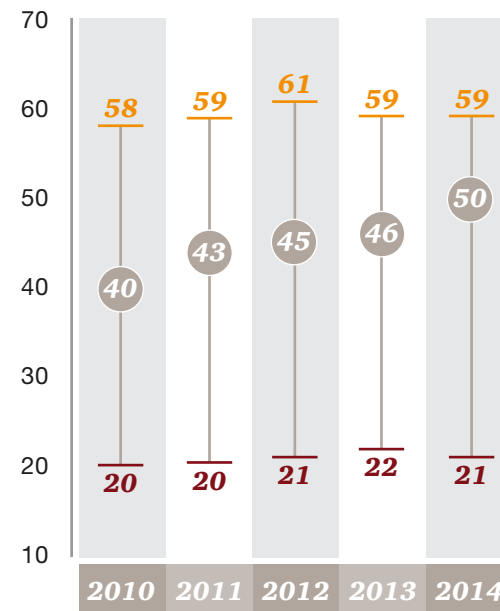
DSO



DIO



DPO

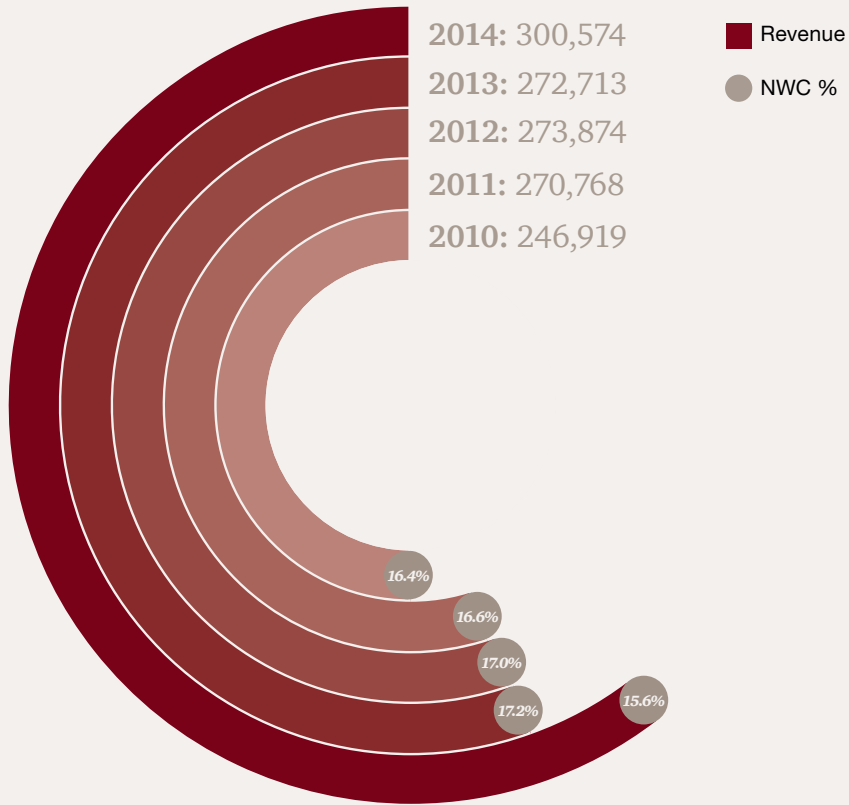


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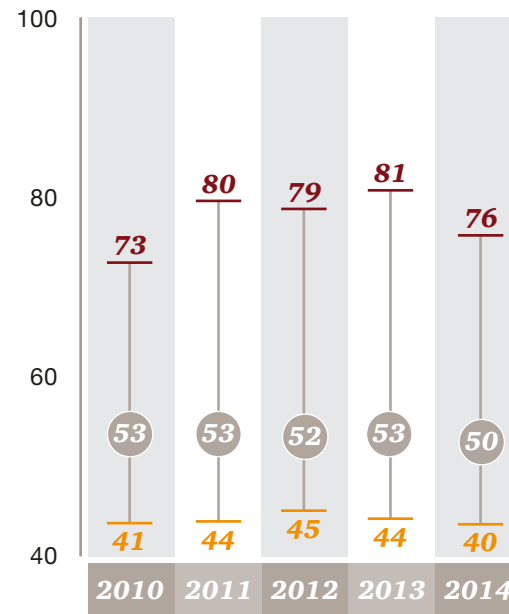
Paper and Packaging

Paper and packaging revenue and NWC % (€ million)

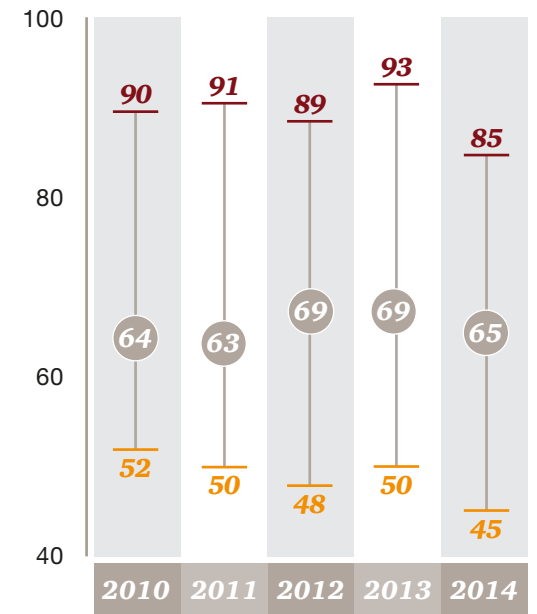


Working capital has improved significantly within paper and packaging, representing a five year best in terms of relative performance. This relates to strong improvements in receivables.

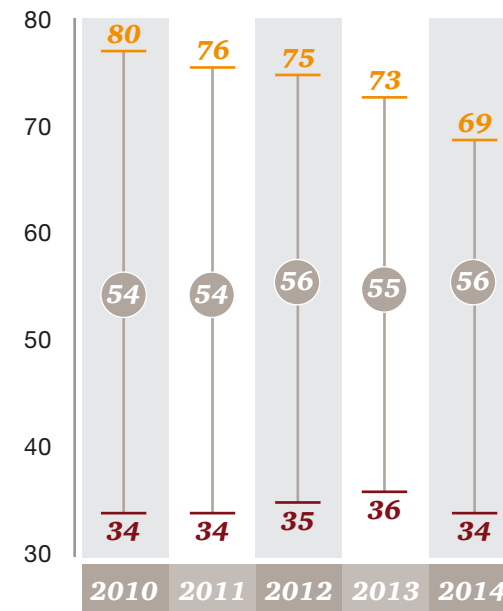
DSO



DIO



DPO

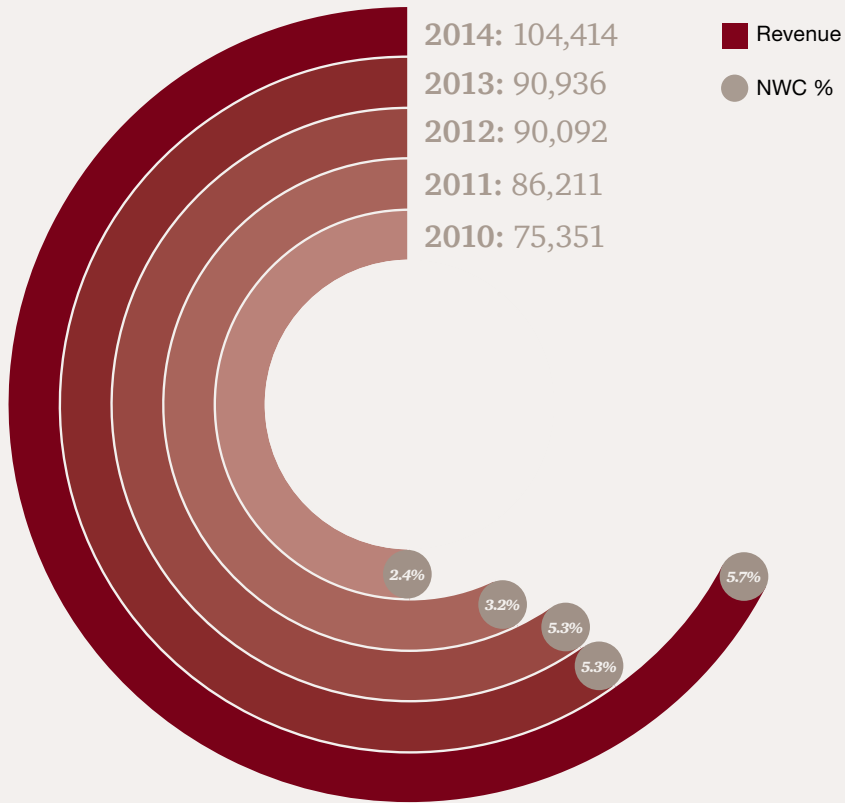


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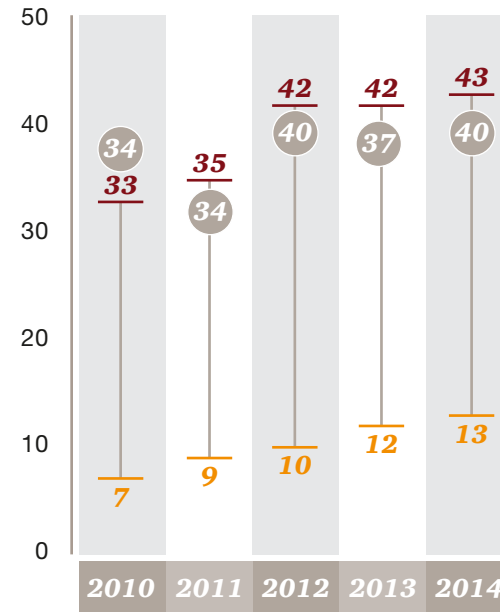
Road and Rail

Road and rail revenue and NWC % (€ million)

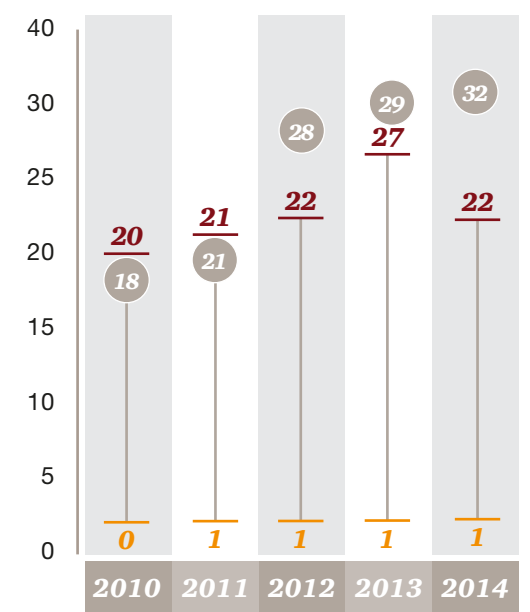


While the sector has benefited from a significant leap in revenues year-on-year, this has also resulted in a deterioration of working capital. Relative working capital is now at its highest level for five years, due to a deterioration on the asset side of the balance sheet, which is only partially offset by the longest payable days in the last five years.

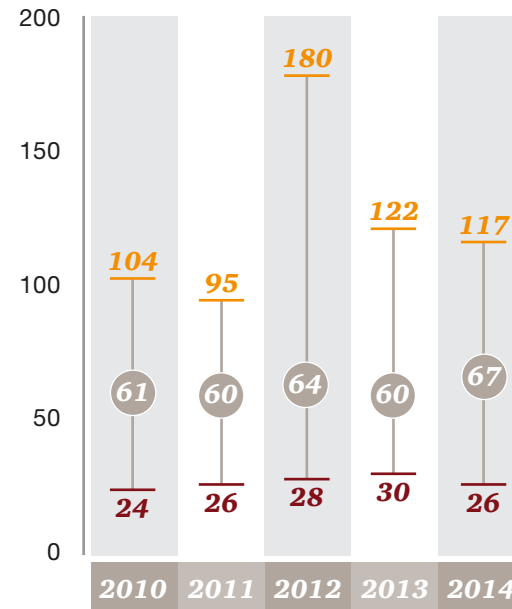
DSO



DIO



DPO

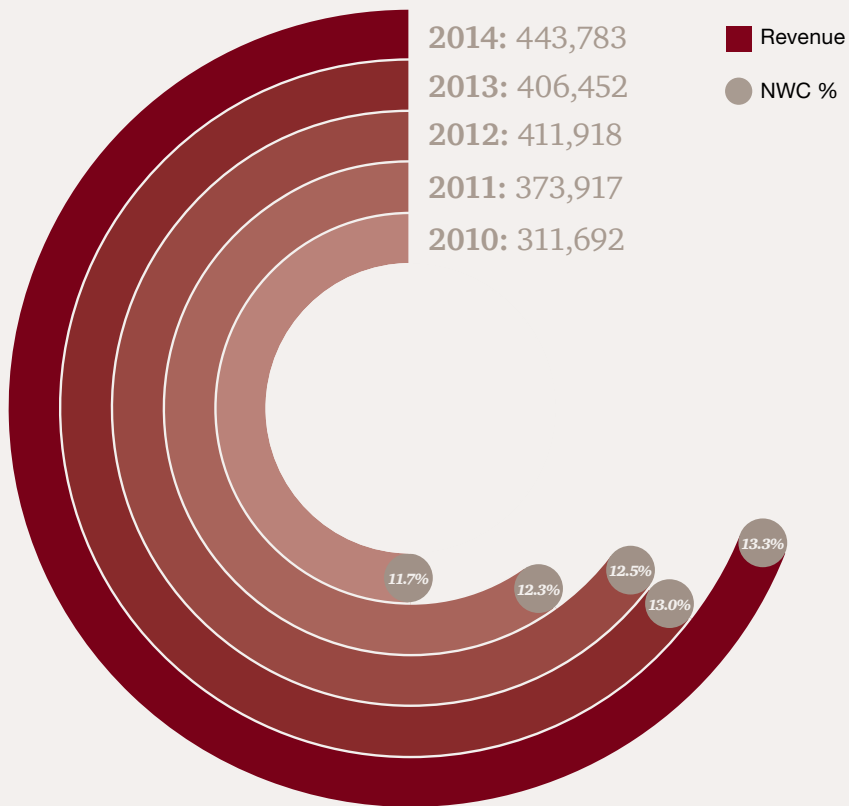


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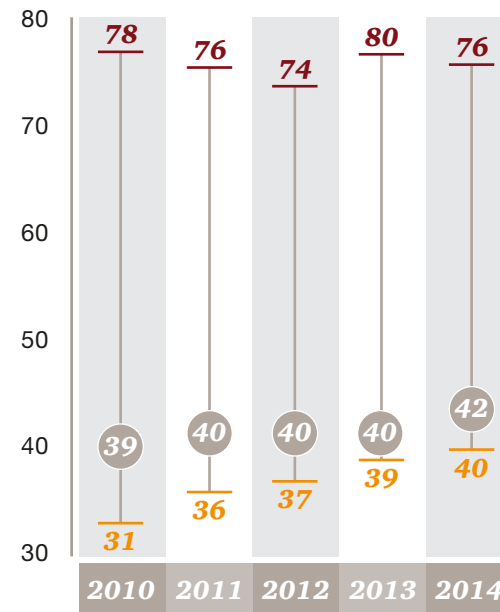
Trading Companies and Distributors

Trading companies and distributors revenue and NWC % (€ million)

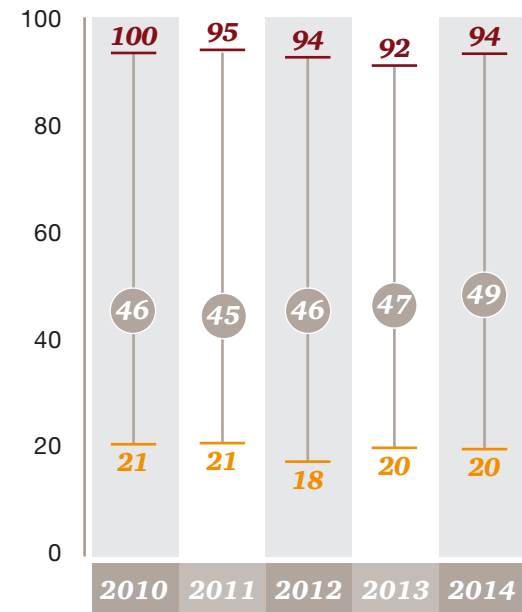


Working capital performance in the trading and distribution sub-sector steadily deteriorated from 2010 to 2014, driven by an increase in both receivable and inventory days.

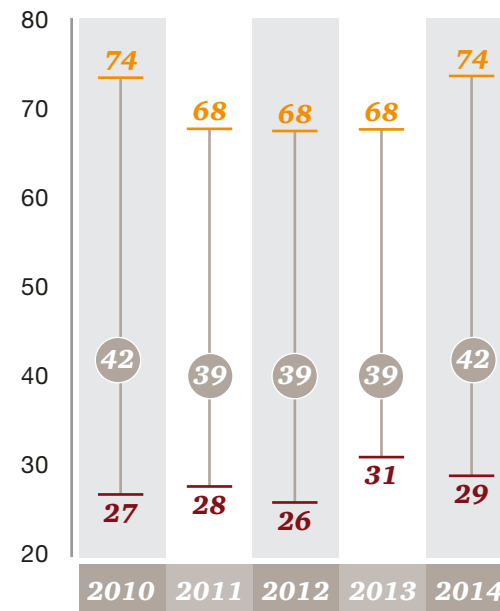
DSO



DIO



DPO







Key

- Top performers
- Weighted average performance
- Bottom performers



How can we support you

			
<h2>1</h2>	<h2>2</h2>	<h2>3</h2>	<h2>4</h2>
<p>Complete a working capital benchmarking exercise to compare performance against peers and identify potential improvement opportunities.</p>	<p>Perform a diagnostic review to identify 'quick wins' and longer-term working capital improvement opportunities.</p>	<p>Develop detailed action plans for implementation to generate cash and make sustainable improvements.</p>	<p>Assist the realisation of sustainable working capital reduction by implementing robust, efficient and collaborative processes.</p>

Addressing the key levers:

- Identification, harmonisation and improvement of commercial terms.
- Process optimisation throughout the end-to-end working capital cycles.
- Process compliance and monitoring.
- Creating and embedding a 'cash culture' within the organisation, optimising the trade-offs between cash, cost and service.

Examples of areas where PwC could help you to release cash from working capital:

Accounts receivable

- Credit risk policies
- Aligned and optimised customer terms
- Billing timeliness and quality
- Contract and milestone management
- Prioritised and proactive collection procedures
- Systems-based dispute resolution
- Dispute root cause elimination
- Asset based lending / securitisation

Accounts payable

- Consolidated spending
- Increased control with centre-led procurement
- Purchasing channels to avoid leakage
- Aligned and optimised payment terms
- Supply chain finance
- Payment methods and frequency
- Eradicated early payments

Inventory

- Lean and agile supply chain strategies
- Global coordination
- Forecasting techniques
- Production planning
- Accurate tracking of inventory quantities
- Differentiated inventory levels for different goods
- Balanced cash, cost and service
- Asset based lending

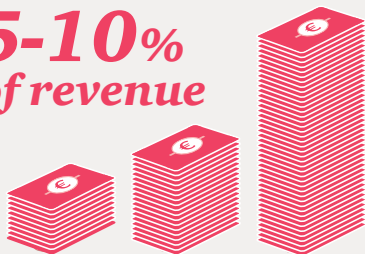
Our team has helped deliver significant working capital benefits around the world

We have helped to deliver over



We deliver substantial benefits, typically between

5-10%
of revenue



We deliver results fast,
typically 5 -15% of improvements are quick wins

Typical project results	Range of improvement
Receivables reductions	20% – 40%
Payables improvements	20% – 80%
Inventory reductions	15% – 50%
Net working capital improvements	30% – 70%
Quick wins as % of total opportunity	5% – 15%
Working Capital as % of sales	5% – 10%

Challenges in working capital optimisation:

Perception:

Working capital is an operational issue, but is often perceived to sit with finance



Cross functional:

Sustainable improvements are complex, requiring an operational and cross functional approach

Complexity:

Improvements require structural changes for many interrelated processes



Driven by people:

Needs hands-on approach 'on the shop floor' to change operational behaviour



Foreword

Executive
summary

Sector

Sub-sectors

**How can we
support you?**

Appendices

Contacts

Appendices



Basis of calculations and limitations

Basis of calculations

This study provides a view of working capital performance in the global industrial manufacturing sector and is based on the research of **1,403** companies in the world. For consistency reasons and to be able to add the individual ratios together we have calculated DSO based on sales, DPO and DIO based on Cost of Goods Sold (COGS).

Metric		Basis of calculation
NWC % (Net working capital %)	<i>NWC % measures working capital requirements relative to the size of the company.</i>	(Accounts receivable + inventories – accounts payable)/Sales
DSO (Days sales outstanding)	<i>DSO is a measure of the average number of days that a company takes to collect cash after the sale of goods or services have been delivered.</i>	Accounts receivable/Sales x 365
DIO (Days inventories on-hand)	<i>DIO gives an idea of how long it takes for a company to convert its inventory into sales. Generally, the lower (shorter) the DIO, the better.</i>	Inventory/COGS x 365
DPO (Days payables outstanding)	<i>DPO is an indicator of how long a company takes to pay its trade creditors.</i>	Accounts payable/COGS x 365
CCE (Cash conversion efficiency)	<i>CCE is an indicator of how efficiently a company is able to convert profits into cash.</i>	Cash flow from operations/EBITDA

Limitations of this study

Companies have been assigned to countries based on the location of their headquarters. Although a significant part of sales and purchases might be realised in that country, it does not necessarily reflect typical payment terms or behaviour in that country.

As the research is based on publicly available information, all figures are financial year-end figures. Due to disproportionate management efforts to improve working capital performance towards year-end (also referred to as ‘window dressing’) the real underlying working capital requirement within reporting periods might be higher. Also off-balance-sheet financing or the effects of asset securitisation (e.g. receivables) have not been taken into account.

Summary data

	<i>Primary industry</i>	<i>Africa</i>	<i>Americas</i>	<i>Asia</i>	<i>Australasia</i>	<i>Europe</i>	<i>Middle East</i>	<i>USA, Canada</i>	<i>Total</i>
<i>Number of companies</i>	<i>Electrical Components</i>	1	1	130		31	5	23	191
	<i>Heavy Electrical Equipment</i>			27		8		6	41
	<i>Industrial Conglomerates</i>	7	13	55	1	16	9	7	108
	<i>Machinery</i>	1	11	249	5	119	2	98	485
	<i>Marine</i>	2	10	62	3	32	3	9	121
	<i>Paper and Packaging</i>	4	15	99	5	45	4	48	220
	<i>Road and Rail</i>		6	19	4	11		7	47
	<i>Trading Companies and Distributors</i>	7	6	82	6	39	6	44	190
	<i>Grand total</i>	22	62	723	24	301	29	242	1,403

	<i>Primary industry</i>	<i>Africa</i>	<i>Americas</i>	<i>Asia</i>	<i>Australasia</i>	<i>Europe</i>	<i>Middle East</i>	<i>USA, Canada</i>	<i>Total</i>
<i>NWC % 2014</i>	<i>Electrical Components</i>	36.3%	15.3%	26.1%		19.3%	43.0%	19.6%	22.4%
	<i>Heavy Electrical Equipment</i>			39.2%		26.2%		24.2%	32.1%
	<i>Industrial Conglomerates</i>	9.5%	20.2%	18.5%	15.5%	28.1%	27.2%	16.7%	19.7%
	<i>Machinery</i>	26.6%	30.0%	32.3%	21.0%	28.9%	83.6%	17.3%	26.1%
	<i>Marine</i>	15.6%	8.2%	1.7%	10.9%	3.3%	8.3%	8.5%	3.0%
	<i>Paper and Packaging</i>	15.9%	25.0%	28.6%	8.6%	13.5%	38.5%	12.0%	15.6%
	<i>Road and Rail</i>		1.1%	10.1%	4.1%	7.3%		4.6%	5.7%
	<i>Trading Companies and Distributors</i>	13.7%	30.6%	9.7%	22.3%	13.4%	17.0%	21.7%	13.3%
	<i>Grand total</i>	14.4%	20.3%	20.2%	11.6%	21.3%	27.0%	15.9%	19.2%

	<i>Primary industry</i>	<i>Africa</i>	<i>Americas</i>	<i>Asia</i>	<i>Australasia</i>	<i>Europe</i>	<i>Middle East</i>	<i>USA, Canada</i>	<i>Total</i>
<i>DSO 2014</i>	<i>Electrical Components</i>	86	43	104		70	82	65	82
	<i>Heavy Electrical Equipment</i>			181		93		89	133
	<i>Industrial Conglomerates</i>	47	49	42	34	74	67	55	51
	<i>Machinery</i>	40	78	124	40	87	212	49	85
	<i>Marine</i>	94	52	38	55	37	40	45	39
	<i>Paper and Packaging</i>	44	62	72	44	48	116	43	50
	<i>Road and Rail</i>		20	53	34	68		29	40
	<i>Trading Companies and Distributors</i>	45	69	38	55	45	60	47	42
	<i>Grand total</i>	50	51	72	44	70	70	49	63

DIO 2014

Primary industry	Africa	Americas	Asia	Australasia	Europe	Middle East	USA, Canada	Total
Electrical Components	85	50	73		78	109	68	74
Heavy Electrical Equipment			140		79		38	106
Industrial Conglomerates	45	53	83	145	102	107	73	79
Machinery	173	84	84	104	97	189	75	85
Marine	27	15	14	3	12	18	18	14
Paper and Packaging	68	90	97	61	67	92	51	65
Road and Rail		1	115	15	15		17	32
Trading Companies and Distributors	87	110	35	92	61	40	82	49
Grand total	64	57	69	60	77	93	66	70

DPO 2014

Primary industry	Africa	Americas	Asia	Australasia	Europe	Middle East	USA, Canada	Total
Electrical Components	29	35	83		77	23	57	75
Heavy Electrical Equipment			187		75		38	126
Industrial Conglomerates	61	20	47	98	61	61	62	48
Machinery	99	42	91	56	69	72	55	72
Marine	88	45	52	34	48	34	37	50
Paper and Packaging	49	51	58	77	65	63	49	56
Road and Rail		30	142	44	111		40	67
Trading Companies and Distributors	80	45	38	54	55	38	37	42
Grand total	60	26	66	62	65	53	52	60

Total cash opportunity from working capital (€ million)

Primary industry	Africa	Americas	Asia	Australasia	Europe	Middle East	USA, Canada	Total
Electrical Components	35	0	5,557		2,905	286	1,428	10,211
Heavy Electrical Equipment			3,122		2,452		62	5,636
Industrial Conglomerates	29	2,564	21,584	18	2,111	1,324	9,534	37,166
Machinery	5	226	24,925	72	19,254	372	9,119	53,973
Marine	76	117	1,416	67	800	80	164	2,720
Paper and Packaging	461	887	4,186	55	1,713	147	1,776	9,226
Road and Rail		195	2,437	102	1,351		1,505	5,590
Trading Companies and Distributors	185	256	7,057	270	3,849	130	5,117	16,863
Grand total	791	4,247	70,283	585	34,435	2,338	28,705	141,385

Highest opportunity

Low opportunity



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At PwC, our purpose is to build trust in society and solve important problems. We're a network of firms in 157 countries with more than 208,000 people who are committed to delivering quality in assurance, advisory and tax services. Find out more and tell us what matters to you by visiting us at www.pwc.com.

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