

BENCHMARKING SURVEY AND ANALYSIS

Material Procurement & Equipment Rental Processes

June 2025

NEW HORIZONS

FOUNDATION

A Chance to Grow



**FIELD
MATERIALS**



FIELD MATERIALS

Leading AI Procurement Platform in Construction

90%
of PO & Invoice Processing
Time Saved

5-10%
costs saved by auto-verifying
invoices against POs



OBJECTIVE

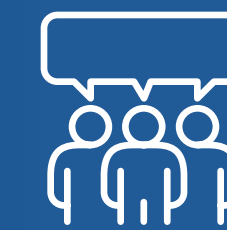
Materials/equipment are key elements in construction. The objective of this survey and analysis is to understand best practices in procurement to **help provide major competitive advantage and identify opportunities for productivity gains** to contractors.



Summary



First of its kind industry survey in the HVAC & sheet metal trade



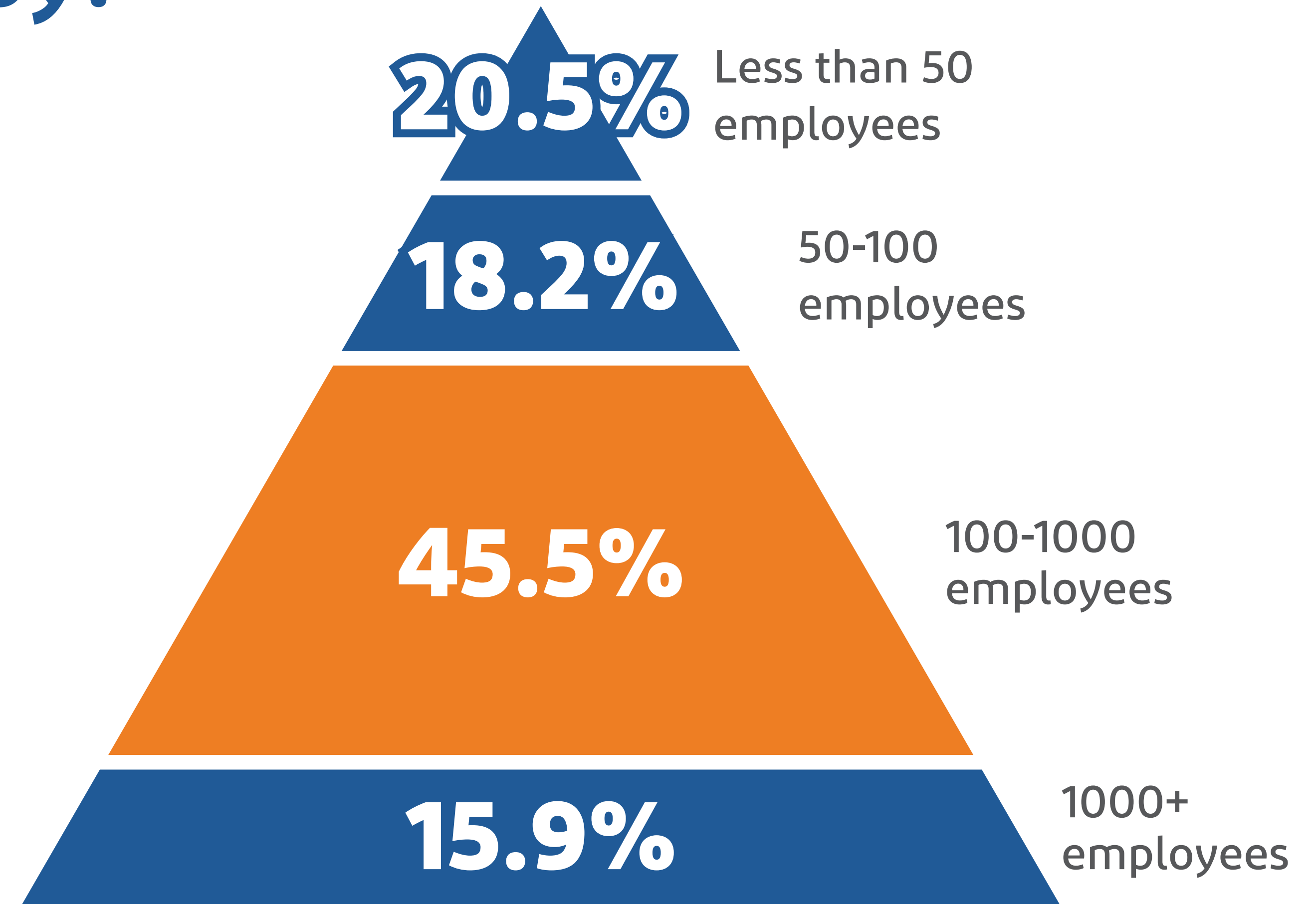
~50 organizations
(SMACNA members)

How many people does your company employ?



Most respondents are from medium to large companies (100-1000 employees) – consistent with SMACNA membership.

There are fewer respondents from either extreme of the spectrum (small and very large companies).

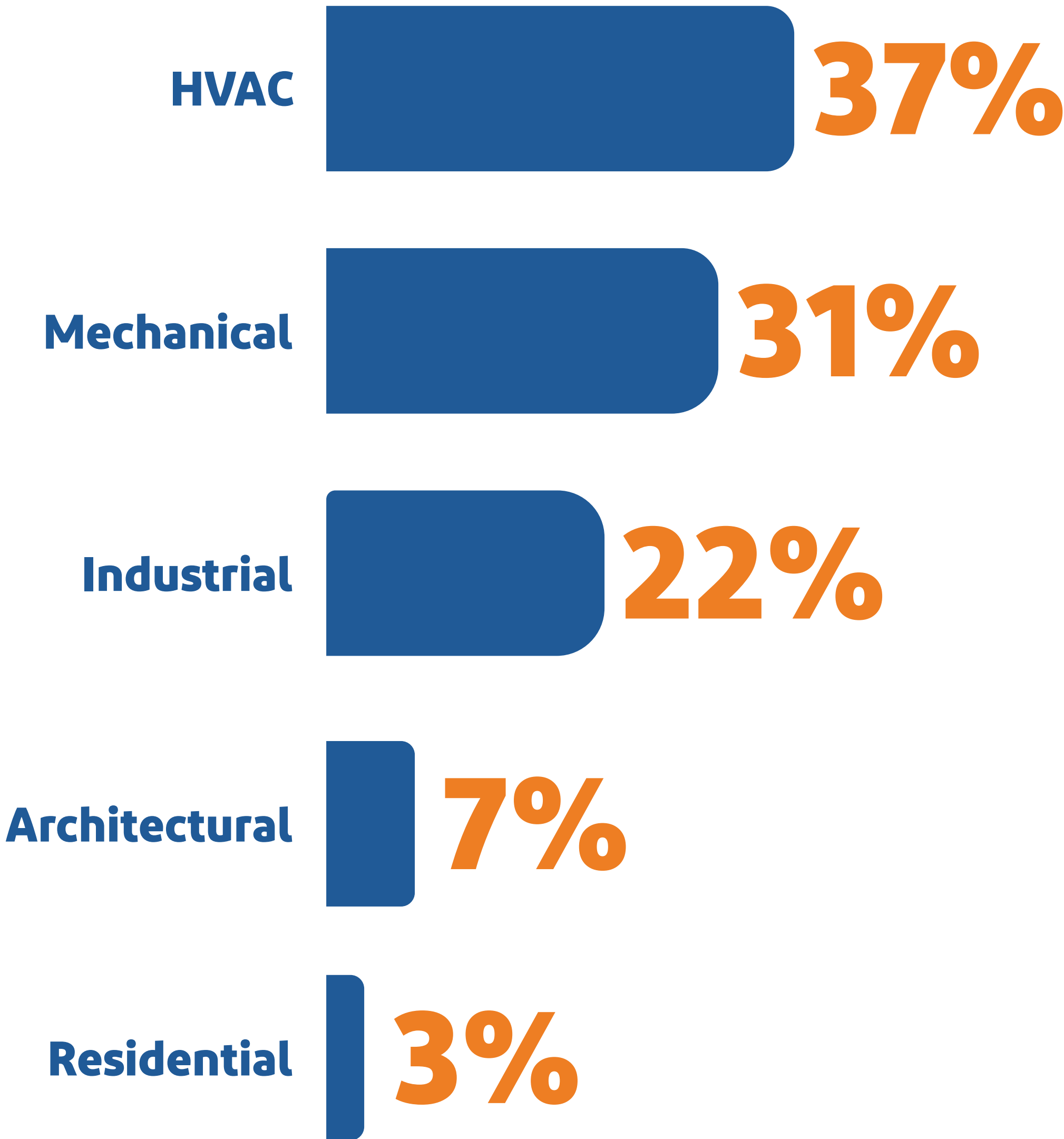


What area does your company focus on?



Data shows a clear majority falls into the HVAC and Mechanical areas, with less emphasis on Architectural and Residential focus areas.

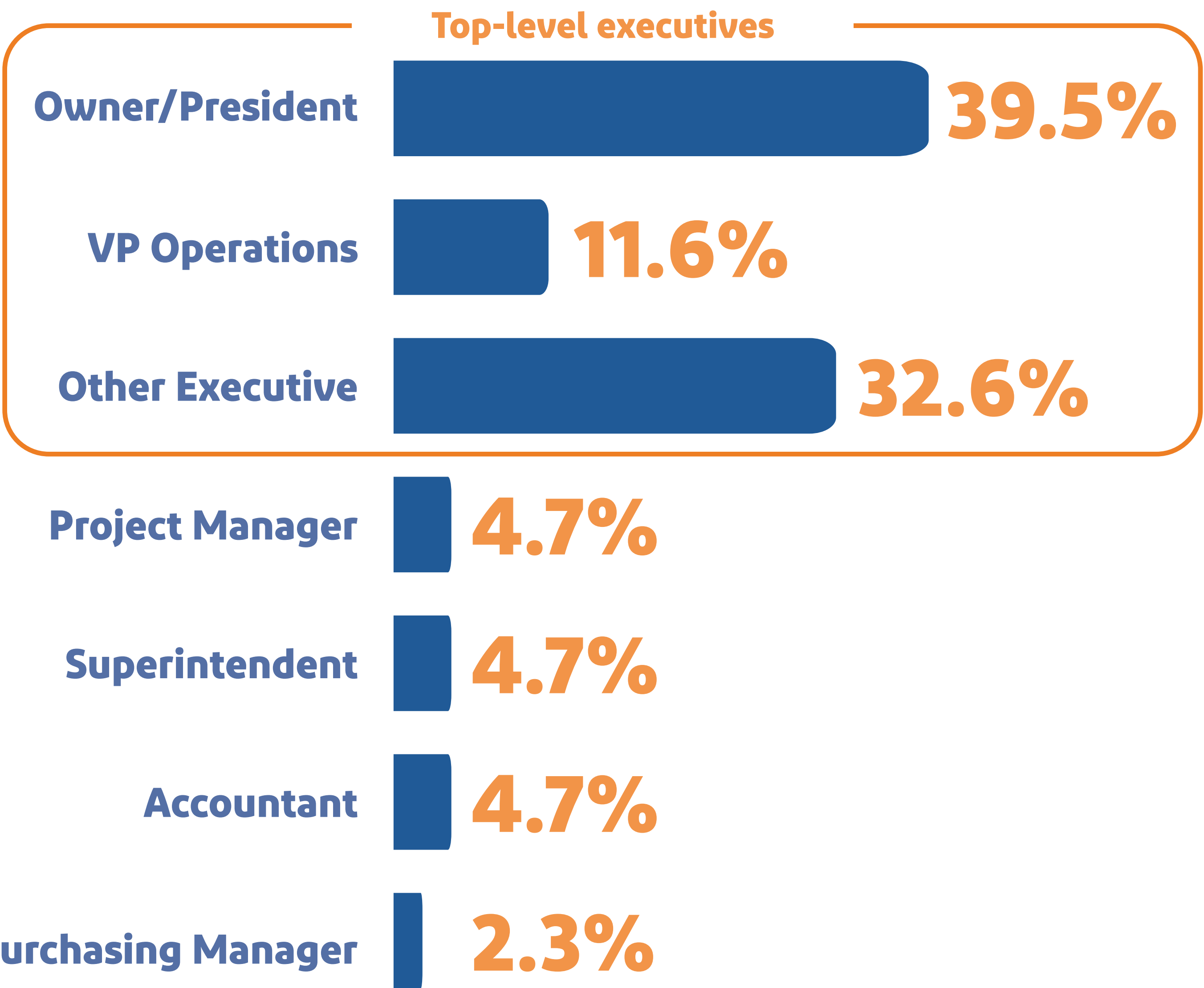
This is in line with the SMACNA membership distribution.



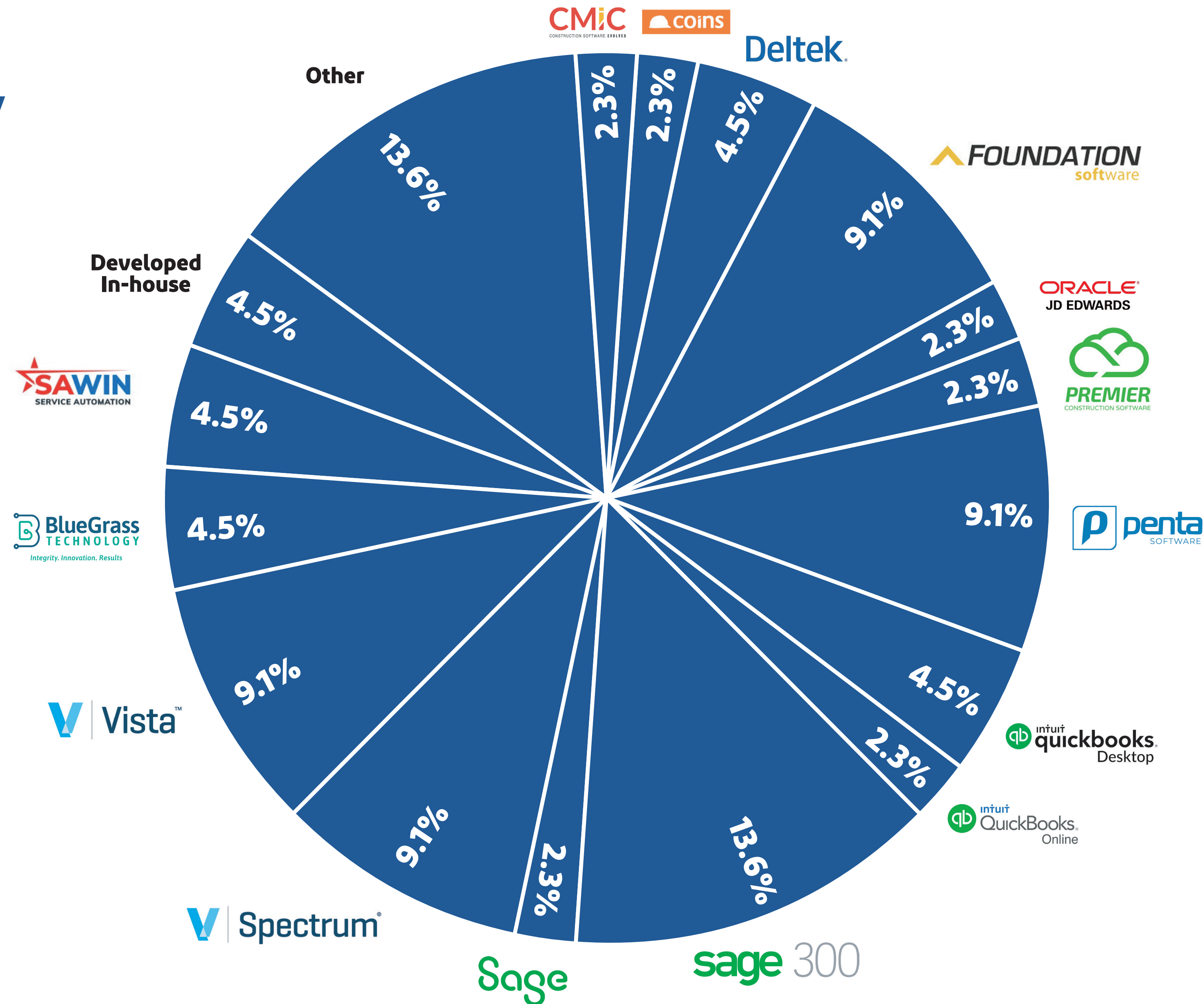
What is your role?



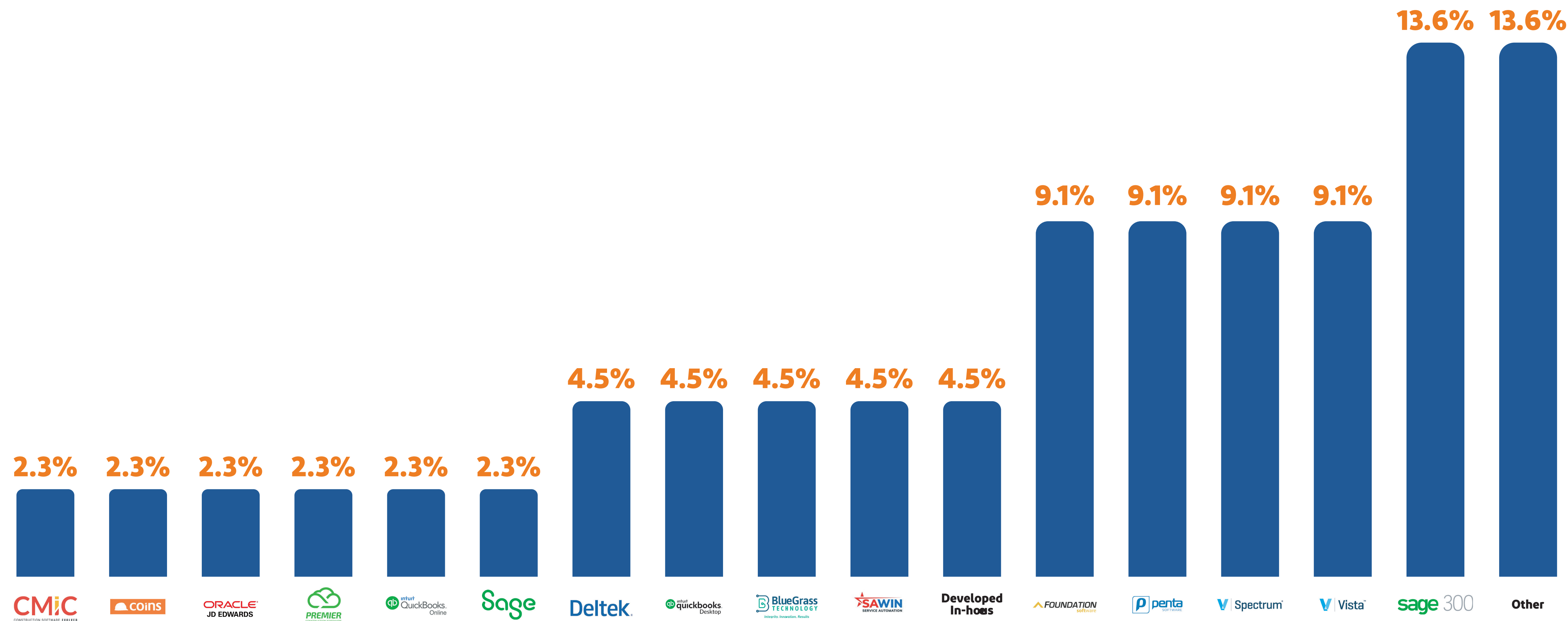
Most survey participants were top-level executives. There was a notable absence of mid-level management.



What accounting/ ERP software do you use?



What accounting/ERP software do you use?

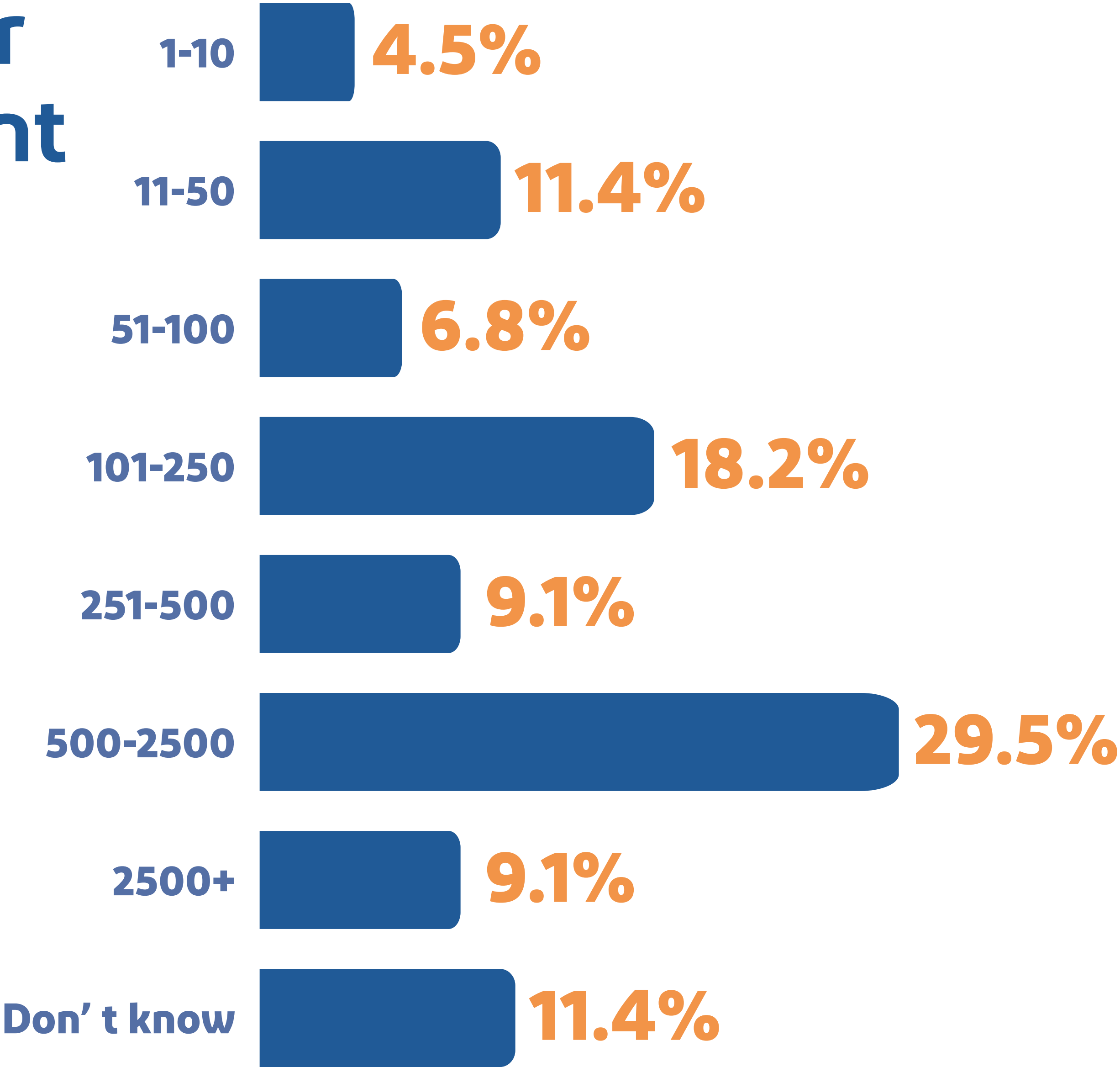


How many AP invoices for material orders/equipment rentals do you receive each month?



Data shows a diverse range of invoicing volumes, with a significant concentration in the higher volume category (500-2500 invoices).

Presence of respondents who don't know their invoice volume could suggest a lack of tracking or reporting processes in some organizations.

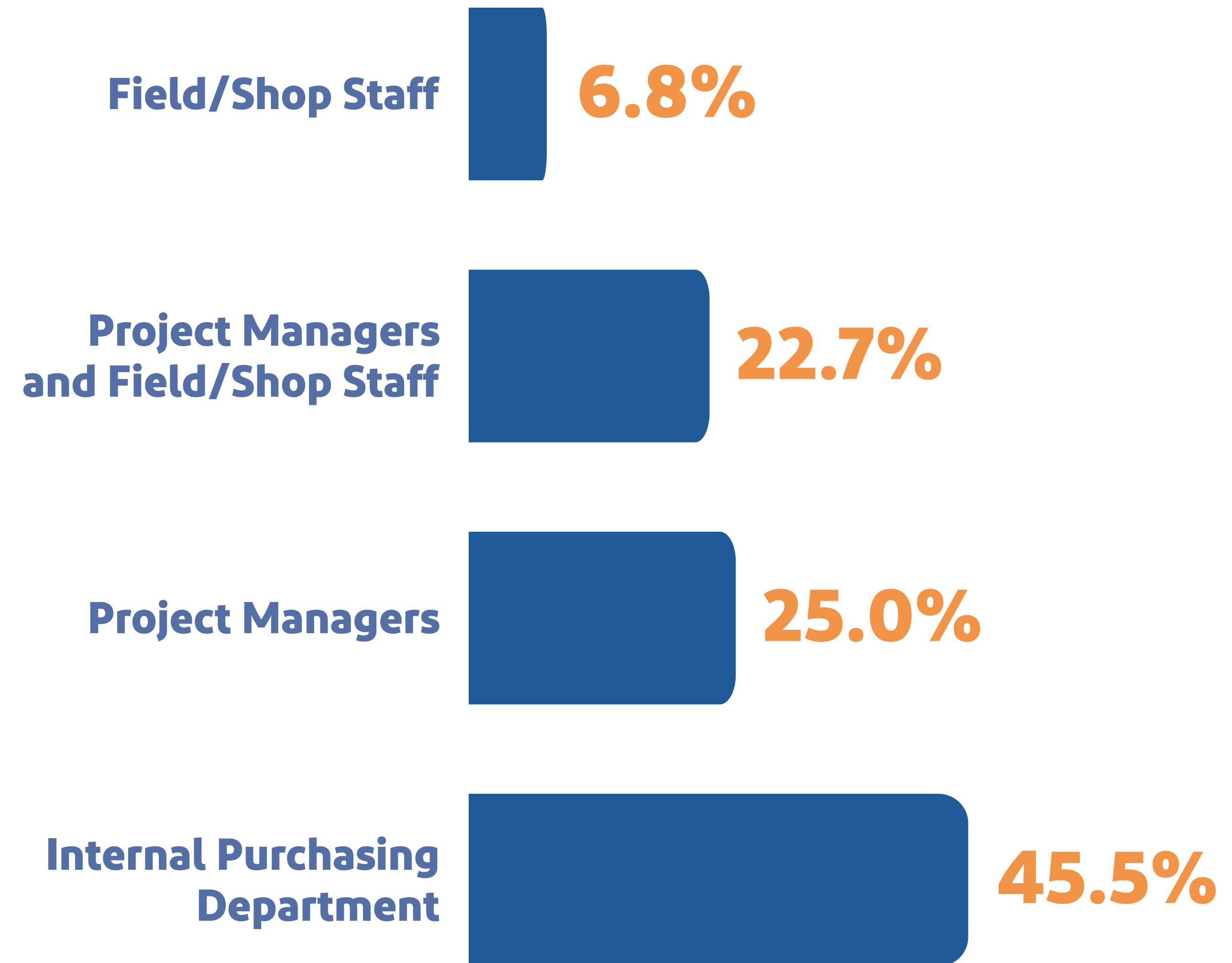


Who places material and equipment orders?



Larger, more structured organizations rely on purchasing teams for order management.

In smaller or more decentralized teams, PMs or field/shop staff take on more responsibility.



How do you handle packing slips for received materials?



Most organizations still rely on physical packing slip handling. Very few use digital solutions like apps for packing slip management.

Organizations adopting digital tools may have greater efficiency and accuracy in their processes compared to those relying on manual methods.

We use an app to collect packing slips and correlates them with the right purchase order

9.1%

Packing slips aren't collected

11.4%

Foremen take a picture and email office staff

31.8%

Collected at job site/shop and physically sent to the office

47.7%

Do you set up a separate PO for each material delivery?



The majority of organizations surveyed rely on POs to procure materials. This creates a lot of overhead work, which is why ~37% rely on blanket POs.

There is a need for technology to automate/streamline the process to reserve POs and digitally capture what gets purchased in the field.

No, blanket PO for each job

7.3%

Sometimes, separate PO or bill materials direct to job

9.8%

Sometimes, separate PO or blanket PO

36.6%

Yes, separate PO

46.3%

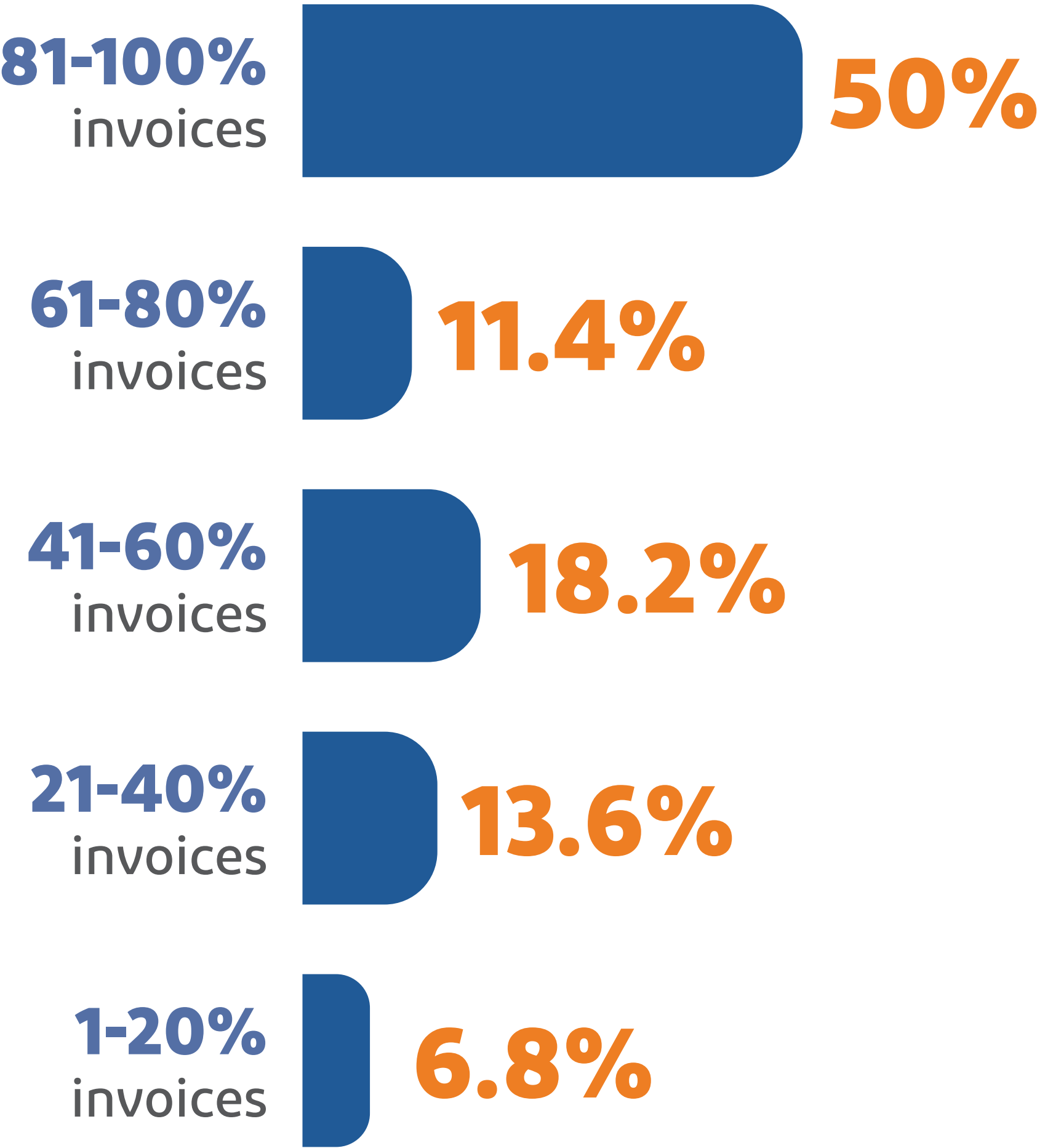
What percentage of your material and equipment invoices are received by email (vs snail mail)?



Half of organizations receive most invoices electronically.

About 20% receive majority of their invoices via snail mail - a major opportunity for improving operations.

Electronic delivery of invoices allows for automating processing of invoices - a major productivity gain for contractors.

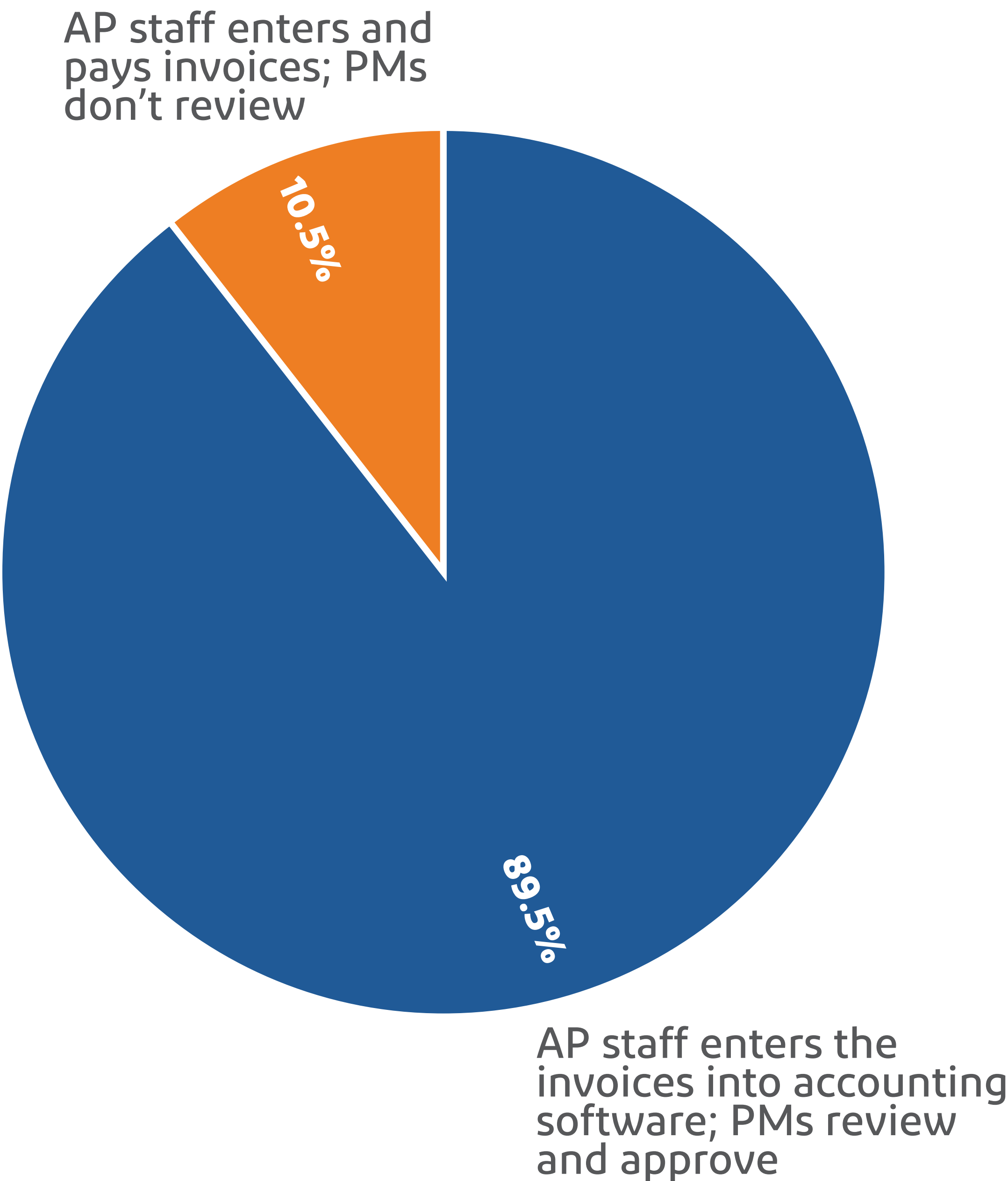


What's your process for handling invoices for materials and equipment?



The majority of organizations surveyed enter invoices into their accounting software and rely on an approval process from the project managers (PMs).

Automating the AP entry of invoices and approval processes is a major opportunity for productivity gains for contractors.



How do you track credits with material and equipment vendors?



The majority of organizations surveyed rely on accounting software to track credit memos. ~20% either don't track credits or rely on PMs.

Automating capturing of vendor credits and auto-applying credits to AP invoices can lead to significant cost savings for contractors.

We don't do a very good job of tracking credits **9.1%**

Excel Spreadsheets **11.4%**

Project Managers track credits **11.4%**

Accounting Software **68.2%**

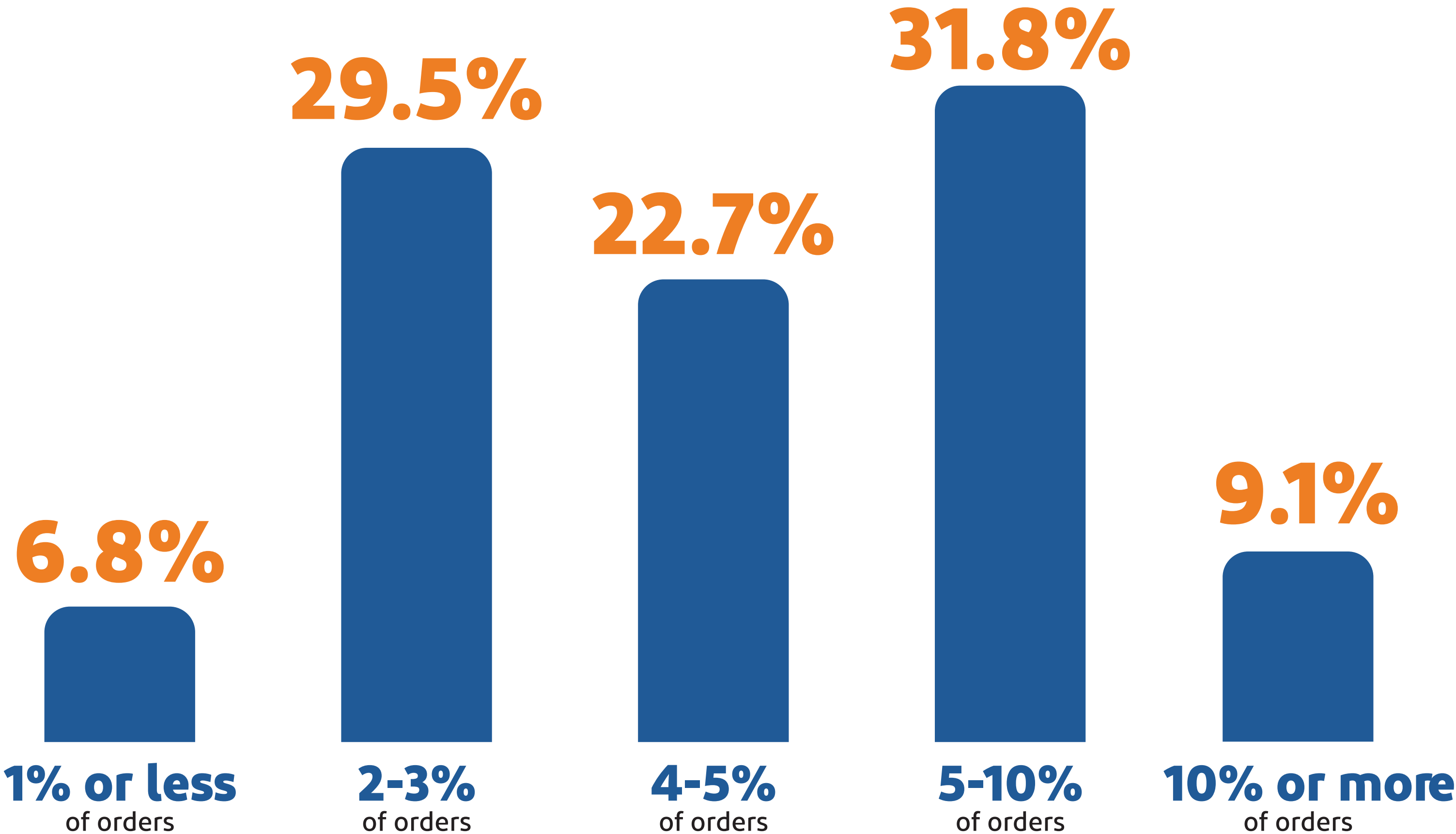
What percentage of orders have issues?

(e.g., missing items, damaged items, wrong qualities, etc.)



Over 40% of organizations experience issues with >5% of orders.

Solving order issues is time consuming. There is a need to digitally capture order issues and track their resolution.



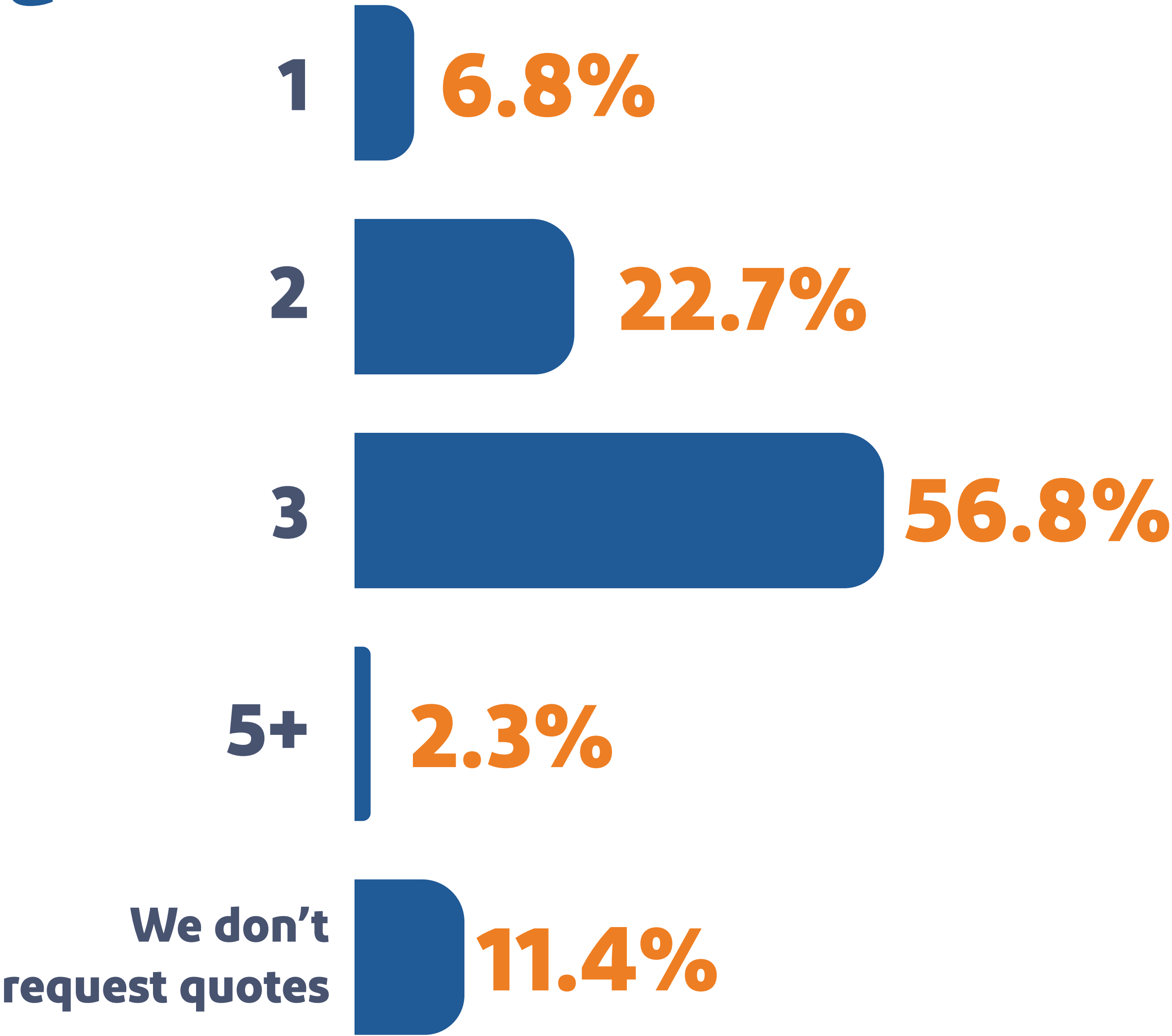
How many vendors do you get quotes from before deciding on a buyout (committed quote)?

For orders above 500



Almost 60% of organizations surveyed request at least three quotes before deciding on a vendor. This provides more choices for pricing or material availability.

Technology can help automate the quote analysis.



What percentage of material orders/equipment rentals are placed without a pre-authorization from the office

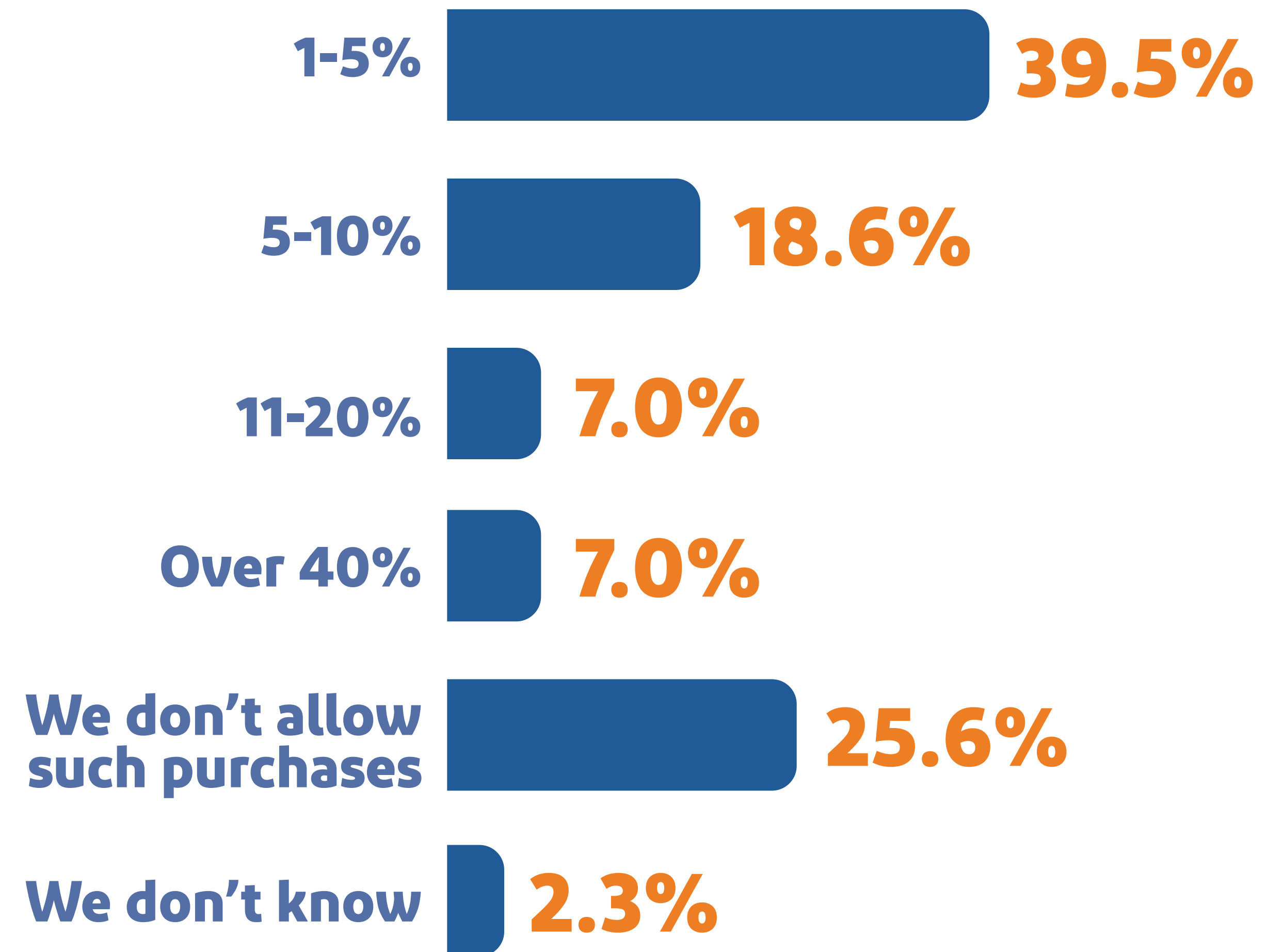
(e.g., foreman uses a corporate card to buy something for the job and does not inform the office about the purchase)



One in four respondents have strict policies against rogue spending.

Majority (58%) allow low to moderate levels of unauthorized orders to provide flexibility to the field staff.

Technology can help streamline field requisitions as well as reserving POs.



What payment method(s) do you use to pay vendors?



The high use of wire transfers and credit cards suggests a shift in construction towards electronic payments. However, 40% of organizations are still using checks, which is a less cost effective method than electronic payments.

Technology can help automate payments and reduce operational costs.

Cash | 1.2%

Financing 4.7%

Credit Card 23.3%

Wire transfer 30.2%

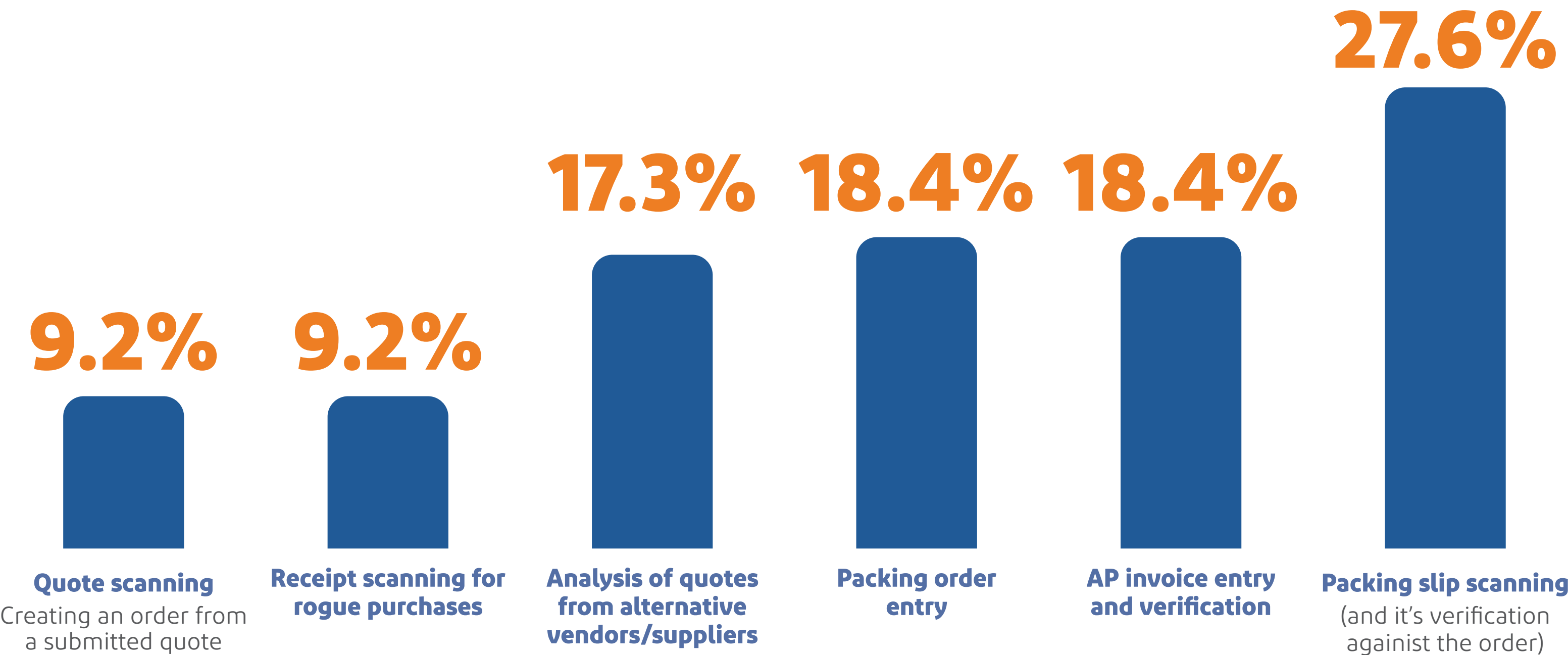
Check 40.7%

What would you automate in material & equipment procurement?



There is a clear need to reduce manual data entry and improve tracking and verification across the entire procurement life cycle, from analyzing quotes to capturing rogue spending.

AI can efficiently address these needs and provide a major competitive advantage to early adopters.

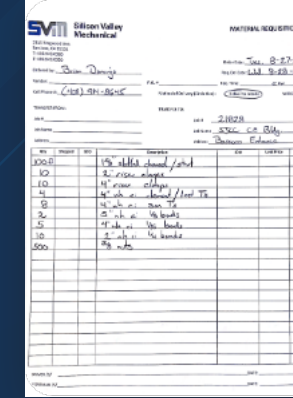


What's causing inefficiencies in procurement?

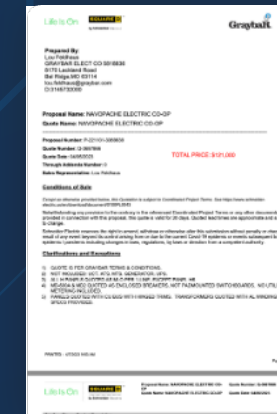
Contractors spend **hours** manually entering and checking these documents.

- Costly office staff
- Revenue loss due to billing errors

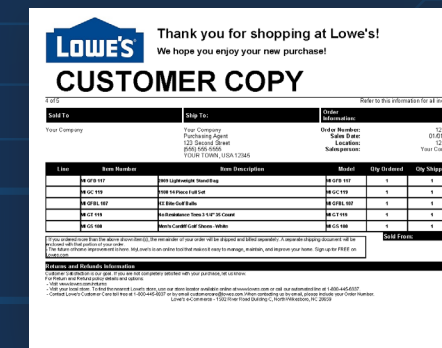
Field Requisitions



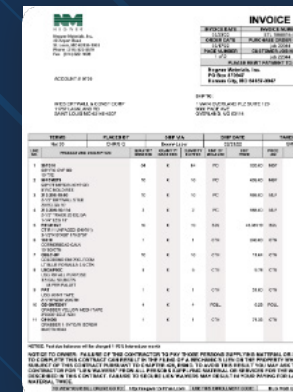
Quotes



Packing Slips



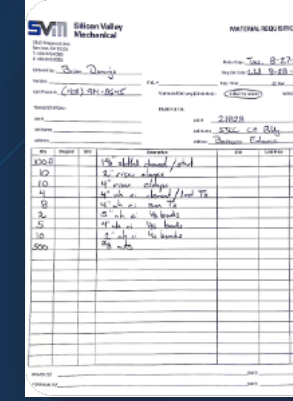
Invoices



Receipts

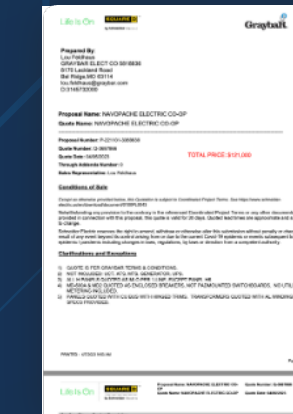


How AI can solve these inefficiencies in procurement



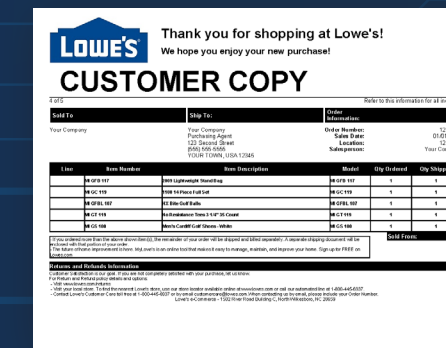
Field Requisitions

- AI reads scribbled notes or requisition forms
- Requisitions can be split into vendor orders and pushed as POs into ERP



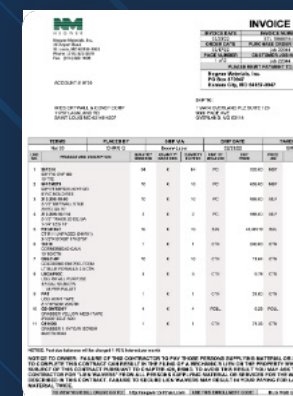
Quotes

- AI reads UOMs, quantities, prices
- POs are pushed into ERP
- AI validates line items when you receive invoices



Packing Slips

- Scans packing slips to track what was received
- Verifies a packing slip against PO and Invoice



Invoices

- AI automates three-way match
- AI automates cost coding
- Eliminates invoice data entry into ERP



Receipts

- AI reads receipts and automates cost coding and job coding



What makes generative AI better than OCR?

Generative AI/LLM

Interprets OCR scanned text

The image shows a scanned document titled 'THE BUILDING CENTER, INC. SERVICE YOU CAN BUILD ON'. It is a 'Quotation' for a 'Bid Proposal for VCI Chester Road'. The document includes a table of items with columns for 'Line', 'Item #', 'Description', 'U/M', 'Qty', 'Unit Price', and 'Total'. Key data points are circled in green: 'Locations' (Greensboro, NC; Mebane, NC; Pineville, NC; Columbia, SC), 'Pineville' address (10201 Industrial Drive, Pineville, NC 28134), 'Delivery Address' (ARTISAN CUSTOM HOMES, 21016 CATAWABA AVE, CORNELIUS, NC, 28031), and a table row for '24145' (2X4-14 STD & BTR SPF 80/14) with a unit price of 5.25. The bottom of the page shows a 'Bid Proposal for VCI Chester Road' table with columns for 'Seq#', 'Qty', 'Description', 'Units', 'Price', and 'Ext Price'.

Line	Item #	Description	U/M	Qty	Unit Price	Total
120	12058	7/16 4X8 ORIENTED STRANDBOARD	ea	18	17.60	316.80
121	28125	2X8-12 SPF #2	ea	84	11.63	976.92
122	2885	2X8-8 SPF #2	ea	41	6.23	255.43
123	UJUS28-2	USP# JUS28-2 2 X 8-10 18 GA DBL SLANT NAIL JOIST HANGER	ea	6	5.96	35.76
124	UJUS28-TZ	USP# JUS28-TZ 2 X 8-10 18 GA TRIPLE ZINC SLANT NAIL FACE MT JOIST HANGER	ea	84	3.86	324.24
125	12058	7/16 4X8 ORIENTED STRANDBOARD	ea	148	17.60	2,604.80
126	28145	2X8-14 SPF #2	ea	40	11.50	529.00
127	24145	2X4-14 STD & BTR SPF 80/14	ea	80	5.25	420.00

Seq#	Qty	Description	Units	Price	Ext Price
630		REUSE			
640	4700	16 PVC C900 DR25 PIPE (G) 20' PURP PC165	FT	39.68	186,496.00
650	20	10 PVC C900 DR18 PIPE (G) 20' PURP PC235	FT	35.45	709.00
660	5000	12GA 12305F PURPLE JEA WINE 30MIL	FT	0.16	800.00
680		RESTRAINTS			

Trained on thousands of quote docs to generalize patterns of how text fields relate to each other.

Designed to handle sequences of data. Understands how one row relates to the other or that all values in a particular column are numbers.

Interprets the text in relation to other elements. U/M column with "ea" values signifies UOM and the date next to "Delivery" signifies delivery time.

What makes generative AI faster than OCR?

OCR

Recognizes characters without interpreting them

Locations

Full: HL, SC
 Warehouse: SC
 Warehouse: NC
 Warehouse: NC
 Warehouse: NC
 Warehouse: NC
 Warehouse: NC


Phoneville

10001 Industrial Drive
 Pineville, NC 28134

Invoice Address

ARTISAN CUSTOM HOMES
 2916 CALAWABA AVE
 WOODBURY, NC 28033

Customer Contact: JIM ORR



THE BUILDING CENTER, INC.
 10001 INDUSTRIAL DRIVE, NC

Delivery Address

[Redacted Address]

Quotation

Quote #
 Quote Date
 Expiry Date
 Customer Ref
 Terms
 Delivery
 Taken By
 Sales Rep

Quote #
 Quote Date
 Expiry Date
 Customer Ref
 Terms
 Delivery
 Taken By
 Sales Rep

Special Instructions		Notes				
Line	Item #	Description	UOM	Qty	Unit Price	Total
1		ALUMINUM VINYL SIDING				
2		ALUMINUM VINYL SIDING				
3		ALUMINUM VINYL SIDING				
4		ALUMINUM VINYL SIDING				
5		ALUMINUM VINYL SIDING				
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50		ALUMINUM VINYL SIDING				

Customer Address: 10001 INDUSTRIAL DRIVE, NC

Page 1 of 1

Looks at everything in isolation:
doesn't understand that these two
pieces of text are related

- Doesn't interpret data. "U/M" are just characters.

Doesn't understand that this set of rows represents the same item.

NEW HORIZONS

F O U N D A T I O N

A Chance to Grow

An HVAC and Sheet Metal Industry Initiative

www.newhorizonsfoundation.org

Please direct any questions to:

Thomas Soles

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