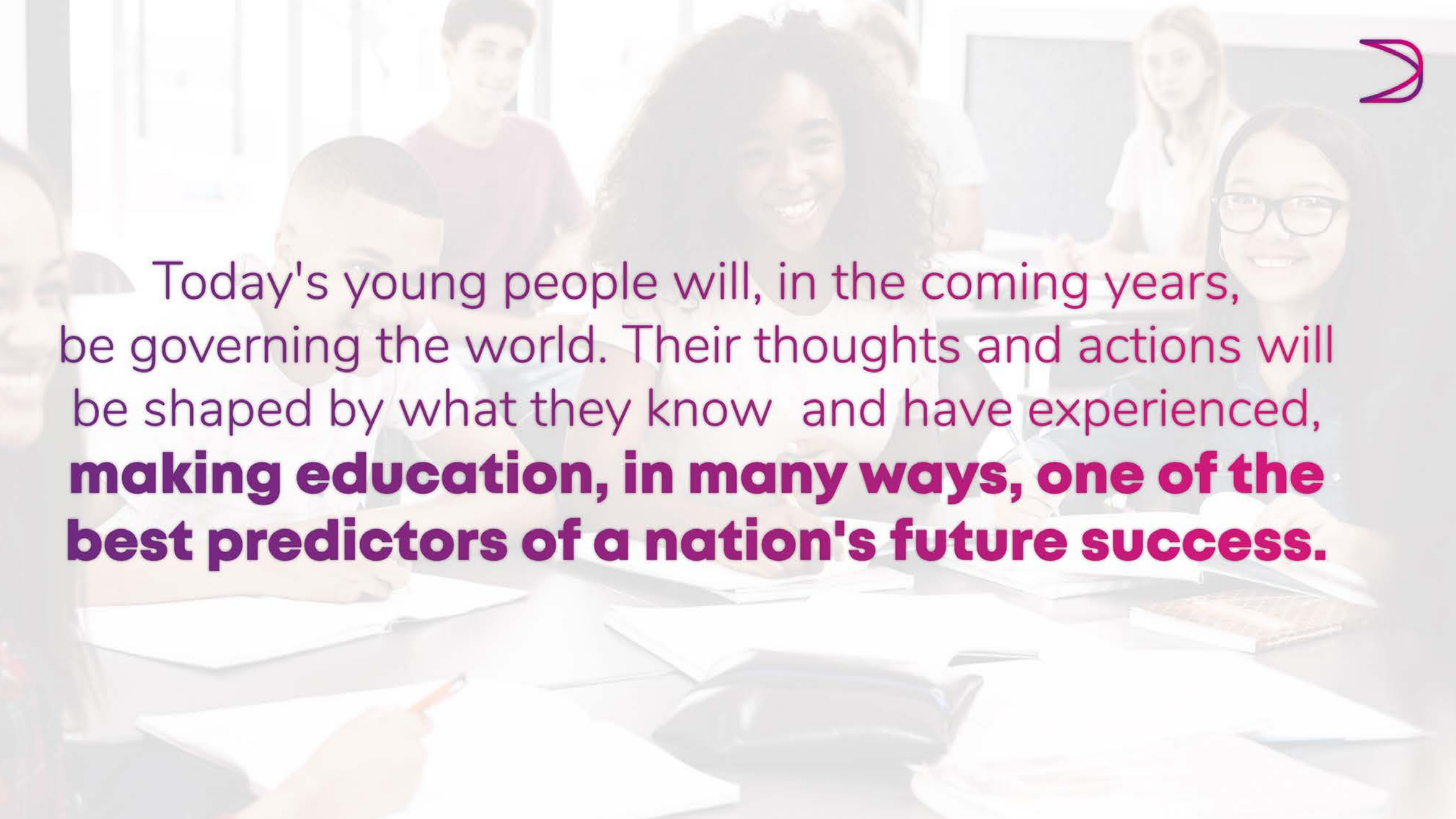
Innovation in Education

User Conference

paymerang℠



Today's young people will, in the coming years, be governing the world. Their thoughts and actions will be shaped by what they know and have experienced, **making education, in many ways, one of the best predictors of a nation's future success.**

The US Ranks #1 In Global Education / #6 Best Countries

Education Rankings

United States

#1 in **Education Rankings**

No Change in Rank from 2020

The United States of America is a North American nation that is the world's most dom ... READ MORE

United Kingdom

#2 in **Education Rankings**

No Change in Rank from 2020

The United Kingdom is a highly developed nation that exerts considerable international e ... READ MORE

Germany

#3 in **Education Rankings**

#4 out of 73 in 2020

Germany, the most populous nation in the European Union, possesses one of the larges ... READ MORE

#6 OVERALL RANK

#7 out of 78 in 2020

Overall Score

Read our methodology to see how the scores and rankings were calculated.

CATEGORY	SCORE	RANK
Adventure	39.7	#31
Agility	100.0	#1
Cultural Influence	85.7	#3
Entrepreneurship	97.3	#3
Heritage	50.4	#16
Movers	42.3	#24
Open for Business	48.8	#45
Power	100.0	#1
Quality of Life	46.0	#20
Social Purpose	34.9	#19

Learning Objectives

- The role of the business office
- Challenges in the world of finance
- Challenges in the world of education
- Ways the business office can make an impact

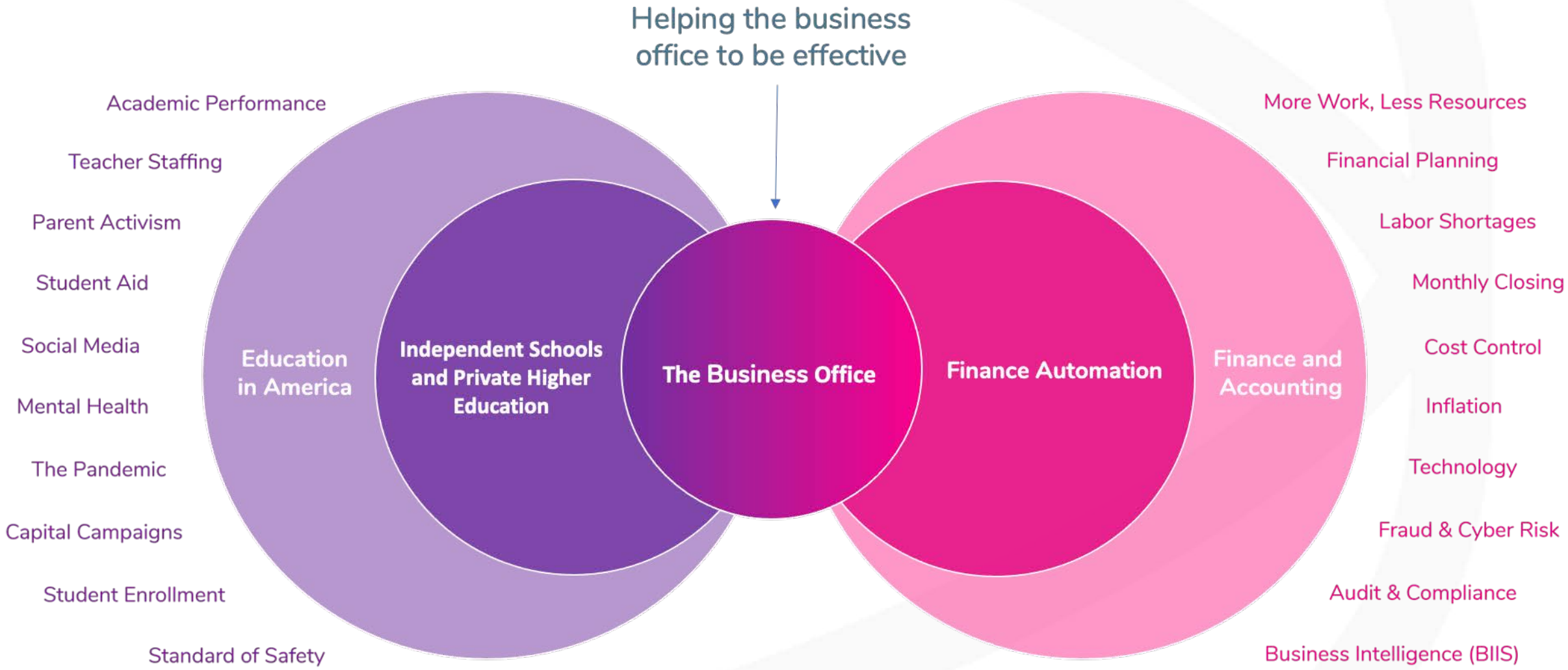
The Role Of The Business Office

Challenges In The World Of Finance

Challenges In The World Of Education

Ways The Business Office Can Make An Impact

The Business Office Has a Big Role to Play in The Future of Education



The Business Office can be a strong force in connecting the school community and helping to manage through the storm.

(Finance automation can free up time to help you focus on these bigger issues.)

The Role Of The Business Office

Challenges In The World Of Finance

Challenges In The World Of Education

Ways The Business Office Can Make An Impact

The AP Cycle is Becoming More Complex

More Work, Less Resources

Financial Planning

Labor Shortages

Monthly Closing

Cost Control

Inflation

Technology

Fraud & Cyber Risk

Audit & Compliance

Business Intelligence (BIIS)

Staff Turnover is Detrimental to AP

Drop in Productivity

Increase in Errors

Poor Customer Service and Vendor Relations

Lower Staff Morale and Higher Turnover

Greater Risk of Fraud

More Work, Less Resources

Financial Planning

Labor Shortages

Monthly Closing

Cost Control

Inflation

Technology

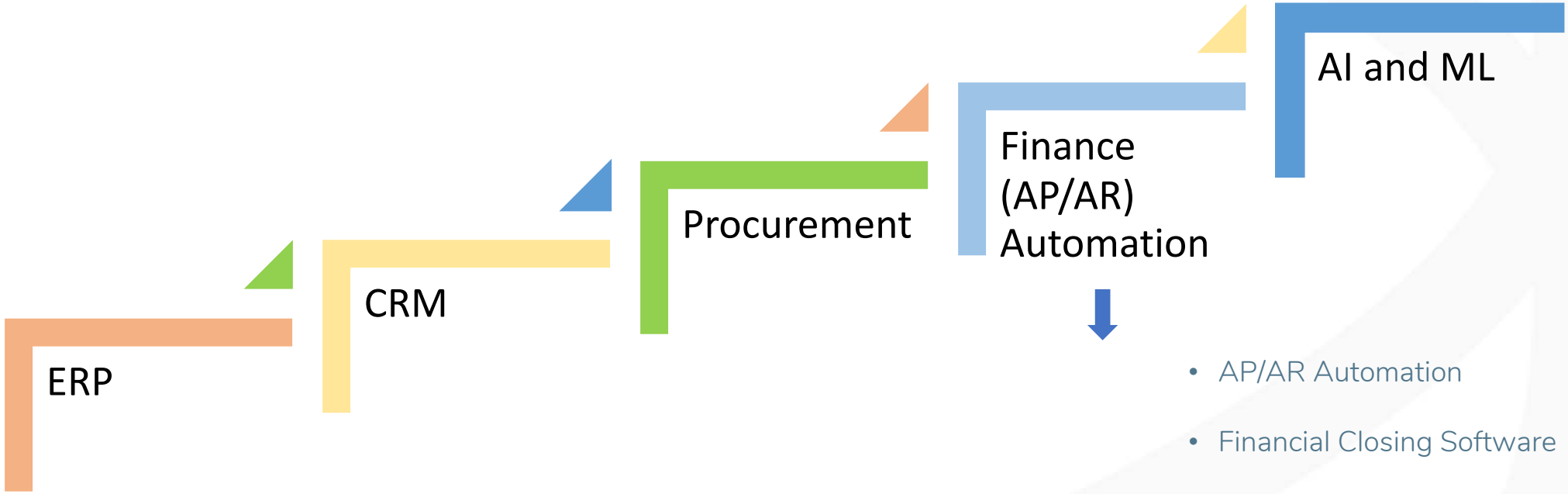
Fraud & Cyber Risk

Audit & Compliance

Business Intelligence (BIIS)

Technology Can Help Transform Schools

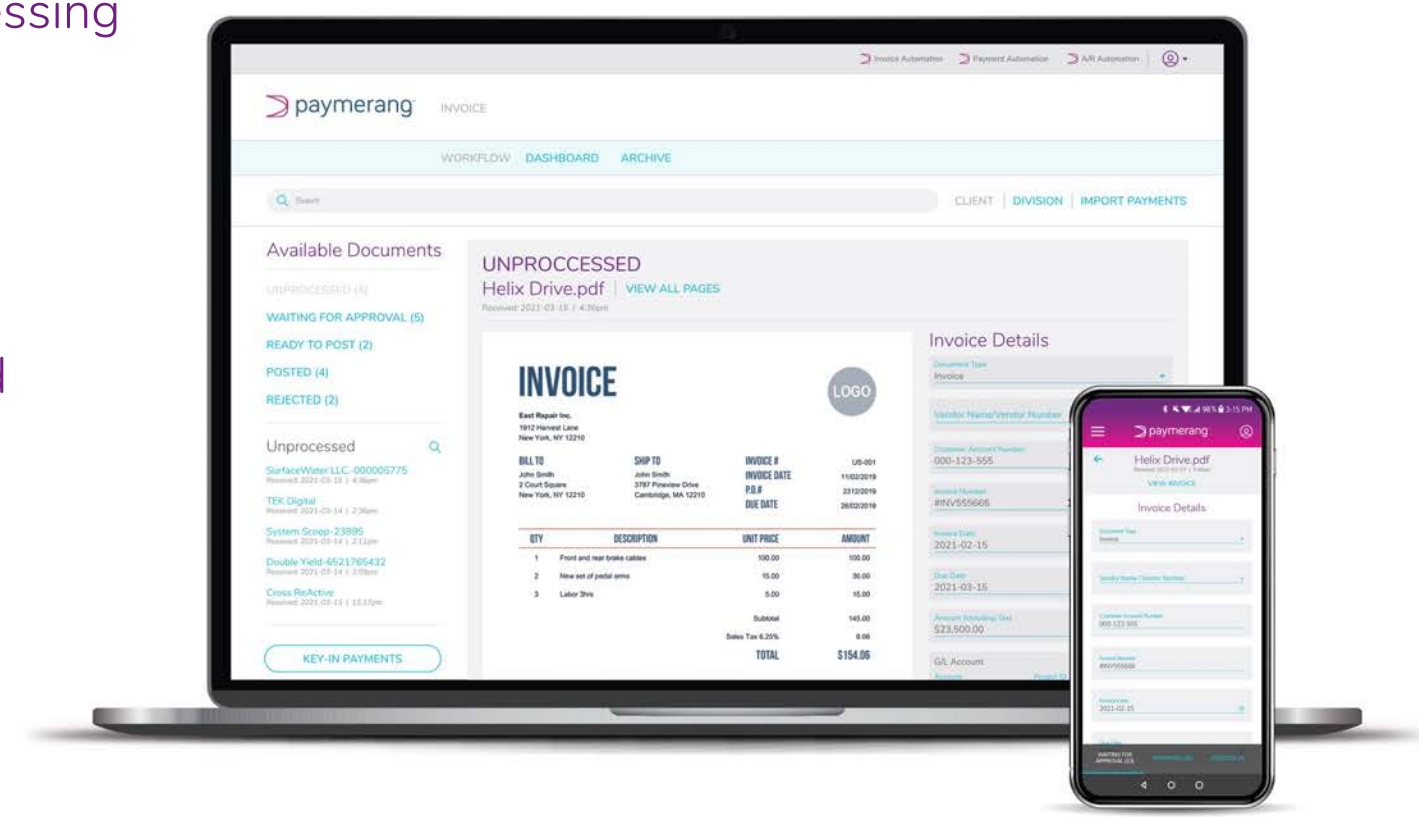
TECHNOLOGY LIFECYCLE IN THE OFFICE OF THE CFO



- AP/AR Automation
- Financial Closing Software
- FP&A
- Budgeting
- Tax and Treasury

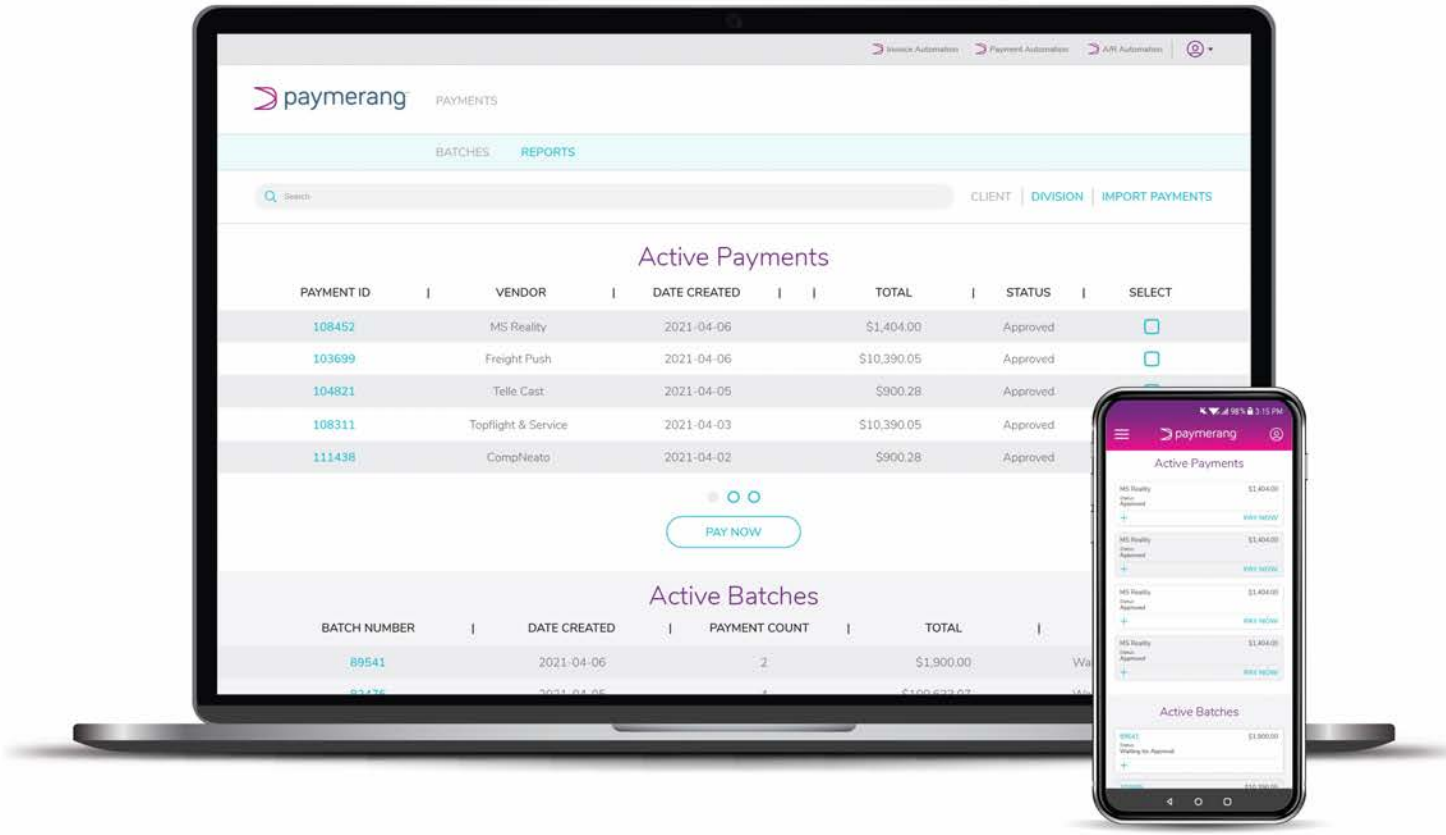
Invoice Automation

- Electronic Document Workflow to Enhance Visibility
- Intelligent Data Capture to Reduce Processing Time
- Electronic Approval Routing to Increase Efficiency
- Electronic Archive to Eliminate Paper and Preserve Audit Trail
- Automated G/L Posting to Reduce Errors



Payment Automation

- Simplify AP
- Pay Vendors Electronically
- Streamline Reconciliation
- Reduce Errors
- Implement Quickly
- Reduce Paper
- Reduce Supplier Inquiries
- Allocate Time to Higher-Value Activities



The Role Of The Business Office

Challenges In The World Of Finance

Challenges In The World Of Education

Ways The Business Office Can Make An Impact

We’re Falling Behind in K12 Reading, Math, and Science

- Academic Performance
- Teacher Staffing
- Parent Activism
- Student Aid
- Social Media
- Mental Health
- The Pandemic
- Capital Campaigns
- Student Enrollment
- Standard of Safety

PISA 2018 results

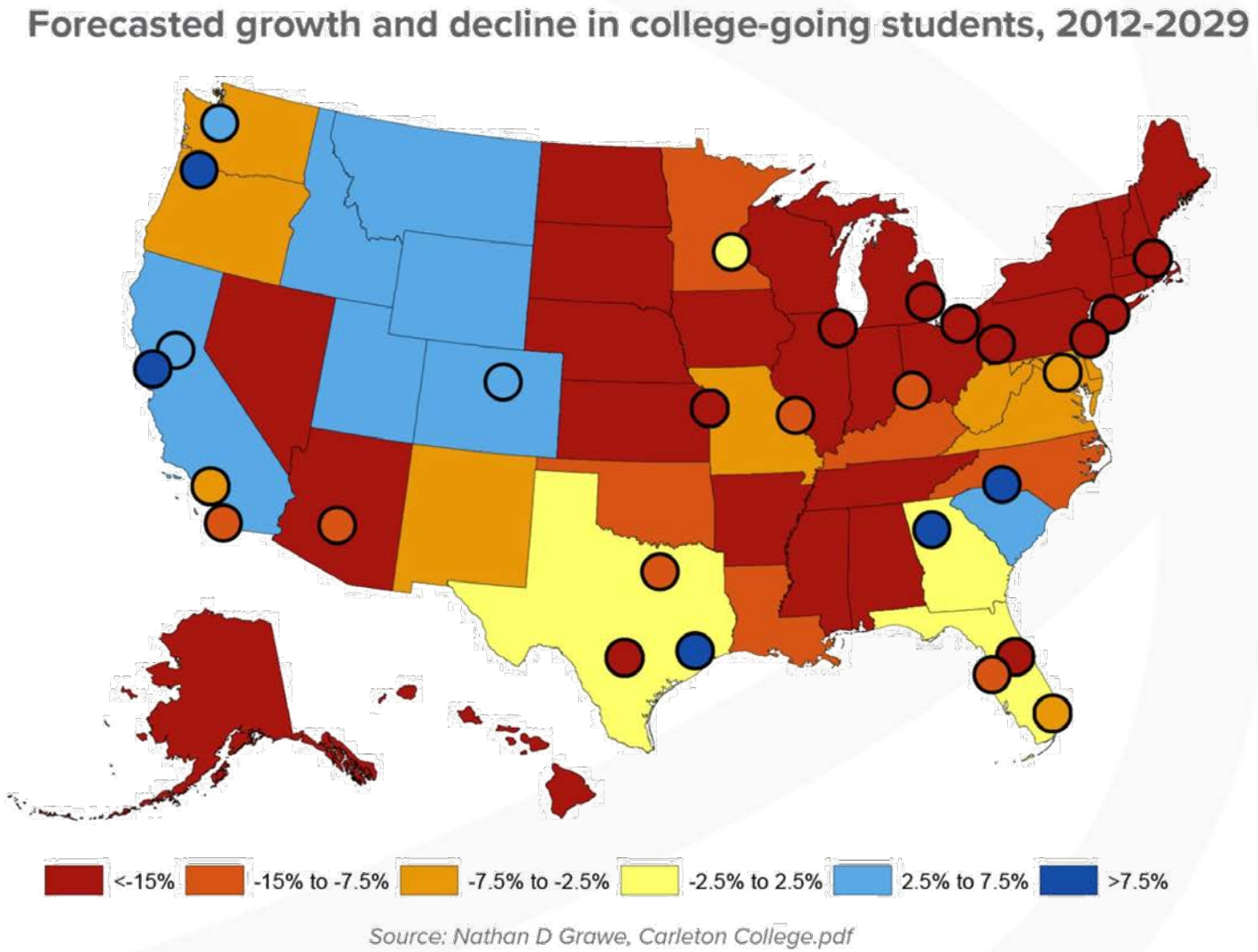
Snapshot of students’ performance in reading, mathematics and science

Countries are ranked in descending order of the average reading score (focus of PISA 2018)

	READING	MATHEMATICS	SCIENCE
B-S-J-Z* (CHINA)	555	591	590
SINGAPORE	549	569	551
MACAO (CHINA)	525	558	544
HONG KONG (CHINA)	524	551	517
ESTONIA	523	523	530
CANADA	520	512	518
FINLAND	520	507	522
IRELAND	518	500	496
KOREA	514	526	519
POLAND	512	516	511
SWEDEN	506	502	499
NEW ZEALAND	506	494	508
UNITED STATES	505	478	502
UNITED KINGDOM	504	502	505
JAPAN	504	527	529
AUSTRALIA	503	491	503
CHINESE TAIPEI	503	531	516
DENMARK	501	509	493
NORWAY	499	501	490
GERMANY	498	500	503
SLOVENIA	495	509	507
BELGIUM	493	508	499
FRANCE	493	495	493
PORTUGAL	492	492	492
CZECH REPUBLIC	490	499	497

There’s an Enrollment Cliff Coming in Higher Education

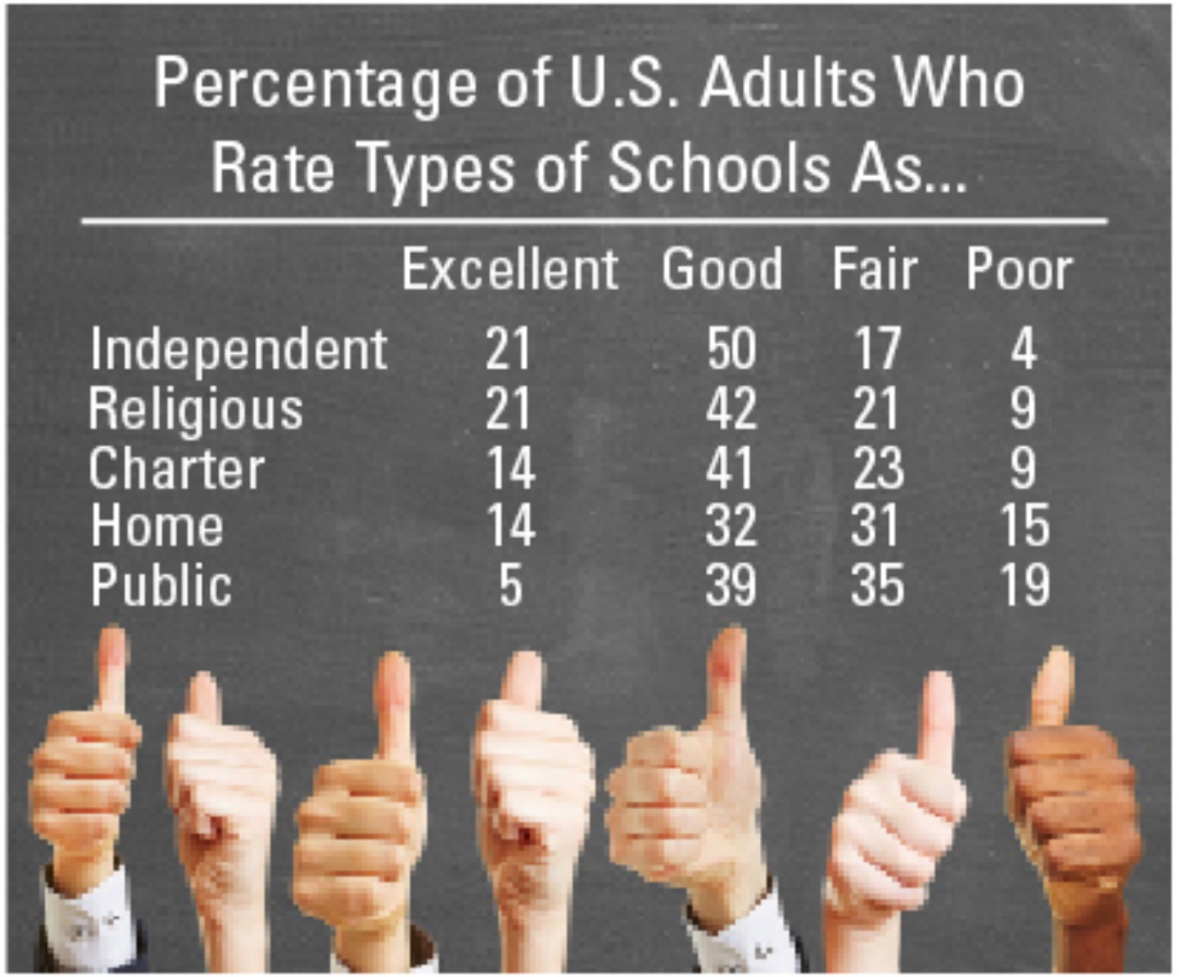
- Academic Performance
- Teacher Staffing
- Parent Activism
- Student Aid
- Social Media
- Mental Health
- The Pandemic
- Capital Campaigns
- Student Enrollment
- Standard of Safety



Source: Nathan D Grawe, Carleton College.pdf

K12 Public Schools Are Becoming Less Trusted

- Academic Performance
- Teacher Staffing
- Parent Activism
- Student Aid
- Social Media
- Mental Health
- The Pandemic
- Capital Campaigns
- Student Enrollment
- Standard of Safety



K12 Teachers Spend Less Than ½ Their Time Interacting With Students

Academic Performance

Teacher Staffing

Parent Activism

Student Aid

Social Media

Mental Health

The Pandemic

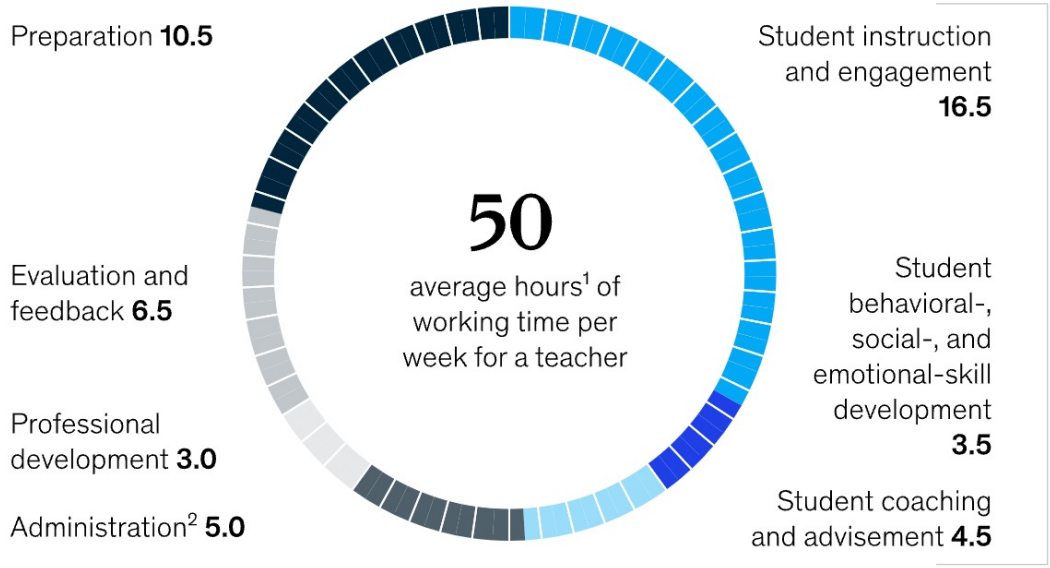
Capital Campaigns

Student Enrollment

Standard of Safety

Teachers work about 50 hours a week, spending less than half of the time in direct interaction with students.

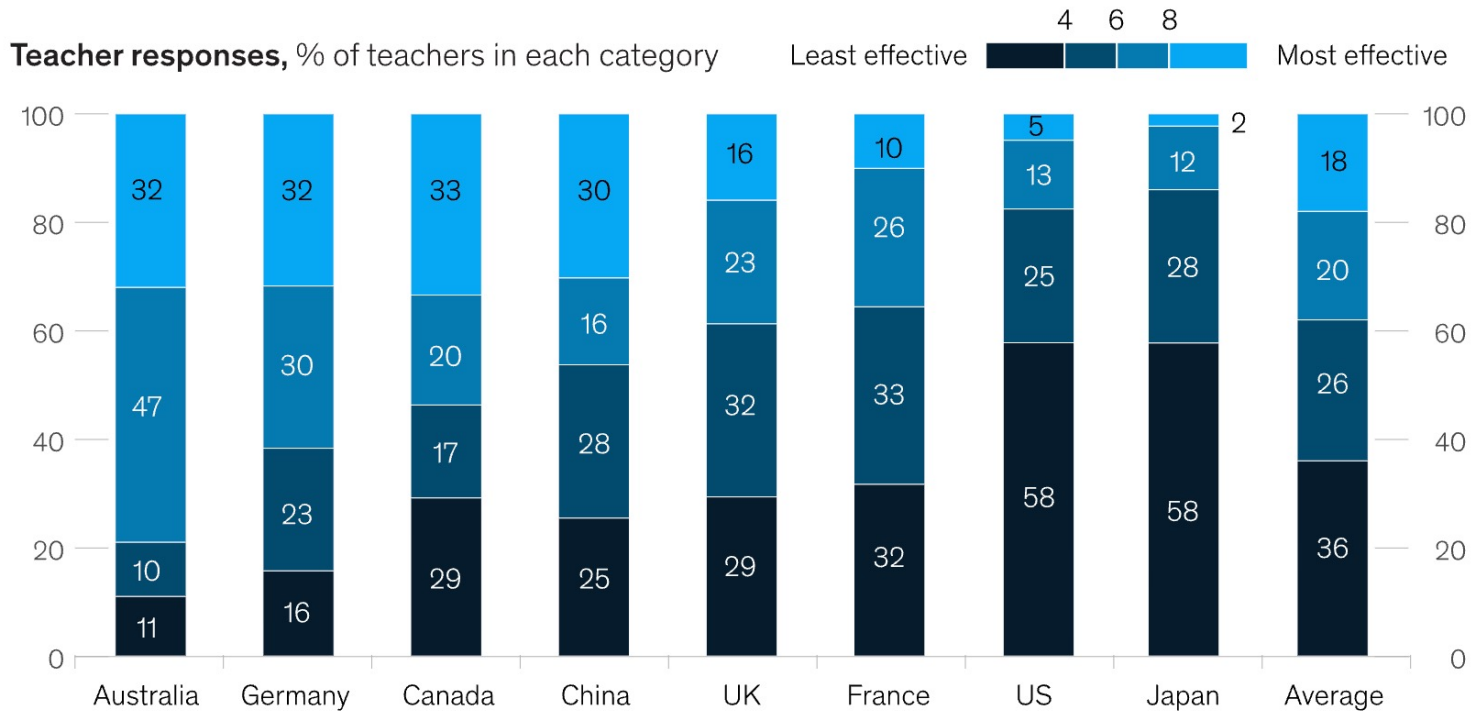
Activity composition of teacher working hours, number of hours



[1]1 Average for respondents in Canada, Singapore, United Kingdom, and United States.
[2]Includes a small "other" category.
Source: McKinsey Global Teacher and Student Survey

Remote Learning Models Have Degraded Educational Outcomes

- Academic Performance
- Teacher Staffing
- Parent Activism
- Student Aid
- Social Media
- Mental Health
- The Pandemic
- Capital Campaigns
- Student Enrollment
- Standard of Safety



Note: Bars may not total to 100%, because of rounding.
[1]Question: How effective was remote learning in the spring compared with in-person learning? (1 = least effective; 10 = most effective, equivalent to in-person learning).
Source: McKinsey Teacher Sentiment Survey, carried out October 28 to November 17, 2020, of 2,549 teachers across Australia (146), Canada (350), China (350), France (278), Germany (274), Japan (350), United Kingdom (351), and United States (450)

Social Activism Can Take Over The Narrative

- Academic Performance
- Teacher Staffing
- Parent Activism
- Student Aid
- Social Media
- Mental Health
- The Pandemic
- Capital Campaigns
- Student Enrollment
- Standard of Safety

New Virginia Governor Bans CRT And Forced Masking In Schools, Minutes After Taking Office

"Everyone's a little more volatile, a little more sensitive."

"School Board Struggled To Keep Order Over Unruly Crowd."

"We're seeing the outrageous behavior happening at public school town halls and school board meetings boil into independent schools."

Talking to Kids About the War in Ukraine

After two years of helping students cope with the challenges and complexities of the pandemic comes a new hurdle for educators and families: Supporting our young people through the biggest attack on a European state since World War II.

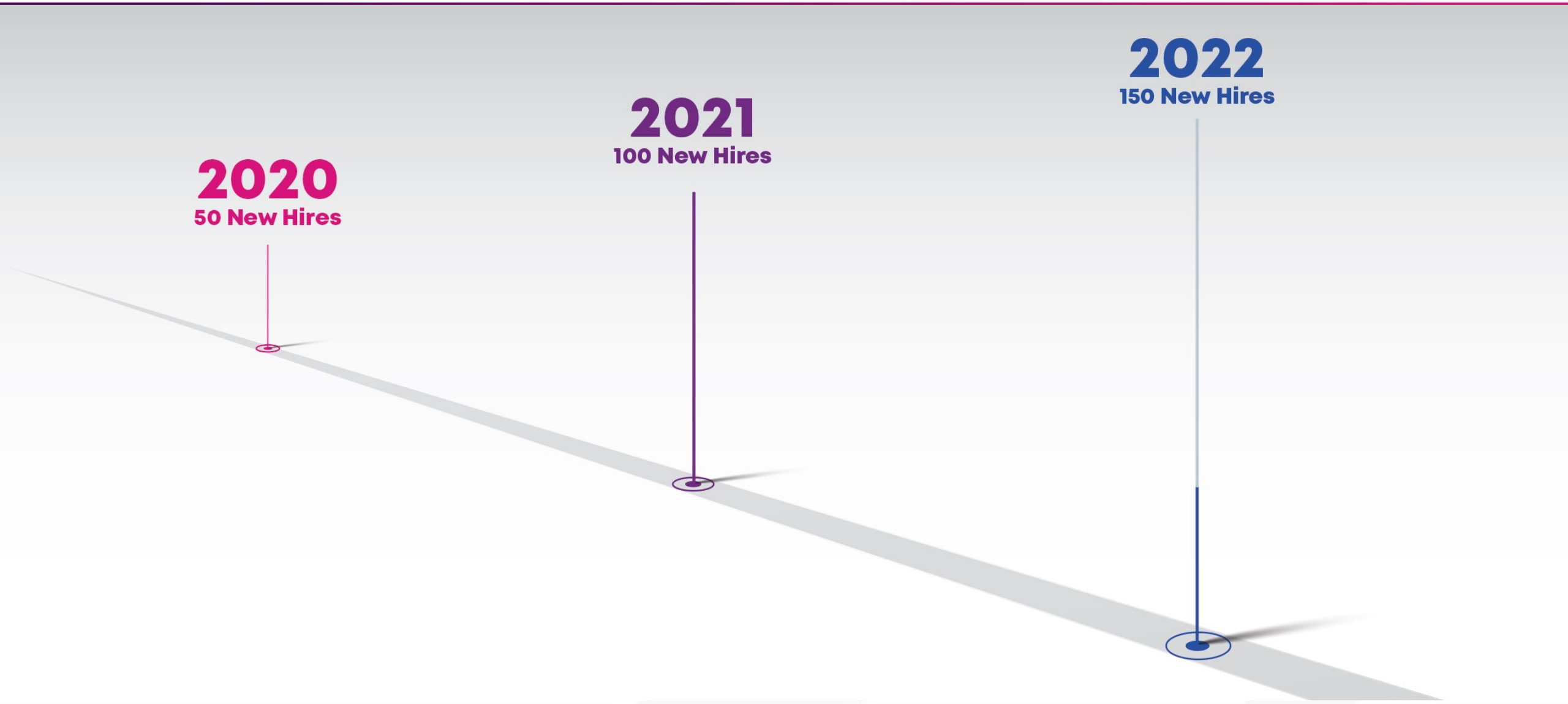
The Role Of The Business Office

Challenges In The World Of Finance

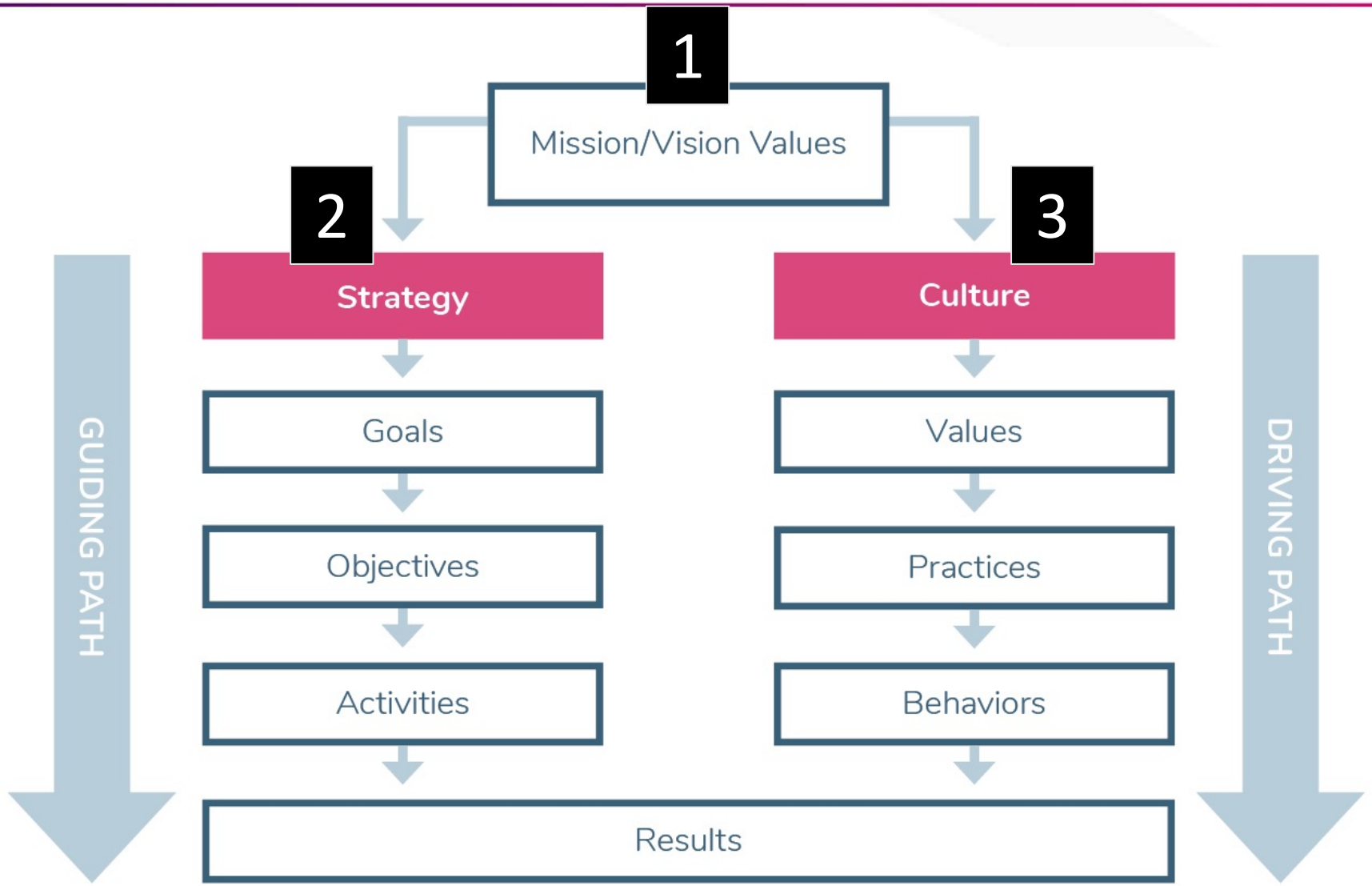
Challenges In The World Of Education

Ways The Business Office Can Make An Impact

Our Experience with Growth



Our Experience With Culture



Our Experience with Values

INTEGRITY

WE LIVE BY THE HIGHEST ETHICAL STANDARDS

PASSION & POSITIVITY

WE LOVE WHAT WE DO AND LOOK FORWARD TO EACH DAY

SIMPLICITY

WE SIMPLIFY COMPLEX PROBLEMS AND MAKE PAYMENTS EASY

TEAMWORK

WE WIN AND LOSE AS A TEAM

CUSTOMER FOCUS

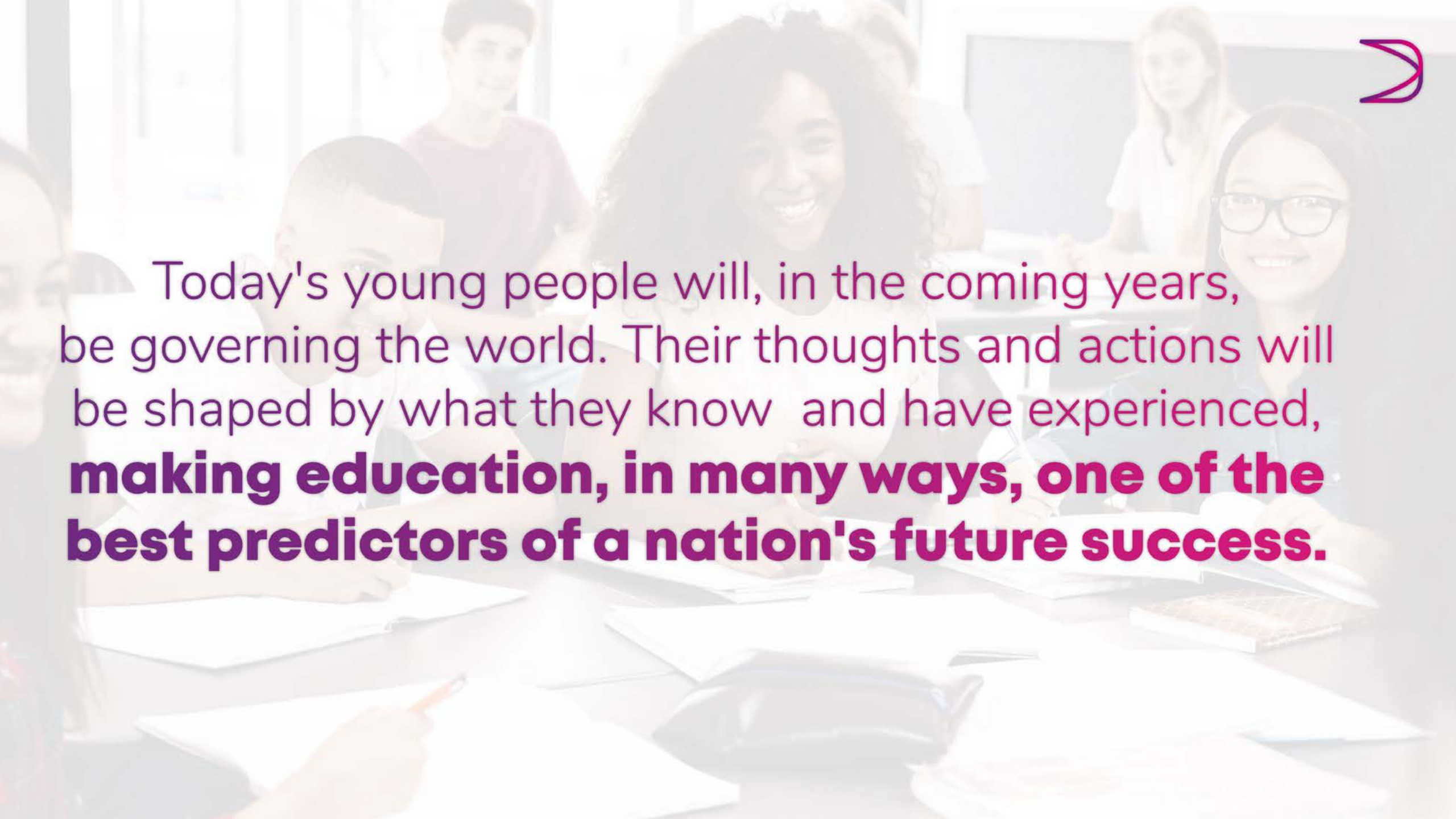
WE DELIVER FANTASTIC PRODUCTS AND AMAZING CUSTOMER EXPERIENCES

GRIT

WE OVERCOME CHALLENGES WITH COURAGE AND PERSISTENCE

Ways The Business Office Can Impact Education

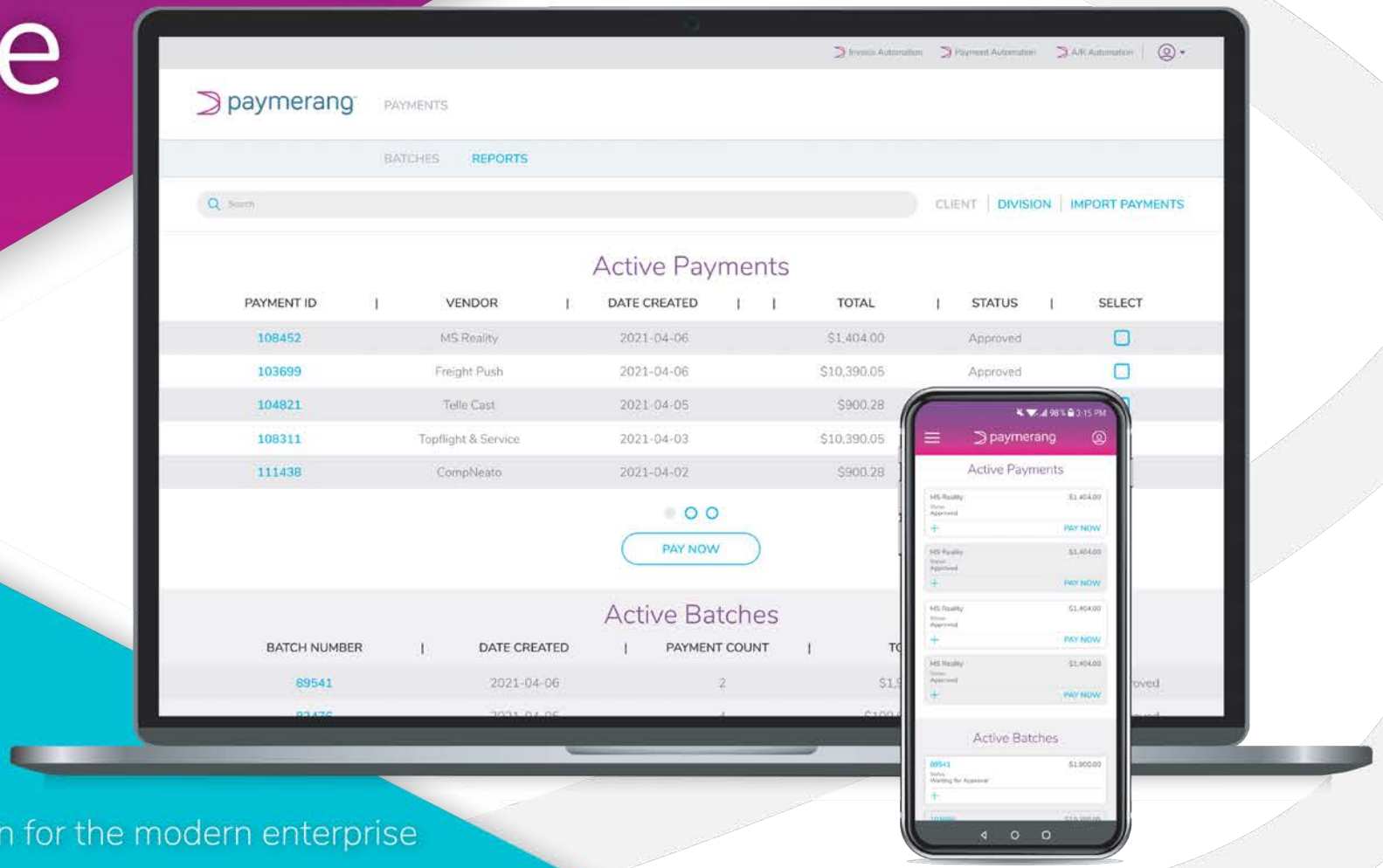
- Get on the field with the people
- Find neutral space
- Listen actively and bring diverse voices into the conversation
- Acknowledge difficulty and demonstrate respect
- Anchor to facts and data (not emotions)
- Engage the appropriate conflict management style
- Enforce the ground rules
- Live the values
- Support departures when appropriate



Today's young people will, in the coming years, be governing the world. Their thoughts and actions will be shaped by what they know and have experienced, **making education, in many ways, one of the best predictors of a nation's future success.**

OPTIMIZING your paymerang experience

PA payment automation

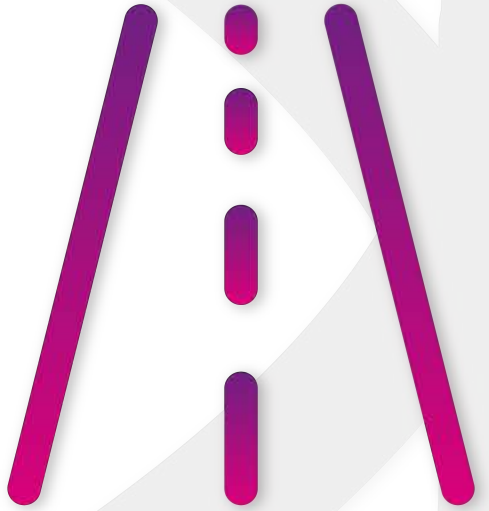


paymerang | finance automation for the modern enterprise

Agenda

Operations
Overview

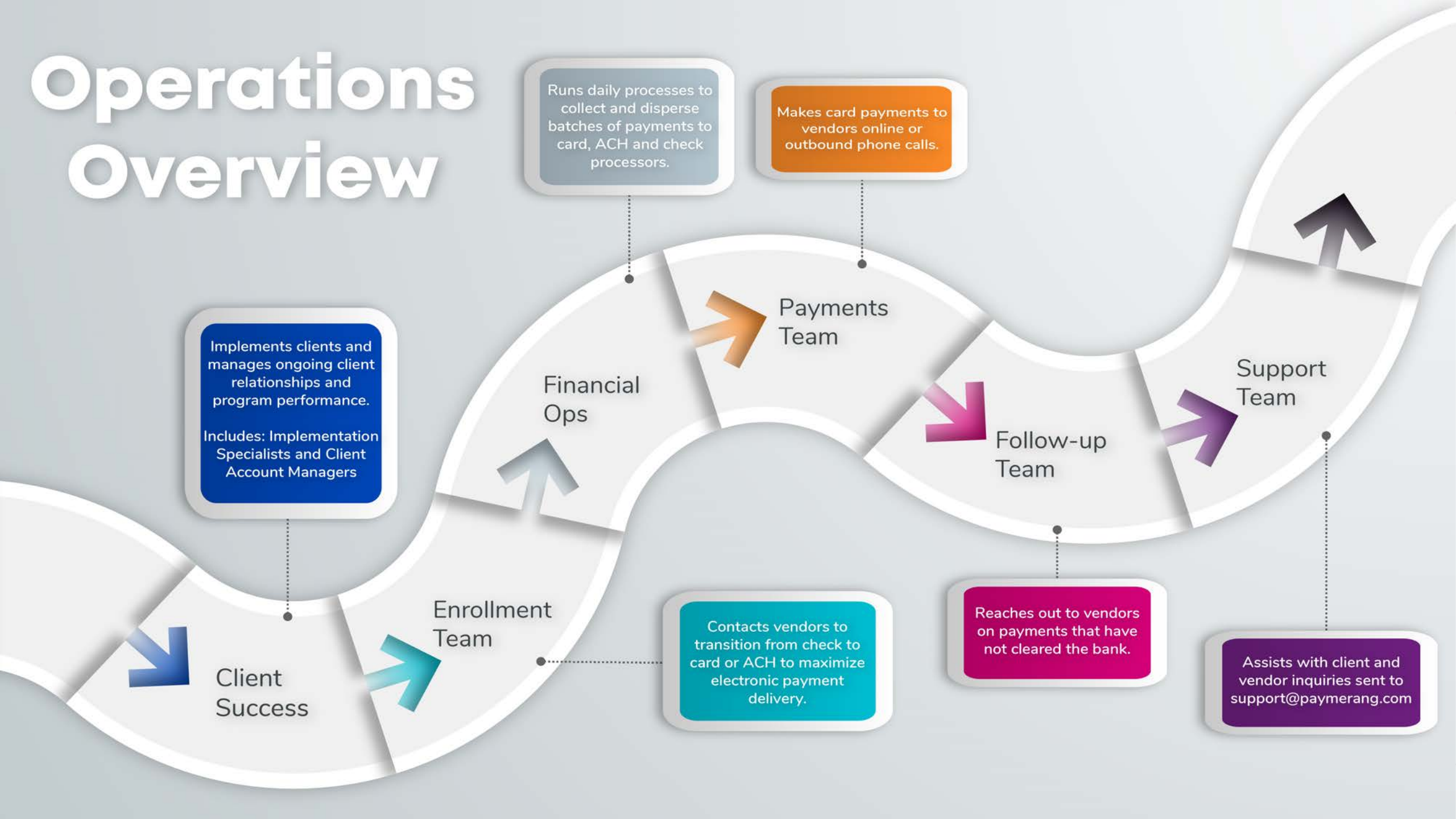
Platform Utilization
& New Features



Platform Roadmap
& Enhancements

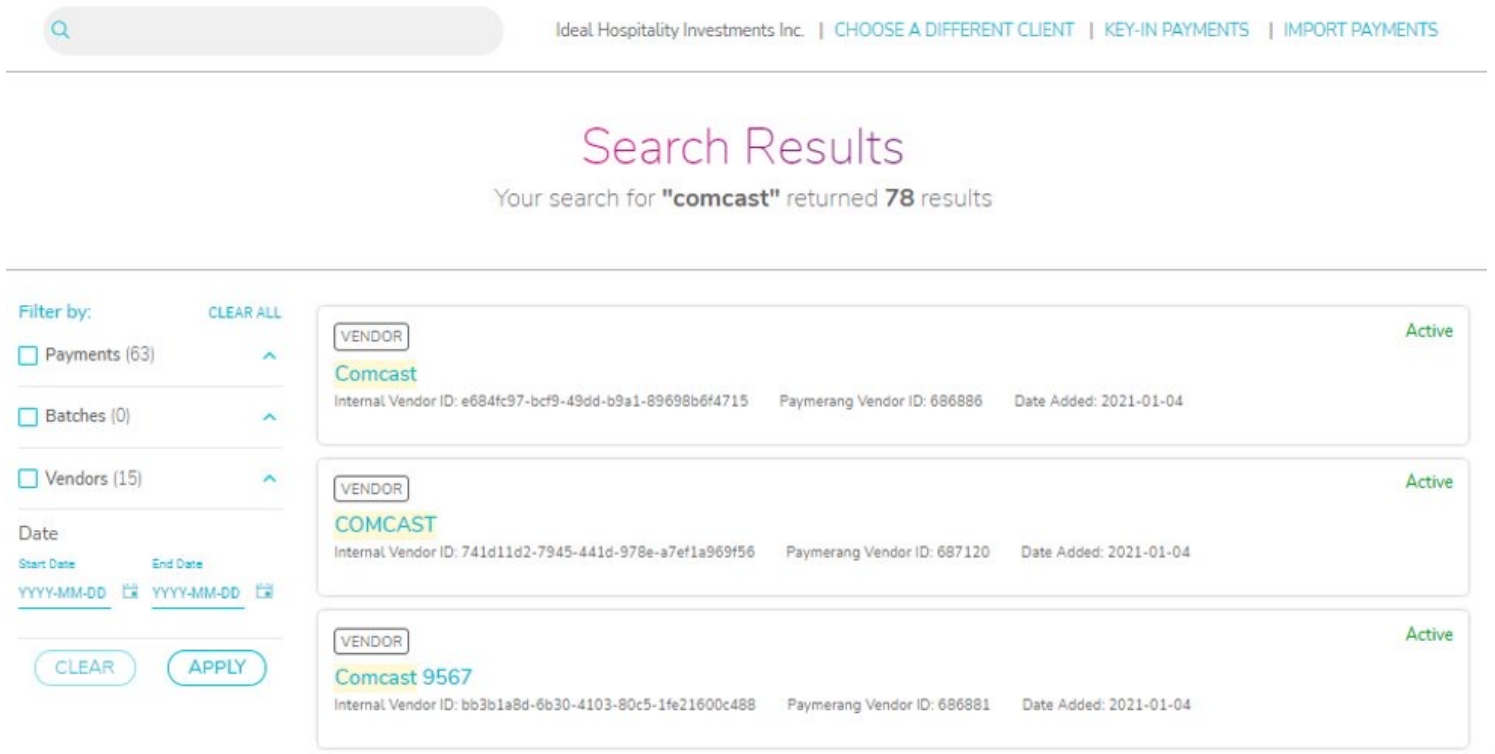
Operations Overview

Operations Overview



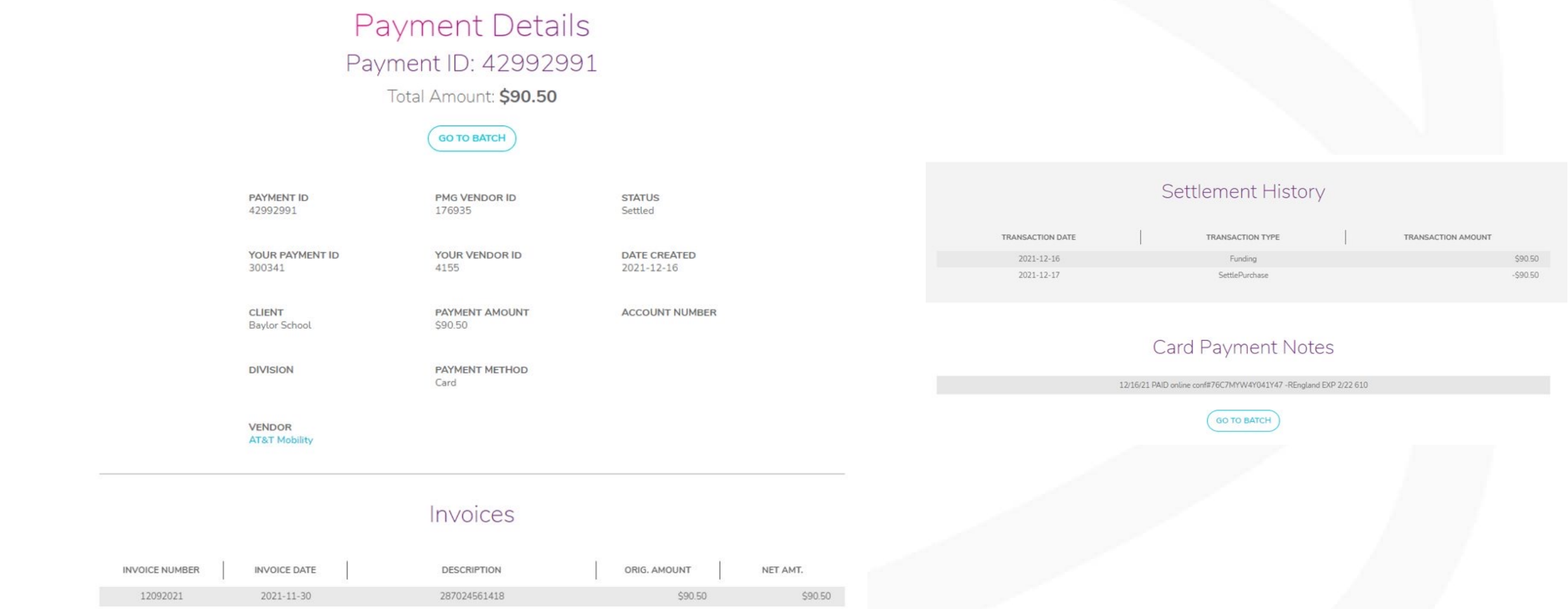
Utilizing Payment Automation Features

Global Search Bar



- Invoice numbers
- Payment ID
- Vendor name
- Total payment amount

Payment Details



Payment Details

Payment ID: 42992991

Total Amount: **$90.50**

GO TO BATCH

PAYMENT ID 42992991	**PMG VENDOR ID** 176935	**STATUS** Settled
YOUR PAYMENT ID 300341	**YOUR VENDOR ID** 4155	**DATE CREATED** 2021-12-16
CLIENT Baylor School	**PAYMENT AMOUNT** $90.50	**ACCOUNT NUMBER**
DIVISION	**PAYMENT METHOD** Card	
VENDOR AT&T Mobility		

Invoices

INVOICE NUMBER	INVOICE DATE	DESCRIPTION	ORIG. AMOUNT	NET AMT.
12092021	2021-11-30	287024561418	$90.50	$90.50

Settlement History

TRANSACTION DATE	TRANSACTION TYPE	TRANSACTION AMOUNT
2021-12-16	Funding	$90.50
2021-12-17	SettlePurchase	-$90.50

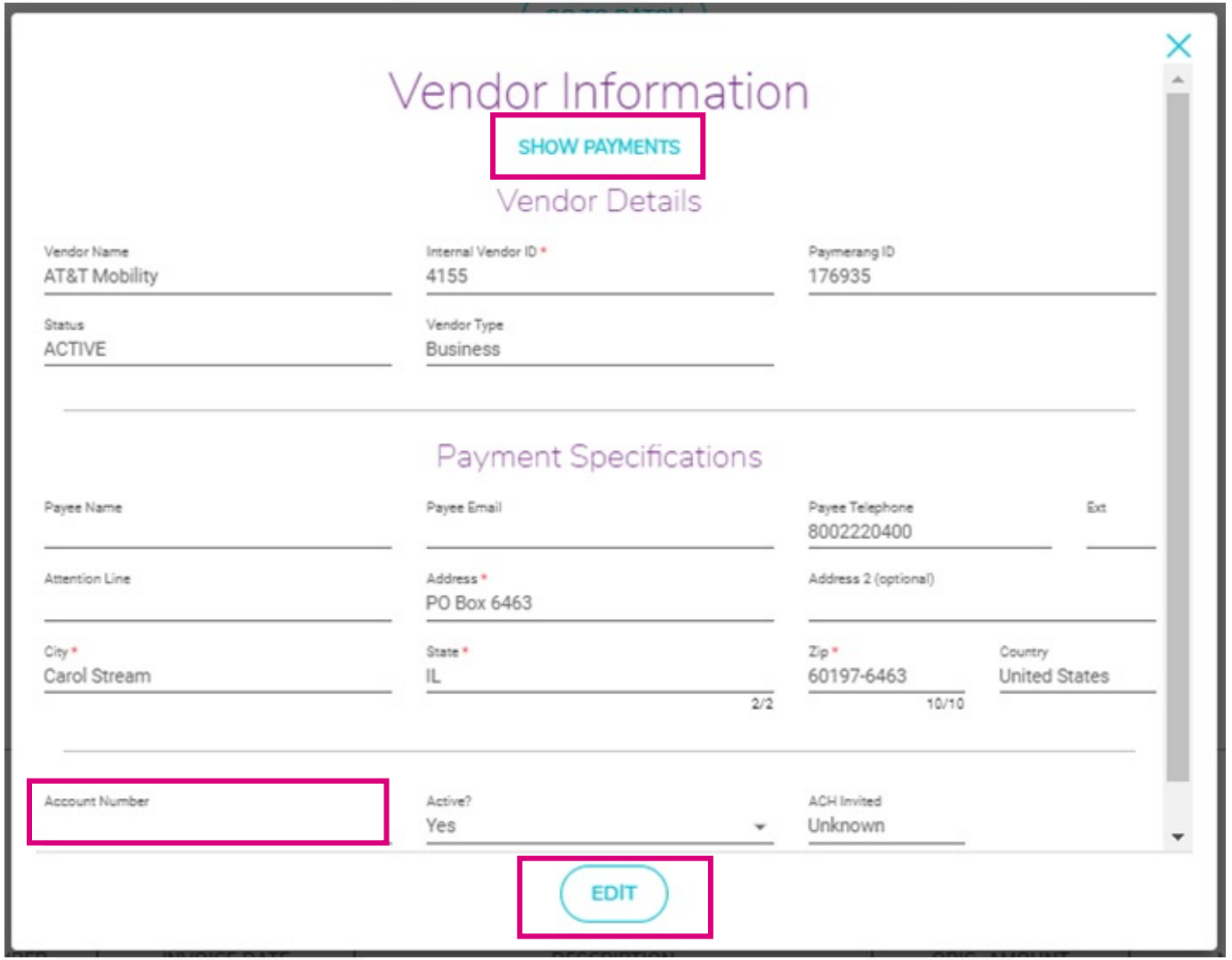
Card Payment Notes

12/16/21 PAID online conf#76C7MYW4Y041Y47 -REngland EXP 2/22 610

GO TO BATCH

Vendor Details

- Fields that clients can update:
  - Payee Address
  - Internal Vendor ID
  - Account Number
- Fields support can update for you:
  - Vendor Name
  - Vendor Contact Information

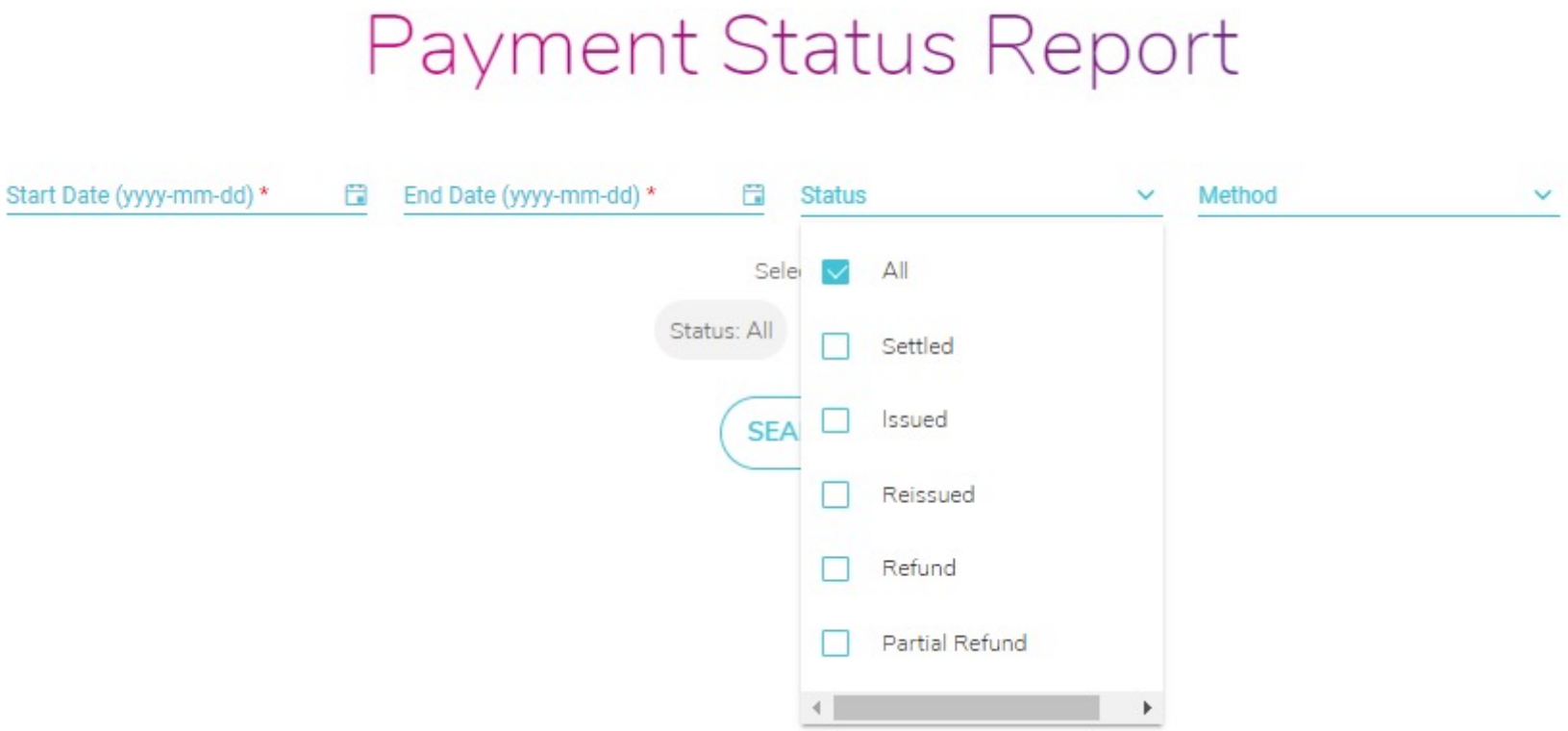


Reporting Capabilities Overview

Payment Status Report

Payment Status Report as a Support tool:

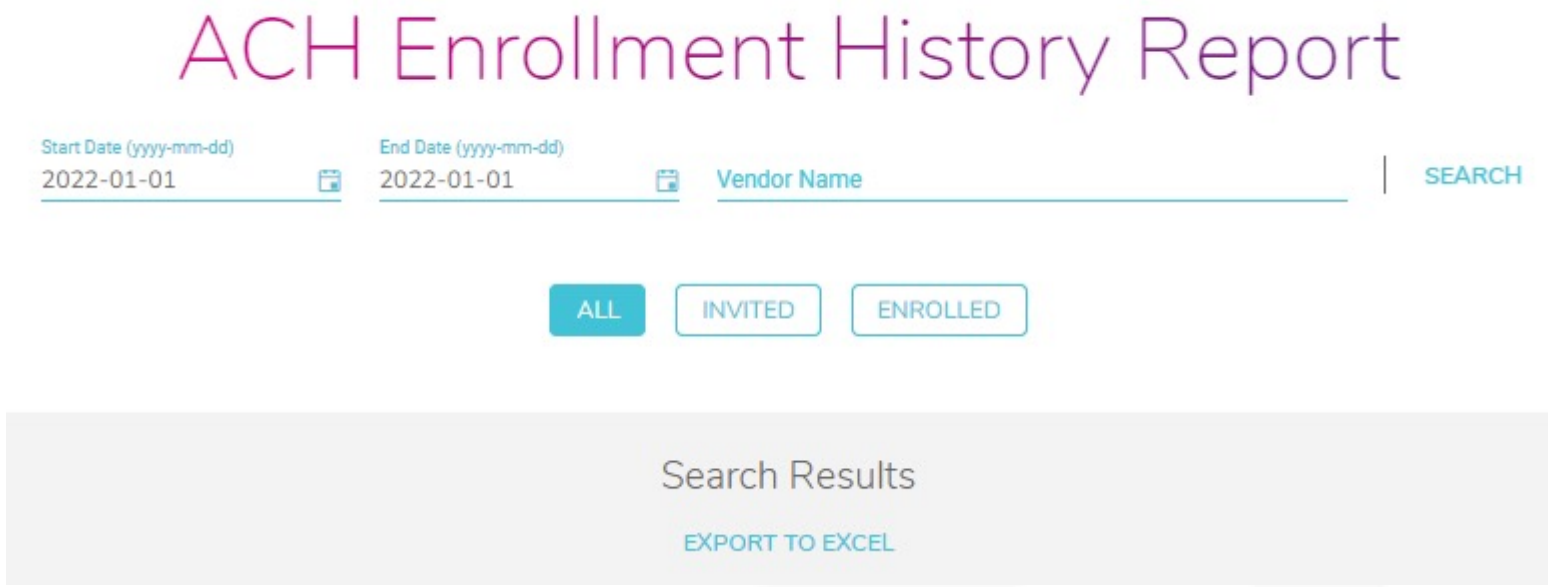
- Select date range of 60 – 90 days to locate payments at risk of going stale
- “Issued” can be assumed “outstanding”



ACH Enrollment Report

ACH Enrollment Report as a Support tool:

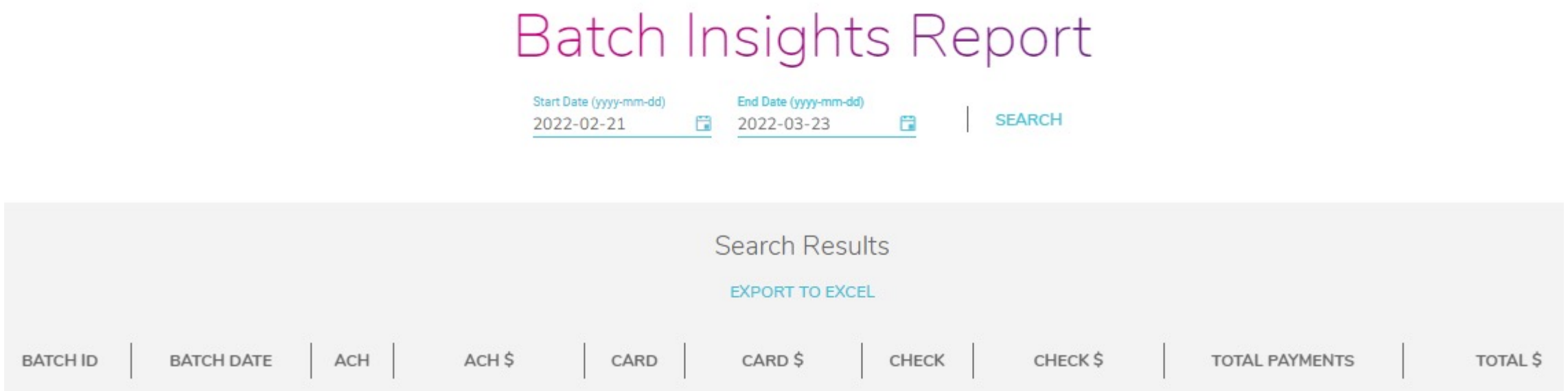
- Select date range within the last 90 days
- Filter by invited, enrolled, or all
- Filter by vendor name



Batch Insights Report

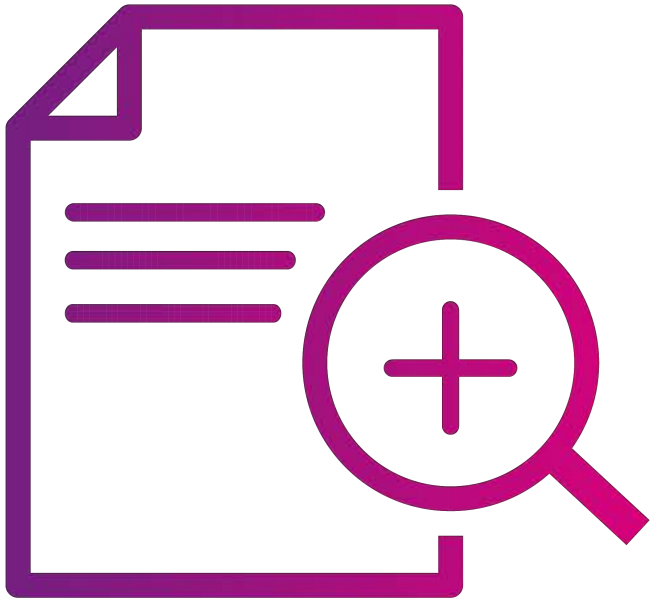
Batch insights Report as a Support tool:

- Historical archive of batches
- Select date range
- Export to excel



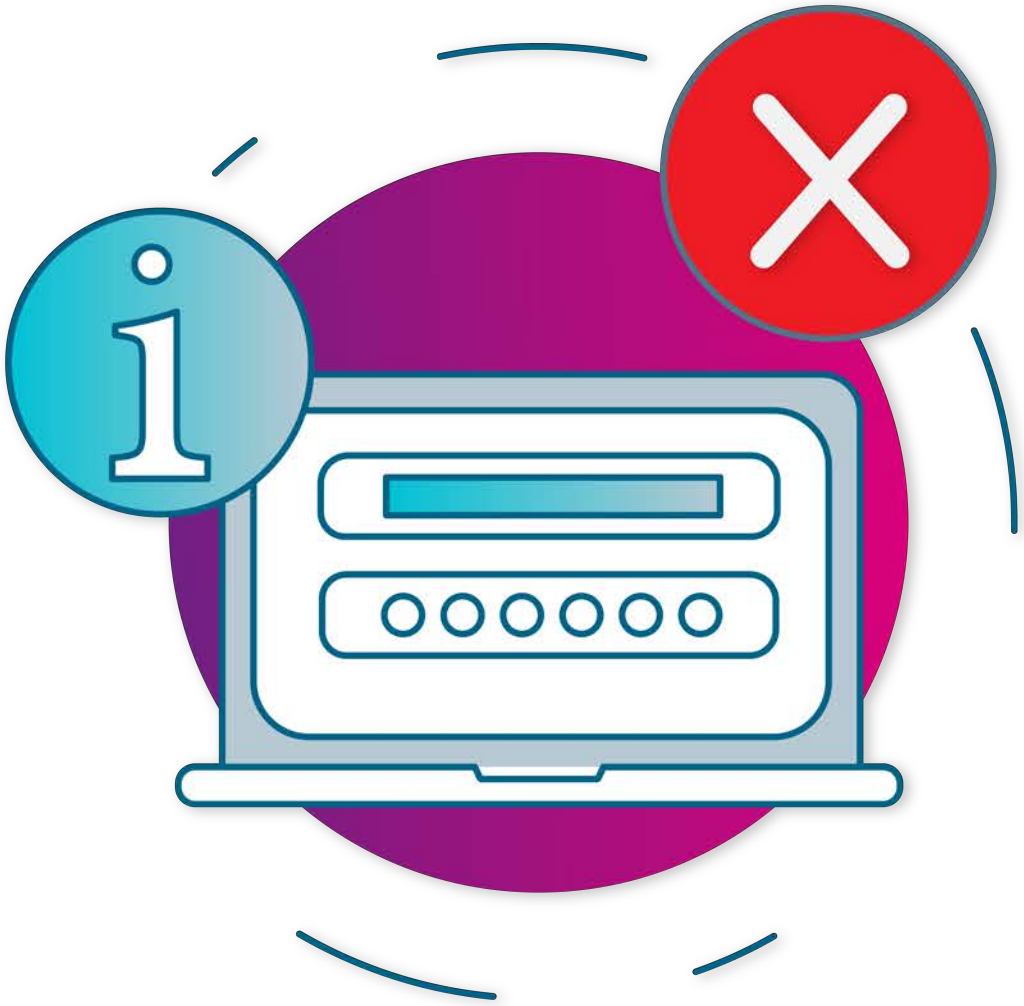
New Features

New Features



Vendor Auto Add

Vendor Auto Address Update



Customer Feedback:
Login Page

- ✗ Old Login Page Too Cumbersome
- ✗ No Password Autofill

New Login Page

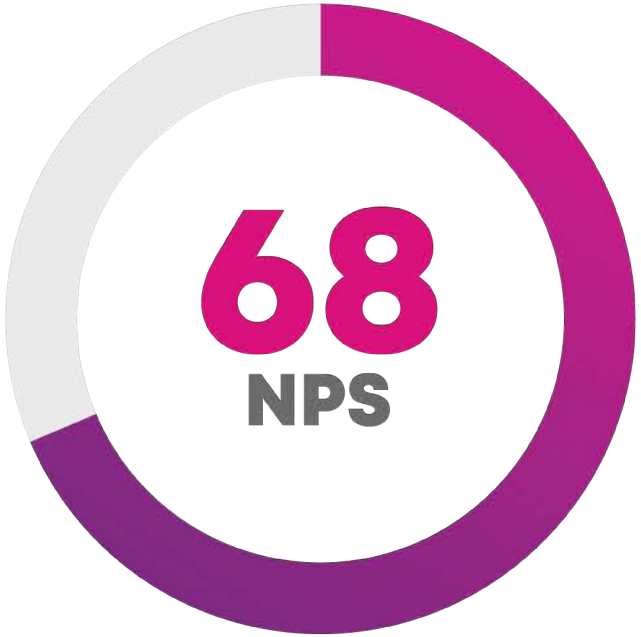
- One Step Login
- Password Managers

Compatible ERPs

How does Paymerang gather feedback?

Customer Feedback

Account Reviews

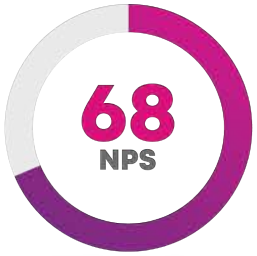


Net Promoter Score

Support@paymerang.com

Implementing Customer Feedback

Account Reviews



Net Promoter Score

Support@paymerang.com

Paymerang Considers and Implements Feedback

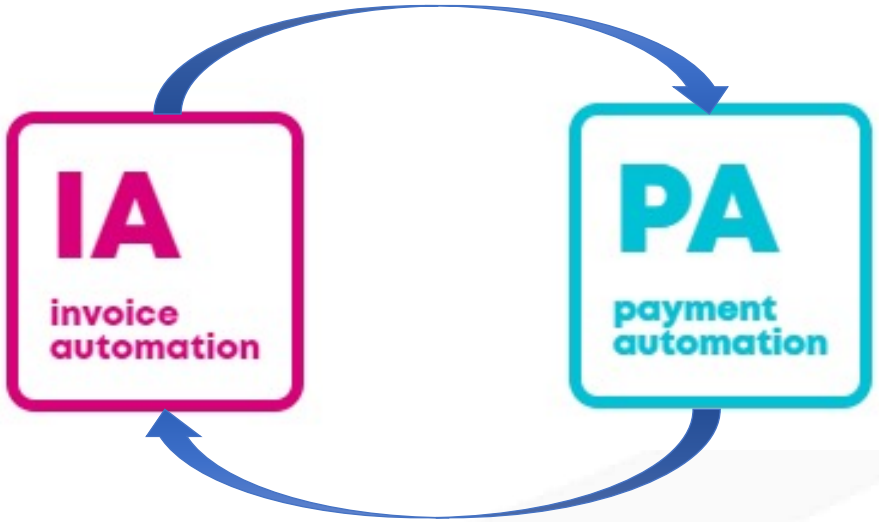
Clients are Able to Utilize New Features!

New Features

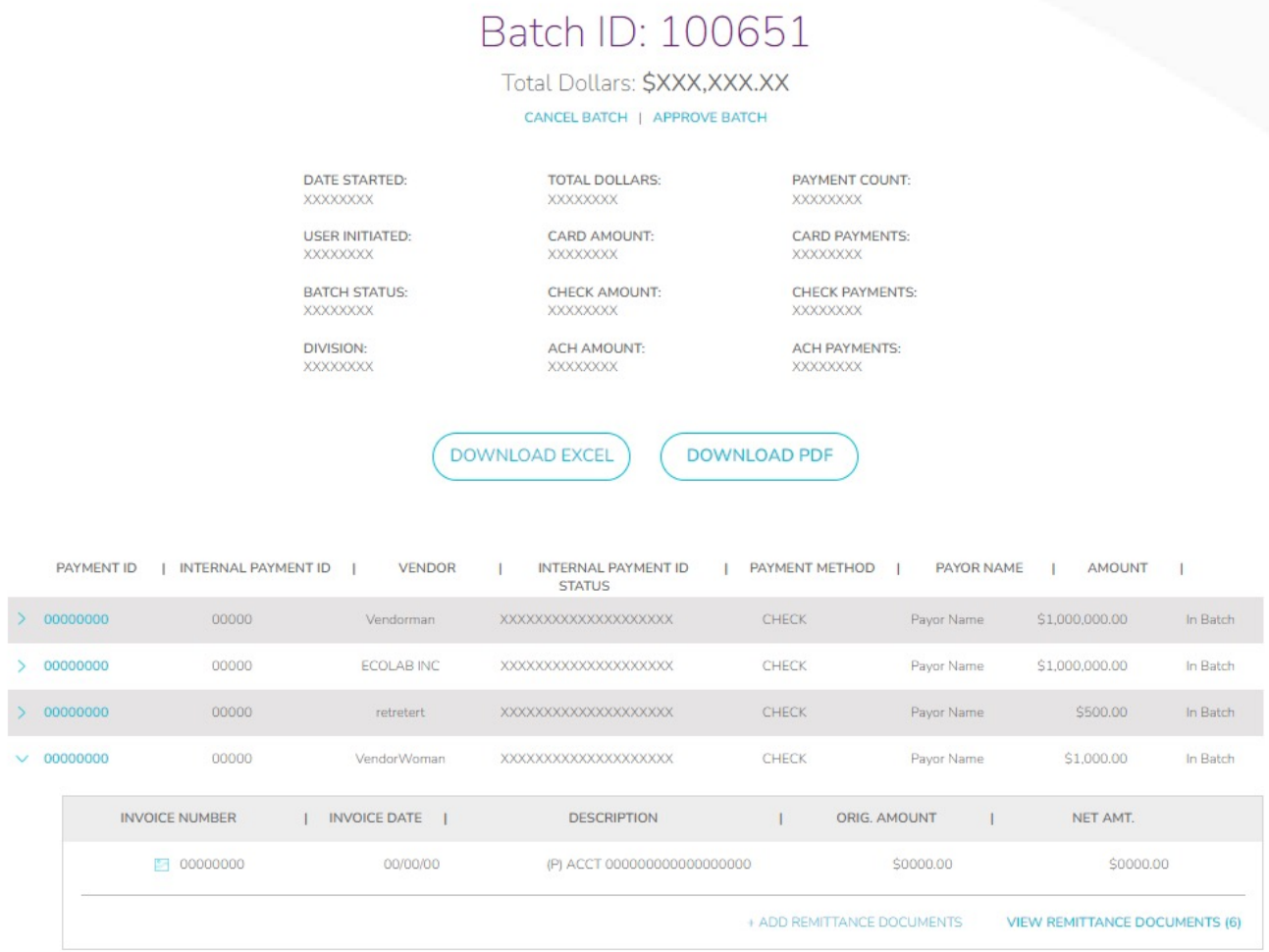
Invoice and Payment Automation Integration

USE CASE

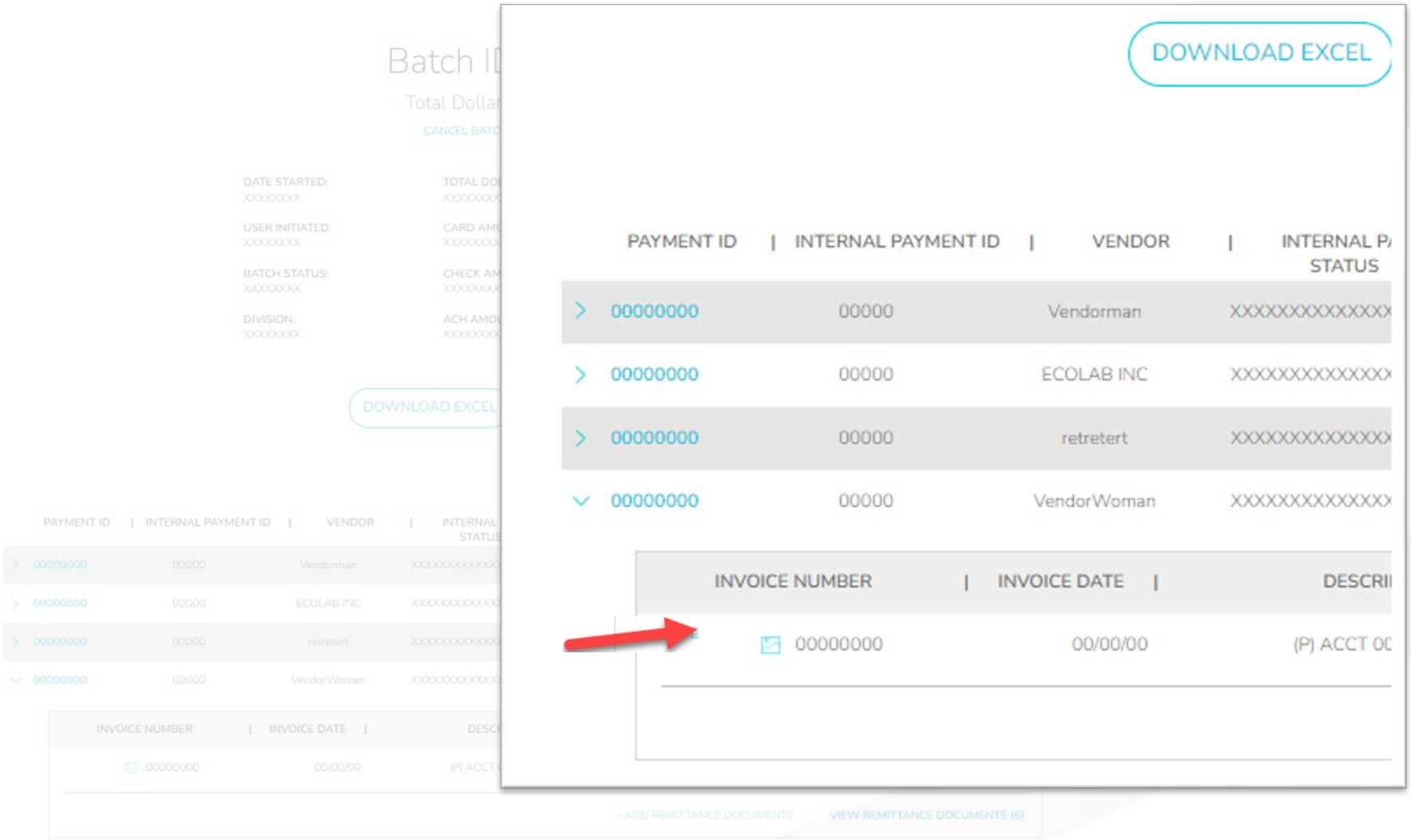
- As a User of both Payment Automation and Invoice Automation
- I want AI to intelligently link Invoices between PA and IA
- So that I can track the entire lifecycle of the Invoice.



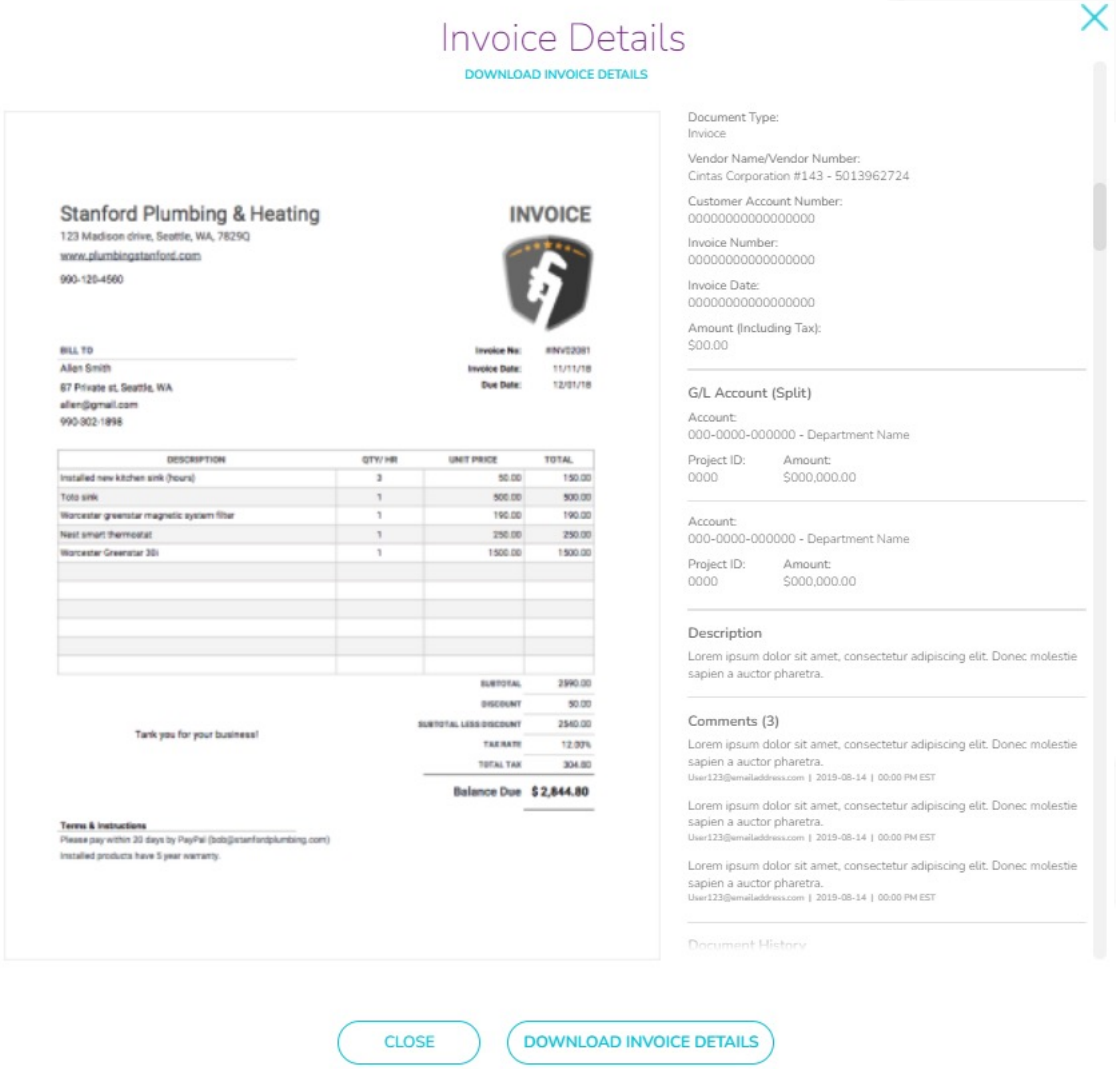
Invoice and Payment Automation Integration



Invoice and Payment Automation Integration



Invoice and Payment Automation Integration

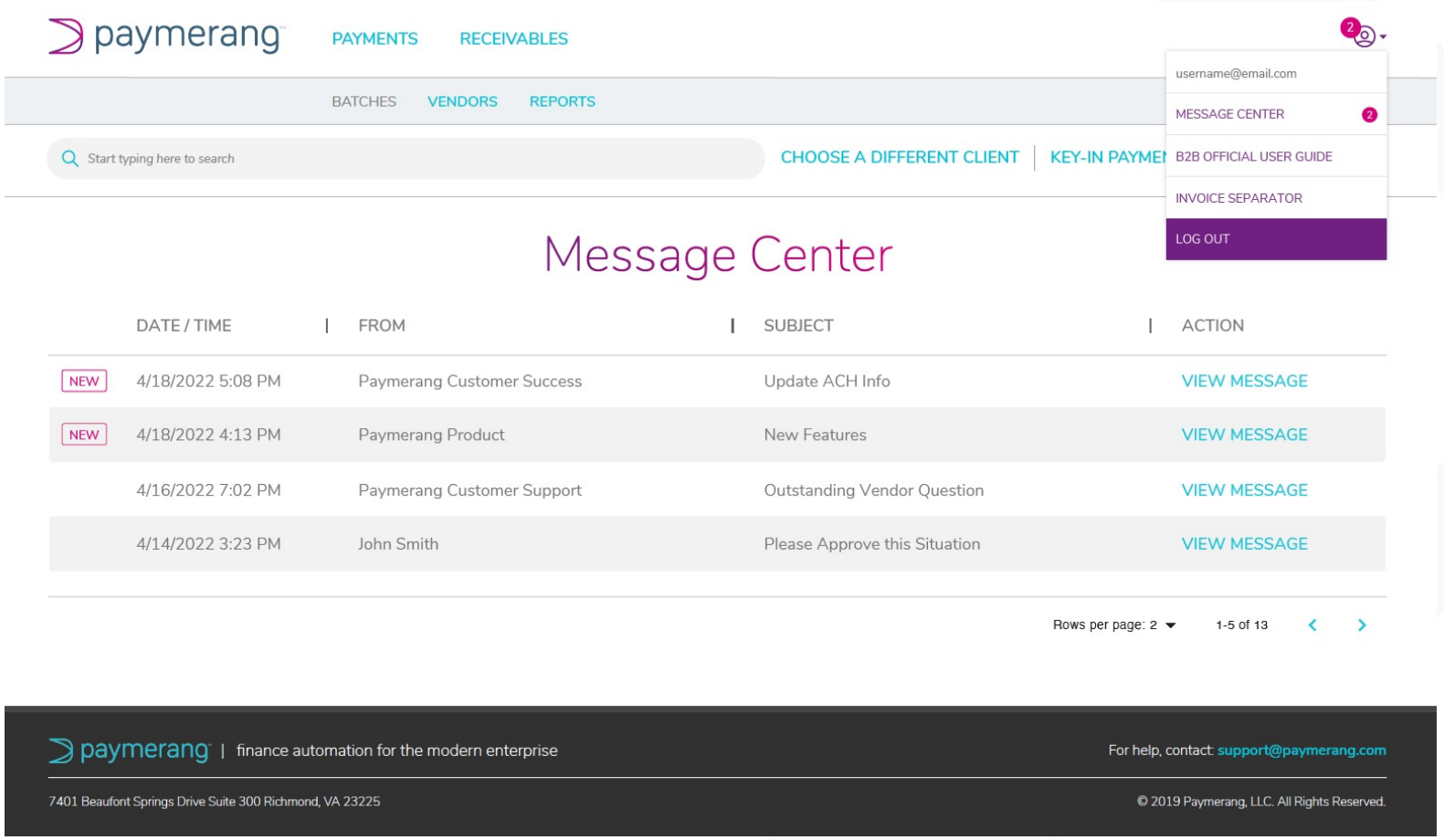


CLIENT MESSAGING CENTER

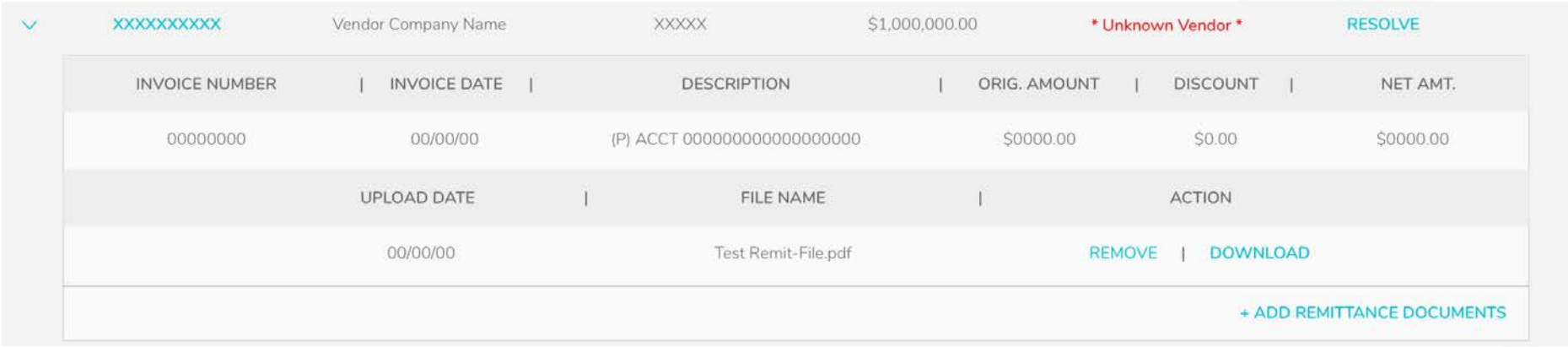
USE CASE

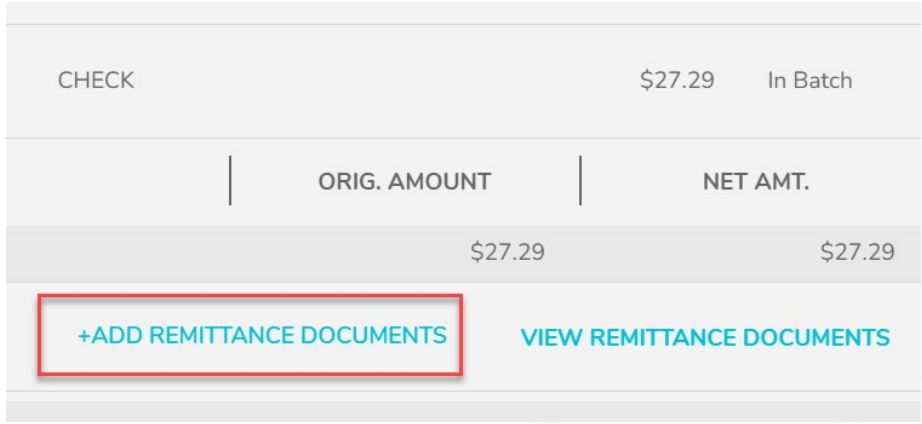
- As a user of the Paymerang Automation products
- I want an in app messaging center
- So that I can communicate internally, with Paymerang and to enhance current workstreams.

Client Messaging Center

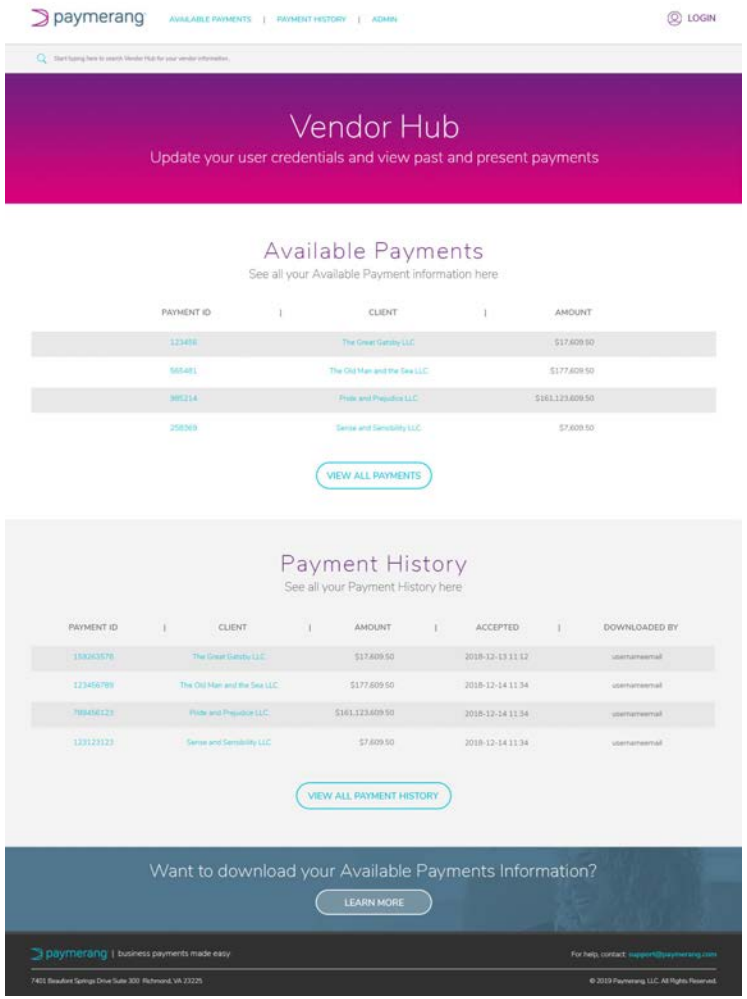


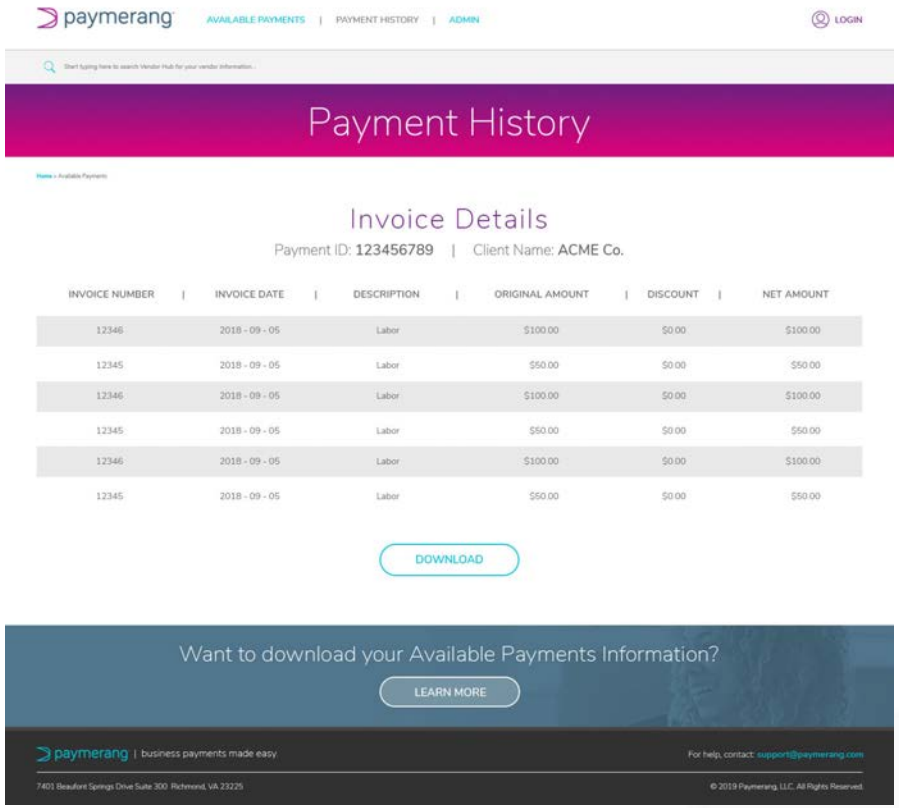
Payment Attachments with Check Remit

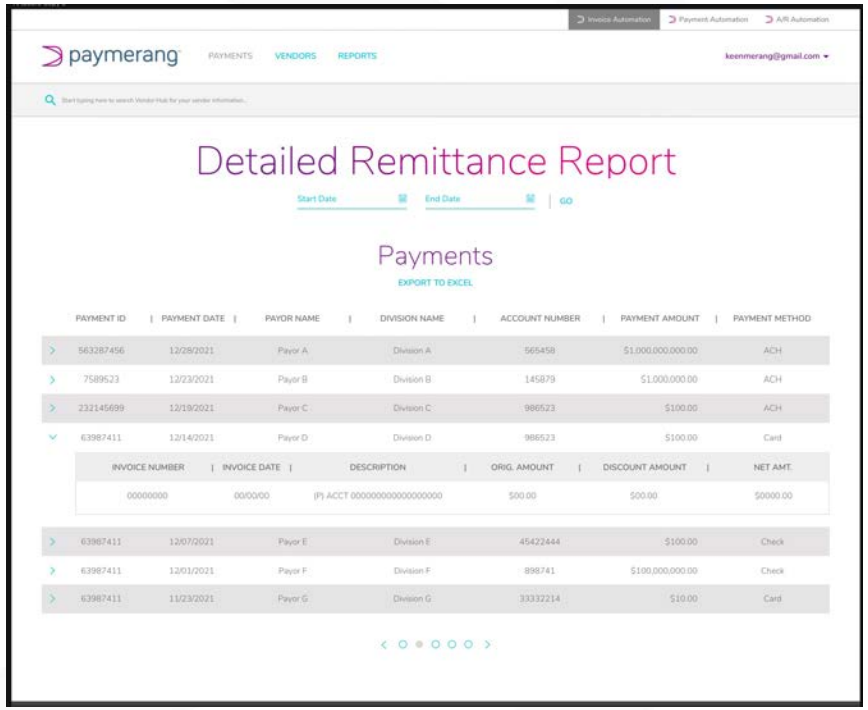




Enhanced Vendor Portal







security

Are Your Business Payments Safe?

paymerang

presented by

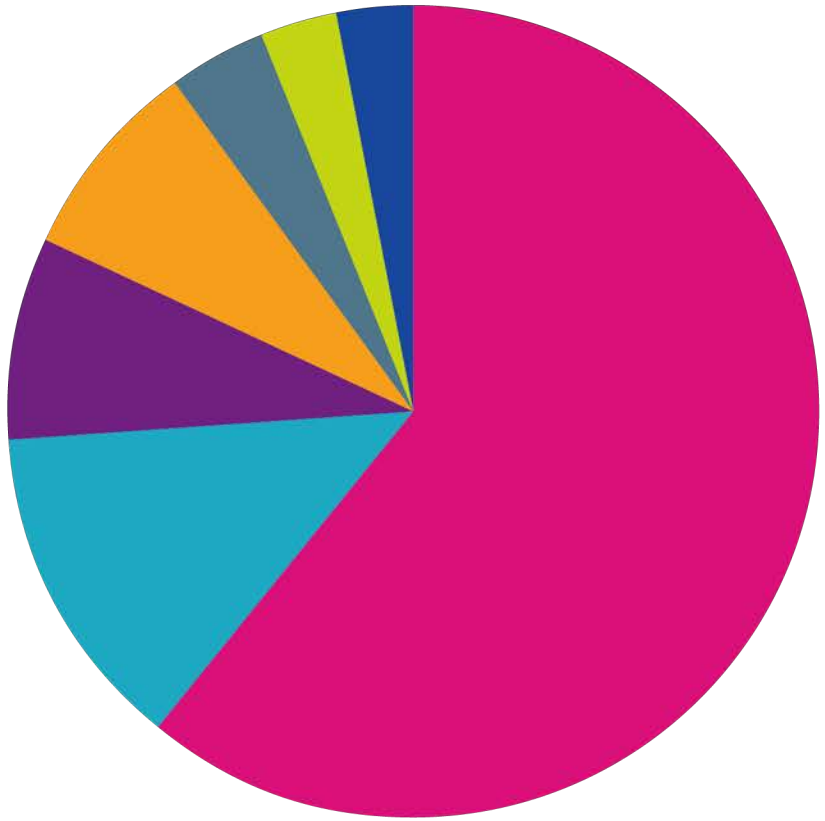
paymerang℠

finance automation for the modern enterprise

POLLING QUESTION

what percentage of organizations were targets of payment fraud in 2020?

A. 25%
B. 55%
C. 67%
D. 74%



Departments Most Vulnerable to Being Targeted by BEC Fraud

(Percentage Distribution of Organizations)

61%
Accounts Payable

8%
CEO, COO, CFO or other C-Suite Executive

3%
Other

13%
Treasury

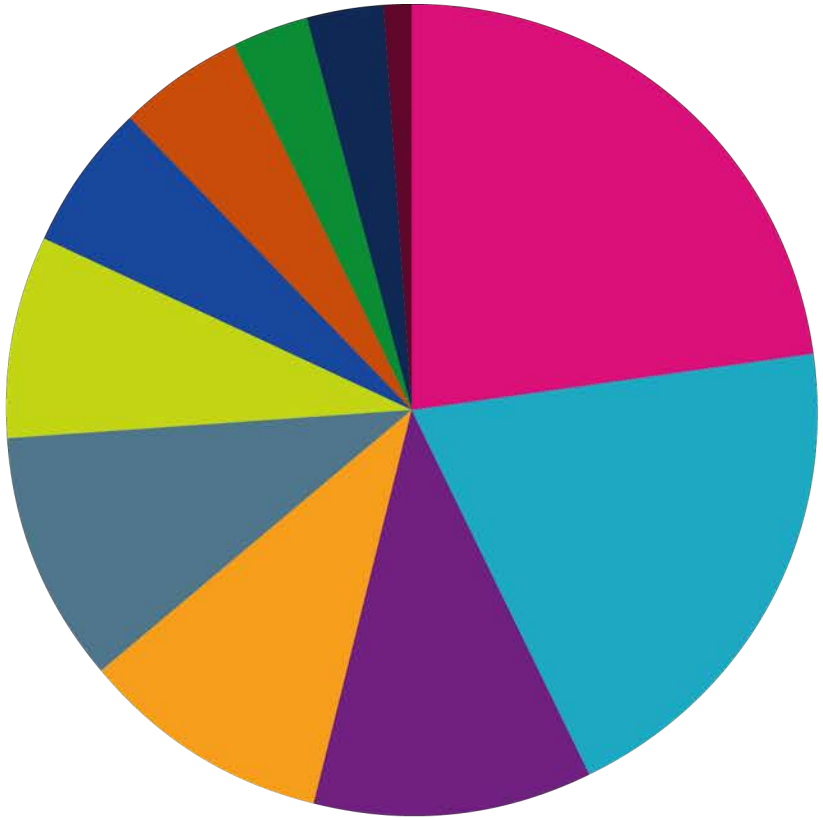
4%
Human Resources/Payroll Dept.

8%
Procurement/Sourcing

3%
Accounts Receivable

Source: 2021 AFP Payments Fraud and Control Survey Report

Industries affected



Industries Affected

23%
Education

10%
Business Services

3%
Professional Services

20%
Healthcare
(including Biotech & Pharma)

8%
Retail, Restaurant & Hospitality

3%
Technology

11%
Manufacturing

6%
Nonprofit

1%
Energy

10%
Finance & Insurance

5%
Government

Source: Baker Hostetler 2021 Data Security and Incident Response Report

fraud in the news

Business Email Compromise Scam Sent to University Recipients Over the Holidays

Lincoln College Closes After 157 Years, Blaming Covid-19 and a cyberattack

How a Single Email Stole $1.9 Million from Southern Oregon Univerity

what is vendor impersonation?

Fraudsters send fake emails to companies asking for payment

vendor impersonator persona
ABCD
Aggressive
Bouncing
Clueless
Desperately Hasty

A FRAUDSTER

MIGHT USE JOHN.KELLY@COMPONY.COM (AN EXTRA "O" IN COMPANY) INSTEAD OF JOHN.KELLY@COMPANY.COM TO TRICK VICTIMS INTO THINKING THEIR EMAIL IS LEGITIMATE.

vendor impersonation example

From: Shirille Jackson <s.jackson@pharmakinexx.com>

Subject: [External] Invoice 3076 from Pharmakinnex, Inc. PO#01-2006 Q4 Expan. Ext.

Goodmorning,

We would like you to pay this outstanding invoice and our future invoices to our new banking details via ACH Payment. Please let me know if you have an ACH form for us to fill out or should I just email you our banking information.

Thank you,

Shirille

Shirille Jackson
PharmaKinnex
330 Milltown Road
East Brunswick, NJ 08816
732-613-4422 ext. 114
s.jackson@pharmakinnexx.com
Life isn't about waiting for the storm to pass....
It's about learning to dance in the rain!
This e-mail transmission may contain confidentiality or legally privileged information that is intended only for the individual or entity named in the e-mail address. If you are not the intended recipient, you are hereby notified that any disclosure, copying, distribution or reliance upon the contents of this e-mail is strictly prohibited. If you have received this e-mail transmission in error, please reply to the sender and then please delete the message from your inbox.

Please consider the environment before printing this e-mail.

what is business email compromise?

scam artists use emails to dupe accounting departments into transferring funds to illegitimate accounts. Fraudsters spoof URLs and send emails pretending to be vendors or company senior management requesting either a change in bank account information or a transfer of funds to a fraudulent account

paymerang example

EXTERNAL SENDER

This Vendor would like to be paid via ACH only. Can you confirm with them.

---------- Forwarded message ---------
From: **Maggie Sherlock** <Msherlock@12stcatering.com>
Date: Thu, Sep 2, 2021 at 1:04 PM
Subject: Invoice for 12th St. Catering 8/30/2021: E62693

Please do not process CHECK payments, We are having some error issues with our check systems which has made us loose count on payment records. we cannot cash checks at the moment till further notice, We want all payment sent to us via ACH Transfer only.

Please see attached for our ACH bank account information for payment, kindly have it updated on your system for future reference.

Await your response

Thank you,

Maggie Sherlock
12th Street Catering
3312 Spring Garden Street
Philadelphia, PA 19104
215.386.3595 ext. 14

version 1

01

- The fraudster hacks or spoofs a business executive's email account...usually the CFO, CTO, CO, etc.

02

- A request, on behalf of this business executive, is forwarded to a second employee for a wire transfer to a fraudster controlled bank account.

03

- The second employee complies with the business executive's request and sends the payment.

04

- The fraudster spoofs or hacks a business executive's email account and contacts the bank directly, asking for an "urgent wire transfer."

version 2

- An employee of business “A” has his/her email hacked, not spoofed.
- Requests for invoice payments are sent from this employee’s email to multiple customers identified from this employee’s contact list.
- These requests contain fraudster controlled accounts.
- Business “A” does not become aware of the multiple fraudulent requests until they are contacted by their customers.

real world example

- A large school district receives an ACH change request via email from a construction company building a project for them.
- The school district forwards the change request to their 3rd party payment processor and requests the change be made for the next scheduled payment.
- The payment processor makes the requested change without contacting the construction company to verify the request is legitimate.
- $785,000 is transferred via ACH several weeks later to the new bank account.
- The school system and payment processor did not notice the email domain for the construction company was a few characters off (acmeconstruction.com vs acmeconstructioninc.com).
- Several weeks later the real construction company contacts the school district about the missing payment who notifies the payment processor.
- The FBI is contacted who is able to recover approximately $284,000. The payment processor ends up having to pay the school district to make them whole.

how bad is it?

$30B

BEC Global Exposure is over $30 Billion since 2013

91% from 108,707 US Victims

BEC LOSSES

2019	$1,776,549,688
2020	$1,866,642,107
2021	$2,395,953,296

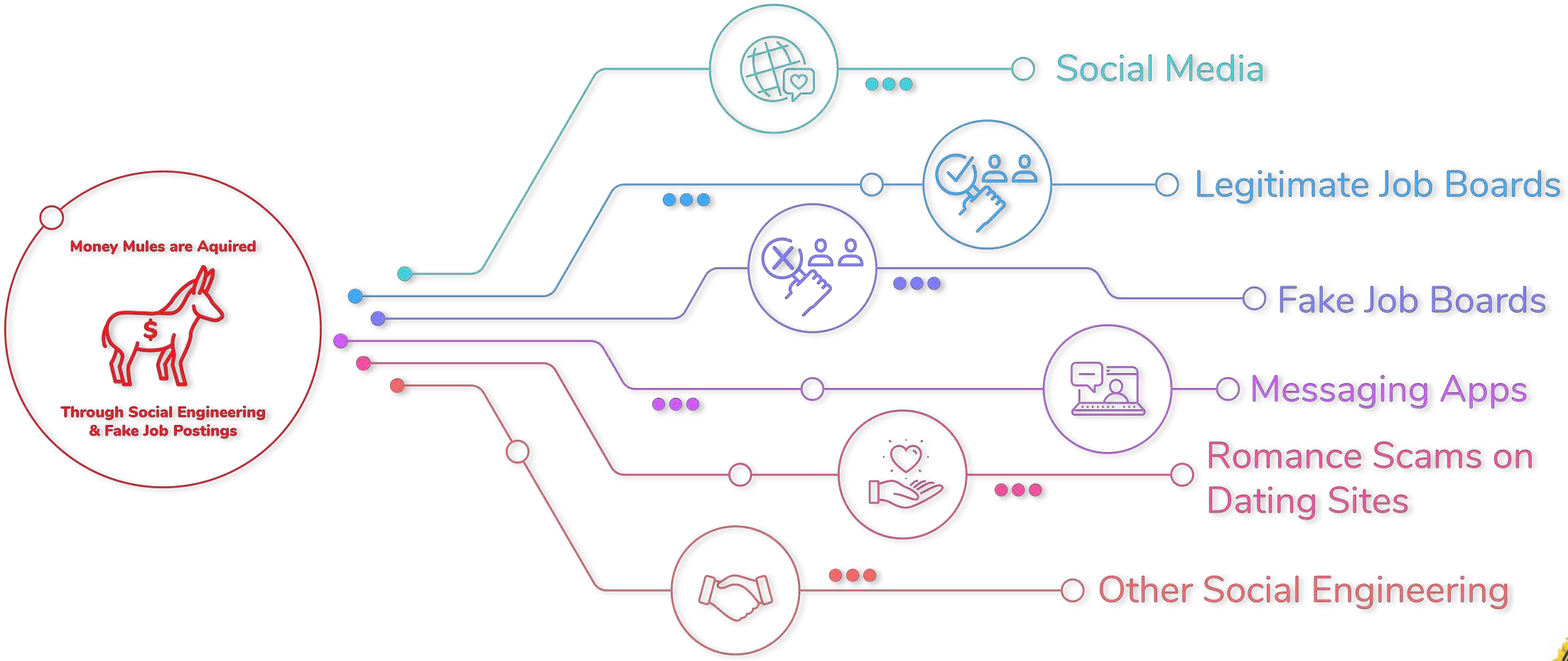
136%

BEC Global Loss Increase

All 50 States & 177 countries

Dec 2016-May 2018

money mules


Money Mules are Aquired
Through Social Engineering & Fake Job Postings
Social Media
Legitimate Job Boards
Fake Job Boards
Messaging Apps
Romance Scams on Dating Sites
Other Social Engineering

target lists widely available

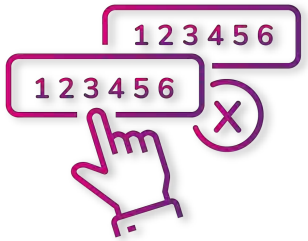
- Experian.com/small-business/mail-lists
- InfoUSA.com
- DatabaseUSA.com
- Open Data Portals
- Dark Web Marketplaces
- Zoominfo.com
- Industry Specific Data Aggregators
- eGrabber.com

  ”Capture leads & prospects from any webpage, find & add any missing field (email/phone/...), update, de-dupe, merge & segment any prospect list”

what can companies do?

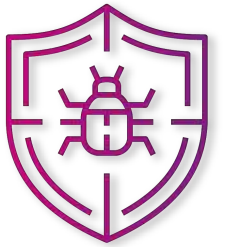
Revisit your payment policies & procedures

Use complicated passwords or long phrases



Don't use the same password for more than one account

Don't use personal webmail accounts for formal business



Use Antivirus and Anti-Spyware

Educate yourself and your IT staff

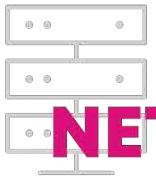
AS LONG AS THERE IS MONEY AND VALUABLE DATA, THERE WILL BE FRAUD ATTEMPTS AND THREATS TO SECURITY

PAYMENT

- Positive pay
- Use one-time use, preloaded virtual cards
- Encrypt account information
- Verify vendors before making changes
- Limit employee access
- Require approval for changes

OPERATIONS

- Clean desk and secure documents
- Utilize certified shredding service
- Verify anomalous changes
- Assign fraud scores
- Suspicious links and fraudulent email detection training
- Multiple approvals
- Single payment limits
- Segregation of duties
- Job rotation and cross training
- Defined access controls



NETWORK

- Antivirus Software and whitelisting technology
- Vulnerability management program
- Security posture scanning
- Software patching
- Expert penetration testing
- Spam and phishing defenses
- Email encryption
- Multi-factor authentication

COMPLIANCE

- NACHA - readt it, learn it, train it
- Do not store banking data if you can avoid it
- PCI - Secure cardholder data
- SOC 2 - Security controls for integrity and confidentiality
- OFAC - Know your vendor and where your money is going

how to get help

Call Your Local FBI Office

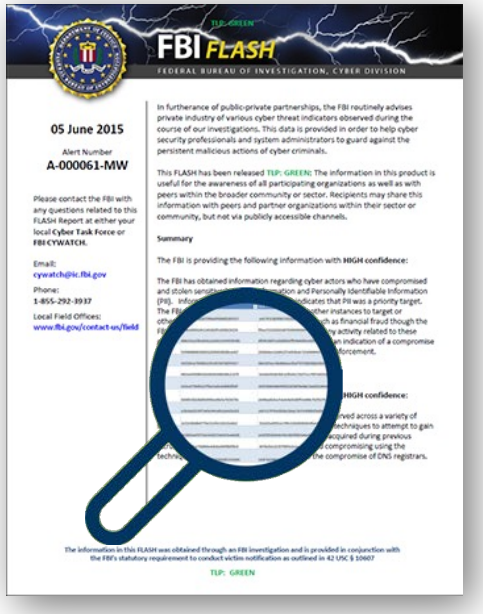
https://www.fbi.gov/contact-us/field-offices

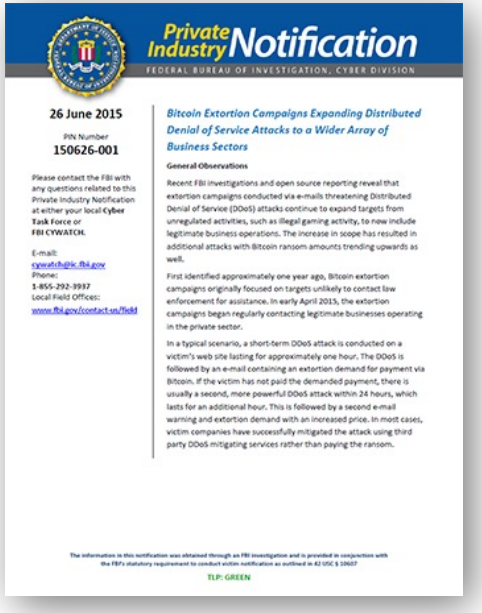
https://www.ic3.gov/

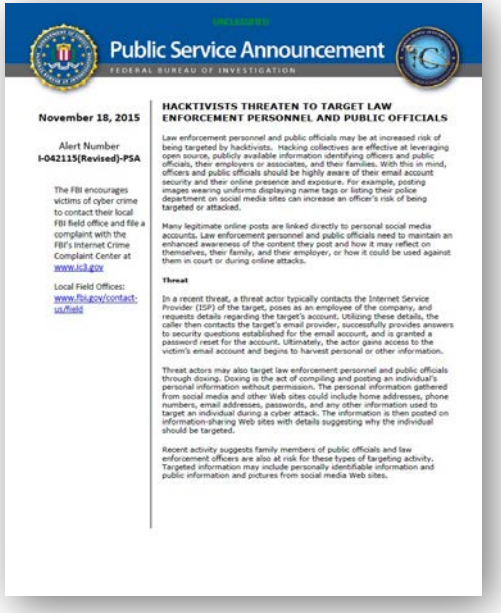
Click the “File a Complaint” button on the main page

Recovery Asset Team within IC3 will initiate fund recovery efforts

information sharing methods







FLASH Messages

FBI Liaison Alert System Messages, or FLASHs, provide indicators of compromise to private industry and law enforcement partners.

Private Industry Notifications

PINs provide background information on trending cyber threats that inform private industry and law enforcement partners' strategic decision making in the cyber threatscape.

Public Service Announcements

PSAs provide general information on cyber threats to the public and recommendations for prevention and mitigation of these threats.

10 ways paymerang protects your money

FBO Account

Your funds are held in and disbursed from “For Benefit Of” segregated accounts at The Bancorp Bank, a NASDAQ traded bank (TBBK) with $4.4 billion in assets.

Insurance

We maintain insurance coverage with highly-rated insurers for general liability, errors and omissions, employee theft, forgery, computer fraud, funds transfer fraud, currency fraud, and credit card fraud, in the amount of $1,000,000 per occurrence.

Data Encryption

We encrypt all of your payment data and restrict system access using two-factor authentication.

Configurable Approvals

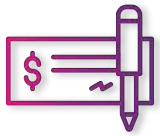
Your account can be set up with multiple approvals, single payment limits and segregation of duties for tasks such as the addition of vendors and uploading of payments.

Virtual Credit Cards

Card payments are made with virtual debit cards that are pre-loaded with the exact payment amount. You are protected 100% against fraud.

ACH Secure Login

Using data provided by you, we confirm the identity of your suppliers and invite them to sign up for ACH direct deposit through a secure login. Our secure process shields you against phishing attacks.



Positive Pay on Checks

Check payments are made using Positive Pay, a service that matches the account number, check number and dollar amount of each check cashed.

Protection Against Duplicate Payments

Payments are flagged as duplicates if made to the same vendor for the same amount within 30 days.

Audit Trail

The life cycle of your payments is maintained and accessible by you at any time.

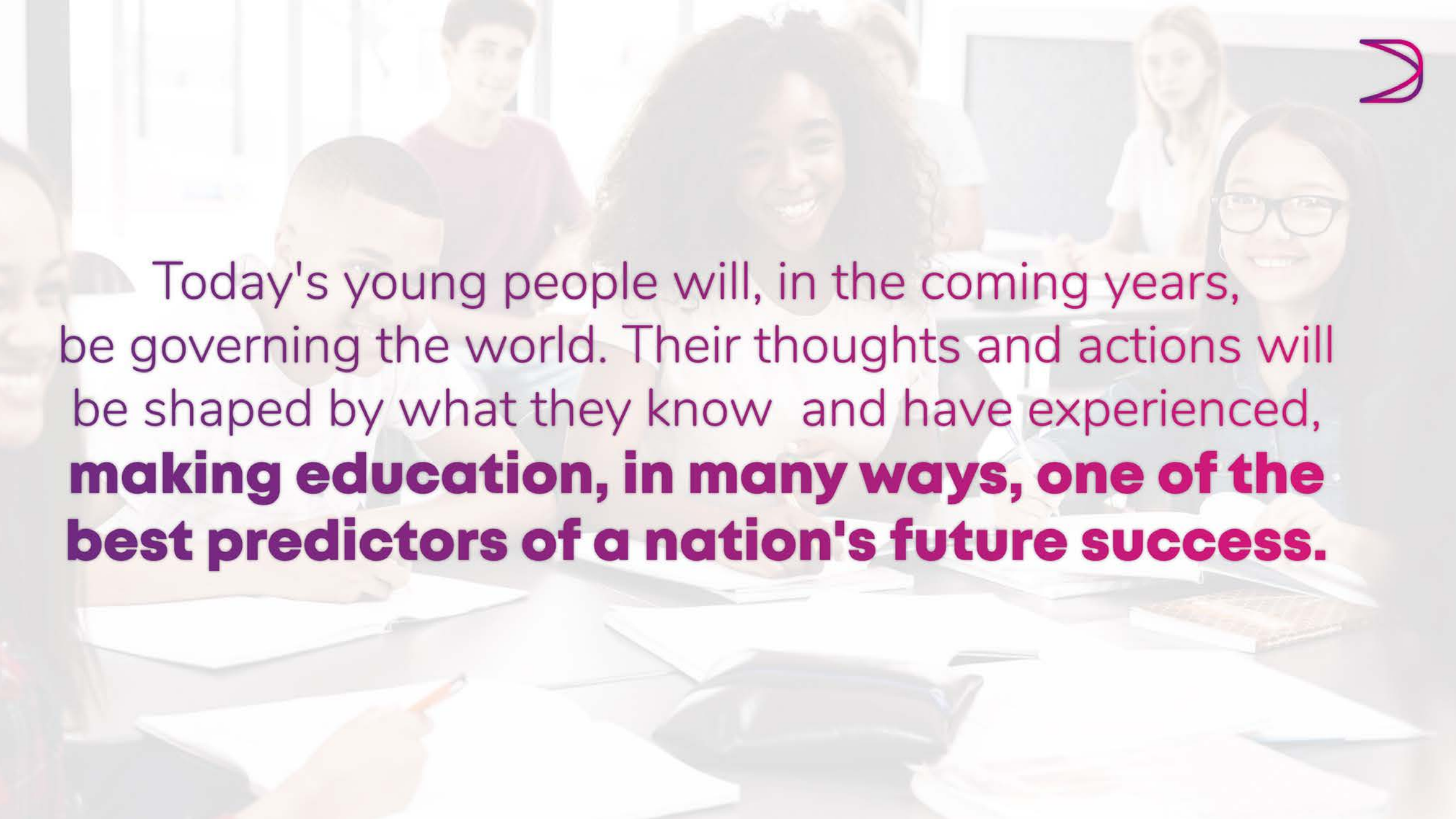
Reconciliation

We reconcile every penny of your money—card, ACH and check—on a daily basis.

Innovation in Education

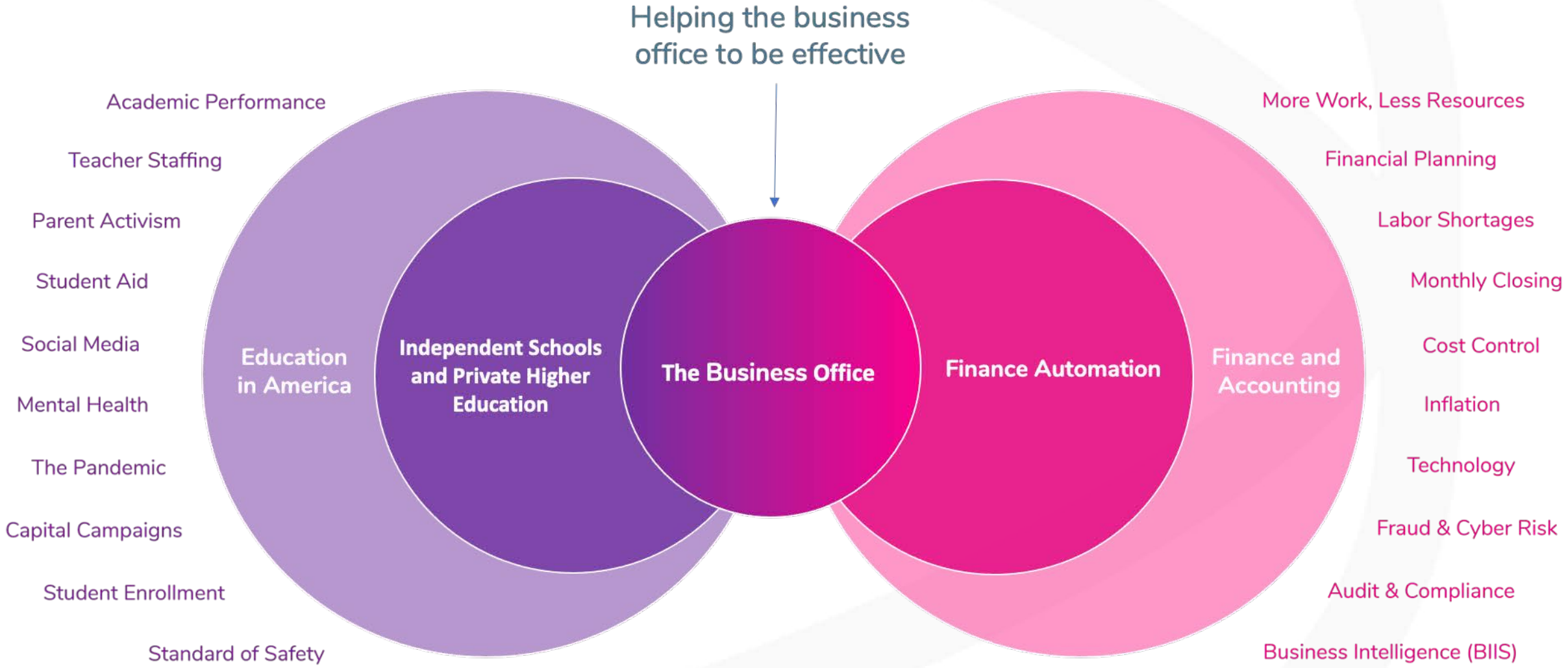
User Conference

paymerang℠



Today's young people will, in the coming years, be governing the world. Their thoughts and actions will be shaped by what they know and have experienced, **making education, in many ways, one of the best predictors of a nation's future success.**

The Business Office Has a Big Role to Play in The Future of Education



The Business Office can be a strong force in connecting the school community and helping to manage through the storm.

(Finance automation can free up time to help you focus on these bigger issues.)

What is the one idea **YOU** will be taking back to **YOUR** institution?

Thank You for Attending

St. Paul's School

Oak Knoll
School of the Holy Child

The Hotchkiss School

Pingry
Excellence & Honor

The Lawrenceville School

Germantown Friends School

Kent School

The Coalition for College Cost Savings

Collegiate School

Stevens Cooperative School

Shipley

Hawken School

Hill Country Christian School of Austin

Eaglebrook School

Greenwich Country Day School

The St. Paul's Schools

Stuart Country Day School of the Sacred Heart

North Shore Country Day School

LEE Education Group

Waynesburg University

Collegiate School